
COMBINED TEXTILES

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INTRODUCTION.

In some respects the textile industry, considered as a whole, is the most important branch of manufactures carried on in this country. It provides the material for substantially the entire clothing of the people, except their leather footwear, the hats and bonnets of women, and the summer straw hats of men. As represented in the figures of the present report it furnishes their hosiery, their underwear, and the material for all the outer garments of persons of all ages and of both sexes, to say nothing of the large class of articles chiefly for esthetic purposes in connection with clothing, of which ribbons are a conspicuous example. Moreover, it supplies articles of household use, such as carpets, toweling, and bed coverings. In the grouping of industries by the Census Bureau, "textiles" ranks third, according to value of products, the group of "food and kindred products" being first, and "iron and steel and their products" second. The Census grouping, however, associates with the textile industry proper the manufacture of clothing, etc., and the class so formed rivals the group of iron and its products. Iron and steel manufactures, considered in this large way, reported a greater value of products and accounted for the disbursement of a larger sum in wages than textiles with the clothing manufacture added. In the number of wage-earners the textile and allied industries are far in excess of any other group. They reported the impressive number 1,156,305, which is but little below the combined number employed in food and kindred products, and iron and steel and their products. The extent to which an industry gives employment and the amount which it pays in wages is a better test of its importance than the capital it requires, the cost of materials, the value of products, or even than the added value by the process of manufacture. An extensive business may be carried on in one industry upon a capital that would be entirely inadequate in another. The unit of value of materials to each person employed in iron and steel blast furnaces and steel works and rolling mills is \$2,556; in the cotton manufacture it is only \$906, a fact which illustrates the worthlessness of the cost of materials as a basis of comparison, even if it were not true that the cost of raw materials fluctuates so greatly that it can not be taken even as a test of comparison of one year with another in considering the same industry. Not only does the same objection apply to

the value of products as a basis of comparison, but when the gross value is taken as the basis there is a multiplicity of duplication—the product of one process being the raw material of the next—and accordingly this also must be rejected as a fair test. If we limit the consideration to the manufacture of cotton, silk, woolen, and worsted goods, omitting hosiery and knit goods and carpets and rugs, and take into account only the production of cloth and yarn for further manufacture, the industry gave employment to 532,057 persons at the census of 1905, which is more than twice the number engaged in producing iron and steel for further manufacture. The industries embraced in the report upon "textiles" at this census include not only those which furnish such cloth and yarn, but also the other branches of wool manufacture, the great and growing hosiery and knit goods industry, the manufacture of flax, hemp, and jute products, and the dyeing and finishing of textiles. In detail they are as follows:

Cotton manufactures:	Wool manufactures—Cont'd.
Cotton goods.	Felt hats.
Cotton small wares.	Shoddy.
Hosiery and knit goods.	Wool pulling.
Wool manufactures:	Wool scouring.
Worsted goods.	Silk and silk goods.
Woolen goods.	Flax, hemp, and jute products:
Carpets and rugs, other than	Cordage and twine.
rag.	Jute and jute goods.
Felt goods.	Linen goods.
Wool hats.	Dyeing and finishing textiles.

There are theoretical objections to including some of the foregoing branches of the industry in the category of combined textiles, some because of their simplicity, others because of their complexity. *Wool pulling, wool scouring, felt hats, and shoddy are reported upon separately in this work, and the facts regarding them are not included in the general tables for combined textiles*, although by far the largest amount of wool used is scoured in woolen, worsted, and carpet factories, and although much of the shoddy that enters into fabrics is produced in the establishments that make use of it. Felt hats are excluded because the material is fur and not wool. Yet for good reasons dyeing and finishing is included in the tables of combined textiles, notwithstanding they are to a certain extent inconsistent with the reason for excluding wool scouring and shoddy.

On the other hand, by far the largest part of the products of textile factories are goods not completely

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manufactured in condition for final use, but, like yarn and cloth, are material for further manufacture. For this reason the production of cotton small wares and of hosiery and knit goods represents an advance upon the manufacture of ordinary textiles. The making of shoestrings, hosiery, and knit underwear, which are truly parts of the textile manufacture, may also be classed with the manufacture of clothing. Carpets need to be sewed before they can be put to use, but rugs which are made in the same factories and with

the same patterns represent completed goods, ready for sale to consumers. But no statistical error arises from including all these goods in the tables of the combined textile industry.

The general facts regarding the textile industry as a whole are given in Table 1, which is a comparative summary from which the growth of the industry, not only in the aggregate, but in each branch, may be traced at census periods extending over more than half a century.

TABLE 1.—COMBINED TEXTILES—COMPARATIVE SUMMARY, BY INDUSTRIES: 1850 TO 1905.

[The statistics for 1905 shown in the table do not include 17 establishments engaged primarily in the manufacture of other products. These establishments manufactured textiles in 1905 to the value of \$919,949. The amount of such products was not ascertained at prior censuses.]

INDUSTRY.	Census.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		WAGE-EARNERS AND WAGES.		Miscellaneous expenses.	Cost of materials used.	Value of products.
				Number.	Salaries.	Average number.	Wages.			
Total	1905	4,563	\$1,343,324,605	24,116	\$32,496,560	739,239	\$249,357,277	\$56,110,159	\$745,783,168	\$1,215,636,792
Cotton goods.....	1905	1,077	603,100,164	6,738	9,911,767	310,458	94,377,666	29,930,801	282,047,648	442,451,218
Cotton small wares.....	1905	77	8,010,491	243	326,124	5,416	1,828,100	558,577	4,207,655	8,016,486
Hosiery and knit goods.....	1905	1,079	106,633,531	4,304	4,436,941	103,715	31,536,024	10,320,176	76,593,782	126,558,139
Wool manufactures.....	1905	1,213	370,861,691	5,616	8,177,345	179,976	70,797,524	21,588,465	242,561,696	380,634,003
Silk and silk goods.....	1905	624	109,556,621	4,027	4,742,270	79,601	26,767,943	14,052,777	75,861,188	133,288,072
Flax, hemp, and jute products.....	1905	133	54,423,531	992	1,494,732	24,508	8,580,785	3,683,107	44,890,546	62,939,329
Dyeing and finishing textiles.....	1905	360	88,708,576	2,196	3,407,381	35,565	15,469,205	5,978,277	19,621,253	50,849,545
Total.....	1900	4,312	1,042,997,577	16,822	23,289,162	661,451	209,022,447	63,122,916	521,845,200	931,494,566
Cotton goods.....	1900	973	460,842,772	4,713	7,123,574	297,929	85,126,310	21,650,144	173,441,360	332,806,156
Cotton small wares.....	1900	82	6,397,385	189	226,625	4,932	1,563,442	462,534	3,116,137	6,394,164
Hosiery and knit goods.....	1900	921	81,860,604	2,809	3,124,798	83,387	24,358,627	6,600,865	51,071,859	95,482,566
Wool manufactures.....	1900	1,414	310,179,749	4,495	6,455,495	159,108	57,933,817	17,329,932	181,159,127	296,960,454
Silk and silk goods.....	1900	483	81,082,201	2,657	3,134,332	65,416	20,982,194	10,264,208	62,406,665	107,256,257
Flax, hemp, and jute products.....	1900	141	41,991,762	641	957,190	20,603	6,331,741	2,678,286	32,197,885	47,601,607
Dyeing and finishing textiles.....	1900	298	60,643,104	1,318	2,267,128	29,776	12,726,316	4,137,947	17,958,137	44,963,331
Total.....	1890	4,276	767,705,310	110,637	112,539,920	517,237	168,488,982	44,788,668	447,546,540	759,262,253
Cotton manufactures ¹	1890	905	354,020,843	2,709	3,464,734	218,876	66,024,538	16,716,534	154,912,979	267,981,724
Hosiery and knit goods.....	1890	796	50,607,133	1,621	1,685,153	59,588	16,578,119	3,627,245	35,861,585	67,241,013
Wool manufactures.....	1890	1,693	245,886,743	3,652	4,057,695	154,271	54,339,775	15,622,263	167,233,987	270,527,511
Silk and silk goods.....	1890	472	51,007,537	1,531	1,917,877	40,382	17,762,441	4,259,623	51,004,425	87,298,454
Flax, hemp, and jute products.....	1890	162	27,731,649	458	609,170	15,619	4,872,389	1,431,932	26,148,544	37,313,021
Dyeing and finishing textiles.....	1890	248	38,450,890	666	805,291	19,601	8,911,720	1,318,081	12,855,220	28,900,560
Total.....	1880	4,018	412,721,496	(²)	(²)	438,251	105,050,666	(³)	302,700,894	532,673,488
Cotton manufactures ⁴	1880	756	208,280,346	(⁵)	(⁵)	174,659	42,040,510	(⁶)	102,206,347	192,090,110
Hosiery and knit goods.....	1880	359	15,579,591	(⁵)	(⁵)	28,885	6,701,475	(⁶)	15,210,651	29,167,227
Wool manufactures.....	1880	2,330	143,512,278	(⁵)	(⁵)	132,672	40,687,612	(⁶)	149,160,600	238,085,686
Silk and silk goods.....	1880	382	19,125,300	(⁵)	(⁵)	31,337	9,146,705	(⁶)	22,467,291	41,035,045
Dyeing and finishing textiles.....	1880	191	26,223,981	(⁵)	(⁵)	16,698	6,474,364	(⁶)	13,664,705	32,297,420
Total.....	1870	4,790	297,694,243	(⁵)	(⁵)	274,943	86,565,191	(⁶)	353,246,102	520,386,764
Cotton manufactures ²	1870	956	140,706,291	(⁵)	(⁵)	135,349	39,044,132	(⁶)	111,796,936	177,489,739
Hosiery and knit goods.....	1870	248	10,931,260	(⁵)	(⁵)	14,788	4,429,085	(⁶)	9,855,828	18,411,564
Wool manufactures.....	1870	3,208	121,451,659	(⁵)	(⁵)	105,671	35,928,150	(⁶)	124,318,792	199,257,262
Silk and silk goods.....	1870	86	6,231,130	(⁵)	(⁵)	6,149	1,942,286	(⁶)	7,817,559	12,210,662
Dyeing and finishing textiles.....	1870	292	18,374,503	(⁵)	(⁵)	13,066	5,221,538	(⁶)	790,539,992	7113,017,537
Total.....	1860	3,027	150,000,852	(⁵)	(⁵)	194,082	40,353,462	(⁶)	112,842,111	214,740,614
Cotton manufactures ²	1860	1,091	98,585,263	(⁵)	(⁵)	122,028	23,940,108	(⁶)	57,285,534	115,681,774
Hosiery and knit goods.....	1860	197	4,035,510	(⁵)	(⁵)	9,103	1,661,672	(⁶)	3,202,317	7,280,606
Wool manufactures.....	1860	1,476	38,814,422	(⁵)	(⁵)	50,419	11,694,630	(⁶)	43,447,048	73,454,000
Silk and silk goods.....	1860	139	2,826,600	(⁵)	(⁵)	5,435	1,050,224	(⁶)	3,901,777	6,407,771
Dyeing and finishing textiles.....	1860	124	5,718,671	(⁵)	(⁵)	7,937	2,001,528	(⁶)	5,005,435	11,716,463
Total.....	1850	3,025	112,513,947	(⁵)	(⁵)	146,877	(⁶)	(⁶)	76,715,959	128,769,971
Cotton manufactures ²	1850	1,094	74,500,931	(⁵)	(⁵)	92,286	(⁶)	(⁶)	34,835,056	61,869,184
Hosiery and knit goods.....	1850	85	544,735	(⁵)	(⁵)	2,325	(⁶)	(⁶)	415,113	1,028,102
Wool manufactures.....	1850	1,675	31,971,631	(⁵)	(⁵)	45,488	(⁶)	(⁶)	28,831,583	48,608,779
Silk and silk goods.....	1850	67	678,300	(⁵)	(⁵)	1,743	(⁶)	(⁶)	1,053,860	1,809,476
Dyeing and finishing textiles.....	1850	104	4,818,350	(⁵)	(⁵)	5,105	(⁶)	(⁶)	11,540,347	15,454,430

¹ Includes proprietors and firm members, with their salaries; number only reported in 1900 and 1905, but not included in this table.

² Includes cotton goods and cotton small wares.

³ Not reported separately.

⁴ Includes 2,115 officers and clerks, whose salaries were not reported.

⁵ Not reported.

⁶ Includes cotton goods and cotton small wares, and in addition to these data there were received at the census of 1880 returns for 249 mills, classed as "special mills," engaged in working raw cotton, waste, or cotton yarn into hosiery, webbing, tapes, and fancy fabrics, and mixed goods or other fabrics, which are not sold as specific manufactures of wool or cotton. These 249 establishments reported \$11,224,448 capital, 12,928 employees, \$3,373,906 wages, \$2,333,385 cost of cotton consumed, \$18,560,273 value of products, and should be considered in making comparisons. In 1890 this class of mills is reported under a number of different heads, although some of them may be included in the totals for the textile industries presented in the figures for 1890.

⁷ At the census of 1870 the value of the fabric itself was reported, whereas in all subsequent censuses merely the value added to such fabric by the process of dyeing and finishing was reported as value of products.

⁸ This item was not fully reported at the census of 1850.

NUMBER OF ESTABLISHMENTS.

The total number of establishments shows a net increase of 251 since the last census. The extension of the cotton goods industry in the South between 1900 and 1905 is responsible for all of the increase reported for this branch. The largest decrease—201 establishments—occurred in the wool manufacture, but the decline was more apparent than real, as it was caused by the elimination from the 1905 totals of many custom carding mills of small capacity and by the discontinuance of operations by numerous small weaving concerns which were not favorably located. There was also a small decrease in the number of establishments for cotton small wares and flax, hemp, and jute. In neither of these cases does the decrease signify a decline of the industry.

The distribution of the industry, so far as the number of establishments is concerned, shows no important change and no tendency to change. Of the 4,430 concerns in the country engaged in the textile industry in 1905, excluding flax, hemp, and jute manufactures, 3,841 were located in 14 states bordering on the Atlantic seaboard from Maine to Georgia, and in 1900, out of a total of 4,171, there were in this territory 3,514. The cotton industry is concentrated for the most part in southern New England and in the states of Pennsylvania, North Carolina, South Carolina, and Georgia; the wool industry and knit goods in southern New England, New York, and Pennsylvania; and the silk manufacture

in Pennsylvania, New Jersey, New York, and Connecticut. The report on the silk industry gives strong reasons for regarding Pennsylvania as the leading state in the manufacture of silk at the census of 1905, having displaced New Jersey from that position since the census of 1900. Although the most important fact in the textile industry in the last quarter of a century has been the development of cotton manufacturing in the South, yet the three southern states of New England, together with New York, New Jersey, and Pennsylvania, now contain 3,011 textile establishments of the above total of 4,430, or 68 per cent.

CAPITAL.

The gross capital reported was \$1,343,324,605, and is an increase of \$300,327,028, or 28.8 per cent over 1900. Every branch of the textile industry shows an increase of capital in 1905 compared with 1900, and, with a few minor exceptions, this is true of every single division of each branch. Cotton goods increased \$144,257,392, or 31.3 per cent; cotton small wares, \$1,613,106, or 25.2 per cent; wool manufactures, \$60,681,942, or 19.6 per cent; hosiery and knit goods, \$24,802,927, or 30.3 per cent; silk, \$28,474,420, or 35.1 per cent; flax, hemp, and jute, \$12,431,769, or 29.6 per cent; and dyeing and finishing, \$28,065,472, or 46.3 per cent. A fuller statement of the capital employed in each branch of the textile industry at each census period beginning with 1840 is contained in Table 2.

TABLE 2.—CAPITAL, BY INDUSTRIES: 1840 TO 1905.

CENSUS.	Total.	Cotton manufactures. ¹	Hosiery and knit goods.	Wool manufactures. ²	Silk and silk goods.	Flax, hemp, and jute products. ³	Dyeing and finishing textiles.
1905.....	\$1,343,324,605	\$613,110,655	\$109,063,531	\$370,861,691	\$109,556,021	\$54,423,531	\$88,708,570
1900.....	1,042,997,577	467,240,157	81,860,604	310,179,740	81,082,201	41,991,762	60,643,104
1890.....	797,795,310	354,020,843	59,607,738	245,886,743	51,007,537	27,731,649	38,450,800
1880.....	412,721,496	208,280,340	15,579,591	143,512,278	19,125,300	.....	20,223,081
1870.....	297,664,243	140,700,291	10,931,260	121,451,059	6,231,130	.....	18,374,605
1860.....	150,080,852	98,685,269	4,035,510	38,814,422	2,026,980	.....	5,718,671
1850.....	112,513,947	74,500,931	544,735	31,971,631	678,300	.....	4,818,350
1840.....	66,867,483	51,102,359	(⁴)	15,765,124	.....	.....	.....

¹ Includes cotton goods and cotton small wares.
² Includes worsted goods; woolen goods; carpets and rugs, other than rag; felt goods; and wool hats.
³ Includes corings and twines; jute and jute goods; and linen goods. Also two establishments classified in 1890 as "linen thread."
⁴ Not reported separately.

WAGE-EARNERS AND WAGES.

The wage-earners in all the branches of the textile industry formed a great army of men, women, and children, numbering nearly three-quarters of a mil-

lion—739,239—an increase of 77,788 since the census of 1900, or 11.8 per cent. The distribution of these employees, classified as men, women, and children, among the several branches, and the amount of their wages in 1900 and 1905 are shown in Table 3.

TABLE 3.—AVERAGE NUMBER OF WAGE-EARNERS AND WAGES, BY INDUSTRIES: 1905 AND 1900.

INDUSTRY.	Census.	TOTAL.		MEN 16 YEARS AND OVER.		WOMEN 16 YEARS AND OVER.		CHILDREN UNDER 16 YEARS.	
		Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.
Total.....	1905	739,239	\$249,357,277	335,154	\$131,618,439	330,180	\$97,503,584	73,905	\$12,145,254
Cotton goods.....	1905	310,458	94,377,696	145,718	52,212,730	124,711	35,872,510	40,029	6,292,456
Cotton small wares.....	1905	5,410	1,828,100	1,565	740,538	3,452	1,023,474	399	64,088
Hosiery and knit goods.....	1905	103,715	31,536,024	25,167	10,747,214	68,867	19,354,014	9,681	1,434,796
Wool manufactures ¹	1905	179,976	70,797,524	94,841	44,237,484	72,222	23,992,908	12,913	2,567,132
Silk and silk goods.....	1905	79,601	26,767,943	27,037	12,787,322	45,198	12,859,156	7,366	1,121,465
Flax, hemp, and jute products ²	1905	24,508	8,580,785	12,343	5,349,427	10,072	2,851,429	2,093	379,929
Dyeing and finishing textiles.....	1905	35,565	15,469,205	28,483	13,543,724	5,558	1,640,093	1,424	285,358
Total.....	1900	661,451	209,022,447	298,867	118,783,713	292,286	80,258,716	70,298	9,980,018
Cotton goods.....	1900	297,929	85,126,310	134,354	46,923,365	123,709	32,917,933	39,866	5,285,012
Cotton small wares.....	1900	4,932	1,563,442	1,367	671,516	3,173	828,732	392	63,194
Hosiery and knit goods.....	1900	83,387	24,358,627	21,154	8,890,728	53,565	14,243,808	8,668	1,224,091
Wool manufactures ¹	1900	159,108	57,933,817	83,371	36,412,872	64,141	19,549,423	11,596	1,971,522
Silk and silk goods.....	1900	65,416	20,982,194	24,206	10,699,483	34,797	6,377,696	6,413	905,015
Flax, hemp, and jute products ²	1900	20,903	6,331,741	9,996	3,824,555	8,648	2,174,152	2,259	333,034
Dyeing and finishing textiles.....	1900	29,776	12,726,316	24,419	11,361,194	4,253	1,166,972	1,104	198,150

¹ Includes worsted goods; woolen goods; carpets and rugs, other than rag; felt goods; and wool hats.

² Includes cordage and twine; jute and jute goods; and linen goods.

Although the table shows an increase in the number of wage-earners in every branch of the industry, it is a striking fact that the rate of increase in the cotton manufacture, which accounts for more than 42 per cent of all the employees, is lower than that of any other branch. The explanation, which is fully considered in the report on cotton manufactures, is that the most extensive and prolonged labor strike in the history of American cotton manufactures occurred in the city of Fall River, Mass., and lasted through six months of the census year; and to this must be added the fact of a year of unusual hardship which, owing to the excessively high price of cotton, caused the stoppage of mills in other places for longer or shorter periods. The number of employees reported above is not the usual number but the average number for the year. Had the year 1905 been a normal year, the total number in the textile industry as a whole would probably have exceeded 750,000.

The proportion of men, women, and children in each branch of the industry at each enumeration beginning with 1880 is exhibited in Table 4.

In the aggregated industry the changes indicated since 1900 are exceedingly small. The percentage of men shows a tendency to increase slightly, but this has been the case through the whole period of twenty-five years. The proportion of women is one-half of 1 per cent greater than in 1880. The proportion of children tends to decrease, but the tendency is somewhat retarded by the peculiar labor conditions in the South, where the great extension of cotton manufacturing has drawn heavily upon the available supply of helpers. The indications are that this abnormal condi-

tion is passing, and that the evil of child labor will cure itself or be cured by legislation. The cotton manufacture is the only one in which children constitute more than one-tenth of the force employed, and even in that branch the proportion has declined since 1880 from 16.2 per cent to 12.8 per cent. More violent changes are to be expected in new industries and in those that are expanding rapidly than in those which have been long established and fully organized. It is therefore not surprising to find in the silk manufacture that the proportion of men dropped from 37 per cent to 34 per cent, whereas women increased from 53.2 per cent to 56.8 per cent; and that corresponding but somewhat smaller changes took place in hosiery and knit goods; in the wool manufacture the largest change was an increase from 52.4 per cent to only 52.7 per cent in the proportion of men.

Recurring to Table 3, the total amount paid in wages to textile workers at the census of 1905 was \$249,357,277, which compares with \$209,022,447 in 1900—an increase of \$40,334,830, or 19.3 per cent. As this rate is somewhat greater than the increase in the average number, it appears to indicate an increase of wages. But such indications are to be taken with extreme caution, particularly when they result from averaging many diverse industries and wage-earners of various degrees of skill, including great numbers of men, women, and children. The figures representing aggregate wages are impressive by their magnitude, and may be useful in a general study of social and labor conditions, but they do not form a safe basis for definite economic comparisons and deductions.

TABLE 4.—AVERAGE NUMBER OF WAGE-EARNERS, AND PER CENT EACH CLASS IS OF TOTAL, BY INDUSTRIES: 1880 TO 1905.

INDUSTRY.	Cen- sus.	AVERAGE NUMBER OF WAGE-EARNERS.				PER CENT OF TOTAL.		
		Total.	Men 16 years and over.	Women 16 years and over.	Children under 16 years.	Men.	Women.	Children.
Total.....	1905	739,239	345,154	330,180	73,905	45.3	44.7	10.0
	1900	661,451	298,867	292,286	70,298	45.2	44.2	10.0
	1890	517,237	223,712	250,512	43,013	43.3	48.4	8.3
	1880	384,251	159,382	169,806	55,063	41.5	44.2	14.3
Cotton manufactures ²	1905	315,874	147,283	128,163	40,428	46.0	40.6	12.8
	1900	302,801	135,721	126,882	40,258	44.8	41.9	13.3
	1890	218,876	88,837	106,007	23,432	40.6	48.7	10.7
	1880	174,059	61,700	81,538	28,341	35.4	48.4	16.2
Hosiery and knit goods.....	1905	103,715	25,167	98,867	9,681	24.3	66.4	9.3
	1900	83,387	21,154	53,565	8,668	25.4	64.2	10.4
	1890	59,888	14,846	40,820	3,916	24.9	68.5	6.6
	1880	28,885	7,517	17,707	3,661	26.0	61.3	12.7
Wool manufactures ³	1905	179,976	94,841	72,222	12,913	52.7	40.1	7.2
	1900	159,108	83,371	64,141	11,596	52.4	40.3	7.3
	1890	154,271	78,530	64,944	10,777	50.9	42.1	7.0
	1880	132,672	67,042	49,107	15,623	51.2	37.0	11.8
Silk and silk goods.....	1905	79,601	27,037	45,198	7,366	34.0	56.8	9.3
	1900	65,416	24,200	34,797	6,413	37.0	53.2	9.8
	1890	49,382	17,602	28,014	2,866	35.6	58.6	5.8
	1880	31,337	9,375	16,306	5,656	29.9	52.3	17.8
Flax, hemp, and jute products ⁴	1905	24,798	12,343	10,072	2,093	50.4	41.1	8.5
	1900	20,903	9,696	8,648	2,559	47.8	41.4	10.8
	1890	15,519	7,367	6,923	1,229	47.5	44.6	7.0
	1880	10,698	5,658	5,658	1,424	80.1	15.9	4.0
Dyeing and finishing textiles.....	1905	35,565	28,483	5,658	1,424	80.1	15.9	4.0
	1900	29,776	24,419	4,253	1,104	82.0	14.3	3.7
	1890	19,601	16,510	2,298	793	84.2	11.7	4.0
	1880	16,698	12,788	2,038	1,872	76.6	12.2	11.2

¹ Includes 2,115 officers and clerks whose salaries were not reported.

² Includes cotton goods and cotton small wares.

³ Includes worsted goods; woolen goods; carpets and rugs, other than rag; felt goods; and wool hats.

⁴ Includes cordage and twine; jute and jute goods; and linen goods. Also 2 establishments classified in 1890 as "linen thread."

MATERIALS USED.

The cost of materials as reported at the census of 1905 was \$745,783,168, which compares with \$521,345,200 in 1900, an increase of \$224,437,968, or 43 per cent. Inasmuch as by far the largest part of such materials consisted of raw fiber, the price of which fluctuates widely, no safe conclusion can be drawn from these figures. As a matter of fact, the price of cotton was abnormally low in 1900 and abnormally high in 1904; and the price of wool, particularly of carpet wool, was so high in 1904 that the advance affected the manufacture seriously. A much more trustworthy, although not a wholly satisfactory basis for comparison of materials used, is the quantity of textile fibers consumed. Table 5 shows the quantity of principal raw fibers consumed in all branches of the combined textile industry, exclusive of flax, hemp, and jute, from 1840 to 1905.

TABLE 5.—Consumption of raw textile fibers: 1840 to 1905.

CENSUS.	Cotton (pounds). ¹	Wool (pounds). ²	Silk (pounds).
1905.....	1,083,017,311	500,826,711	11,572,783
1900.....	1,010,809,193	412,323,430	9,709,770
1890.....	1,193,374,041	372,797,413	6,376,881
1880.....	798,344,838	299,192,220	2,660,482
1870.....	430,781,937	219,976,171	684,488
1860.....	443,846,378	98,379,785	492,905
1850.....	288,558,000	70,802,820	.....
1840.....	126,000,000	.....	.....

¹ Includes cotton consumed in establishments classed as cotton goods; cotton small wares; worsted goods; woolen goods; carpets and rugs, other than rag; felt goods; and hosiery and knit goods.

² Includes wool consumed in establishments classed as worsted goods; woolen goods; carpets and rugs, other than rag; felt goods; wool hats; and hosiery and knit goods.

The fact that the increase in the consumption of cotton was but 2.8 per cent does not signify that the manufacture of cotton goods had not increased at a higher rate than during the preceding five years, but that the manufacture in the year 1904 was affected by adverse conditions, which caused enforced idleness in a large number of important mills. The increase in the quantity of wool was 21.5 per cent. There is no reason to think that the high price of wool caused any serious diminution of consumption. The increase in the consumption of silk was 18.6 per cent. It will be observed that the quantity of fibers consumed did not in any case increase at a rate even approaching that of the cost of all the materials used—a fact which brings into great prominence the disturbance of values of the several kinds of material in 1904.

Although the several branches of the textile industry are distinct, each from all the others, and although each is properly designated by the fiber which is its chief material, there is an extensive interchange of materials. The statement is more especially true of yarns; for wool is not used in the raw state to a considerable extent in any division of the industry except in the wool manufacture and in hosiery and knit goods; and raw silk is consumed in the silk manufacture only. But cotton in the raw state is used in all the chief branches except silk. Table 6 shows the consumption of raw fibers as reported at the census of 1905, in all textile industries except flax, hemp, and jute products.

TABLE 6.—Raw fibers consumed, by industries: 1905.

INDUSTRY.	Cotton (pounds).	Wool (pounds).	Animal hair and fur (pounds).	Silk (pounds).
Total.....	11,963,661,711	501,468,203	50,808,287	11,572,783
Cotton goods.....	1,873,074,716			
Cotton small wares.....	3,392,431			
Hosiery and knit goods.....	50,586,760	17,390,616	89,592	
Worsted goods.....	4,333,576	261,338,084	5,749,249	
Woolen goods.....	28,279,832	137,335,727	23,754,714	
Carpets and rugs.....	1,997,369	51,320,521	6,805,892	
Felt goods.....	1,982,624	11,868,238	6,974,634	
Wool hats.....		1,633,525	210,027	
Shoddy.....	44,400	597,492	505,000	
Felt hats.....		44,000	6,728,359	
Silk and silk goods.....				11,572,783

¹ Exclusive of 18,142,735 pounds of cotton consumed in cordage and twine mills.

The quantity of raw cotton consumed in manufactures other than that of cotton goods proper was 90,586,995 pounds, which was only 4.6 per cent of the entire consumption reported. The interchange of yarns reveals still more clearly the extent of the interdependence of the several branches of the textile industry, which is shown by Table 7. For reasons which are fully explained in the report upon the manufacture of flax, hemp, and jute products, the materials used in these industries can not be stated separately; they are therefore omitted from the table.

TABLE 7.—YARNS¹ CONSUMED, BY INDUSTRIES: 1905.

INDUSTRY.	Cotton (pounds).	Woolen, worsted, and merino (pounds).	Silk (pounds).	Linen (pounds).	Jute (pounds).	Other kinds (pounds).
Total.....	336,359,633	102,411,024	6,925,493	9,048,018	49,713,295	1,081,130
Cotton goods.....	91,594,658	1,398,904	369,575	515,897		814,425
Cotton small wares.....	13,816,858	29,173	33,014	224,200		135,775
Hosiery and knit goods.....	161,500,466	16,197,803	320,671	55,392		7,225
Worsted goods.....	13,719,123	29,673,249	394,930	1,500		13,171
Woolen goods.....	18,878,949	9,582,443	107,377	2,007		395,101
Carpets and rugs.....	27,421,831	44,823,531	76,000	8,228,200		49,119,558
Felt goods.....	409,453	124,850	19	20,822		178,150
Silk and silk goods.....	9,018,295	581,544	5,703,907			130,930

¹ Exclusive of yarns made in mill for use therein.

Cotton yarn was purchased for use in every branch of the textile industry shown in Table 7. The weight of cotton yarn purchased and consumed in the industries, exclusive of cotton goods proper, was 244,764,975 pounds. The manufacturers of cotton goods reported the production of 364,472,753 pounds of cotton yarn for sale and the purchase and consumption of 91,594,658 pounds; the difference, which is 252,878,095 pounds, represents the quantity spun for sale to other industries. It must not be understood that this amount was consumed in the textile industries included in this report, as large quantities of cotton yarn, as well as other yarns, are consumed by establishments making hand knit goods and in other branches of manufactures.

Woolen, worsted, and merino yarns are also among the materials employed in every principal branch of the textile industry; but the quantities are small except in the wool manufacture and in hosiery and knit goods. Of the 102,411,024 pounds of woolen, worsted, and merino yarn purchased by establishments of all kinds, establishments manufacturing cotton goods and cotton small wares consumed but 1,428,077 pounds and the silk manufacture only 581,544 pounds, or slightly less than 2 per cent of that here reported. As all but a small portion of such yarn was made in the mills for use therein, and does not therefore appear anywhere in the census statistics as yarn, the amount reported as purchased and consumed by cotton and silk mills is an extremely insignificant fraction of the whole.

A much more important portion apparently of the silk yarn consumed was purchased for use in establishments dealing chiefly with cotton and wool. The weight of silk yarn, including spun silk, consumed in such establishments, including hosiery and knit goods, was 1,221,586 pounds, which was 17.6 per cent of the total amount of silk yarns purchased by all mills, including silk mills. The total of 5,703,907 pounds given for silk mills in Table 7 includes silk and spun silk yarn, artificial silk, organzine and tram, and fringe and floss. The amounts shown for the other industries represent silk and spun silk yarn only. As in the case of wool, the greater part of the silk yarn was undoubtedly consumed in the mills which produced it. Yet the amount consumed in other than silk mills was more than one-tenth in weight of the raw silk treated.

While the table shows that linen and jute yarns were used to some extent in all except the silk industry, the great bulk of such yarns were consumed by carpet mills.

PRODUCTS.

The gross value of all products of combined textile manufactures at the census of 1905 was \$1,215,036,792. In 1900 the value was \$931,494,566, an increase for 1905 of \$283,542,226, or 30.4 per cent. Every branch of the industry, except the minor division of wool hats, exhibits an increase in this item of the report. The lowest rate of increase—13.1 per cent—was in dyeing

and finishing textiles, which is not, strictly speaking, a textile industry; and the highest—43 per cent—was in hosiery and knit goods. Cotton manufactures increased 32.8 per cent in value, wool 28.3 per cent, and silk 24.3 per cent.

The products of textile mills are so multifarious and of such widely different value that a definite idea of the magnitude of the industry can be obtained only by a study of the details. But inasmuch as by far the largest part of the material used reaches the condition of woven goods, an impression of the quantity may be conveyed by a statement of the amount of such goods produced in the cotton, woolen, carpet, and silk mills of the country. In the following statement the

amounts are all stated in square yards, except for broad silks which is given in yards of single width:

Woven goods: 1905.

Total.....	5,708,363,412
Cotton, square yards.....	5,070,028,520
Woolen and worsted, square yards.....	500,246,942
Carpets and rugs, square yards.....	82,070,843
Silk, yards, single width.....	130,447,107

Table 8 is a comparative summary of the value of products of each branch of the industry, according to the censuses of the United States, from the earliest period for which the foundation for a statement exists.

TABLE 8.—VALUE OF PRODUCTS, BY INDUSTRIES: 1810 TO 1905.

CENSUS.	Total.	Cotton manufactures. ¹	Hosiery and knit goods.	Wool manufactures. ²	Silk and silk goods.	Flax, hemp, and jute products. ³	Dyeing and finishing textiles.
1905.....	\$1,215,030,702	\$450,407,704	\$136,558,130	\$380,034,003	\$133,288,072	\$62,030,320	\$50,840,545
1900.....	631,494,566	330,200,320	95,482,500	208,000,484	107,250,258	47,001,007	44,003,331
1890.....	750,202,283	207,081,724	67,241,013	270,527,511	87,208,454	37,313,021	28,000,560
1880.....	532,673,188	102,000,110	20,107,227	238,085,680	41,033,045	.....	32,207,420
1870.....	520,386,704	177,480,730	18,411,564	100,257,202	12,210,062	.....	* 113,017,537
1860.....	214,740,614	115,681,774	7,280,000	73,454,000	6,007,771	.....	11,716,403
1850.....	228,700,371	61,800,184	1,028,102	48,608,770	1,800,476	.....	15,454,430
1840.....	67,047,452	46,350,453	.....	20,606,000	.....	.....	.....
1830.....	37,002,081	22,534,815	.....	14,528,100	.....	.....	.....
1820.....	9,247,225	4,831,157	.....	4,413,068	.....	.....	.....
1810.....	51,685,785	* 20,070,007	.....	* 25,608,788	.....	.....	.....

¹ Includes cotton goods and cotton small wares.
² Includes worsted goods; woolen goods; carpets and rugs, other than rag; felt goods; and wool hats.
³ Includes cordage and twine; jute and jute goods; and linen goods. Also 2 establishments in 1890 classified as "linen thread."
⁴ At the census of 1870 the value of the fabric itself was reported, whereas in all subsequent censuses merely the value added to such fabric by the process of dyeing and finishing was reported as value of products.
⁵ Includes manufactures of cotton and flax in families and otherwise.
⁶ Includes manufactures of wool in families and otherwise.

Table 9 indicates the relation of the cost of materials to the value of products for each division of the combined industry, at the last three census periods.

TABLE 9.—Cost of materials used, value of products, and cost of materials per \$100 of products, by industries: 1890 to 1905.

INDUSTRY.	Census.	Cost of materials used.	Value of products.	Cost of materials per \$100 of products.
Cotton manufactures ¹	1905	\$280,285,303	\$450,407,704	\$63.55
	1900	170,551,527	330,200,320	52.05
	1890	154,042,070	207,081,724	57.81
Hosiery and knit goods.....	1905	70,503,782	136,558,130	56.00
	1900	51,071,850	95,482,500	53.40
	1890	35,801,585	67,241,013	53.33
Wool manufactures ²	1905	242,501,000	380,034,003	63.08
	1900	181,150,127	208,000,484	61.00
	1890	107,233,087	270,527,511	61.82
Silk and silk goods.....	1905	75,801,188	133,288,072	50.02
	1900	62,400,065	107,250,258	58.18
	1890	51,004,425	87,208,454	58.43
Flax, hemp, and jute products ³	1905	44,800,540	62,030,320	71.32
	1900	32,107,885	47,001,007	67.04
	1890	26,148,344	37,313,021	70.08
Dyeing and finishing textiles...	1905	10,021,253	50,840,545	38.50
	1900	17,958,137	44,003,331	30.04
	1890	12,385,220	28,000,560	42.85

¹ Includes cotton goods and cotton small wares.
² Includes worsted goods; woolen goods; carpets and rugs, other than rag; felt goods; and wool hats.
³ Includes cordage and twine; jute and jute goods; and linen goods. Also 2 establishments classified in 1890 as "linen thread."

The percentages here shown indicate in a general way the state of trade for each period covered. The large increase of the proportionate cost of materials in the cotton industry for 1905 as compared with 1900 reflects the unusually high price of cotton at the later period. There was a similar but smaller movement in the wool industry and in knit goods and a slight movement in the opposite direction in silk. The explanation of the low percentage in the case of dyeing and finishing is that the statistics eliminate both the value of materials operated upon and the gross value of the products, and show only the materials—chemicals, dyestuffs, etc.—peculiar to the industry, and the value added by the processes to which the yarns and fabrics were subjected in these establishments.

CONSUMPTION OF DOMESTIC AND FOREIGN GOODS.

The statistics for the census of 1905 indicate the continued and increasing success of the textile manufacturers of the United States in their competition with the manufacturing countries of the world. They now supply a larger part than ever before of the home consumption in every branch of the industry except flax and jute, and have made a moderate advance in the export trade. Nevertheless, they have not produced

a sufficient amount of goods composed of wool or silk to satisfy the home demand, for the value of imports is in each case larger than the value of exports. But the difference is disappearing, and the proportion of

foreign goods to the total domestic consumption is diminishing steadily. Table 10 shows that in 1905, for the first time in the history of the trade, the imports of cotton goods were of a smaller value than the exports.

TABLE 10.—VALUE OF DOMESTIC PRODUCTS, EXPORTS, CONSUMPTION OF DOMESTIC PRODUCTS, IMPORTS FOR CONSUMPTION, AND TOTAL CONSUMPTION OF TEXTILES, WITH PER CENT OF IMPORTS TO TOTAL CONSUMPTION: 1905 AND 1900.

INDUSTRY.	Census.	Value of domestic products.	Exports. ¹	Consumption of domestic products.	Imports for consumption. ¹	Total consumption.	Per cent of imports to total consumption.
Total.....	1905 1900	\$1,101,247,918 838,929,628	\$52,321,706 25,556,057	\$1,048,926,212 813,373,571	² \$98,795,491 ² \$5,759,247	\$1,147,721,703 899,142,818	8.6 9.5
Cotton manufactures.....	1905 1900	459,407,704 339,200,320	49,666,080 24,003,087	400,801,624 315,197,233	² 42,909,780 ² 35,101,398	443,711,404 350,298,631	9.7 10.0
Hosiery and knit goods.....	1905 1900	136,558,139 95,482,566	(³) (³)	136,558,139 95,482,566	² 7,131,230 ² 5,436,607	143,689,369 100,919,173	5.0 5.4
Wool manufactures.....	1905 1900	390,634,003 296,990,484	2,035,054 1,300,362	378,898,949 295,690,122	² 17,473,208 ² 15,072,389	396,372,157 310,762,511	4.4 4.9
Silk manufactures.....	1905 1900	133,288,072 107,256,258	620,372 252,608	132,667,500 107,003,650	² 31,281,273 ² 30,158,853	163,948,773 137,162,503	19.1 22.0

¹ Bureau of Statistics, Department of Commerce and Labor, "Commerce and Navigation of the United States."
² Foreign, not duty paid values.
³ Not reported separately; included with cotton, wool, and silk goods exported.

The total consumption in 1905 of textiles composed of cotton, wool, and silk, as reported above, had a value of \$1,147,721,703, of which \$98,795,491 represented the foreign value of imported goods and \$1,048,926,212 the value of the domestic production. This indicates that only 8.6 per cent of the consumption was of foreign manufacture. The corresponding percentage in 1900 was 9.5. It is not, however, fair to use these percentages as indicating anything more than a tendency. The sums reported as the consumption of domestic products and the total consumption contain numerous duplications, owing to the fact that the product of one mill often becomes the material of another. On the other hand, imported goods include articles which have been carried to a higher state of manufacture than the products of the domestic textile mills. Furthermore, the import values would need to be augmented by the duty paid upon the goods they represent in order to be comparable with the values of the domestic production. But inasmuch as the statistics for both the years are made up of the same elements in the same way, they indicate the tendency of manufactures and trade.

In detail the total consumption of cotton goods, which in this case includes cotton small wares, is reported to have had a value of \$443,711,404, of which \$400,801,624, or 90.3 per cent, represented domestic goods, and \$42,909,780, or 9.7 per cent, foreign products. In 1900, 10 per cent of the consumption was of foreign origin.

Wool manufactures were consumed to the value of \$396,372,157, of which \$378,898,949, or 95.6 per cent, represented domestic and 4.4 per cent foreign goods. As in the case of cotton goods the percentage of imported goods was smaller in 1905 than in 1900, when it was 4.9 per cent. In 1870 the proportion of foreign goods was 15 per cent.

Hosiery and knit goods show a corresponding decrease in the proportion of foreign goods to the total consumption, from 5.4 per cent in 1900 to 5 per cent in 1905. The total consumption now reported had a value of \$143,689,369, of which \$136,558,139 represented domestic and \$7,131,230 foreign goods; dividing the foreign goods according to the constituent material of chief value shows, cotton \$6,043,452, wool \$546,395, and silk \$541,383.

The silk manufacture was established in this country on an extensive scale at a much later date than either the cotton or the wool industry. In 1870 almost exactly two-thirds—66.5 per cent—of the value of silk manufactures consumed in the United States consisted of imported goods. Taking value as the basis, the proportion of imports in 1900 had been reduced to 22 per cent. At the census of 1905 they constituted but 19.1 per cent. The value of all silk goods consumed was \$163,948,773, of which \$132,667,500 represented domestic and \$31,281,273 foreign goods.

THE RANK OF THE UNITED STATES IN TEXTILE MANUFACTURES.

An attempt was made in the report at the census of 1900 to estimate the relative standing of the United States among the manufacturing countries of the world as a producer of textiles. The problem was attended with great difficulties which have not diminished. No other government undertakes to obtain industrial statistics with even an approach to the thoroughness with which the inquiry is pressed in the United States, and such facts as are officially collected in other countries are taken at longer intervals than are deemed expedient in this country. Statistics collected by commercial bodies or by private enterprise are necessarily imper-

fect, and consist in large part of estimates. Moreover, there is no standard form of inquiry common to the several countries. Under these circumstances all that is possible is to piece together such information as is to be had and to endeavor to form a conclusion which, if not strictly accurate, approximates the truth.

Combined textiles.—Treating the textile industry as a whole, the only basis of comparison for which we have anything like complete statistics is the number of persons employed, which is admittedly not an altogether sound basis. The four most important textile manufacturing countries are the United States, and three European countries—the United Kingdom, France, and Germany. The latest returns available show the following numbers engaged in the textile manufacture in these countries:

COUNTRY.	Year.	Number of wage-earners.
United States ¹	1905	862,732
United Kingdom ²	1901	1,021,353
Germany ³	1903	802,452
France ⁴	1903	634,378

¹Census of Manufactures, 1905. The total represents the greatest number employed. The average number employed during the census year was 703,375.
²Tenth Abstract of Labor Statistics for United Kingdom, 1904, page 214.
³Statistical Yearbook of German Empire, 1905, page 38.
⁴Statistical Yearbook of France, 1904, page 126.

Every available fact beyond this statement indicates that the number assigned to Germany does not truly indicate the relative importance of that Empire among textile manufacturing countries. It has only about one-fifth as many cotton spindles as the United Kingdom, is far behind it in wool, and is much less important than the United States in the cotton and silk industries, yet it is reported to have nearly as many hands employed as the United States. Although the statement is official, the number can not be, as in the other cases, that of persons employed in textile factories; it probably includes all those who are engaged in the household industry. It may be recalled that according to the report made to Congress in 1815, when there was but one large factory in the country, there were then 100,000 persons in the United States employed in the cotton manufacture—a number larger than was reported at the census of 1850, when the industry had expanded greatly.

Cotton.—It is comparatively easy to ascertain the relative rank of the countries in the manufacture of cotton. Two methods may be followed, either of which gives an approximation to the truth—the amount of cotton consumed, and the number of spinning spindles. The first statement to be presented shows the average consumption of cotton in the United States, in the United Kingdom, and on the continent of Europe, in the five years ending with each census period of the United States from 1830 to 1880, and the total consumption for the years 1890, 1900, and each succeeding year to 1905:

*Cotton consumption in United States and Europe: 1830 to 1905.*¹

[Expressed in thousands of bales of 500 pounds each.]

	United States.	United Kingdom.	Continent of Europe.
AVERAGE CONSUMPTION.			
Five years ending—			
1830.....	104	509	320
1840.....	204	925	503
1850.....	442	1,169	621
1860.....	650	1,812	1,102
1870.....	700	2,111	1,473
1880.....	1,234	2,339	1,904
TOTAL CONSUMPTION.			
Year—			
1890.....	2,386	3,312	3,422
1900.....	3,856	3,334	4,576
1901.....	3,727	3,269	4,576
1902.....	4,037	3,253	4,836
1903.....	4,015	3,185	5,148
1904.....	3,909	3,017	5,148
1905.....	4,310	3,020	5,148

¹The authority for this statement is Mr. Thomas R. Ellison, of Liverpool.
²Census figures.

It should be explained that the above amounts are "takings" rather than the actual consumption, and that the years reported are not the calendar but the cotton market years, which end on August 31.

According to this statement the United States took for consumption in the cotton year 1904-5 about one-third of the total quantity reported, and 690,000 bales more than the United Kingdom, and only 838,000 bales less than all the manufacturing countries of continental Europe. Yet this statement indicates that the consumption of cotton is not a perfect basis of comparison, inasmuch as the industry in the United Kingdom far exceeds that in the United States. The average spinning in England is so much finer than that in this country that a certain amount of cotton furnishes material to a much larger number of spindles.

Inasmuch as the cotton manufacturing industry has been introduced elsewhere than in Europe and the United States, and in some countries is making rapid progress, another statement is presented showing the estimated consumption of cotton in them for 1900 and 1905:

*Cotton consumption, by countries: 1905 and 1900.*¹

[Expressed in thousands of bales of 500 pounds each.]

COUNTRY.	1905	1900
Total.....	15,538	13,773
United States.....	4,310	3,856
United Kingdom.....	3,020	3,334
Continent of Europe.....	5,148	4,576
East Indies.....	1,350	1,139
Japan.....	875	712
Canada.....	130	105
Mexico.....	70	18
Other countries.....	35	33

¹New York Commercial and Financial Chronicle.
²The figures published in the textile report at the census of 1900 were later corrected as here given.
³The Chronicle's own estimate in its cotton review, September 9, 1905, was 3,588,000 bales; on receiving Mr. Ellison's report it adopted his figures as here given.

The above statement covers all of the world's crop of cotton that comes "into sight." It does not include the amount grown in China and consumed there. All efforts to ascertain the consumption in China are futile, although the amount which is used in factories can be fairly well estimated. It is known that there are in China 17 spinning and weaving mills with more than 600,000 spindles and 2,250 looms. The allowance of only 35,000 bales for so much machinery is evidently meager. The spinning of cotton has been carried on in China for more than a thousand years and is still practiced largely as a hand trade. The importance of the cotton culture in China may be inferred from the fact that the Empire exports to Japan the equivalent of more than half a million 500-pound bales.

So far as the figures in the table can be accepted, some of them accurate and the rest estimated closely, the United States consumes more than 28 per cent of all the cotton grown in the world; certainly more than one-fourth of it after making all allowances for the crops in India and China, which never enter into the commercial estimates.

But a far more accurate test for comparison is afforded by the number of spindles in the mills of the several countries. Table 11 shows the number of cotton spindles in the world in the autumn of 1906. These statistics are taken from the report by the Bureau of the Census upon the supply and distribution of cotton for the year ending August 31, 1906, published as Census Bulletin 63.

TABLE 11.—World's cotton spindles, by countries: 1905-6.¹

COUNTRY.	Cotton spindles (number).
Total.....	120,080,595
United States:	
Cotton growing states.....	8,994,868
All other states.....	16,255,228
Europe:	
United Kingdom.....	48,826,144
Germany.....	9,730,209
Russia.....	7,000,000
France.....	6,702,800
Austria.....	3,621,220
Italy.....	3,500,000
Spain.....	1,800,000
Switzerland.....	1,462,752
Belgium.....	1,122,000
Portugal.....	350,000
All other Europe.....	1,115,000
British India.....	5,250,000
Japan.....	1,403,740
China.....	619,648
Brazil.....	733,890
Mexico.....	628,096
Canada.....	775,000
Other countries.....	200,000

¹ The statistics for the United States were collected by this Bureau. Those for other countries have been compiled from a number of authorities, among them being the International Federation of Master Cotton Spinners' and Manufacturers' Associations, Manchester, Eng.; the Financial and Commercial Chronicle, New York; Cotton Facts: Lyon & Co., Bombay; and Mitsui Bussan Kaisha, Osaka.

The number of spindles in the table compared with an aggregate of 102,483,386 in 1900 shows an increase of 17,607,209, or 17.2 per cent. The aggregate number of spindles for 1900 was prepared by the New York Commercial and Financial Chronicle for the special report on textiles at the Twelfth Census.

The table shows that the United States has more than half as many spindles as the United Kingdom, more than two and a half times as many as Germany, which is third in rank, and more than one-fifth of all the spindles in the world.

Wool.—Statistics of the production of wool are not by any means so easy to obtain as statistics of the cotton crop. The countries in which cotton is produced in sufficient quantities to be exported are few, the ports from which it is sent are watched closely, and the amount available for manufacture is known with a reasonable approach to accuracy. On the other hand, wool is grown in many countries and to a considerable extent is consumed in them. It is this last fact which renders futile all attempts to discover the total quantity of wool grown and manufactured in the world. A statement of the relative rank of the leading manufacturing countries by a consideration of the number of spindles operated in each country would be valueless, even if we knew the respective numbers; but as a matter of fact there are only two countries in the world that ascertain the number of spindles by the process of counting them.

Compelled as we are to have recourse to the wool consumption as the only, although unsatisfactory, basis of comparison, there is, so far as is known, but one carefully prepared estimate of the raw wool consumed or retained for consumption in the principal manufacturing countries. It is for the year 1903, and was made for the Tariff Commission of the United Kingdom. The totals, together with the consumption in textile mills in the United States as ascertained by the census of 1905, are as follows:

Estimated amount of wool retained for consumption in principal textile manufacturing countries.

COUNTRY.	Year.	Million pounds.
United States.....	1905	1 501
France.....	1903	2 487
United Kingdom.....	1903	2 448
Germany.....	1903	2 390 ²
Austria-Hungary.....	1903	2 126

¹ Amount consumed in textile mills, Census of Manufactures, 1905.

² Report of the Tariff Commission, United Kingdom, Vol. II, Part II.

The statement has much value as a preliminary estimate and as a general indication of the magnitude of

the industry in each country, although the most casual inspection shows that conclusions from it would be erroneous. It is well known that the United Kingdom is the leading country, although it stands third in the amount of wool used. The quality of the wool consumed and the amount of labor employed in the manufacture of a larger proportion of fine goods account for the difference. France, too, produces more fine goods than this country, and certainly takes the second rank. The case between Germany and the United States can not be determined definitely. In both countries fine and coarse goods are produced, and the relative amount of coarse goods is large. But in this country the carpet industry is more important, probably, than in Germany, and the carpet manufacture is a great consumer of wool.

On the whole, we may without question place Great Britain first, France second, with some doubt as to whether Germany or the United States holds the third place, and Austria-Hungary fifth.

Silk.—In the report of the Twelfth Census it was noted that the progress of the United States in the silk manufacture had been so great, and that its promise of further growth was so hopeful, that the industry in this country, being already second only to that of France, would probably in the near future exceed the French silk industry in importance. The prediction has already been verified. The statistics of the consumption of raw silk are much more accurate than those of wool, and the consumption is also a far more trustworthy test of the importance of the industry than is the consumption of wool.

Table 12 presents the consumption of raw silk in the important manufacturing countries of the world, averaged for the calendar years 1902, 1903, and 1904.

No means are in existence for making an estimate of the consumption of silk in China and Japan, and it may be that one or both of them exceeds the United States in the magnitude of its silk industry; but so far as statistics are available this country heads the list.

TABLE 12.—Raw silk consumption, by countries—average for the years 1902, 1903, and 1904.¹

COUNTRY.	AVERAGE CONSUMPTION FOR 1902, 1903, AND 1904.		
	Kilograms.	Pounds.	Per cent of total.
Total	19,748,000	43,644,340	100.0
United States	6,128,000	13,512,240	31.0
France	4,327,000	9,541,035	21.0
Germany	2,846,000	6,275,430	14.4
Switzerland	1,595,000	3,510,075	8.1
Russia and Caucasus	1,271,000	2,802,555	6.4
Italy	966,000	2,130,030	4.9
Austria-Hungary	776,000	1,711,080	3.9
England	709,000	1,569,345	3.6
India	350,000	771,750	1.8
Japan	200,000	441,000	1.0
Egypt	183,000	403,515	0.9
Spain	110,000	242,550	0.6
Syria	70,000	154,350	0.4
Morocco	65,000	143,325	0.3
Algeria and Tunis	52,000	114,400	0.3
Other countries	152,000	335,160	0.8

¹ Prepared by Messrs. Chabrières, Morel & Co, of Lyon, Marseille, and Milan. Thirty-fourth Annual Report of the Silk Association of America, 1906.

Conclusion.—Taking the textile industry as a whole, it may be concluded that the United States, while standing at some distance from the United Kingdom, is nevertheless second only to it. Considering the several branches of the textile industry, we find that the United States stands first among silk manufacturing countries and second in the manufacture of cotton. In the manufacture of wool it is probably inferior to Germany and France, although not greatly behind either country.

The flax and jute industries are carried on in this country on a small scale. No figures can be presented to indicate even approximately the rank of the different countries, but there is no doubt that the United States occupies a rank relatively low. On the other hand, the manufacture of cordage and twine from hemp is very extensive, and in this the United States probably takes the first or the second rank.

Table 13 presents the most general facts regarding the textile industry, exclusive of flax, hemp, and jute, in the United States at each census enumeration from 1880 to 1905, by states and geographic divisions.

TABLE 13.—COMBINED TEXTILES, NOT INCLUDING FLAX, HEMP, AND JUTE PRODUCTS—COMPARATIVE SUMMARY, BY STATES AND GEOGRAPHIC DIVISIONS: 1880 TO 1905.

STATE.	Census.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		WAGE-EARNERS AND WAGES.		Miscellaneous expenses.	Cost of materials used.	Value of products.
				Number.	Salaries.	Average number.	Wages.			
United States.....	1905	4,430	\$1,288,901,074	23,124	\$31,001,828	714,731	\$240,776,402	\$82,427,073	\$700,802,622	\$1,152,007,403
	1900	4,171	1,001,005,815	18,181	22,331,072	640,548	202,000,700	60,444,690	489,147,315	893,802,059
	1890	4,114	730,073,001	10,179	11,930,760	501,718	103,616,503	43,350,730	421,308,106	721,040,202
	1880	4,018	412,721,400	(?)	(?)	384,261	105,050,000	(?)	302,700,894	632,073,488
New England states.....	1905	1,141	624,600,004	7,043	12,203,704	306,474	110,847,135	33,183,544	318,370,162	522,821,440
	1900	1,124	524,800,302	5,033	9,527,370	280,400	101,034,250	20,403,081	222,207,461	412,875,075
	1890	1,210	420,305,388	3,524	4,915,773	250,018	89,073,178	24,501,020	211,074,050	305,013,324
	1880	1,214	201,561,147	.....	.....	217,074	60,011,202	.....	172,223,778	310,542,352

¹ Includes proprietors and firm members, with their salaries; number only reported in 1900 and 1905, but not included in this table.
² Not reported separately.
³ Includes 2,115 officers and clerks whose salaries were not reported.
⁴ Not reported.

MANUFACTURES.

TABLE 13.—COMBINED TEXTILES, NOT INCLUDING FLAX, HEMP, AND JUTE PRODUCTS—COMPARATIVE SUMMARY, BY STATES AND GEOGRAPHIC DIVISIONS: 1880 TO 1905—Continued.

STATE.	Census.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		WAGE-EARNERS AND WAGES.		Miscellaneous expenses.	Cost of materials used.	Value of products.
				Number.	Salaries.	Average number.	Wages.			
New England states—Continued.										
Maine.....	1905	94	\$40,606,991	520	\$791,704	21,986	\$7,856,642	\$2,613,635	\$20,585,867	\$34,288,637
	1900	101	36,720,083	350	555,963	21,938	7,369,946	2,358,238	15,524,745	29,394,372
	1890	107	30,900,097	217	802,438	19,794	6,277,442	1,867,550	14,495,290	24,911,165
	1880	126	19,932,406			15,869	4,204,778		12,148,526	21,470,567
New Hampshire.....	1905	97	49,859,466	655	922,959	30,222	11,521,644	3,114,597	31,027,699	49,853,113
	1900	97	44,107,098	382	622,437	29,533	10,088,051	2,264,958	20,675,482	37,496,180
	1890	118	43,891,412	330	419,199	29,243	9,624,933	2,339,287	22,225,159	37,250,364
	1880	126	31,247,024			24,743	6,904,069		18,809,037	32,757,353
Vermont.....	1905	32	10,202,352	161	232,603	4,002	1,530,565	400,670	4,735,956	7,773,612
	1900	43	6,724,920	109	147,128	3,613	1,253,388	282,863	3,373,931	5,657,217
	1890	45	5,491,250	70	72,438	2,970	1,043,588	301,466	2,626,232	4,744,326
	1880	58	3,750,257			3,204	807,048		2,881,935	4,671,041
Massachusetts.....	1905	485	331,214,144	3,501	5,853,328	157,095	60,294,640	16,862,272	163,412,282	267,823,987
	1900	483	273,562,835	2,713	4,744,037	149,039	53,819,143	13,072,020	113,354,739	213,612,791
	1890	533	215,254,813	1,711	2,498,825	125,108	43,091,382	12,930,047	107,465,624	184,938,074
	1880	496	120,443,376			106,743	29,801,616		84,228,717	152,983,522
Rhode Island.....	1905	241	114,975,480	1,553	2,489,196	56,942	22,227,913	6,445,449	63,208,053	103,096,311
	1900	210	97,444,185	1,116	2,034,498	49,877	17,863,957	5,222,431	42,458,004	77,988,390
	1890	204	70,699,470	645	821,685	47,426	16,013,599	4,260,785	37,911,493	67,005,515
	1880	194	46,983,447			36,622	10,127,287		27,708,649	51,883,569
Connecticut.....	1905	192	77,838,561	1,253	1,913,914	35,227	13,415,731	3,746,921	35,400,305	60,535,780
	1900	190	66,340,241	963	1,423,307	32,469	11,539,771	3,203,171	26,910,550	48,728,019
	1890	203	60,038,346	551	801,188	31,477	10,922,234	2,801,894	27,251,161	46,757,780
	1880	214	39,198,637			30,493	8,766,404		26,446,914	47,271,300
Middle states.....	1905	2,131	373,256,433	10,604	13,033,266	243,875	88,051,569	33,471,684	233,807,533	403,464,079
	1900	1,969	307,765,675	7,155	8,924,105	221,944	74,632,681	26,481,180	187,031,904	334,247,680
	1890	1,914	222,402,855	4,467	5,076,869	180,669	62,435,733	14,352,458	161,124,539	279,576,396
	1880	1,540	115,483,359			132,884	38,013,381		106,328,536	183,443,725
New York.....	1905	551	117,308,102	3,154	3,942,687	72,989	27,148,604	10,670,264	70,466,351	122,966,228
	1900	528	93,392,958	2,070	2,707,559	64,734	22,606,600	6,883,087	50,273,512	93,819,518
	1890	615	75,881,672	1,459	1,829,231	60,924	20,834,522	4,840,584	47,621,495	86,171,293
	1880	480	42,022,987			45,153	12,652,423		30,610,901	56,191,417
New Jersey.....	1905	382	84,178,190	2,353	3,266,529	50,396	19,299,320	9,113,405	45,584,425	84,220,479
	1900	323	76,183,937	1,740	2,478,193	46,985	17,188,137	7,309,634	38,795,102	72,933,823
	1890	240	43,321,016	778	954,171	33,934	12,750,224	2,952,104	29,682,210	52,831,623
	1880	186	16,028,770			24,111	7,652,833		17,456,679	31,865,348
Pennsylvania.....	1905	1,160	159,796,761	4,849	5,533,137	112,873	37,568,824	13,152,964	111,253,433	186,227,337
	1900	1,076	126,346,788	3,114	3,426,774	101,845	32,624,316	11,783,429	92,301,856	157,333,201
	1890	1,010	92,686,227	2,104	2,147,210	79,277	27,089,420	6,052,430	78,869,158	132,307,499
	1880	822	51,238,747			58,005	16,560,274		58,999,549	88,594,143
Delaware.....	1905	13	2,193,682	115	115,011	1,701	597,453	202,085	1,160,465	2,397,761
	1900	16	2,174,398	81	113,896	1,882	621,729	175,615	1,377,168	2,592,201
	1890	11	2,555,233	37	37,948	1,506	508,169	122,690	1,007,270	1,821,278
	1880	13	1,227,129			1,058	301,231		975,490	1,536,260
Maryland.....	1905	25	9,779,698	193	175,902	5,966	1,437,368	332,966	5,342,859	7,652,279
	1900	26	9,667,594	150	197,773	6,498	1,591,899	529,415	4,234,266	7,508,837
	1890	38	7,958,707	89	108,309	5,023	1,253,398	384,650	3,944,406	6,885,303
	1880	39	4,965,726			4,557	846,620		3,285,917	5,250,557
Southern states.....	1905	804	250,257,496	3,398	4,091,622	138,384	29,679,146	11,732,707	125,084,203	153,985,578
	1900	762	187,172,561	2,222	2,465,059	109,501	19,458,949	5,488,519	63,624,678	107,318,831
	1890	486	62,623,729	1,118	960,968	43,650	8,810,088	2,691,420	32,624,416	49,729,674
	1880	613	20,413,414			19,409	3,254,936		12,781,692	20,381,686
Virginia.....	1905	52	9,694,856	150	161,577	6,619	1,647,739	592,658	5,949,611	9,320,828
	1900	53	6,759,667	121	136,789	5,611	1,272,256	202,451	3,322,334	5,762,329
	1890	47	4,089,511	80	59,705	2,870	568,394	177,750	1,998,555	2,964,171
	1880	56	1,646,850			1,477	241,509		1,023,471	1,618,930
West Virginia.....	1905	17	1,125,069	36	45,170	1,115	298,225	60,781	562,762	1,095,015
	1900	38	1,212,971	31	32,830	924	211,782	97,913	584,417	987,432
	1890	33	408,881	37	13,282	291	66,938	27,708	225,961	395,700
	1880	57	328,170			365	51,361		290,343	413,556
North Carolina.....	1905	272	61,002,030	1,064	1,155,072	40,541	8,369,048	2,842,163	35,129,185	50,910,558
	1900	225	34,458,422	759	652,124	32,867	5,492,194	1,099,890	18,290,225	29,996,568
	1890	124	11,195,122	260	186,825	9,016	1,500,904	442,056	6,553,636	10,053,264
	1880	98	3,058,900			3,328	402,854		1,719,352	2,857,642
South Carolina.....	1905	143	83,883,251	813	1,060,641	38,535	7,948,014	3,337,504	34,993,701	50,755,556
	1900	88	39,767,684	448	564,893	30,636	5,162,931	1,550,500	17,602,500	30,274,086
	1890	35	11,144,233	121	136,080	8,072	1,510,609	528,296	6,820,132	9,801,956
	1880	25	2,784,000			2,066	382,017		1,827,755	2,919,844
Georgia.....	1905	134	45,324,632	669	849,028	26,929	5,879,780	2,592,425	25,882,827	38,461,611
	1900	98	25,000,170	397	491,604	20,117	3,872,313	1,145,149	12,207,425	20,266,712
	1890	72	18,171,990	244	216,276	10,806	2,274,945	751,515	8,038,042	12,450,098
	1880	74	6,543,390			6,529	1,166,654		4,203,557	6,749,784
Kentucky.....	1905	28	4,257,426	80	104,617	2,187	566,098	277,771	2,045,318	3,041,071
	1900	46	3,951,418	56	84,323	2,335	515,780	175,302	2,630,684	3,274,519
	1890	49	4,142,815	109	111,694	2,767	692,400	246,643	2,309,959	3,785,436
	1880	103	1,255,750			1,181	231,755		1,107,523	1,689,694
Tennessee.....	1905	59	8,583,133	151	174,677	5,519	1,199,641	469,400	4,155,652	6,895,203
	1900	72	6,384,194	123	137,337	4,251	700,031	230,210	2,206,543	3,907,279
	1890	69	4,322,336	121	99,485	3,051	635,610	230,116	2,525,193	3,724,138
	1880	122	1,564,264			1,446	228,134		976,815	1,495,441

¹ Includes the statistics of 1 establishment in Florida not reported separately.

TABLE 13.—COMBINED TEXTILES, NOT INCLUDING FLAX, HEMP, AND JUTE PRODUCTS—COMPARATIVE SUMMARY, BY STATES AND GEOGRAPHIC DIVISIONS: 1880 TO 1905—Continued.

STATE.	Census.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		WAGE-EARNERS AND WAGES.		Miscellaneous expenses.	Cost of materials used.	Value of products.
				Number.	Salaries.	Average number.	Wages.			
Southern states—Continued.										
Alabama.....	1905	57	\$25,545,273	201	\$367,471	12,075	\$2,568,903	\$1,047,914	\$12,350,087	\$17,370,123
	1900	45	11,044,308	172	211,251	8,592	1,520,759	530,323	4,078,620	8,414,020
	1890	22	2,965,713	55	47,318	2,510	467,818	168,734	1,573,038	2,398,646
	1880	30	1,275,400	.....	.....	1,508	243,035	.....	833,072	1,201,704
Mississippi.....	1905	17	5,245,761	71	85,846	2,541	605,364	272,584	1,841,025	2,775,994
	1900	11	2,538,499	55	72,418	2,010	400,188	135,684	884,100	1,070,153
	1890	10	3,607,108	43	38,264	2,223	558,987	75,670	1,380,000	2,257,683
	1880	10	1,453,640	.....	.....	940	180,314	.....	548,705	978,008
Arkansas.....	1905	6	308,036	7	4,800	121	30,475	20,871	94,228	145,979
	1900	15	293,353	11	7,428	198	36,290	4,385	111,308	109,471
	1890	8	164,236	12	5,250	103	15,856	8,775	46,557	71,913
	1880	27	100,560	.....	.....	154	20,565	.....	110,277	177,430
Louisiana.....	1905	4	1,045,704	21	32,842	1,025	230,322	96,903	830,033	1,224,951
	1900	3	1,741,688	18	26,941	1,335	282,530	70,887	584,324	1,162,752
	1890	6	1,516,600	16	22,574	1,237	267,468	15,650	737,212	1,120,751
	1880	2	105,000	.....	.....	108	12,572	.....	72,470	80,770
Texas.....	1905	15	3,252,235	45	49,621	1,177	320,537	121,733	1,248,874	1,988,689
	1900	8	2,514,007	31	47,151	1,125	295,889	131,050	761,888	1,403,330
	1890	5	805,034	20	24,155	644	190,999	28,561	424,218	700,018
	1880	3	147,500	.....	.....	107	28,100	.....	50,262	102,100
Western states.....										
	1905	354	40,060,151	1,410	1,673,170	26,908	8,198,642	4,030,138	23,030,724	41,820,306
	1900	376	31,168,217	1,171	1,415,348	22,634	6,264,820	2,071,250	16,193,282	29,450,573
	1890	504	28,581,689	1,070	977,140	21,381	5,397,594	1,811,820	15,674,282	27,020,808
	1880	651	15,263,576	.....	.....	14,284	3,171,147	.....	11,375,888	18,305,722
Ohio.....	1905	62	6,511,653	226	265,046	4,677	1,380,672	865,762	4,597,014	8,157,731
	1900	67	4,019,207	156	165,297	2,834	796,276	364,762	2,000,483	4,828,889
	1890	125	4,820,520	210	180,614	3,760	940,904	314,804	3,233,787	5,437,483
	1880	163	2,323,340	.....	.....	2,830	511,923	.....	1,780,069	3,032,069
Michigan.....	1905	56	5,171,182	238	236,504	4,475	1,102,785	630,570	3,642,210	6,448,108
	1900	51	3,652,000	243	225,338	3,563	873,002	340,247	2,850,219	4,878,084
	1890	44	1,601,491	84	94,808	1,551	366,098	110,000	1,110,018	1,904,074
	1880	51	720,180	.....	.....	1,307	185,304	.....	624,241	928,706
Indiana.....	1905	27	6,470,035	105	200,040	4,082	1,100,394	517,433	3,435,001	5,542,745
	1900	35	6,553,062	107	316,512	4,072	1,503,635	323,025	2,949,048	5,501,499
	1890	61	5,431,005	151	139,884	4,283	1,010,170	370,881	3,288,270	5,214,211
	1880	95	3,413,105	.....	.....	2,784	662,310	.....	2,587,054	4,074,576
Wisconsin.....	1905	70	7,330,729	294	356,180	5,589	1,631,342	810,922	4,145,194	7,930,424
	1900	66	5,440,750	197	244,310	4,135	908,616	365,213	2,516,810	4,667,204
	1890	60	4,603,613	137	145,450	3,747	807,483	270,328	2,390,217	4,100,201
	1880	53	1,550,004	.....	.....	1,146	285,560	.....	1,006,474	1,827,275
Illinois.....	1905	46	6,448,238	185	248,637	3,945	1,305,550	541,767	3,533,488	6,000,877
	1900	37	4,345,000	148	211,505	3,301	661,332	264,043	2,205,394	4,087,360
	1890	75	4,119,405	201	292,330	3,871	1,113,005	234,455	2,420,564	4,004,115
	1880	85	1,825,203	.....	.....	2,337	555,209	.....	1,037,330	2,080,110
Minnesota.....	1905	20	1,002,000	70	100,526	958	310,285	101,283	1,088,673	1,903,810
	1900	27	1,246,820	41	50,107	593	168,251	67,048	461,007	906,904
	1890	25	815,144	36	35,421	430	135,282	70,017	308,300	730,458
	1880	15	203,500	.....	.....	263	55,327	.....	100,867	303,478
Tenn.....	1905	12	965,122	23	21,704	393	128,301	57,257	420,078	705,060
	1900	14	620,104	38	20,321	300	82,835	24,722	213,760	386,055
	1890	20	896,741	45	35,470	494	140,170	53,060	620,832	800,918
	1880	37	555,700	.....	.....	505	118,252	.....	437,301	682,812
Missouri.....	1905	7	820,324	21	17,070	326	90,103	53,172	362,042	554,004
	1900	29	702,300	25	28,628	441	112,521	27,472	325,786	598,928
	1890	45	800,020	71	41,052	733	163,215	38,008	452,068	798,736
	1880	109	1,065,550	.....	.....	1,350	235,107	.....	1,105,497	1,563,641
Idaho ¹	1905	3	8,485	4	2,280	12	4,576	1,523	3,477	7,705
Kansas ²	1905	3	242,055	8	9,900	153	52,402	4,694	67,121	104,574
	1880	6	141,425	.....	.....	126	26,075	.....	107,401	212,066
Utah.....	1905	12	640,267	48	36,504	455	137,465	42,354	337,242	594,782
	1900	13	509,881	27	15,310	291	92,514	22,313	148,157	262,200
	1890	14	612,579	20	10,575	324	104,601	29,301	180,330	362,094
	1880	12	402,000	.....	.....	300	70,208	.....	150,698	287,301
Oregon.....	1905	8	1,277,482	26	44,405	509	220,942	124,008	408,543	1,043,466
	1900	12	1,178,370	30	33,320	675	209,421	74,863	467,205	901,512
	1890	6	1,350,585	44	32,775	358	142,538	80,900	327,502	614,632
	1880	10	566,800	.....	.....	216	85,088	.....	227,486	540,030
California.....	1905	19	2,855,729	61	110,721	1,267	473,637	216,507	1,304,267	2,251,884
	1900	14	1,819,481	40	51,568	922	340,420	160,821	886,260	1,464,630
	1890	20	3,235,263	61	68,366	1,733	448,234	199,373	1,338,067	2,080,215
	1880	14	1,840,800	.....	.....	686	375,718	.....	1,078,534	1,704,633
All other Western states ³	1905	3	324,020	11	10,000	97	47,788	5,220	160,484	275,500
	1900	11	1,080,000	29	44,023	781	234,807	64,311	470,485	907,942
	1890	9	109,197	10	5,305	88	19,895	6,037	58,312	130,531
	1880	1	40,000	.....	.....	20	4,000	.....	62,000	70,000

¹ Included in "all other Western states" in 1900 and 1890. No establishments reported in 1880.

² Included in "all other Western states" in 1900 and 1890.

³ Includes establishments distributed as follows: Nebraska, 1; North Dakota, 1; Washington, 1.

⁴ Includes establishments distributed as follows: Colorado, 2; Idaho, 2; Kansas, 1; Montana, 1; Nebraska, 2; North Dakota, 1; Wyoming, 1.

⁵ Includes establishments distributed as follows: Colorado, 2; Idaho, 1; Kansas, 2; Nebraska, 1; South Dakota, 2; Washington, 1.

⁶ Includes Washington, 1.

COTTON MANUFACTURES.

COTTON MANUFACTURES.

By EDWARD STANWOOD, Expert Special Agent.

COTTON GOODS.

INTRODUCTION.

The business of cotton manufacture experiences seasons of great prosperity and of corresponding depression. It can not be maintained that any of the causes which produce these extremes are peculiar to this business, for practically every agency which affects the prosperity of any other industry affects this also, although some of those agencies have a stronger influence upon cotton manufacture than upon almost any other class of manufactures. For example, the raw material which it uses varies in price from day to day, sometimes in a very short time to an amount equal to the margin between profit and loss in the cost of spinning yarn, and the variation is not merely one occasioned by the laws of ordinary trade, but is greatly affected by speculation. The mill treasurer who makes a series of lucky guesses as to the course of the market may make a fat dividend for his shareholders, and he who prognosticates wrongly may barely get back a new dollar for an old one; for it is impossible to cause the price of goods to follow the fluctuations in the price of raw cotton. Again, in an enlarging market and an increasing demand for goods it may easily be that the addition to the spindle capacity of the country may be too great or too small. In the one case stocks will accumulate unsold and prices will decline below the cost of production; in the other case the market demand can not be satisfied, prices advance, and the manufacturer's profit will be large. Changes of fashion also play a large part in determining whether the business of some branches of the industry shall be profitable or profitless, although fashion does not change greatly as to the character of the leading staple goods. Moreover, this industry is peculiarly subject to trials in its dealings with its employees, and is, in some states, under constraint of labor laws which do not apply to any other industry. Then, too, the whole trade is affected by such interruptions of the export business as were caused by the Boxer troubles and the boycott in China, and the general condition of business at home affects it, certainly not less than it affects most other industries.

The nominal capital invested in all the cotton mills of the country, as reported upon in the following pages, is \$605,100,164, and these establishments operated upon 1,873,074,716 pounds of raw cotton. A simple calculation will show that a profit of 2 cents a pound upon the conversion of that amount of cotton into yarn and cloth would give a return of more than 6 per cent upon the entire capital. It may be safe to estimate that, on the cloth made in the country, a difference of one-half a cent a yard between the cost of manufacture and the price at which it is sold by the mill would return to the proprietor a perfectly satisfactory dividend.

The returns upon which the following report is based are for the calendar year 1904. In some cases where the business year of the establishment reporting did not coincide with the calendar year, the returns are for a whole year but not for the year beginning with January and ending with December. It should be understood that in this report the year 1904 is always meant, even when 1905—the year when the returns were received—is mentioned. Similarly comparisons between the statistics for the Twelfth Census, which covered the year ending May 31, 1900, and 1904 are frequently made in the form of a comparison between 1900 and 1905, the years when the censuses were taken.

The course of trade during the last five years has been remarkable for the fluctuations already mentioned. The year 1899 was one of large prosperity, succeeding a year of depression. The change came almost exactly at the beginning of the year and lasted over into 1900. The year ending May 31, 1900, was consequently as unfit a year for comparison, in being one of far more than average prosperity, as we shall find the year 1904 to have been in the opposite sense. The print cloth trade is usually a good measure of the condition of cotton manufacturing. The year 1899 began with a large unsold stock on hand, which was reduced about two-thirds during the year. Prices advanced at the same time, and the trade was in such a good state that a demand for higher wages was conceded almost without demur. A similar state of affairs existed in other branches of the trade, and

the census of 1900 exhibited a condition of general prosperity. A special feature of the trade that year was an unexampled low price of cotton. At one time middling uplands, the standard by which the market is governed, touched $5\frac{1}{8}$ cents in New York, the lowest price ever quoted. The extreme high price was only $6\frac{1}{2}$ cents, and the average for the whole season, from September 1, 1898, to September 1, 1899, was but $6\frac{1}{8}$ cents, also the lowest average recorded.

The year 1900 witnessed a great and radical change for the worse. When the year opened there were no surplus stocks of standard goods on hand, except a remnant of the old stock of print cloths. Manufacturers were unable to meet the demand for goods; many were running extra time. In some southern mills two shifts were employed, and the machinery was operated day and night. Jobbers were clamorous to have their orders filled and in many cases gave orders for months in advance. But before the middle of the year the situation changed greatly. It became apparent that there was an oversupply of goods, and that the demand was lessened alarmingly. The Boxer rising in China put a check upon the increasing export trade to that Empire, and caused the southern mills, which had enjoyed a large share of that business, to become competitors with the northern mills in the home market. The situation was such at Fall River that the manufacturers of that city made an agreement, which was carried out, to curtail production by shutting down for four weeks in July and August. These peculiar circumstances would probably in any event have given an important check to the prosperity of the time, but there is little doubt that the large expansion of the southern industry—not only an increase of spinning capacity but a condition which made it profitable to run extra time—was the most potent agency in causing a temporary overproduction of goods. At all events at a period when general trade was excellent, when labor in all other industries was well employed and well paid, and when the spending power and the spending habit were at their best, the cotton manufacturing interest all at once found itself confronted by a large and rapidly accumulating stock of unsold goods. The situation was made even worse by a rise in the price of cotton at a time when goods could not be disposed of except at a sacrifice. The lowest quotation of spot cotton at New York from September, 1899, to September, 1900, was $6\frac{1}{8}$ cents, the highest was $10\frac{1}{4}$ cents, and the average $9\frac{1}{2}$ cents which average was $3\frac{1}{8}$ cents higher than the average for the preceding crop, betokening a general advance of 50.5 per cent in the cost to manufacturers of their raw material.

The unsatisfactory condition of the trade continued for more than a full year. About August, 1901, a revival began. It was seen first in the absorption of the surplus of print cloths at Fall River and in the better condition of the market for southern goods.

By the beginning of 1902 every department of the industry was in a healthy state. The export trade, which had fallen off greatly, took a strong and steady impulse for the better. The value of goods exported in the first six months of the calendar year 1902 was more than twice that of the last half of 1900. Wages which had been reduced were restored. These prosperous conditions lasted through the year 1902, but at the beginning of 1903 the trade encountered a series of disastrous influences, which continued until after the taking of the census of 1905. They affected the northern mills to a much greater extent than the southern. Indeed, the southern mills were affected so little directly that they were in effect benefited by the disasters of their northern competitors. The first of the adverse influences was the great advance in cotton as a result of almost unexampled speculation. The price in New York of middling uplands in the three cotton years (September to September) 1899–1900, 1900–1901, and 1901–1902 exhibited considerable fluctuation, but a remarkably steady average, as the following statement shows:

YEAR.	CENTS PER POUND.		
	Low.	High.	Average.
1899–1900.....	$6\frac{1}{8}$	$10\frac{1}{4}$	$9\frac{1}{2}$
1900–1901.....	8	12	$9\frac{1}{2}$
1901–1902.....	$7\frac{1}{8}$	$9\frac{1}{2}$	$9\frac{1}{8}$

The history of the cotton market during the next two years is not a subject to be entered on at length in this report. It is sufficient to say that whereas the price of cotton in the early months of the crop year 1902–3 ranged near 8 cents a pound, it rose under the influence of speculation, assisted by a short crop and by exaggerated low estimates of its amount, to a maximum of 13.5 cents and to an average for the whole year of 10.26 cents. The situation was even worse in the following year, 1903–4, for the lowest price was 9.5 cents, the highest 17.25 cents, and the average 12.58 cents—the highest average since the year 1874–75. The market for goods could not be forced to follow the price of cotton. Short time was the rule in a great many of the northern mills, and wages were cut down largely. It is to be noted, however, that the southern mills were not so much affected by the rise in cotton as the northern manufacturers, either because they purchased more largely before the rise or because they were nearer the source of supply. Labor troubles increased the difficulties of the New England manufacturers. There was a strike of nine weeks in Lowell in the spring of 1903, and in 1904 occurred the most protracted and most extensive strike that has ever been known in the cotton manufacturing industry in this country. In consequence of a resolution by the manufacturers of Fall River to reduce wages, a strike began in mills which

had more than 2,250,000 spindles and employed nearly 25,000 operatives. The employees first refused to work on July 25, 1904, and returned to the mills on January 18, 1905. The strike thus lasted only one week short of six months. In a certain sense it was a relief to the mill owners, since it saved them from the loss they would have suffered if they had continued to operate their machinery; but in another respect it was a deep and permanent injury to them, for their help sought employment elsewhere and could not be brought back when the trouble was over. Indeed, the manufacturers of Fall River have experienced a shortage of help ever since the strike of 1904. It is easy to see that the labor difficulty was a direct result of the artificial condition of the cotton market at and previous to the time it began, since the difference between the cost of goods at the prevailing rates on cotton and the price at which the goods could be sold compelled the manufacturers to take the step which led to the strike.

It has been necessary to make in the following pages almost wearisome repetition of the fact that the abnormal price of cotton and the Fall River strike caused such derangement of conditions as to render 1904 a year peculiarly unfit for comparisons, so far as the northern mills are concerned. In the year covered by the census of 1900 the New England mills paid for their domestic cotton—excluding sea-island—6.67 cents per pound, and the southern mills almost exactly the same—6.64 cents. In 1904, or the census of 1905, the New England mills paid 12.11 cents per pound on the average for their supply and the southern mills nearly a cent less—11.15 cents. The difference accounts in part for the fact that the southern mills could continue to run at a profit when those in the North were forced to shut down.

THE FOREIGN TRADE IN COTTON GOODS.

It was noted in the report of the Twelfth Census that during the preceding decade "for the first time in the history of American cotton manufacturing, the domestic market was more than once relieved and steadied by the exportation of goods to foreign markets." It will illustrate strongly the progress that has been made in the years since 1899 to change the form of the statement and say that during the ensuing five years the domestic market has been deranged and demoralized more than once by the failure of the foreign demand for American goods. The expansion of the industry has been so great that the output exceeds largely the amount necessary to supply the home market, and the increase of spindle and loom capacity is still at a higher rate than the increase in the consuming power of the American people.

Reserving for the moment a discussion of the export branch of the foreign trade, let us turn to Table 1, which presents in an abridged form the imports of manufactures of cotton since 1821 as contained in the report for the census of 1900, and continues the account to and including the fiscal year 1904-5.

Taking the import trade in cotton manufactures as a whole, we see that it has increased from an annual average of \$9,417,497 in value in the five years 1821-1825 to an annual average of \$47,122,800 in the years 1901-1905, or almost exactly fourfold. Meanwhile the average population of the country in the earlier lustrum may be taken as 10,000,000, that in the later lustrum as 80,000,000. This signifies that the population has increased at about twice the rate of the taking of foreign cotton goods during a period when the production and consumption of such articles showed an enormous expansion. But it would serve no good purpose and indicate no true result to leave the consideration of the facts at that point. An examination of the trade in detail is required if we would ascertain how far the country is dependent upon foreign cotton goods. The value of woven goods of all sorts imported amounted to 91.3 per cent of the total value of cotton goods imported in the years 1821-1825; they were 63.6 per cent of the total in 1851-1855; in the years 1891-1895 and 1901-1905 they were but little more than 16 per cent. The amount of cloth imported in the years 1861-1865, the first years in which the quantity was reported, averaged 20,264,531 square yards. In the years 1901-1905 it averaged 49,452,623 square yards. Thus, in spite of a greatly increased average consumption, the importation of cloth is less than two and a half times as much as it was forty years ago, and the increase is not much more than the production of a single moderate-sized American factory. On the other hand, there has been a great increase in the importation of embroideries, laces, and similar commodities which are classed at the custom-houses as cotton manufactures because the material is cotton, but which are not in any sense in competition with the articles classed as cotton goods in this report. They are cotton goods in the sense that watch springs are manufactures of steel, or as wood carvings are manufactures of lumber. Purchasers of foreign lawns, gingham, and other fine goods, few in number but persistent in their preference, require imported fabrics, regardless of whether they are better than the domestic, and regardless of the price. For this trade an extremely small quantity of cloth is imported. There are also small importations of yarns and of apparel, and a considerable amount of knit goods; but on the average of the last five years almost exactly one-half the total value of what are classed as foreign cotton manufactures consists of embroideries, laces, etc.

MANUFACTURES.

TABLE I.—ANNUAL IMPORTS OF MANUFACTURES OF COTTON: 1821 TO 1905.¹

PERIOD.	Total value.	CLOTHS.				Value of cloth ng, ready-made, and other wearing apparel, not including knit goods.	Value of embroideries, laces, insertings, trimmings, and lace curtains, cords, and gimps.	Value of knit goods made on knitting machines or knit by hand.	THREAD (NOT ON SPOOLS) YARNS, WARPS, OR WARP YARNS.		JEANS, DENIMS, AND DRILLINGS.		All other manufactures (value).
		Bleached and unbleached.		Printed, painted, and colored.					Pounds.	Value.	Square yards.	Value.	
		Square yards.	Value.	Square yards.	Value.								
1821 to 1825.....	\$47,067,487	\$15,554,005	\$27,441,735			\$2,963,151		\$752,825			\$375,771		
Annual average.....	9,417,497	3,110,801	5,488,347			592,630		150,565			75,154		
1826 to 1830.....	44,884,599	13,746,787	25,267,868			2,451,454		1,128,860			2,281,791		
Annual average.....	8,976,952	2,749,357	5,053,574			491,891		225,772			456,358		
1831 to 1835.....	59,663,042	12,538,328	38,883,167			4,202,554		1,970,861			2,062,102		
Annual average.....	11,932,618	2,507,680	7,776,633			840,513		395,372			412,420		
1836 to 1840.....	56,823,139	8,526,620	36,381,711			6,065,592		2,348,100			3,491,110		
Annual average.....	11,364,628	1,705,324	7,278,342			1,213,119		469,621			698,222		
1841 to 1845.....	51,709,107	6,746,994	32,809,354			4,763,514		2,550,048			4,929,116		
Annual average.....	10,357,821	1,349,399	6,561,871			952,719		510,009			985,823		
1846 to 1850.....	85,005,862	9,927,202	55,196,496			\$3,612,457		6,739,853			6,064,970		
Annual average.....	17,001,172	1,985,458	11,039,299			722,491		1,347,971			1,212,994		
1851 to 1855.....	125,045,957	21,459,115	58,049,244			15,046,131		12,342,129			13,119,461		
Annual average.....	25,009,187	4,291,023	11,609,849			3,011,226		2,468,426			2,623,822		
1856 to 1860.....	149,698,220	43,242,082	54,887,259			4,748,590		15,386,348			14,986,675		
Annual average.....	29,939,644	8,648,416	10,977,459			949,700		3,077,250			2,997,335		
1861 to 1865.....	69,014,716	48,694,928	5,837,570	52,027,714	21,633,993	2,561,291	5,848,528	5,980,308	2,569,700	\$406,835	27,557,001		
Annual average.....	13,802,943	9,738,988	1,171,514	10,525,543	4,326,618	512,258	1,169,706	1,198,080	513,941	93,367	5,511,400		
1866 to 1870.....	116,114,683	111,494,477	23,338,055	100,270,602	21,287,021	\$3,349,446	4,775,962	22,840,210	4,751,345	26,250,019	6,529,248		
Annual average.....	23,222,937	22,298,835	4,667,611	20,054,120	4,257,409	669,889	955,193	4,568,044	950,269	5,251,804	1,305,850		
1871 to 1875.....	156,317,681	159,571,062	20,033,212	140,640,128	10,387,625			25,556,007	10,731,804	2,748,101	88,542,736		
Annual average.....	31,263,536	31,914,212	4,006,643	28,138,026	3,877,525			5,111,201	3,946,812	549,620	17,718,547		
1876 to 1880.....	110,587,925	51,871,999	5,968,743	48,673,147	6,463,545			25,681,661	10,232,221	1,582,520	70,891,137		
Annual average.....	22,117,585	10,374,399	1,193,749	9,734,629	1,292,709			5,136,392	2,046,444	316,508	14,178,227		
1881 to 1885.....	158,696,177	36,946,972	4,073,830	64,758,602	7,813,583	1,201,212	20,135,628	37,754,726	2,805,179	1,991,979	24,895,570		
Annual average.....	31,739,235	7,384,394	814,766	12,951,720	1,562,716	240,242	4,027,126	7,550,945	561,036	398,386	4,979,114		
1886 to 1890.....	144,241,415	10,360,841	942,040	135,023,434	16,927,810	1,933,700	54,210,944	33,680,311	8,379,691	4,311,633	32,284,977		
Annual average.....	28,858,283	2,072,168	188,408	27,004,687	3,385,562	386,740	10,842,189	6,736,062	1,675,938	862,327	6,455,995		
1891.....	29,712,624	1,902,397	170,423	\$31,055,214	4,237,221	1,201,278	10,589,490	6,738,775	1,686,039	857,645	5,917,792		
1892.....	28,323,841	1,572,224	140,091	\$32,407,238	4,505,636	1,261,848	11,248,289	5,833,652	1,426,585	604,952	4,669,433		
1893.....	33,560,293	3,225,767	261,202	\$42,546,157	5,539,275	1,682,049	12,741,798	6,311,175	1,734,418	762,653	6,184,141		
1894.....	22,946,547	1,152,798	95,565	\$27,172,415	3,385,241	1,658,778	8,021,709	4,360,655	747,038	326,224	4,438,315		
1895.....	33,196,625	1,544,421	125,816	\$45,342,525	5,428,243	2,766,877	11,686,016	6,535,179	1,784,855	658,702	5,995,792		
Total, five years.....	147,139,939	9,297,607	793,607	\$178,523,549	23,032,646	8,570,830	54,257,302	29,890,430	7,378,935	3,270,176	27,265,473		
Annual average.....	29,427,986	1,859,521	158,602	\$35,704,710	4,618,529	1,714,166	10,857,472	5,972,087	1,475,787	654,035	5,453,095		
1896.....	32,437,504	2,136,657	179,364	\$41,161,822	4,921,060	2,683,315	10,878,954	6,190,672	2,431,855	872,067	6,712,072		
1897.....	34,423,363	3,177,241	273,654	\$35,937,975	4,404,025	2,627,222	12,573,207	5,596,703	1,664,217	647,388	8,307,164		
1898.....	27,267,900	1,530,108	130,767	\$43,258,291	5,313,683	1,050,554	11,708,704	4,034,483	1,817,970	687,909	4,291,110		
1899.....	32,054,434	1,250,932	107,023	\$51,190,230	6,649,014	1,027,306	14,550,015	4,335,269	2,325,974	849,819	4,535,988		
1900.....	41,296,238	3,061,790	357,604	\$61,985,063	8,156,301	1,231,231	19,208,165	4,715,762	5,272,491	2,098,958	5,528,218		
Total, five years.....	167,484,840	11,146,728	1,038,412	\$233,540,387	29,444,053	8,619,028	68,979,045	24,872,889	13,512,507	5,156,231	29,374,552		
Annual average.....	33,496,968	2,229,346	207,682	\$46,708,077	5,888,817	1,723,926	13,795,809	4,974,578	2,702,501	1,031,240	5,874,910		
1901.....	40,246,935	1,612,267	196,949	\$39,150,760	5,928,653	1,529,956	20,235,269	5,462,217	3,725,256	1,746,723	5,147,138		
1902.....	44,469,126	772,011	86,358	\$45,440,314	6,934,393	1,656,513	22,449,314	5,363,515	5,006,190	1,921,748	6,048,257		
1903.....	52,462,755	1,322,037	156,545	\$50,998,155	9,013,092	2,247,903	25,110,031	6,157,744	5,764,937	2,421,729	7,555,601		
1904.....	49,524,246	1,415,512	150,102	\$50,032,601	8,144,382	2,505,035	24,845,764	6,044,091	5,060,533	2,261,924	5,500,347		
1905.....	48,919,936	1,369,358	155,605	\$46,210,012	7,794,179	2,380,658	25,911,684	6,150,484	5,025,331	2,204,154	4,323,582		
Total, five years.....	235,613,968	6,431,155	754,677	\$240,831,962	37,814,700	10,320,065	118,555,142	29,178,651	24,582,247	10,556,278	28,434,485		
Annual average.....	47,122,800	1,286,231	150,936	\$48,166,392	7,562,940	2,064,013	23,711,028	5,835,730	4,916,449	2,111,256	5,688,897		

¹ Bureau of Statistics, Department of Commerce and Labor, "Commerce and Navigation of the United States."

² Includes "bleached."

Table 2, which exhibits the quantities and values of the reexports of foreign cotton goods, has been prepared and is printed merely to show accurately the net imports—the goods which have entered into con-

sumption. The amounts are small and do not tend to increase. Only twice in the last twenty years has the annual average value of reexports of cotton goods exceeded \$200,000.

TABLE 2.—ANNUAL EXPORTS OF FOREIGN MANUFACTURES OF COTTON: 1821 TO 1905.¹

PERIOD.	Total value.	CLOTHS.				Value of clothing—ready-made and other wearing apparel, not including knit goods.	Value of unbleached-laces, insertings, trimmings, and lace curtains, corbs, and gimps.	THREADS (SOFT ON SPOOLS), YARNS, WARPS, OR WARP YARNS.		JEANS, DENIMS, AND DRILLINGS.		All other manufactures (value).	
		Bleached and unbleached.		Printed, painted, and colored.				Pounds.	Value.	Square yards.	Value.		
		Square yards.	Value.	Square yards.	Value.								
1821 to 1825.....	\$10,885,280		\$5,742,069		\$4,808,412							\$94,870	
Annual average.....	2,177,056		1,148,414		961,063							18,974	
1826 to 1830.....	9,862,047		3,998,400		5,146,287							220,804	
Annual average.....	1,972,409		799,680		1,029,257							44,161	
1831 to 1835.....	14,620,134		5,144,419		8,339,354							529,013	
Annual average.....	2,924,027		1,028,889		1,664,071							105,803	
1836 to 1840.....	8,964,354		1,771,755		6,688,981							110,461	
Annual average.....	1,792,871		354,351		1,337,707							22,802	
1841 to 1845.....	2,981,765		528,679		1,888,592							74,364	
Annual average.....	596,353		105,736		377,718							14,873	
1846 to 1850.....	3,390,388		1,054,632		2,063,788		\$59,953					124,306	
Annual average.....	678,078		210,926		400,710		11,991					24,879	
1851 to 1855.....	6,568,820		2,734,308		2,205,984		232,206					650,382	
Annual average.....	1,313,764		546,862		441,017		46,433					130,076	
1856 to 1860.....	3,974,371		1,580,911		734,265		52,272					1,455,462	
Annual average.....	794,874		316,182		146,853		10,455					291,293	
1861 to 1865.....	2,433,923		32,301		67,934		14,510					2,305,512	
Annual average.....	486,785		6,460		13,587		2,902					461,302	
1866 to 1870.....	3,276,462	8,640,053	802,013	10,932,705	1,300,200	\$108,061	22,692			16,584	788,805	\$131,702	777,771
Annual average.....	655,292	1,728,011	160,403	2,186,541	272,040	21,612	4,538			3,317	157,761	26,352	155,754
1871 to 1875.....	6,735,302	21,293,269	1,677,177	31,074,772	3,497,061		105,311			2,220,073	388,180		1,083,007
Annual average.....	1,347,060	4,258,642	335,435	6,214,954	699,432		21,062			444,135	77,037		217,394
1876 to 1880.....	3,230,487	9,775,110	739,911	15,707,947	1,614,358		70,091			1,149,095	180,039		721,068
Annual average.....	646,097	1,955,022	147,982	3,140,589	302,873		14,018			230,819	36,008		144,363
1881 to 1885.....	1,908,122	4,778,095	330,700	5,334,442	475,035	17,934	39,146	63,000	10,223	3,400	907,444	130,214	852,018
Annual average.....	381,624	955,619	66,142	1,066,888	95,007	3,587	7,829	10,733	2,035	680	181,490	27,863	170,403
1886 to 1890.....	943,217	167,622	8,410	2,588,483	251,001	16,474	72,148	19,908	5,734	1,780			573,307
Annual average.....	188,643	33,324	1,684	517,007	50,200	3,295	14,430	3,980	1,147	356			114,670
1891.....	120,032	7,052	401	* 106,473	18,800	6,384	0,807	0,022	4,557	1,022			80,200
1892.....	141,203	720	40	* 298,005	20,044	7,708	0,244	10,007	0,244				76,130
1893.....	161,420	10,500	478	* 323,376	21,167	8,564	85,083	3,628	1,700	409			72,105
1894.....	212,360	18,305	1,384	* 324,256	32,862	21,735	25,746	11,510	20,101	5,524			113,683
1895.....	177,004	20,955	1,003	* 242,800	23,188	22,038	40,092	0,270	3,544	054			80,157
Total, five years.....	822,308	67,622	3,300	* 1,285,000	124,001	67,200	147,815	39,080	35,962	8,864			431,181
Annual average.....	164,462	11,524	674	* 257,004	24,818	13,440	29,563	7,816	7,192	1,773			86,230
1896.....	291,162	60,144	2,080	* 781,861	58,775	41,005	51,008	10,753	6,670	2,875			113,500
1897.....	235,212	6,237	292	* 313,100	28,614	20,092	26,245	17,010	1,509	590			131,809
1898.....	290,030	1,525	107	* 1,012,010	78,125	10,054	28,166	8,330	3,140	1,241			157,413
1899.....	179,351	18,501	1,104	* 215,440	19,040	12,417	14,012	7,324	3,062	1,244			122,701
1900.....	288,163	17,400	1,425	* 371,440	32,912	17,986	29,972	10,350	20,191	9,009			180,443
Total, five years.....	1,284,864	104,207	5,014	* 2,604,850	218,075	118,714	150,093	63,373	64,112	15,850			711,926
Annual average.....	256,973	20,841	1,003	* 520,971	43,615	23,743	30,000	12,676	8,822	3,172			142,385
1901.....	641,712			* 212,071	20,400	51,041	344,243	3,012	0,071	2,314			111,033
1902.....	218,881	20,505	2,204	* 128,058	16,080	21,154	13,671	7,500					158,770
1903.....	240,038	728	70	* 228,312	30,194	0,743	17,324	2,320	12,380	5,803			184,475
1904.....	343,608	26,602	932	* 204,307	30,015	10,880	24,852	58,412	3,632	1,001			216,720
1905.....	332,017	707	160	* 363,220	41,025	0,980	64,952	7,012	2,083	1,411			208,070
Total, five years.....	1,886,050	48,002	3,476	* 1,142,228	146,280	102,804	404,942	78,265	24,166	11,403			870,080
Annual average.....	377,210	9,600	695	* 228,446	29,256	20,561	80,988	15,653	4,833	2,280			174,038

¹ Bureau of Statistics, Department of Commerce and Labor, "Commerce and Navigation of the United States."

* Includes "bleached."

Table 3 is a statement of the quantity and value of domestic exports from 1826 to 1905, both years inclusive, by periods of five years, with the annual average

for each lustrum, and a statement by individual years from 1891 to 1905.

MANUFACTURES.

TABLE 3.—ANNUAL EXPORTS OF MANUFACTURES OF COTTON: 1826 TO 1905.¹

PERIOD.	Total value.	CLOTHS.				Wearing apparel (value).	All other manufactures (value).
		Uncolored.		Colored.			
		Square yards.	Value.	Square yards.	Value.		
1826 to 1830.....	\$5,885,411		\$4,637,597		\$396,840	\$850,974	
Annual average.....	1,177,082		927,519		79,368	170,195	
1831 to 1835.....	9,833,079		7,920,530		1,200,553	702,996	
Annual average.....	1,966,616		1,584,106		241,911	140,599	
1836 to 1840.....	16,370,602		12,705,759		1,870,108	794,735	
Annual average.....	3,274,120		2,541,152		374,021	158,947	
1841 to 1845.....	16,543,494		13,013,794		2,095,604	1,434,096	
Annual average.....	3,308,699		2,602,759		419,121	286,819	
1846 to 1850.....	23,013,762		18,783,667		2,086,243	2,143,852	
Annual average.....	4,602,752		3,756,733		417,249	428,770	
1851 to 1855.....	35,074,947		25,358,510		6,769,280	2,947,157	
Annual average.....	7,014,989		5,071,702		1,353,556	589,431	
1856 to 1860.....	37,985,008		12,057,614		11,499,063	14,428,331	
Annual average.....	7,597,002		2,411,523		2,299,813	2,885,666	
1861 to 1865.....	18,918,375	299,437	1,954,822	2,787,959	4,692,074	12,271,479	
Annual average.....	3,783,675	59,887	390,964	557,592	938,415	2,454,296	
1866 to 1870.....	20,920,968	28,178,007	4,757,784	10,124,404	1,795,844	14,367,340	
Annual average.....	4,184,194	5,635,601	951,557	2,024,881	359,169	2,873,468	
1871 to 1875.....	15,977,716	68,350,429	8,744,008	23,733,343	3,888,593	3,845,115	
Annual average.....	3,195,543	13,670,086	1,748,801	4,746,669	777,719	769,023	
1876 to 1880.....	50,232,549	377,519,482	30,928,096	166,729,055	13,065,548	6,239,205	
Annual average.....	10,046,570	75,503,896	6,185,619	33,345,811	2,613,110	1,247,841	
1881 to 1885.....	65,877,132	513,585,060	40,028,841	199,955,676	14,768,342	8,053,085	
Annual average.....	13,175,426	102,717,012	8,005,768	39,991,135	2,953,668	1,610,617	
1886 to 1890.....	62,114,386	548,437,085	37,388,407	256,099,421	16,447,283	6,570,152	
Annual average.....	12,422,877	109,687,417	7,471,681	51,339,884	3,289,457	1,314,030	
1891.....	13,604,857	135,529,590	9,277,112	39,016,682	2,590,934	1,458,642	
1892.....	13,226,277	142,938,871	8,673,603	40,815,450	2,484,360	1,635,152	
1893.....	11,809,355	100,776,006	6,306,022	43,016,108	2,802,462	2,248,515	
1894.....	14,340,880	124,349,278	7,639,851	61,538,458	3,854,935	2,369,483	
1895.....	13,789,810	125,790,318	7,034,678	58,467,743	3,444,539	2,791,863	
Total, five years.....	66,771,185	629,384,063	38,931,326	242,854,441	15,177,230	10,503,055	
Annual average.....	13,354,237	125,876,813	7,786,265	48,570,888	3,035,446	2,100,731	
1896.....	16,237,396	166,391,639	9,539,199	58,747,729	3,419,158	3,170,940	
1897.....	21,037,678	230,123,003	12,511,389	83,409,441	4,770,231	2,877,254	
1898.....	17,024,092	191,032,442	9,151,936	79,415,376	4,138,887	934,192	
1899.....	23,566,914	308,033,083	13,748,619	108,940,972	5,221,278	1,275,839	
1900.....	24,003,087	264,814,474	13,229,443	87,880,515	4,839,941	1,602,008	
Total, five years.....	102,469,187	1,154,985,241	58,180,536	418,394,033	22,339,045	16,499,994	
Annual average.....	20,493,833	230,997,048	11,636,117	83,678,807	4,477,809	3,299,999	
1901.....	20,272,418	135,554,132	7,581,812	115,949,219	6,554,255	4,481,545	
1902.....	32,108,352	358,004,521	18,501,908	146,769,292	7,359,288	2,050,592	
1903.....	32,216,304	325,867,530	16,909,436	169,511,667	8,443,143	2,600,136	
1904.....	22,403,713	166,060,758	9,256,922	91,319,979	5,439,277	2,700,420	
1905.....	49,666,080	566,584,218	33,995,134	127,916,497	7,325,408	3,477,652	
Total, five years.....	150,666,877	1,542,071,159	86,245,212	651,466,654	35,121,346	12,523,336	
Annual average.....	31,333,375	308,414,232	17,249,042	130,293,331	7,024,269	2,504,667	

¹ Bureau of Statistics, Department of Commerce and Labor, "Commerce and Navigation of the United States."

The history of the export trade in American cottons has been given in former reports on the censuses of 1890 and 1900 by the present writer. But it will be seen upon an inspection of the foregoing table that the situation with respect to this trade has changed materially during the last ten years. Prior to 1895 the total value of exports of American cottons had only once reached a value of \$14,000,000 in a year. In the fiscal year 1899-1900 the exports reached a value of \$24,003,087, the largest amount ever reported up to that time. The Twelfth Census, which covered the fiscal year ending May 31, 1900, showed that the total value of products of cotton mills was \$332,806,156. The exportation then amounted to 7.2 per cent of the production. By the present enumeration the total value of goods produced in 1904 was \$442,451,218, and the value of exports during the fiscal year 1904-5 was \$49,666,080, which was 11.2 per cent of the production and is both the largest amount and the highest percentage ever reported.

A consideration of the figures given in the table by single years brings out facts which, although well known by all persons conversant with the trade, should be noted in an official report. The maximum

value of \$24,000,000 reported in 1900 was followed by a fall in value to a little more than \$20,000,000 in 1901. In the following two years the reported value leaped to a new maximum, \$32,000,000 and over, succeeded by a sudden drop to \$22,000,000, which was more than doubled in the great year 1905, when the value was almost \$50,000,000.

We next observe that the goods classed as wearing apparel have shown a steady increase in every successive year since 1895, and that the value in 1905 was more than six times the value reported for 1895. The increase has not been uninterrupted for "all other manufactures" of cotton, but there have been no marked fluctuations, and such as have occurred do not correspond in point of time with the variations in the condition of the trade as a whole. Furthermore, the exportation of colored cloths, both in quantity and in value, has been fairly steady except for the year 1904. We see, then, that the wide fluctuations in the aggregate figures were caused almost wholly by disturbances in the trade in uncolored cloths. But as the transactions in both colored and uncolored cloths are important, both classes are included in the following statement, which shows for each year from 1900 to

1905 the value of the total exportation of cloth, the exportation to the Chinese Empire, and to the rest of the world:

Value of cloth exported.

YEAR.	Total.	To Chinese Empire.	Remainder.
1905.....	\$41,320,542	\$27,761,095	\$13,559,447
1904.....	41,695,199	4,091,952	10,665,247
1903.....	25,352,581	13,689,860	11,662,721
1902.....	25,861,190	10,382,698	9,478,498
1901.....	11,150,037	4,552,531	9,597,506
1900.....	18,068,931	8,783,131	9,285,800

No statement can be prepared that will show more plainly than does this the great relative importance of the trade with China and the sensitiveness of that trade to influences from within and from without. The Boxer troubles in 1901 caused a reduction of almost one-half in the Chinese takings of American cottons, as compared with the previous year, and the restoration of order enabled the exporters of this country to send nearly four times as great a value of cloth in the following years. The extraordinarily high price of cotton in 1904 reduced the exportation to less than that of the year when the peace of the Empire was disturbed. Whether the boycott of American goods has had any influence in retarding the growth of the trade is a fact not to be revealed by any commercial statistics that are available.

The exportation of cotton goods to other countries was for many years almost stationary in amount, but is at present showing a tendency to increase. The average annual value of such exports during the six years 1900-1905, inclusive, was \$10,695,870, and the largest amount in any one of those years was \$13,559,447. Whether the recent increase is temporary or prophetic of a further extension of the general trade, is a matter of conjecture. Certainly no change has occurred in the methods by which the export business is conducted, and the increase can not be attributed to unusual efforts on the part of American manufacturers and merchants.

Indeed the export trade—that with China as well as with other countries—may be described as an accident rather than a business. Up to a certain point it grew rather than was created. To a large extent it has consisted of merchandise ordered from abroad, and to a very small degree only of exports upon orders solicited by manufacturers or by selling agents.

The system upon which the English trade is organized greatly facilitates the traffic; that which has prevailed in this country until within a recent period discouraged rather than encouraged enterprise in the direction of a foreign trade. In England the spinning and weaving of cotton are seldom or never performed in the same mill. At the great exchange in Manchester weavers order from spinners the yarn which they require, of specified counts, grades, and quantity. Merchants engaged in the export trade order from weavers cloth of the constitution and

grade which they desire for a particular market. The finishing, marking, and packing are performed in still other establishments. Thus the exporter may obtain from one of many weavers goods to bear a particular brand, and it is his business and to his advantage to adhere exactly to a label when once he has obtained a market for the goods which bear it. He is also particular to see that the packing is uniform and efficient, so that purchasers in any part of the world shall be assured that they are receiving cloth of the quality to which they have become accustomed. It need not be said that those who are engaged in the business of shipping the goods familiarize themselves with the wants of foreign communities, are on their guard against competition, and exert themselves to the utmost to retain trade. Inasmuch as foreign prices to the consumer do not fluctuate with the variations in the price of American cotton, or with the price of labor and of cotton in manufacturing districts in England and the United States, the exporting merchants meet the conditions of the time by variations in the constitution of the fabrics exported—variations important to the shipper but imperceptible to the native buyer and wearer of the cloth—when the price of cotton is high, fewer threads to the inch in the warp and filling, and a little more sizing to give the fabric the usual substance and weight.

In all these particulars the trade in the United States was for a long time carried on upon a different system; in most of them it is so still. The practice of spinning and weaving in the same mill, complicated as it is by adding the finishing, marking, and packing to the processes also carried on in the same establishment, is one of the greatest obstacles to a large increase of the trade. There are mills in the United States which have had a foreign market for their goods for a half century by making a fabric identical in all these years and by adhering to a brand which has become known in other lands. Such cases are few. For the most part manufacturers produce goods designed for the home market and are indisposed, unless in the receipt of a large order, to change—to make yarn of different counts and quality and to weave cloths of different widths and in pieces of different lengths. They sell through selling agents—commission houses—which dispose of the product of the mills to wholesale and retail merchants, and which satisfy themselves and those for whom they act, if they succeed in doing that. These commission houses are not organized to seek new outlets for goods, nor is it to be expected of them, as a reasonable thing, that they should undertake it. They would receive no greater compensation if they did open new markets; and could retain such markets, if found, only by an expenditure of time and effort which their principals could not fairly ask them to incur.

A partial improvement of the situation has been brought about by the establishment of trading companies which undertake the exportation of goods.

They correspond to the exporting merchants of Great Britain, but are under serious disadvantage as compared with them, for reasons which have already been suggested. One former difficulty—that of obtaining from many mills fabrics of uniform constitution, adapted to the market for which they are destined—has been practically surmounted since a great many manufacturing companies in the Southern states have turned their attention almost exclusively to the production of goods for export. Inasmuch as such goods go for the most part to China and are of a few standard classes, a mill devoted to the manufacture of these fabrics can be operated with as little change as to the yarn spun and in its looms as the mills which make cloth for domestic consumption. But there is still the difficulty in the labeling of the goods so as to present the same general appearance to the native purchaser. Moreover, there are no factories in the United States which now practice, or ever in the past have practiced, the art of sizing, or loading, goods with China clay and other foreign substances so as to make up in weight and in the size of the yarn for a deficiency of cotton fiber. The trade of this country is consequently subject to the fluctuations, already mentioned, in the price of raw cotton and in the cost of labor. When these elements of the cost of cloth are too high, the export trade languishes or ceases altogether. It is therefore quite irregular in volume, being of large proportions in one month and dropping almost to nothing in the next.

The bargaining between the selling houses and the trading companies is carried on altogether through brokers. The trading companies are kept constantly informed by cable of the state of supply and demand in China and of the ability of the market to take goods. The brokers are in regular communication with the managers of the companies and keep a close watch upon prices in the domestic market. There is a certain amount of export trade to other countries than

China, but it is by no means organized so closely or nursed so attentively as the China trade. Although that trade is capable of great expansion under favoring circumstances, it must always be subject to large fluctuations for reasons already given; and unless a correction can be obtained by enlarging the number of markets for domestics the result, even of expansion, will be a demoralization of prices in the home market at irregular and not infrequent intervals. Inasmuch as the mills of the country have quite outgrown the home market, it is evident that a moderate increase only of spindle capacity will be required to supply the home demand and the requirements of a single important foreign market. Hence appears the desirability of energetic action, which must necessarily be undertaken by a powerful combination of manufacturing and commercial capital, to find new outlets for the American production in competition with spinners of England and the continent of Europe.

THE GENERAL PROGRESS OF THE INDUSTRY.

The most comprehensive statistics regarding the cotton manufacturing industry are presented in Table 4, which is a comparative summary exhibiting the leading facts at each enumeration since 1850. Prior to the census of 1900 all manufactures of cotton were included in this general classification. At the Twelfth Census a division was made, and there was a separate report on cotton small wares, which were there defined as consisting of the following classes of articles: Shoe and corset lacings, lamp and stove wicks, tapes, webbings (other than elastic), lace edgings, dress and upholstery trimmings. This division has been maintained, and the following tables are for such establishments only as are devoted exclusively to spinning, to weaving fabrics other than those just enumerated, or to spinning and weaving.

TABLE 4.—COTTON GOODS—COMPARATIVE SUMMARY, WITH PER CENT OF INCREASE: 1850 TO 1905.

	CENSUS.							PER CENT OF INCREASE.					
	1905	1900	1890 ¹	1880 ¹	1870 ¹	1860 ¹	1850 ¹	1900 to 1905	1890 to 1900	1880 to 1890	1870 to 1880	1860 to 1870	1850 to 1860
Number of establishments.....	1,077	973	905	756	956	1,091	1,094	10.7	7.5	19.7	20.9	21.4	20.3
Capital.....	\$605,100,164	\$460,842,772	\$354,020,343	\$208,280,346	\$140,706,291	\$98,585,269	\$74,500,931	31.3	30.2	70.0	48.0	42.7	32.3
Salaries of officials, clerks, etc., number.....	6,738	4,713	2,709	(²)	(²)	(²)	(²)	43.0	74.0	.....	.....	.....	.....
Salaries.....	\$9,911,787	\$7,123,574	\$3,464,734	(²)	(²)	(²)	(²)	39.1	105.6	.....	.....	.....	.....
Wage-earners, average number.....	310,458	297,929	218,876	174,659	135,369	122,028	92,286	4.2	36.1	25.3	29.0	10.9	32.2
Total wages.....	\$94,377,696	\$85,126,310	\$66,024,538	\$42,040,510	\$39,044,132	\$23,940,108	(²)	10.9	28.9	57.0	7.7	63.1	.....
Men 16 years and over.....	145,718	134,354	83,837	61,760	42,790	40,859	33,150	8.5	51.2	43.8	44.3	28.7	41.4
Wages.....	\$52,212,730	\$46,023,385	\$33,797,517	(²)	(²)	(²)	(²)	11.3	38.5	.....	.....	.....	.....
Women 16 years and over.....	124,711	123,709	100,607	84,558	69,637	75,169	59,136	0.8	16.0	26.1	21.4	27.4	27.1
Wages.....	\$35,872,510	\$32,917,033	\$20,165,086	(²)	(²)	(²)	(²)	9.0	12.9	.....	.....	.....	.....
Children under 16 years.....	40,029	39,866	24,432	28,341	22,042	(²)	(²)	0.4	70.1	17.3	23.5	.....	.....
Wages.....	\$6,292,456	\$5,285,012	\$3,061,935	(²)	(²)	(²)	(²)	19.1	72.6	.....	.....	.....	.....
Miscellaneous expenses.....	\$29,930,801	\$21,650,144	\$16,716,524	(²)	(²)	(²)	(²)	38.2	29.5	.....	.....	.....	.....
Cost of materials used.....	\$282,047,648	\$173,441,390	\$154,912,979	\$102,206,347	\$111,736,936	\$57,285,534	\$34,835,056	62.6	12.0	51.6	28.5	95.1	64.5
Value of products.....	\$442,451,218	\$332,806,166	\$267,981,724	\$192,090,110	\$177,489,739	\$113,681,774	\$61,869,184	62.9	24.2	39.5	8.2	53.4	87.0
Spindles, number.....	23,155,613	19,008,352	14,188,103	10,653,435	7,132,415	5,235,727	(²)	21.8	34.0	33.2	49.4	36.2	.....
Looms, number.....	540,910	450,682	324,966	225,750	157,310	126,313	(²)	20.0	38.7	43.0	43.5	24.5	.....
Cotton consumed, bales.....	3,743,089	3,639,495	2,261,600	1,570,344	(²)	(²)	(²)	2.8	60.9	44.0	.....	.....	.....
Cotton consumed, pounds.....	1,873,074,716	1,814,002,512	1,117,945,776	750,343,981	398,308,257	422,704,975	641,240	3.3	62.3	49.0	88.4	26.8	.....

¹ Includes cotton small wares.

² Decrease.

³ Includes proprietors and firm members, with their salaries; number only reported in 1900 and 1905, but not included in this table.

⁴ Not reported separately.

⁵ Not reported.

GEOGRAPHIC DISTRIBUTION OF THE INDUSTRY.

Viewed from any point the most important fact regarding the cotton manufacturing industry during the five years from 1900 to 1905 is the continued growth of the industry in the Southern states. This is not by any means a new development, but has been noted in the reports upon the censuses of 1890 and 1900. Nor has the rate of progress been either greatly accelerated or at any time since the movement began seriously retarded. It is true that the increase in the number of spindles in the Southern states has amounted to 3,210,561 in the five years under review, an average of 642,112 a year, as compared with a total of 2,744,188 during the preceding decade and an average of 274,419 annually. But the average rate of increase was 17.7 per cent annually in the decade, and only 14.9 per cent during the years 1900 to 1905. This may be set down as an example of the delusiveness of percentages, for the actual increase in the number of spindles during those five years was more than double the entire spinning capacity of the South in 1890.

No fact relating to the industrial progress of the country is more interesting, more important, or more significant to the student of social and economic conditions in the United States than the vigor, the persistency, and the success of the South in introducing this branch of manufacture. Combined with the manufacture of iron and steel it marks an industrial revolution in one-half of the country. Manifold evils sprang from the early division of the country into a manufacturing section and an agricultural section, neither of which could understand the other, sympathize with it, or lend cordial assistance in developing and promoting its interests. The change that has been wrought gives promise of a much more intimate political as well as commercial union than has ever existed, and a community of interest which carries with it the happiest augury for the future. The amazing growth of the industry at the South is a subject which will be frequently referred to during the progress of this report. The following statement shows the number of active establishments in the several geographic divisions of the country:

DIVISION.	1905	1900	1890 ¹	1880 ¹
United States.....	1,077	973	905	750
New England states.....	308	332	402	439
Middle states.....	204	225	239	139
Southern states.....	550	400	239	101
Western states.....	15	16	25	17

¹ Includes cotton small wares.

The foregoing statement is not to be taken as an indication that there has been a decline in the industry in all sections save the South. The large decrease in the number of establishments in New England and the Middle states in 1900 as compared with 1890 was due largely to the elimination from the general cotton schedules at the Twelfth Census of establishments then and now classified as "cotton small wares." During the last five years there has been a moderate consolidation of establishments, which reduces the apparent

number without involving the disappearance or disuse of any important mills. When the statistics of machinery and of products are exhibited, it will appear that the industry has grown in New England by the enlargement of existing establishments. In the South, in addition to the enlargement of the capacity of many mills, there has been a very great actual increase in the number of independent establishments, which have been located in new regions as well as in the neighborhoods where the industry had already been introduced. This fact is shown by a comparison of the number of active establishments in the several states of the South at the enumerations beginning with 1880.

Number of establishments in Southern states: 1880 to 1905.

STATE.	1905	1900	1890 ¹	1880 ¹
Total.....	550	400	239	101
Virginia.....	10	7	9	8
North Carolina.....	212	177	91	49
South Carolina.....	127	80	34	14
Georgia.....	103	67	53	40
Alabama.....	46	31	13	16
Mississippi.....	14	6	9	8
Louisiana.....	3	2	2	2
Texas.....	13	4	1	2
Arkansas.....	2	2	2	2
Tennessee.....	16	17	20	16
Kentucky.....	4	6	5	3

¹ Includes cotton small wares.
² Includes West Virginia, 1 establishment.
³ Includes Florida, 1 establishment.

These figures are presented with a caution against drawing from them too broad inferences. Establishments may be large or small. The statistics, even when nothing is shown but an enumeration of mills, do indicate a spread of the industry, and success is commonly followed by enlargement of capacity.

A far more significant indication of progress is given by a comparison in terms of that which is the universal standard in cotton manufacturing. The facts will be given again in the detailed discussion of machinery, but in order to exhibit the situation at a glance in this connection the following statements have been prepared to make clear the present distribution of the industry and the recent progress of the individual Southern states:

Producing spindles, by geographic divisions: 1905 and 1900.¹

DIVISION.	1905	1900	Increase.
United States.....	23,155,013	10,008,352	4,147,201
New England states.....	13,911,241	12,850,087	1,060,254
Middle states.....	1,548,719	1,047,251	408,532
Southern states.....	7,508,740	4,208,188	3,210,561
Western states.....	180,904	211,020	25,022

¹ Does not include cotton small wares. ² Decrease.

Producing spindles in Southern states: 1905 and 1900.¹

STATE.	1905	1900	Increase.
Total.....	7,508,740	4,208,188	3,210,561
Virginia.....	109,002	126,827	66,235
North Carolina.....	1,890,950	1,130,432	747,518
South Carolina.....	2,504,002	1,431,640	1,432,743
Georgia.....	1,316,873	815,645	501,028
Alabama.....	758,087	411,323	346,769
Mississippi.....	126,332	75,122	50,230
Louisiana.....	56,052	56,000	3,452
Texas.....	13,844	9,700	4,144
Arkansas.....	68,170	48,760	10,414
Tennessee.....	153,376	123,806	20,470
Kentucky.....	76,192	60,633	9,559

¹ Does not include cotton small wares.

In order to complete the record the following statement is given, continuing a table presented in the reports for the Eleventh and Twelfth censuses, showing by years, since 1880, the number of spindles in southern mills and their consumption of cotton during the year. The figures, except for the census years 1890 and 1900, are compiled from the files of the New York Commercial and Financial Chronicle, which receives annually returns from all southern mills. These returns prior to 1888 were estimates, but since then are based on statements from the mills. The report of the Chronicle for the year 1904-5 has been retained in the statement instead of the present census figures, for the reason that it covers a period of twelve months widely different from the census year. The Chronicle follows the custom of the trade in obtaining returns for the crop year from September 1 to August 31. The census year now reported therefore includes eight months of the Chronicle's year 1903-4 and four months of its year 1904-5.

Spindles in southern mills, and their consumption of cotton: 1880 to 1905.

YEAR.	Number of spindles.	Number of bales of cotton used.
1904-5	8,050,879	2,203,406
1903-4	7,387,358	2,007,509
1902-3	6,714,589	2,040,902
1901-2	6,179,421	1,942,881
1900-1901	5,473,883	1,607,012
1899-1900	4,298,183	1,477,775
1898-99	3,832,201	1,400,026
1897-98	3,574,754	1,227,939
1896-97	3,197,545	1,024,482
1895-96	2,770,284	915,810
1894-95	2,379,281	853,352
1893-94	2,167,242	723,329
1892-93	2,082,197	733,701
1891-92	1,938,524	681,471
1890-91	1,750,047	605,916
1889-90	1,554,000	520,856
1888-89	1,344,576	480,603
1887-88	1,177,901	443,373
1886-87	1,225,000	397,329
1885-86	1,200,000	340,000
1884-85	1,150,000	260,000
1883-84	1,100,000	334,000
1882-83	850,000	331,000
1881-82	850,000	235,000
1880-81	610,000	205,000

In the two sectional divisions in which the industry has never been established on a large scale there has been an actual decrease in the number of spindles. In New England the increase was not large, slightly more than 1,000,000 spindles, about $8\frac{1}{2}$ per cent, whereas the South added nearly 3,250,000 spindles, or almost 75 per cent of the number in its mills in 1900. There was an increase in every state reporting, but it was greatest in South Carolina, which more than doubled the number of spindles in five years and assumed the second rank as a cotton manufacturing state, displacing Rhode Island which had occupied that position for many years. The growth in North Carolina, Georgia, and Alabama was only less notable than that in South Carolina; and these four states with their 6,819,702 spindles exceed by more than 1,300,000 the spindle capacity of the New England states outside of Massachusetts.

Nevertheless it remains true that New England has a long lead over the South, and that the spindle capacity of Massachusetts alone is greater than that of all the Southern states combined. It is idle to speculate how long this supremacy will continue. In 1870 the six New England states had 77 per cent of all the spindles in the country. In 1880 this proportion had increased to 81 per cent; but it declined again to 76.4 per cent in 1890, and to 67.6 per cent in 1900. At the present enumeration the proportion is almost exactly 60 per cent.

CAPITAL.

The capital employed in the cotton manufacture increased 31.3 per cent between 1900 and 1905, a greater rate of increase, upon a larger sum as a basis, than the increase from 1890 to 1900, which was 30.2 per cent. The items of capital which are given in the detailed summary appended to this report present some facts of interest. Dividing the capital into the several elements of which it is composed, the value of land increased in the last five years from \$22,546,549 to \$26,351,753, a difference of \$3,805,204, or 16.9 per cent; of buildings, from \$91,621,757 to \$115,361,238, a gain of \$23,739,481, or 25.9 per cent; of machinery, etc., from \$181,009,280 to \$245,766,621, a gain of \$64,757,341, or 35.8 per cent; and the cash and sundries item, from \$165,665,186 to \$217,620,552, an increase of \$51,955,366, or 31.4 per cent. These changes are not easy to explain, and are not, perhaps, of great significance. Examined in detail, it appears that the value of land occupied by cotton manufacturing establishments in Massachusetts exhibits a decrease of about \$1,350,000, or more than 15 per cent. Inasmuch as the land value reported by Massachusetts was almost 40 per cent of the total in 1900, this decrease alone serves to account for the small increment in the whole United States at this enumeration. Eliminating Massachusetts from the total, the land value in the rest of the country shows an increase of about 37 per cent. The greatest increase in the several items of capital is in machinery, etc., and this is true of the whole country, of the several sections, and of most of the states. South Carolina, for example, shows the prodigious increase of 123.8 per cent; North Carolina, of 74.9 per cent; Georgia, of 80.5 per cent; and Alabama, of 131.7 per cent.

EMPLOYEES AND WAGES.

Number.—The average number of persons employed in cotton manufacturing establishments in 1900, including officers and clerks, was 302,642. The corresponding figure in 1905 was 317,196. The increase, 14,554, or 4.8 per cent, was far smaller than would have been expected considering the great expansion of the industry and the enlarged machinery capacity of the old and new mills. Table 5 will throw some light upon this circumstance.

COTTON MANUFACTURES.

TABLE 5.—COTTON GOODS¹—WAGE-EARNERS, AVERAGE NUMBER OF MEN, WOMEN, AND CHILDREN, BY GEOGRAPHIC DIVISIONS: 1880 TO 1905.

DIVISION.	TOTAL.				MEN 16 YEARS AND OVER.				WOMEN 16 YEARS AND OVER.				CHILDREN UNDER 16 YEARS.			
	1905	1900	1890	1880	1905	1900	1890	1880	1905	1900	1890	1880	1905	1900	1890	1880
United States.....	310,458	297,929	218,876	172,544	145,718	134,354	88,837	59,685	124,711	123,709	106,007	84,539	40,029	39,866	23,432	23,320
New England states....	155,981	162,294	147,359	125,779	76,483	78,217	63,749	45,521	70,113	73,258	73,445	62,554	9,385	10,819	10,165	17,704
Middle states.....	31,871	34,843	31,841	28,118	13,875	14,473	11,580	8,919	15,213	16,056	16,240	13,185	2,783	4,314	4,021	6,014
Southern states.....	120,110	97,494	36,415	16,317	54,621	40,528	12,517	4,633	37,913	32,525	15,083	7,587	27,571	24,438	8,815	4,097
Western states.....	2,496	3,298	3,261	2,330	739	1,136	991	612	1,467	1,807	1,830	1,213	290	295	431	505

¹Includes cotton small wares in 1890 and 1880.

It will be observed in the first place that there is a noticeable falling off in the average number of wage-earners in the New England states, amounting to 6,313, or very nearly 4 per cent. An examination of the detailed summary at the end of this report will disclose the fact that almost two-thirds of this decrease occurred in Massachusetts, where the number of employees fluctuated between a maximum of 100,982 and a minimum of 82,106. The average number was 88,033 against a similar average of 92,085 in 1900. The explanation of a diminution where there has been no decline in the industry, is the occurrence in Fall River, the chief manufacturing city, of the prolonged labor struggle already mentioned, which not only stopped production altogether for half a year but was followed by a long period when the managers of mills

were unable to obtain help, since a very large number of their former employees had dispersed to their homes or had removed to other manufacturing centers.

But this fact would account only partly for the low rate of increase in the country as a whole. The South added nearly 75 per cent to the number of its spindles, but it reports an addition of only 22,616, or 23.2 per cent, to the number of wage-earners. This difference can no doubt be explained in large part by the fact of more efficient help and improved machinery. As regards the class of the help, the foregoing table furnishes some interesting evidence which also serves to confirm the opinions set forth in the report on the census of 1900. In order to understand the facts upon which these statements are made, it is necessary to study the percentages in Table 6, in connection with the numbers in Table 5.

TABLE 6.—COTTON GOODS¹—WAGE-EARNERS, PERCENTAGE OF MEN, WOMEN, AND CHILDREN, BY GEOGRAPHIC DIVISIONS: 1880 TO 1905.

DIVISION.	MEN: PER CENT OF ALL WAGE-EARNERS.				WOMEN: PER CENT OF ALL WAGE-EARNERS.				CHILDREN: PER CENT OF ALL WAGE-EARNERS.			
	1905	1900	1890	1880	1905	1900	1890	1880	1905	1900	1890	1880
United States.....	46.0	45.1	40.0	34.0	40.2	41.5	48.7	49.0	12.9	13.4	10.7	16.4
New England states....	40.0	48.2	43.3	36.2	45.0	45.1	40.8	40.7	6.0	6.7	6.9	14.1
Middle states.....	43.6	41.5	38.4	31.7	47.7	46.1	51.0	46.9	8.7	12.4	12.6	21.4
Southern states.....	45.5	41.6	34.4	28.4	31.6	33.4	41.4	40.5	22.9	25.0	24.2	25.1
Western states.....	30.0	34.4	30.4	20.3	58.8	56.0	56.4	52.0	11.0	9.0	13.2	21.7

¹Includes cotton small wares in 1890 and 1880.

In 1880 the men employed in cotton mills constituted a little more than one-third of the whole number employed, women constituted almost one-half, and about one-sixth were children. At every subsequent enumeration the proportion of men has increased and that of women has decreased. In the whole country at the present census 46.9 per cent of the hands employed were men, against 45.1 per cent in 1900; 40.2 per cent were women, against 41.5 per cent in 1900; and 12.9 per cent were children, against 13.4 per cent in 1900. The percentages of change seem small at first sight, but when we are dealing with such numbers as 145,718 men and 124,711 women, the actual change is important. Or, to take the actual numbers, it is found that the industry employed 11,364 more men in 1905 than in 1900, whereas the addition to the number of women was only 1,002, and of children only 163. There are many processes in a cotton mill for which female labor is perfectly adapted, and some which can be performed by children. But experience everywhere has shown that child labor is not economical. It is employed to a cer-

tain extent for reasons that were given in a former report—for lack of other labor, or because the parents employed in a mill require that employment shall be given to their children. The only region of the country where the proportion of children employed increased between 1890 and 1900 was the South, and there both the reasons just given were prevalent. In the period between 1900 and 1905 the only division of the country which exhibited a proportional increase was the West, and even there the actual number was not only insignificant, but has diminished. In all the divisions except the South there was a diminution in the number of children employed. The actual addition to the number in the Southern states was only 3,133 out of a total increase of all ages and both sexes of 22,616, or less than 14 per cent. This is an indication that the movement, both economical and sociological, which has been in progress elsewhere, is making headway at the South.

As regards the employment of women, the argument for economy is not quite so strong as in the case of children. Nevertheless, as has been pointed out before, the number of places in which women can profitably be

employed in a cotton mill in preference to men or on an equality with them, steadily decreases as the speed of machinery increases and as the requirement that one hand shall tend a greater number of machines is extended. Accordingly we find that without any concert of action—perhaps unconsciously to the general body of manufacturers—there is a slow but steady displacement of women by men. In the New England states, in twenty-five years, the proportion of women employed has dropped from 49.7 per cent to 45 per cent; that of men has risen from 36.2 per cent to 49 per cent.

Skilled operatives.—At this census, for the first time, there has been a successful enumeration of the spinners and weavers in cotton mills. An attempt in this direction was made at the Twelfth Census, but the form of the questions put to manufacturers was defective and consequently was not understood uniformly by those who made returns. The full statistics by states are to be found in Table 21 at the end of this report. The totals by geographic divisions are presented in the following tabular statement:

DIVISION.	SPINNERS.		Weavers.
	Mule.	Frame.	
United States	4,866	55,488	98,807
New England states.....	3,691	18,715	53,932
Middle states.....	714	1,745	9,793
Southern states.....	434	34,569	34,246
Western states.....	27	459	836

It will be seen that the mule spinners, who represent the operation in cotton mills requiring the greatest skill, numbered 4,866. They are almost exclusively men, and more than three-fourths of all the mule spinners were employed in New England factories. The frame spinners were more than eleven times as numerous, forming a body of 55,488. Of these, 10,709 were men, 25,701 were women, and 19,078 were children under 16 years of age. It is interesting to note the difference in the practice of manufacturers in the several geographic divisions of the country with respect to the employment of men, women, and children as frame spinners. The following statement exhibits the facts:

DIVISION.	FRAME SPINNERS.		
	Men.	Women.	Children.
United States.....	10,709	25,701	19,078
New England states.....	3,803	12,377	2,535
Middle states.....	187	1,276	282
Southern states.....	6,637	11,723	16,209
Western states.....	82	325	52

It appears that in New England practically two-thirds of the frame spinners were women, and that the number of children engaged in the care of spinning frames was much less than that of men; whereas in the South nearly one-half of the frame spinners were children and nearly two-thirds of the rest were women.

The number of weavers reached an aggregate of 98,807, of whom about 55 per cent were in New England mills and more than 33 per cent in southern mills. The number of men weavers exceeds that of women in the

South, but in the New England mills the reverse is the fact. The number of men in New England factories was 24,767 and of women, 28,449; in the South the number of men was 19,076 and of women, 13,828.

The spinners and weavers reported were, in the aggregate, 159,161. These two classes of skilled operatives compose very slightly more than one-half of all the wage-earners in the cotton mills of the country.

Wages.—The sum of \$94,377,696 was paid to wage-earners in cotton mills during the census year, an increase of \$9,251,386 over that paid in 1900, or 10.9 per cent, which was more than two and a half times the rate of increase in the number of wage-earners. This indicates in a general way what is otherwise known to be the fact, that there was a moderate increase in wages during the five-year period. If in the same way we examine the situation with respect to men, women, and children, the same result is indicated, namely, that the annual average earnings of each class of employees were larger in 1905 than in 1900. But the indications from such tables as these should be taken with the utmost caution, since at the best they are but averages of different things under widely varying circumstances.

MISCELLANEOUS EXPENSES.

Table 7 is a comparative summary of miscellaneous expenses in cotton mills, showing the per cent that each item is of the total for 1890, 1900, and 1905.

TABLE 7.—Cotton goods¹—miscellaneous expenses,² with per cent of total: 1890 to 1905.

	1905		1900		1890	
	Amount.	Per cent of total.	Amount.	Per cent of total.	Amount.	Per cent of total.
Total.....	\$29,479,984	100.0	\$20,057,190	100.0	\$16,716,524	100.0
Rent of works.....	659,745	2.2	691,075	3.4	488,735	2.9
Taxes.....	4,141,364	14.1	3,521,606	17.6	2,689,632	16.1
Rent of offices, interest, insurance, and all other sundry expenses.....	24,678,875	83.7	15,844,509	79.0	13,538,157	81.0

¹Includes cotton small wares in 1890.

²Exclusive of amount paid for contract work.

It is probable that few other large industries report so small a percentage of their outgo in the rent of works as does that of cotton manufacturing. In 1890 the value of land and buildings owned by manufacturers was \$92,967,761, and the amount paid for rent of works was \$488,735. In 1900 the value of land and buildings was \$114,168,306, and the rent paid was \$691,075. Estimating the rent paid at 6 per cent of the value of property rented, the value of buildings, etc., not owned would have been \$8,145,583 in 1890 and \$11,517,917 in 1900, or about one-tenth of the value of property owned. But in 1905 the value of land and buildings owned was \$141,712,991 and the value of property hired—estimating the rent paid (\$659,745) to have been 6 per cent of its value—was \$10,995,750, or about one-thirteenth of the value of property owned. It is the almost universal practice of cotton manufacturers to own the factories occupied. This is not true of the weaving establishments in Pennsylvania, particularly in Philadel-

phia. In that state the rent of works occupied was \$144,157—more than one-fifth the amount so paid in the whole country. The other items entering into the class of miscellaneous expenses call for no special comment.

MATERIALS USED.

Cotton.—The aggregate consumption of cotton in all the textile mills of the country during the census year is discussed under "combined textiles." The consumption in cotton mills proper was 3,743,089 bales, purchased at an aggregate cost of \$221,821,944. The facts regarding the number of running bales and their weight, classified as sea-island, other domestic, and Egyptian and other foreign, in 1900 and 1905, are exhibited in the following statement:

	1905		1900	
	Bales.	Pounds.	Bales.	Pounds.
Total.....	3,743,080	1,873,074,716	3,639,495	1,814,002,512
Sea-island.....	54,384	21,862,032	47,207	18,442,634
Other domestic.....	3,629,085	1,807,512,278	3,516,080	1,739,714,040
Egyptian and other foreign.....	59,620	43,700,406	76,208	55,844,832

Sea-island cotton.—There was a small increase in the consumption of sea-island cotton as compared with 1900, and a larger decrease in the consumption of Egyptian. It is not to be inferred that these changes betoken any settled tendency in the manufacture with respect to either of these classes of materials, but merely a casual annual fluctuation. The average cost of sea-island cotton to the mills at the census of 1905 was 19.45 cents per pound; of Egyptian, 17.38 cents.

"Other domestic" cotton.—The chief material is of course the domestic cotton which is made into yarn and woven goods for the ordinary use of the people and for export. The increase in the consumption of such cotton from 1900 to 1905 is apparently not large, but

this was due to the protracted strike in Fall River, the chief cotton manufacturing city in the country. The consumption was 3,629,085 bales as compared with 3,516,080 bales in 1900, an increase of only 3.2 per cent. The average weight of bales for the census of 1905 was slightly in excess of 498 pounds as compared with 494.8 pounds in 1900.

The consumption of "other domestic" cotton by bales and pounds and the average weight of bales, by geographic divisions, for 1900 and 1905, was as follows:

DIVISION.	1905			1900		
	Bales.	Pounds.	Average weight.	Bales.	Pounds.	Average weight.
United States.....	3,629,085	1,807,512,278	498.1	3,516,080	1,739,714,040	494.8
New England states.....	1,558,094	794,520,557	509.9	1,719,022	874,011,257	508.3
Middle states.....	221,643	111,973,163	505.2	272,947	135,004,071	494.6
Southern states.....	1,813,359	892,018,302	486.8	1,477,775	707,159,521	478.5
Western states.....	36,689	18,100,108	507.2	46,730	23,539,197	514.7

It is impossible to state definitely whether the amount of cotton reported by the mills represents gross or net weight, but it is believed that in most cases the gross weight, including the "tare," was returned. The usual allowance for "tare" for sea-island is 10 pounds per bale and for "other domestic," 22 pounds per bale.

As has appeared at every preceding census, the weight of bales consumed in the northern mills is heavier than those used by the southern mills. The reason is evident in the greater proportion of cotton used by the mills of New England, which is grown in the southwestern states, where the bales are heavier on the average than those from the seaboard states, which are largely consumed by local mills.

Table 8 presents the production and distribution of the cotton crop of the United States for twenty-six years, 1880 to 1905, inclusive.

TABLE 8.—QUANTITIES OF RAW COTTON PRODUCED, IMPORTED, EXPORTED, AND RETAINED FOR CONSUMPTION: 1880 TO 1905.¹

YEAR ENDING JUNE 30—	PRODUCTION.		Exports of domestic (pounds).	Domestic retained for consumption (pounds).	Imports (pounds).	Exports of foreign (pounds).	Foreign retained for consumption (pounds).	Total consumption, domestic and foreign (pounds).	Per cent of domestic product exported.
	Annual crop ² (bales).	Crop in pounds, gross weight.							
1905.....	13,565,885	6,004,281,731	4,304,848,003	2,080,432,828	60,508,548	650,204	59,858,254	2,749,201,082	61.55
1904.....	10,011,374	5,082,710,711	3,063,192,760	2,019,517,051	48,840,500	1,701,051	47,138,939	2,005,656,890	60.27
1903.....	10,727,559	5,440,610,421	3,549,043,022	1,906,507,300	74,874,429	1,475,494	73,398,932	1,979,065,331	65.01
1902.....	10,080,080	5,430,326,773	3,500,778,763	1,929,548,010	98,715,080	97,245,114	2,029,703,124	2,029,703,124	64.47
1901.....	10,383,422	5,208,402,830	3,330,800,448	1,967,512,382	46,031,283	306,452	46,337,735	2,013,837,213	62.87
1900.....	9,430,410	4,767,062,042	3,100,683,188	1,650,470,754	67,308,521	1,381,403	66,017,058	1,722,400,812	65.18
1899.....	11,274,840	5,794,707,917	3,773,410,293	2,021,357,024	50,158,158	293,088	49,864,170	2,071,221,704	65.12
1898.....	11,109,904	5,077,250,827	3,850,294,295	1,826,065,532	52,600,303	499,084	52,100,079	1,879,150,211	67.82
1897.....	8,767,004	4,307,177,704	3,103,754,040	1,203,422,755	51,808,926	1,188,523	50,710,403	1,344,133,168	70.59
1896.....	7,167,346	3,592,416,861	2,335,226,385	1,257,190,406	55,350,520	1,188,350	54,162,164	1,311,352,030	65.00
1895.....	9,901,251	5,036,904,409	3,517,533,109	1,510,431,300	49,332,022	771,614	48,560,408	1,567,991,708	69.89
1894.....	7,549,817	3,709,381,478	2,083,282,325	1,086,090,153	27,705,949	1,029,030	26,676,013	1,112,775,100	71.19
1893.....	6,700,305	3,362,658,458	2,212,115,120	1,140,543,332	43,367,952	300,832	43,067,120	1,183,550,452	65.98
1892.....	9,035,379	4,506,575,984	2,635,219,811	1,571,356,173	28,663,769	132,777	28,530,992	1,599,887,165	65.13
1891.....	8,052,907	4,319,043,982	2,007,358,795	1,408,085,187	20,908,817	447,704	20,461,023	1,429,146,210	67.36
1890.....	7,311,322	3,627,306,183	2,471,700,853	1,155,596,330	8,606,040	248,104	8,357,945	1,163,924,275	68.14
1889.....	6,938,200	3,430,934,700	2,384,816,609	1,055,118,130	7,973,039	187,950	7,785,080	1,062,003,210	69.33
1888.....	7,046,833	3,430,172,331	2,204,120,826	1,175,061,505	5,497,592	203,072	5,294,520	1,180,345,185	65.83
1887.....	6,605,087	3,157,378,443	2,100,457,330	987,021,113	3,924,531	716,371	3,208,160	991,129,273	68.71
1886.....	6,575,601	3,182,365,669	2,058,037,444	1,124,268,215	5,072,334	1,276,001	3,795,373	1,128,063,588	64.07
1885.....	5,705,165	2,742,906,011	1,891,659,472	851,306,530	5,115,080	1,609,200	3,506,400	854,812,200	68.06
1884.....	5,713,200	2,757,544,422	1,862,572,530	894,071,892	7,019,492	1,353,036	5,665,556	900,637,448	67.54
1883.....	6,949,756	3,405,070,410	2,288,075,062	1,116,905,348	4,081,945	3,238,930	803,515	1,117,838,303	67.20
1882.....	5,450,948	2,588,240,050	1,730,975,901	848,264,089	4,331,952	1,843,490	2,486,462	850,700,551	67.23
1881.....	6,005,750	3,199,822,682	2,101,928,772	1,007,893,910	4,449,806	1,240,200	3,209,200	1,011,403,200	68.59
1880.....	5,701,252	2,771,707,150	1,822,061,114	949,730,042	3,547,792	234,720	3,313,063	953,040,105	65.74

¹ Bureau of Statistics, Department of Commerce and Labor, "Statistical Abstract of the United States," 1905, page 440.
² The "annual crop" represents the commercial movement for the years ending August 31.

MANUFACTURES.

The cotton consumed in the United States in the census year was mainly that of the crop of 1903-4, the aggregate amount of which retained for consumption, together with the foreign supply, amounted to 2,066,-656,890 pounds. The amounts consumed in the several branches of the textile industry as reported at this census were as follows:

	Pounds.
Total.....	11,981,760,046
Cotton goods.....	1,873,074,716
Cotton small wares.....	3,362,434
Hosiery and knit goods.....	50,586,760
Wool manufactures.....	36,593,401
Flax, hemp, and jute products.....	18,142,735

¹In addition 44,400 pounds of cotton were consumed by shoddy mills.

The census figures thus account for the consumption in the textile industries of 95.9 per cent of that reported as retained for consumption. There are various other uses of cotton the amount of which is not disclosed by any returns to the Census Bureau.

Table 9 exhibits the quantity, cost, and cost per pound of "other domestic" cotton consumed, by states, in 1880, 1890, 1900, and 1905. It is necessary to explain that the returns for 1880 and 1890 include the figures for "cotton small wares" establishments, which are excluded from the figures for the two later enumerations, and that the weight of bales is gross weight, including the "tare."

TABLE 9.—COTTON GOODS¹—QUANTITY AND COST OF DOMESTIC COTTON, OTHER THAN SEA-ISLAND, CONSUMED, BY STATES AND GEOGRAPHIC DIVISIONS: 1880 TO 1905.

STATE.	1905				1900			
	Bales.	Pounds.	Cost.	Cost per pound (cents).	Bales.	Pounds.	Cost.	Cost per pound (cents).
United States.....	3,629,085	1,807,512,278	\$209,972,665	11.62	3,516,080	1,739,714,946	\$116,108,879	6.67
New England states.....	1,558,094	794,520,587	96,227,838	12.11	1,719,622	874,011,257	58,329,174	6.67
Maine.....	130,949	67,023,278	7,721,945	11.52	156,674	79,212,256	5,400,379	6.82
New Hampshire.....	200,928	133,968,552	15,540,053	11.60	271,202	136,805,127	9,394,629	6.87
Vermont.....	9,613	4,887,577	628,710	12.89	12,493	6,410,674	385,461	6.01
Massachusetts.....	906,100	459,112,907	56,814,823	12.37	1,015,305	517,088,846	33,771,414	6.53
Rhode Island.....	161,583	83,667,965	10,112,074	12.09	170,514	86,712,236	6,074,331	7.01
Connecticut.....	88,921	45,860,308	5,409,633	11.80	93,374	47,782,119	3,303,060	6.91
Middle states.....	221,643	111,973,103	13,166,496	11.76	272,947	135,004,971	9,327,774	6.91
New York.....	99,297	50,653,472	6,002,262	11.85	99,064	50,464,770	3,513,661	6.96
New Jersey.....	17,475	8,629,385	1,041,463	12.07	15,872	8,183,469	541,858	6.62
Pennsylvania.....	49,442	24,800,714	2,742,502	11.06	74,382	35,083,214	2,521,768	7.19
Delaware.....	(²)	(²)	(²)	.....	2,675	1,371,563	106,358	7.75
Maryland.....	55,429	27,889,532	3,380,209	12.12	80,954	39,901,955	2,644,129	6.63
Southern states.....	1,813,659	882,918,392	98,456,910	11.15	1,477,775	707,159,521	46,988,926	6.64
Virginia.....	46,296	23,018,074	2,596,425	11.28	38,118	17,832,465	1,154,215	6.47
North Carolina.....	497,947	239,301,308	27,340,920	11.43	404,148	189,984,759	13,604,720	7.16
South Carolina.....	555,407	269,045,002	30,451,153	11.32	485,024	229,899,760	14,909,520	6.49
Georgia.....	402,652	196,250,451	20,927,464	10.66	303,836	145,470,324	9,665,464	6.64
Kentucky.....	17,606	8,938,166	1,051,887	11.77	23,932	11,871,815	770,363	6.43
Tennessee.....	38,332	19,292,275	2,045,800	10.60	30,234	15,028,584	982,148	6.54
Alabama.....	198,820	98,451,775	10,968,856	11.14	134,371	67,087,290	4,206,721	6.19
Mississippi.....	25,640	13,007,025	1,404,662	10.80	20,962	10,363,458	623,576	6.02
Texas.....	18,055	9,206,589	918,977	9.98	18,045	9,304,434	566,517	6.09
All other Southern states.....	12,844	6,405,127	750,755	11.72	19,055	9,316,623	505,684	5.43
Western states.....	35,689	18,100,196	2,121,421	11.72	45,736	23,539,197	1,463,005	6.22
Ohio.....	.....	.....	.....	.....	.....	.....	.....	.....
Indiana.....	17,582	8,872,188	1,038,538	11.93	19,884	10,283,614	608,822	5.92
Illinois.....	.....	.....	.....	.....	.....	.....	.....	.....
Wisconsin.....	5,478	2,745,029	341,234	12.43	4,565	2,316,727	145,773	6.20
All other Western states.....	12,629	6,482,409	721,649	11.13	21,287	10,038,856	708,410	6.48

¹Includes cotton small wares in 1890 and 1880.

²Included in Maryland.

³Included Delaware in 1905.

⁴Includes states as follows: 1905—Arkansas, Louisiana. 1900—Arkansas, Louisiana, West Virginia. 1890—Arkansas, Louisiana, Texas. 1880—Arkansas, Florida, Louisiana.

⁵Includes states as follows: 1905—California, Illinois, Missouri. 1900—California, Colorado, Illinois, Missouri, Nebraska. 1890—California, Iowa, Missouri. 1880—Michigan, Minnesota, Missouri, Utah.

TABLE 9.—COTTON GOODS¹—QUANTITY AND COST OF DOMESTIC COTTON, OTHER THAN SEA-ISLAND, CONSUMED, BY STATES AND GEOGRAPHIC DIVISIONS: 1880 TO 1905—Continued.

STATE.	1890				1880 ²			
	Bales.	Pounds.	Cost.	Cost per pound (cents).	Bales.	Pounds.	Cost.	Cost per pound (cents).
United States.....	2,231,355	1,103,492,010	\$114,337,802	10.36	1,570,344	750,343,081	\$86,045,725	11.59
New England states.....	1,405,637	704,792,220	74,083,800	10.60	1,120,408	541,373,880	63,160,434	11.07
Maine.....	132,504	65,717,252	7,053,168	10.73	112,381	54,185,061	6,234,001	11.51
New Hampshire.....	214,034	107,319,124	11,203,742	10.44	157,673	76,386,409	8,020,063	11.30
Vermont.....	8,954	4,647,889	498,348	10.72	7,404	3,562,088	468,607	12.87
Massachusetts.....	765,773	383,539,221	40,206,887	10.48	574,857	273,718,889	31,107,154	11.36
Rhode Island.....	186,558	94,555,788	10,446,155	11.05	167,480	81,137,172	10,467,770	12.80
Connecticut.....	97,814	49,012,040	5,275,560	10.76	109,703	52,384,171	6,281,030	11.00
Middle states.....	251,260	123,630,916	12,917,244	10.45	228,720	109,321,428	13,258,526	12.13
New York.....	78,171	39,038,089	4,192,105	10.74	64,614	31,656,594	3,081,106	12.58
New Jersey.....	16,482	8,231,147	905,524	11.00	21,069	9,950,009	1,310,422	13.26
Pennsylvania.....	92,705	44,629,588	4,371,693	9.80	83,997	40,311,809	4,749,428	11.78
Delaware.....	8,876	4,465,825	475,490	10.65	7,512	3,236,184	427,855	13.22
Maryland.....	55,026	27,265,667	2,972,432	10.90	51,537	24,166,232	2,780,715	11.51
Southern states.....	526,860	250,837,646	24,508,776	9.77	182,349	84,528,757	8,890,408	10.52
Virginia.....	22,731	10,616,206	1,080,773	10.18	11,461	5,087,510	601,766	11.83
North Carolina.....	114,371	53,546,289	5,306,974	10.08	27,642	11,832,641	1,125,984	9.52
South Carolina.....	133,342	64,000,600	6,242,568	9.75	33,424	15,001,005	1,723,187	11.05
Georgia.....	145,859	69,139,410	6,663,560	9.64	71,889	33,757,199	3,561,554	10.64
Kentucky.....	11,980	5,751,305	554,206	9.64	4,050	1,882,234	188,860	10.03
Tennessee.....	33,114	15,779,369	1,554,851	9.85	10,436	4,944,270	508,305	10.28
Alabama.....	20,092	14,726,454	1,372,058	9.32	14,702	7,271,791	729,202	10.03
Mississippi.....	17,366	8,449,834	793,600	9.39	6,411	2,881,853	301,226	10.45
Texas.....					240	110,986	11,250	9.40
All other Southern states.....	18,131	8,828,188	850,156	9.63	2,388	1,150,250	109,018	9.48
Western states.....	47,632	24,232,128	2,227,022	9.19	29,768	15,110,916	1,627,367	10.76
Ohio.....	11,023	5,840,078	383,556	6.57	5,323	2,506,182	258,198	10.30
Indiana.....	10,399	5,240,434	708,178	6.99	11,558	6,394,887	679,011	10.68
Illinois.....	6,405	3,267,188	312,021	6.57	2,201	1,099,130	110,969	10.10
Wisconsin.....	6,624	3,470,388	369,117	10.36	3,173	1,541,797	150,072	11.68
All other Western states.....	6,974	3,414,040	374,450	10.97	7,453	3,007,920	308,207	11.40

¹Includes cotton small wares in 1890 and 1880.²Includes sea-island, Egyptian, and other foreign.

The average cost of cotton reported for the census of 1900 was extremely low and the cost of that consumed during the census year now under consideration was unusually high. The purpose of the foregoing table is to compare the average cost of the cotton consumed in the several states and geographic divisions. The use of somewhat higher grades of cotton in New England than that consumed at the South probably explains more of the difference in cost per pound in the two sections than in the cost of freight; but in the case of Texas, which is not a large manufacturing state, the nearness of the supply doubtless accounts for the whole of the difference. The large manufacture of sewing thread in New Jersey is indicated by the high average cost of material. The spinning of fine yarns in Massachusetts and Rhode Island is also indicated by the cost of cotton used in those states. The average cost of cotton to the mills in the chief manufacturing states of the South shows remarkable uniformity.

Cotton yarn purchased.—During the census year the amount of cotton yarn purchased by the cotton factories which either did not spin any yarn or did not spin enough for their own wants was 91,594,658

pounds, at a cost of \$21,601,483. This compares with 83,832,216 pounds, valued at \$15,749,536, in 1900, and with 48,779,715 pounds, valued at \$10,853,536, in 1890. The figures of quantity alone are not of any significance, since the value of yarn of the same count and quality depends largely upon the cost of the raw cotton. The fact that the value of yarn so purchased increased 37.2 per cent from 1900 to 1905, whereas the amount increased but little more than 9 per cent, does not necessarily imply that the average fineness of the yarn was greater, but merely that the price of cotton was higher in 1904 than in 1899-1900. The American mill system renders this item, large though it is in itself, relatively insignificant. It remains true that the establishments which make use of yarn not spun by themselves are of three classes, which, in the order of their importance, are: (1) Those which weave only; (2) those which spin and weave, but produce less yarn than they require; and (3) those which purchase fine yarn to be twisted into sewing thread. The extensive weaving mills of Pennsylvania furnish a market for more than 37,000,000 pounds of the total above mentioned, or more than 40 per cent of the whole. But the yarn consumed in

those mills is not so fine as that used by the gingham weaving mills of New England or by the sewing thread mills of New Jersey, as is evidenced by the fact that the average cost per pound of the yarn purchased by Pennsylvania concerns was but 21.5 cents, as against 27.8 cents per pound paid by Massachusetts establishments and 25.1 cents by New Jersey mills. As is noted in the remarks upon products, the amount of yarn made for sale is by no means fully accounted for in this item of yarn purchased by cotton mills. The increase in the amount used by Pennsylvania does not show a large increase over that reported in 1900—only a little more than 750,000 pounds, or 2.1 per cent.

Yarns other than cotton.—There seems to have been a considerable diminution in the amount of other yarns than cotton for 1905 as compared with 1900. It is of course impossible to ascertain whether the change is an accidental one, occurring in the practice of a single year, or a permanent one. The following statement shows the quantity and cost of such yarns at the last three censuses:

Yarns other than cotton: 1890 to 1905.

KIND.	1905		1900		1890	
	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.
Total.....	3,098,801	\$2,201,146	3,803,774	\$2,596,573	677,954	\$509,682
Silk.....	241,322	831,477	298,716	1,158,321	32,851	154,336
Spun silk.....	128,243	314,188	208,403	625,658	18,583	83,064
Linen.....	515,837	143,642	1,575,403	350,962	17,722	9,823
Worsted.....	419,519	306,109	687,019	415,904	87,257	62,514
Woolen.....	978,385	466,120	435,361	176,467	196,874	131,657
Merino.....	70,705	32,856	87,064	21,946	.....	.....
Mohair.....	54,730	43,152	21,398	21,435	.....	.....
Camel's hair.....	.....	.....	134,595	62,838	.....	.....
Jute.....	380,088	24,647	220,507	17,967	99,938	8,078
Flax.....	185,050	4,230	.....	.....	.....	.....
Mergerized cotton.....	7,024	5,636	16,233	15,752	.....	.....
Tussah.....	.....	.....	15,918	19,102	.....	.....
Other yarn.....	110,822	29,191	103,157	10,221	224,729	59,312

PRODUCTS.

Table 10 exhibits in detail, by classes, the products of cotton mills during the census year, as compared with the returns in 1900 and 1890, showing the kinds, quantities, and values of each class of goods.

TABLE 10.—COTTON GOODS—PRODUCTS,¹ BY KIND, QUANTITY, AND VALUE: 1890 TO 1905.

KIND.	1905		1900		1890	
	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.
Aggregate value.....		\$442,451,218		\$332,806,156		\$267,981,724
Woven goods, total.....	5,070,028,520	320,382,367	4,523,395,616	243,218,155	3,004,320,473	193,874,275
Plain cloths for printing or converting, total.....	1,818,216,172	80,311,612	1,581,613,827	57,780,940	955,294,320	43,550,174
Not finer than No. 28 warp.....	812,249,764	32,945,694	1,056,278,952	35,616,575	(2)	(2)
Finer than No. 28 warp.....	1,005,966,408	47,365,918	525,334,875	22,164,365	(2)	(2)
Brown or bleached sheetings and shirtings.....	1,172,309,182	61,253,376	1,212,403,048	55,513,032	982,238,062	55,193,439
Ginghams.....	302,316,132	22,471,867	278,392,708	16,179,200	268,996,715	20,686,390
Ticks, denims, and stripes.....	256,375,486	23,797,578	181,800,853	16,446,633	167,121,426	16,987,546
Drills.....	194,735,303	12,596,063	237,206,549	11,862,794	* 534,030,091	* 23,601,239
Drills and sateens.....	366,142,513	23,701,305	235,860,518	14,301,302	.....	.....
Cottonades.....	25,362,346	2,998,971	26,323,947	2,791,431	(4)	(4)
Napped fabrics.....	300,808,140	26,108,315	268,852,716	18,231,044	* 132,524,706	* 10,574,924
Fancy woven fabrics.....	306,254,685	28,486,342	237,841,603	21,066,810	127,373,179	12,545,929
Corduroy, cotton velvet, and plush.....	16,014,556	4,790,573	7,961,523	2,682,017	(4)	(4)
Duck, total.....	122,601,212	17,005,982	129,234,076	14,263,008	55,192,538	8,664,395
Sail.....	9,586,519	1,540,745	11,750,151	2,216,371	(4)	(4)
Other.....	113,014,693	15,465,237	117,483,925	12,046,637	(4)	(4)
Bags and bagging.....	57,067,663	3,953,732	32,739,616	2,554,192	(4)	(4)
Mosquito and other netting.....	36,232,918	794,953	41,885,023	375,868	(4)	(4)
Upholstery goods, total.....	65,592,212	12,111,698	51,279,609	8,670,384	1,559,436	2,070,239
Tapestries (piece goods and curtains).....	9,605,006	4,242,506	10,131,533	4,123,600	642,061	354,987
Lace and lace curtains.....	53,511,222	7,208,211	37,825,198	3,686,138	1,225,364	2,250,364
Chenille curtains.....	268,168	93,196	805,414	257,840	666,405	360,706
Other, including covers.....	2,207,816	567,785	2,517,459	703,806	250,970	129,182
Yarns for sale.....	Pounds.	79,885,387	Pounds.	55,188,663	Pounds.	33,247,596
Sewing cotton.....	364,472,753	15,043,043	332,186,012	11,825,218	166,397,003	11,637,500
Twine.....	17,163,741	1,282,947	15,741,062	1,475,146	18,868,309	1,364,300
Tape and webbing.....	6,676,573	49,546	11,132,250	328,801	8,533,730	(4)
Batting and wadding.....	(e)	1,173,343	(e)	864,016	(4)	(4)
Waste for sale.....	10,165,850	10,049,037	10,567,700	5,552,234	20,470,556	2,094,232
Other products of cotton.....	247,335,102	2,695,801	270,100,756	5,154,170	141,109,597	5,679,701
All other products.....	(e)	11,979,747	(e)	9,199,753	(4)	(4)

¹ Includes cotton small wares in 1890.
² No separation of print cloths was made in 1890.
³ Drills, twills, and sateens.

⁴ Not reported separately.
⁵ Cotton flannels.
⁶ Not reported.

The total value of all the goods reached the sum of \$442,451,218, as compared with \$332,806,156 in 1900, an apparent increase of almost exactly 33 per cent. But it is to be remembered that owing to the unusually high price of cotton, much higher than the price in 1900, the cost of goods was also higher. If, for example, we take the average value per square

yard of the coarser variety of print cloths, we find it to have been 4.056 cents as compared with 3.372 cents in 1900; or, in the case of the great class known as sheetings and shirtings, it was 5.225 cents in 1905 as against 4.579 cents in 1900. There was, in fact, an increase of more than 500,000,000 square yards in the total of woven goods—from 4,523,395,616 in 1900 to

5,070,028,520 in 1905, or 12.1 per cent; and of yarn spun for sale, of more than 32,000,000 pounds, or 9.7 per cent.

Woven goods.—The details of the table show some interesting fluctuations. In the first place, there is disclosed a remarkable decrease in the quantity of the class of goods just referred to, namely, the cloths for printing or converting, not finer than No. 28 warp. The amount decreased almost 250,000,000 yards, or more than 23 per cent. On seeking for the explanation we discover that the quantity produced in Massachusetts decreased from 687,235,050 square yards to 436,586,015, a decrease which accounts for more than the entire diminution in the whole country. The result was undoubtedly due to the long strike in Fall River, the largest producer of print cloths in the United States, the consequences of which meet us at almost every turn in the consideration of these statistics. Yet there was, even in Massachusetts, an increase in the production of the finer print cloths—that is to say, the decrease in production in that state was not so large as appears from the statistics of the coarser goods, because there was an increase in the fineness of spinning, which caused a moderate increase in that class and a moderate decrease in the other class, and the rest of the decrease is to be attributed to the long stoppage of the factories. But it is also to be observed that the great augmentation of the amount of finer print cloths was made by the southern mills. In 1900 they produced 139,201,156 square yards of this class of goods; in 1905 the product reported is 445,951,035 square yards, and they thus contributed more than three-fifths of the increase for the whole country.

In the great class of sheetings and shirtings there was a small decrease, about 40,000,000 square yards, or 3.3 per cent. In this case, also, nearly the whole loss is accounted for by Massachusetts, and was doubtless caused by the high price of cotton, which rendered production unprofitable, whereas the southern mills increased their product from 644,577,686 yards to 737,049,905. But when we turn to the classes of goods which involve fine spinning or complicated weaving, it is evident that the table does not indicate a decline of production in New England, but rather a movement of the industry toward finer and more costly fabrics. For example, the quantity of twills and sateens produced in New England increased from 198,815,724 square yards to 277,867,179; and in Massachusetts, from 86,668,240 to 136,315,041 square yards. There was also an increase in the production of gingham, napped fabrics, and other classes of goods. A similar movement toward higher varieties of goods is also observable in the southern returns,

as, for example, in fancy woven fabrics, the quantity of which has increased more than threefold in five years.

It still remains true that the great demand for cotton goods is for those woven from the low counts of yarn. Almost three-fourths of the yardage of all the woven goods reported falls under the classification of coarse or medium goods—print cloths, sheetings and shirtings, drills, ticks, denims and stripes, duck and bagging. Yet this fact is not inconsistent with another, namely, that manufacturers can now find, and will continue to find, profit and an increasing market as they gradually turn to finer spinning.

There are other facts developed in a study of the woven products that deserve mention, not so much because of their relative importance commercially as because they denote an increasing tendency toward the diversification and extension of the industry.

Prominent among these collateral branches of the industry are the manufacture of lace and lace curtains and of upholstery goods. Regarding the first of these branches a comparative statement is presented in Table 11.

TABLE 11.—Lace and lace curtain manufactures—comparative summary: 1905 and 1900.

	1905	1900
Number of establishments.....	13	9
Total capital.....	\$11,295,845	\$3,000,108
Salaries officials, clerks, etc., number.....	217	90
Salaries.....	\$387,400	\$158,943
Wage-earners, average number.....	4,502	2,383
Total wages.....	\$1,800,397	\$800,237
Men 10 years and over.....	1,880	857
Wages.....	\$1,070,448	\$511,320
Women 10 years and over.....	2,372	1,104
Wages.....	\$730,210	\$304,315
Children under 10 years.....	350	422
Wages.....	\$74,733	\$50,598
Miscellaneous expenses.....	\$673,597	\$224,127
Materials used, total cost.....	\$3,111,113	\$1,550,026
Cotton yarn—		
Pounds.....	7,530,335	4,918,254
Cost.....	\$2,417,539	\$1,158,244
All other materials.....	\$693,574	\$391,782
Products, total value.....	\$7,235,170	\$3,501,230
Lace and lace curtains—		
Square yards.....	153,451,340	37,825,198
Value.....	\$7,203,422	\$3,585,138
All other products.....	\$31,748	\$6,092
Lace machines.....	417	138

¹In addition, 59,873 square yards of lace and lace curtains, to the value of \$4,789, were made by establishments engaged primarily in the manufacture of other cotton goods, and lace and lace curtains, to the value of \$820,700, by carpet and rug manufacturers.

Roughly speaking, the industry has doubled in the last census interval, for the only important items in the above table of which the remark is not true are the number of establishments and the quantity of materials and products. Capital shows an increase of 189.2 per cent; the cost of materials, 100.7 per cent; the value of products, 101.5 per cent; and wages, 118.2 per cent. Although the aggregate number both of men and of women has more than doubled, the somewhat lower average rate of increase in the whole number of

employees than in the other items is due solely to a decrease in the number of children. The quantity of lace and lace curtains increased from 37,825,198 square yards to 53,451,349 square yards, or 41.3 per cent.

Table 12 shows the condition of the manufacture of upholstery goods, exclusive of lace and lace curtains, in 1900 and 1905.

TABLE 12.—Upholstery manufactures—comparative summary:
1905 and 1900.

	1905	1900
Number of establishments.....	50	41
Total capital.....	\$4,106,322	\$3,490,875
Salaried officials, clerks, etc., number.....	150	162
Salaries.....	\$222,889	\$216,343
Wage-earners, average number.....	2,922	3,057
Total wages.....	\$1,231,240	\$1,223,666
Men 16 years and over.....	1,041	1,769
Wages.....	\$590,959	\$910,660
Women 16 years and over.....	1,126	965
Wages.....	\$306,141	\$264,787
Children under 16 years.....	155	323
Wages.....	\$25,140	\$47,219
Miscellaneous expenses.....	\$657,677	\$537,543
Materials used, total cost.....	\$2,479,356	\$2,543,714
Cotton yarn—		
Pounds.....	9,429,818	9,226,285
Cost.....	\$1,902,920	\$1,807,453
Reeled and spun silk—		
Pounds.....	66,705	173,998
Cost.....	\$173,353	\$463,096
All other yarns—		
Pounds.....	340,071	575,617
Cost.....	\$85,380	\$106,578
All other materials.....	\$317,703	\$166,587
Products, total value.....	\$5,020,494	\$5,094,683
Upholstery goods—		
Tapestries—		
Square yards.....	19,528,648	19,681,291
Value.....	\$4,232,428	\$4,072,273
Chenille curtains—		
Square yards.....	220,418	805,414
Value.....	\$85,029	\$257,840
Other, including covers—		
Square yards.....	41,280,447	41,583,981
Value.....	\$511,240	\$570,698
All other products.....	\$191,797	\$193,872
Looms.....	2,273	2,158

¹ In addition, 76,358 square yards of tapestries, to the value of \$10,078, were made by establishments engaged primarily in the manufacture of other cotton goods and tapestries to the value of \$122,778, by carpet and rug manufacturers.

² In addition, 450,247 square yards of tapestries, to the value of \$51,327, were made by establishments engaged primarily in the manufacture of other cotton goods.

³ In addition, 38,750 square yards of chenille curtains, to the value of \$8,167, were made by establishments engaged primarily in the manufacture of other cotton goods and chenille curtains to the value of \$45,964, by carpet and rug manufacturers.

⁴ In addition, 927,369 square yards of this class of products, to the value of \$56,545, were made by establishments engaged primarily in the manufacture of other cotton goods.

⁵ In addition, 933,478 square yards of this class of products, to the value of \$133,108, were made by establishments engaged primarily in the manufacture of other cotton goods.

The changes in this case do not indicate great progress since the last census. Indeed many of the items show a decrease, for although there are more establishments and a larger amount of capital, there was a slight decline in the number of hands employed, in the cost of materials, and in the value of products; there was a very small increase in the amount of wages. The quantity of all of the classes of products specified was smaller at the census of 1905 than in 1900.

Referring again to Table 10, it will be noted that the

quantity of napped fabrics increased from 268,852,716 yards in 1900 to 330,808,140 yards in 1905. Corduroy, cotton velvet, and plush increased from 7,961,523 yards in 1900 to 16,014,556 yards in 1905. The detailed tables show for the first time the amount of linens and toweling; 1,084,640 square yards of linen toweling and other linen goods, and 40,280,292 square yards of towels of other materials, chiefly cotton, were reported at the census of 1905.

Other products.—A moderate increase is to be noted in the larger items of products other than woven goods. Of yarns for sale, 364,472,753 pounds are reported, as compared with 332,186,012 in 1900, an increase of less than 10 per cent. So long as the present system in the cotton manufacture is maintained it is likely that the increase in this class of products will be slow. There is practically no exportation of American cotton yarn, and there are only 295 mills devoted exclusively to spinning. The demand for yarn comes from hosiery mills which do not produce enough for their own use; from woolen and worsted mills, which use cotton warps; from the manufacturers of the goods classed as cotton small wares; and from such industries as the winding of wire to insulate it for electrical purposes. Sewing thread also is made for domestic consumption only, and is not exported. The amount therefore can not increase at a rate much more rapid than that of the population, without glutting the market.

Dyeing and finishing.—Owing to the system which prevails in the United States of combining in the operation of one establishment processes which in other countries are regarded as quite distinct the one from the other, it is necessary to treat the processes of dyeing and finishing cloth as a part of the textile industry. They constitute, nevertheless, industries as independent of the textile manufacture proper as the cutting and making of articles of wearing apparel. The textile process is complete when the yarn is spun or the cloth woven. It will be seen from Table 13 that by far the larger part of the work included under the head of dyeing and finishing is performed in independent establishments. But inasmuch as a large number of spinning and weaving mills, perhaps a majority of them, add bleaching and dyeing to their processes, and since a few of them print the fabrics they weave, or mercerize their yarn and cloth, it is necessary, in order to complete the view of the operations of the mills, to include these operations in a discussion of the cotton manufacture.

Table 13 shows the amount of cloth, yarn, and stock bleached, dyed, printed, or mercerized in cotton mills and in independent establishments, as reported for 1900 and 1905.

TABLE 13.—DYEING AND FINISHING IN COTTON MILLS¹ AND IN INDEPENDENT ESTABLISHMENTS: 1905 AND 1900.

	TOTAL.				IN COTTON MILLS.		IN INDEPENDENT ESTABLISHMENTS.	
	1905		1900		1905 (square yards).	1900 (square yards).	1905 (square yards).	1900 (square yards).
	Square yards.	Added value.	Square yards.	Added value.				
Cloth:								
Total treated.....	2,864,681,818	\$32,165,840	3,080,133,800	\$38,187,700	422,156,932	616,327,250	2,442,524,886	2,472,806,550
Bleached.....	1,151,932,531	8,315,162	1,162,593,900	7,623,875	163,850,648	197,691,533	988,081,883	964,902,307
Dyed.....	686,130,937	9,762,221	685,374,965	8,923,025	72,715,530	125,894,626	623,415,308	559,480,339
Printed.....	976,108,191	13,111,746	1,233,191,438	21,230,782	185,040,031	292,741,100	791,068,157	940,450,338
Mercerized.....	40,510,159	976,717	7,973,506	2,400,118	550,711	30,950,448	7,073,506	7,073,506
Yarn:								
Total treated.....	194,295,941	6,399,803	221,512,803	8,431,849	132,491,721	153,759,879	61,804,220	67,752,924
Bleached.....	38,031,731	663,143	2 12,780,518	2 252,035	26,323,599	(³)	11,798,132	12,780,518
Dyed.....	162,799,180	5,497,720	205,713,712	7,601,268	105,122,713	151,010,157	47,076,473	54,103,555
Mercerized.....	3,465,024	238,940	3,018,573	487,946	1,045,409	2,149,722	2,410,615	868,851
Cotton stock:								
Total treated.....	87,295,304	2,088,773	2 12,797,350	2 577,484	77,387,860	(³)	0,907,444	12,797,350
Bleached.....	18,202,161	257,109	2 300,650	2 4,823	12,815,649	(³)	386,512	300,650
Dyed.....	74,093,143	1,831,664	2 12,496,700	2 572,661	64,572,211	(³)	9,520,932	12,496,700

¹ Exclusive of cotton small wares.

² In independent establishments only.

³ Not reported.

The foregoing statistics indicate a considerable decrease in the quantity of yarn and cloth treated in 1905 as compared with 1900. But an examination of the figures in detail discloses the fact that so far as cloth was concerned the great decline was in printing—more than 250,000,000 yards less in the later than in the earlier year—and in bleaching, a process to which cloth to be printed is first subjected. We have here another consequence of the Fall River strike, which greatly reduced the quantity of cloth available for printing. There was a slight increase in the quantity of cotton cloth dyed, a fact which has no special significance. The increased popularity of mercerized goods is indicated by the large addition to the amount so treated in 1905, the total having been more than 40,000,000 yards, as against less than 8,000,000 in 1900.

Taking the aggregate figures of materials treated, we see that the quantity of cloth treated in cotton mills was very nearly 20 per cent of the whole in 1900, but declined to 14.7 per cent in 1905. Of yarn, much the largest part is treated in cotton mills proper and the proportion of such mills and of independent establishments at the two enumerations was practically unchanged—69.4 per cent in cotton mills in 1900 and 68.2 per cent in 1905. The changes indicated, where there are changes, have little or no significance, since the situation in 1904 was such as to make the year an unsuitable one for purposes of comparison.

Fineness of goods.—At the census of 1880 an attempt was made for the first time to ascertain the average number of cotton spun in the mills of the country. The facts at the disposal of the late Edward Atkinson, the special agent for the collection of cotton manufacturing statistics at that time, were exceedingly meager and

the only method of ascertaining the fineness of yarn was untrustworthy. At each of the two succeeding censuses another method was available, owing to the better form of inquiry. But it was evident to the present writer, who made the reports both in 1890 and in 1900, that ascertaining the average number of yarn is not of sufficient value to make the inquiry worth while. Suppose there are two mills each of which produces 1,000,000 pounds of yarn, the one of No. 10, the other of No. 30. The average of those mills may be said to be No. 20. If now a third mill is erected which spins 1,000,000 pounds of No. 20, the tendency certainly is toward finer spinning, but the average will continue to be No. 20. Suppose now the mill which spins No. 10 is burned. The average number jumps to No. 25, although there has been no real increase of finer spinning. It will presently be seen that a real tendency toward finer spinning between the years 1890 and 1900 was marked by movements corresponding in some degree to those in the preceding hypothetical case. Inasmuch as under such circumstances the average number becomes meaningless, no attempt has been made at this census to ascertain it. An alternative inquiry, which was introduced both in 1890 and in 1900, has been substituted for it.

Assuming arbitrarily that yarn of No. 20 and under may be classed as coarse, the numbers from 21 to 40, inclusive, as medium, and those above 40, as fine, the amount of yarn of each of those three classes has been ascertained. The result gives us, by states, by geographic divisions, and for the whole country, an indication of the proportional relation of the three classes of yarns, and the general tendency. An

increase in the amount of fine spinning becomes a perceptible fact which is not obscured by a larger increase in the production of coarser yarn.

Taking the country as a whole the percentage of coarse, medium, and fine yarns, in 1890, 1900, and 1905 was as follows:

	1905 (per cent).	1900 (per cent).	1890 (per cent).
	100.00	100.00	100.00
No. 20 and under, coarse.....	52.55	57.93	53.26
No. 21 to 40, medium.....	39.36	36.81	42.88
No. 41 and over, fine.....	8.09	5.26	3.86

It is needless to say that there was no real decrease in the amount of medium yarn produced in 1900 as compared with 1890, but the actual increase was concealed, in the calculation of percentages, by a prodigious increase of more than 100 per cent of coarse yarn spun in southern mills during the later year. So, also, the real decrease in coarse yarn from 1900 to 1905 was less than the above percentages indicate. The entire decrease of this coarse spinning is accounted for in the New England states. Table 14 presents the actual weight of yarn spun of each of the three classes in the census years 1900 and 1905.

TABLE 14.—YARNS SPUN, CLASSIFIED BY GRADES, BY STATES AND GEOGRAPHIC DIVISIONS: 1905 AND 1900.

STATE.	TOTAL (POUNDS).		NO. 20 AND UNDER, COARSE (POUNDS).		NO. 21 TO 40, MEDIUM (POUNDS).		NO. 41 AND OVER, FINE (POUNDS).	
	1905	1900	1905	1900	1905	1900	1905	1900
United States.....	1,529,483,718	1,467,565,971	803,764,679	850,203,953	601,971,584	540,166,147	123,747,455	77,195,871
New England states.....	667,948,806	745,990,534	240,218,058	304,842,149	317,476,791	369,423,518	101,253,957	71,724,867
Maine.....	55,988,081	67,003,357	18,715,275	40,530,149	32,604,111	23,608,065	4,578,695	2,864,273
New Hampshire.....	108,439,032	108,968,243	66,579,541	79,300,869	39,680,078	29,667,374	2,178,543	.....
Vermont.....	3,799,474	5,432,983	92,675	1,525,033	3,663,711	3,907,950	45,088	.....
Massachusetts.....	381,108,770	442,538,758	141,686,900	164,190,352	176,143,116	235,617,217	60,978,754	42,731,189
Rhode Island.....	74,990,890	77,238,300	8,775,161	8,661,667	44,625,924	57,341,561	21,289,805	16,235,132
Connecticut.....	43,622,529	44,808,803	13,068,506	15,634,079	18,368,951	19,280,451	12,185,072	9,894,273
Middle states.....	103,056,337	117,856,490	68,769,518	86,166,567	29,651,774	27,105,119	4,635,045	4,594,804
New York.....	43,797,990	42,014,730	21,667,253	25,241,091	21,500,176	16,443,639	630,561	330,000
New Jersey.....	12,550,060	12,230,547	5,242,201	5,363,044	3,531,390	2,970,499	3,726,469	3,884,804
Pennsylvania.....	23,157,717	32,468,890	18,445,420	25,344,251	4,424,282	6,754,130	278,015	370,000
Maryland ¹	23,550,570	31,143,023	23,414,644	30,216,181	135,926	927,842	.....	.....
Southern states.....	745,419,375	586,546,002	476,894,080	445,967,312	250,666,842	139,601,990	17,858,453	886,200
Virginia.....	18,921,483	15,110,233	9,576,561	13,457,870	9,344,022	1,652,363	.....	.....
North Carolina.....	202,362,409	156,435,539	122,105,707	99,021,341	74,691,014	56,527,998	5,565,748	886,200
South Carolina.....	230,516,645	195,830,440	108,230,002	132,908,697	112,001,986	63,026,753	10,284,657	.....
Georgia.....	161,616,603	116,967,671	136,058,017	108,276,364	24,884,304	8,691,307	694,282	.....
Alabama.....	84,595,024	57,866,782	64,939,634	51,325,723	18,698,617	6,541,039	957,773	.....
Mississippi.....	10,904,221	7,909,625	8,144,612	7,909,625	2,586,463	.....	173,146	.....
Louisiana ²	5,561,703	7,801,465	5,682,700	7,801,465	2,478,013	.....	.....	.....
Texas.....	7,630,050	8,210,626	5,378,825	6,216,826	2,251,225	.....	.....	.....
Kentucky.....	7,305,440	9,071,044	5,403,458	6,318,514	1,901,982	3,252,530	.....	.....
Tennessee.....	16,065,737	11,182,587	11,976,474	11,162,567	3,847,416	.....	182,847	.....
Western states.....	13,050,200	17,172,945	8,883,023	13,227,425	4,176,177	3,945,520	.....	.....
Indiana.....	6,151,356	8,668,072	3,065,950	8,666,072	3,085,000	.....	.....	.....
Wisconsin.....	1,700,000	1,765,128	1,650,000	988,756	50,000	776,372	.....	.....
All other Western states ³	5,207,844	6,741,745	4,167,073	3,572,597	1,040,771	3,169,148	.....	.....

¹Includes Delaware.

²Includes Arkansas.

³Includes states as follows: 1905—California, Illinois, and Missouri. 1900—California, Colorado, Illinois, Missouri, and Nebraska.

The foregoing table exhibits, more clearly than almost any other in this report, the tendency at present to be observed in the cotton manufacturing industry of the country. It would indicate that tendency with still greater exactitude if it were not for the fact so many times mentioned that serious labor troubles in New England in 1904 make that a bad year for comparisons of any sort. It will be seen that in the country as a whole there was a decrease of about 6 per cent in the spinning of coarse yarns, an increase of more than 11 per cent in medium yarns, and an increase of over 60 per cent in fine yarns. It is a remarkable fact that there was a decrease in the amount of coarse yarns produced in 1905 as compared with 1900 in every New England and Middle state with the single excep-

tion of Rhode Island, and a decline is also to be observed in the returns for Virginia, South Carolina, Louisiana, Texas, and Kentucky. There was a decrease of more than 57,000,000 pounds in the production by Massachusetts of medium yarns, which are woven into the print cloth product of Fall River, and Rhode Island contributed a loss of more than 12,000,000 pounds. But in the South the increase was enormous. In every state of that section with the exception of Kentucky, which is not an important manufacturing state, there was a large gain. In 1900 the South as a whole produced less than 26 per cent of the total amount of medium yarns. In 1905 it produced more than 41 per cent. It is true that this percentage was increased largely by exceptional circumstances in the North, but

the ratio would have been remarkable in any event. The figures showing the production of fine yarns are highly significant. Five years ago New England mills turned out 92.9 per cent of all the yarn of that class. At present, although the actual production increased, their proportion is less than 82 per cent. The South, which returned in 1900 barely 1 per cent, all from one state, now reports fine spinning in six states, and more than 14 per cent of the total quantity produced in the United States. Yet these facts do not prove or even suggest that the fine spinning of the country is about to be transferred to the South, for the increased production in Massachusetts alone in the five years exceeds the entire amount reported by the South, and the increase in New England as a whole is but little less than twice the southern production. But taken as a whole, the unmistakable indication of the table here presented is that a decided movement toward finer goods has been made and is still in progress.

POWER.

The facts relating to the power employed in operating the cotton factories of the United States in 1905 present only a single novelty. It is the almost universal practice of manufacturers to own the land and buildings they occupy. Of a total of 1,031,843 horsepower in all the factories of the country, the amount hired by manufacturers was only 22,785 horsepower, or 2.2 per cent in 1905, as compared with 7,582 horsepower, or nine-tenths of 1 per cent of the 805,126 horsepower reported at the census of 1900. It seems, then, that whereas the manufacturers have added 211,514 horsepower during the five years to the power owned, the increase of the power rented was about one-fourteenth of the amount.

The details of the kind of power employed develop the single novelty mentioned above. In 1900 the number of electric motors owned was only 275 and the horsepower reported was 15,268. At the present census 767 electric motors are reported, with an aggregate of 52,734 horsepower. It is rather significant that the average horsepower of the motors has increased from 56 to 69. If we assume that the motors used in 1900 are still employed and are among those now reported, the average horsepower of the 492 new motors is 76. The number of such motors in New England has increased from 86 to 303 and the horsepower from 7,126 to 22,455. The present average horsepower is 74 in those states. In the South the number has increased from 157 to 329, the horsepower from 7,835 to 28,078, and the average horsepower from 50 to 85. It is evident that a decided change is in progress in the use of power. It may be suggested that in this statement of power there is a certain amount of duplication, for in all probability the motive power of many of the new electric motors is

derived from engines or water wheels, and both may have been reported where only one of the two should have appeared. It is surely a remarkable fact that electricity as a driving power has now reached one-fifth of the power developed by water wheels. It still remains true that steampower leads, and although the percentage of increase of electric motor power was more than 200 per cent, the actual increase in the five years was about 175,000 steam horsepower against nearly 37,500 horsepower accredited to electricity.

MACHINERY.

No important improvement in cotton spindles or looms has been sufficiently successful to secure adoption to any large extent during the past five years, although innovations and improvements previously successful have been largely introduced, nor is any material change to be noted in the tendency of manufacturers to adopt special forms of such machinery. The margin between profit and loss in a cotton factory amounts to but a fraction of a cent on a pound of the raw material, and therefore, in order to reduce the cost of production to the lowest figure, the manufacturer must provide himself with the most efficient machinery and must send inexorably to the scrap heap spindles and looms that do not enable him to produce as large a quantity of goods at as low a cost as will enable him to compete successfully with his neighbors. This necessity results in a constant replacement of spindles by others of higher speed and excellence and the adoption of all improvements in looms that will increase the output of cloth for a dollar of the weaver's wages. Movements in accordance with these principles are the only ones to be mentioned in a consideration of the machinery history of the five years under consideration.

Spindles.—The progress of the cotton industry and its relative importance in any region or country are estimated by the number of active spindles. Although it is not a strictly accurate measure, it is the best available. For there are fast spindles and slow; spindles employed upon fine yarns are of greater importance industrially than those making coarse yarns; and these circumstances detract somewhat from the value of the spindle as a unit of capacity. But, on the other hand, the amount of cotton consumed would constitute a much rougher and more inaccurate measure, since spindles making the coarsest yarns consume the most cotton.

Inasmuch as the real magnitude of the cotton manufacturing industry is not represented by the spindle capacity of mills which are classified strictly as cotton factories, the first table to be presented shows the number of cotton spindles operated in all branches of the textile industry in 1900 and 1905, and the total for 1890.

MANUFACTURES.

TABLE 15.—NUMBER OF COTTON SPINDLES IN THE TEXTILE INDUSTRY, BY STATES AND GEOGRAPHIC DIVISIONS: 1890 TO 1905.

STATE.	1905						1900						1890 (total).
	Total.	In cotton mills.	In hosiery and knit goods mills. ¹	In worsted mills. ¹	In woolen and carpet mills. ¹	In cotton small wares and cordage and twine factories.	Total.	In cotton mills.	In hosiery and knit goods mills. ¹	In worsted mills. ¹	In woolen and carpet mills. ¹	In cotton small wares and cordage and twine factories.	
United States....	23,687,495	23,155,613	303,245	52,745	57,068	118,224	19,472,232	19,008,352	206,698	95,356	50,460	102,366	14,384,180
New England states....	14,202,971	13,911,241	164,909	52,745	14,024	60,032	13,171,377	12,850,987	137,376	95,356	27,344	60,314	10,934,297
Maine.....	897,422	891,246	.....	.....	3,064	3,112	848,377	841,521	6,320	.....	3,584	3,272	892,762
New Hampshire....	1,304,476	1,301,281	3,195	.....	.....	.....	1,249,875	1,243,555	.....	.....	.....	.....	1,198,643
Vermont.....	108,028	108,028	.....	.....	.....	.....	100,028	100,028	.....	.....	.....	.....	71,591
Massachusetts.....	8,597,328	8,411,249	117,014	52,745	10,930	5,360	7,932,883	7,784,837	91,356	50,050	3,760	3,000	5,872,852
Rhode Island.....	2,086,802	2,049,522	.....	.....	.....	37,280	1,976,198	1,880,622	.....	45,276	10,000	40,300	1,953,294
Connecticut.....	1,208,915	1,149,915	44,700	.....	.....	14,300	1,064,016	1,000,574	30,700	.....	10,000	13,742	939,155
Middle states.....	1,656,553	1,548,719	83,028	.....	19,916	4,890	1,721,347	1,647,251	52,712	.....	20,184	1,200	1,716,019
New York.....	793,314	704,634	77,608	.....	9,952	1,120	764,442	720,268	38,404	.....	5,820	.....	629,324
New Jersey.....	436,764	436,764	.....	.....	.....	.....	431,730	431,730	.....	.....	.....	.....	374,442
Pennsylvania.....	282,467	266,097	5,420	.....	7,180	3,770	330,509	306,637	14,308	.....	14,364	1,200	496,551
Delaware.....	7,552	7,552	.....	.....	.....	.....	34,552	34,552	.....	.....	.....	.....	53,916
Maryland.....	136,456	133,672	.....	.....	2,784	.....	154,064	154,064	.....	.....	.....	.....	161,786
Southern states.....	7,618,030	7,508,749	44,096	.....	17,228	47,957	4,384,034	4,208,188	16,610	.....	5,000	34,236	1,563,598
Virginia.....	201,090	193,062	3,996	.....	.....	4,032	132,707	126,827	5,880	.....	.....	.....	94,294
West Virginia.....	800	.....	.....	.....	800	.....	.....	.....	.....	.....	.....	1,036	344,606
North Carolina....	1,916,339	1,880,950	13,264	.....	1,000	21,125	1,137,328	1,133,432	2,860	.....	.....	.....	332,784
South Carolina....	2,876,796	2,864,092	11,904	.....	.....	800	1,436,969	1,431,349	5,620	.....	.....	.....	445,452
Georgia.....	1,331,765	1,316,573	6,560	.....	5,000	3,632	882,321	815,545	.....	.....	.....	16,776	42,942
Kentucky.....	81,392	76,192	.....	.....	.....	5,200	66,633	66,633	.....	.....	.....	.....	98,324
Tennessee.....	164,203	153,375	.....	.....	10,300	528	130,296	123,896	.....	5,000	.....	1,400	79,362
Alabama.....	772,727	758,087	5,372	.....	128	9,140	419,968	411,328	.....	.....	.....	8,640	57,004
Mississippi.....	128,852	125,352	.....	.....	.....	3,500	78,146	75,122	.....	.....	.....	.....	3,024
Arkansas.....	13,844	13,844	.....	.....	.....	.....	13,060	9,700	.....	.....	.....	3,360	5,780
Louisiana.....	62,052	59,052	3,000	.....	.....	.....	57,850	55,600	2,250	.....	.....	.....	47,050
Texas.....	68,170	68,170	.....	.....	.....	.....	48,756	48,756	.....	.....	.....	.....	16,000
Western states.....	209,941	186,904	11,212	.....	6,500	5,325	225,474	211,926	.....	6,932	6,616	.....	170,266
Ohio.....	.....	.....	.....	.....	.....	.....	4,600	.....	.....	.....	4,600	.....	16,580
Indiana.....	129,292	119,252	300	.....	6,500	3,240	108,988	102,488	.....	6,500	.....	.....	80,604
Illinois.....	32,000	32,000	.....	.....	.....	.....	31,488	31,488	.....	.....	.....	.....	21,800
Wisconsin.....	13,136	13,136	.....	.....	.....	.....	21,496	21,496	.....	.....	.....	.....	32,592
Michigan.....	10,912	.....	10,912	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,000
Iowa.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,690
Missouri.....	14,101	12,016	.....	.....	.....	2,085	13,654	13,654	.....	.....	.....	.....	.....
Nebraska.....	.....	.....	.....	.....	.....	.....	15,488	15,488	.....	.....	.....	.....	.....
Utah.....	.....	.....	.....	.....	.....	.....	432	.....	.....	432	.....	.....	.....
Colorado.....	.....	.....	.....	.....	.....	.....	17,312	17,312	.....	.....	.....	.....	.....
Kansas.....	.....	.....	.....	.....	.....	.....	2,016	.....	.....	.....	2,016	.....	.....
California.....	10,500	10,500	.....	.....	.....	.....	10,000	10,000	.....	.....	.....	.....	6,000

¹Includes doubling and twisting spindles.

The numerical increase of spindles in all mills from 1900 to 1905 was 4,215,263, or 21.6 per cent. From 1890 to 1900 the increase was from 14,384,180 to 19,472,232—numerically 5,088,052, or 35.4 per cent. The increase to 23,687,495 now reported is about five-sixths numerically of that in the preceding decade, and the percentage rate is much higher, upon an enlarged basis.

No significance attaches to the changes in the number of spindles in any of the mills except cotton mills proper. The entire increase for other than those in cotton mills between 1905 and 1900 is only 68,002, and may easily be accounted for by changes in the charac-

ter of the business of a few concerns without any important actual increase or diminution of spindles.

Apart from the single fact that the cotton spindles in the United States operated in 1905 exceeded 23,500,000, the interest in this matter is confined exclusively to cotton mills proper, and all the discussion hereafter relates to them alone, unless it is expressly stated to the contrary. The numerical increase is 4,147,261, as compared with 4,820,249 in the ten years from 1890 to 1900, and is 21.8 per cent, as compared with 34 per cent for the full period of ten years preceding. In New England the increase from 12,850,987 spindles in 1900 to 13,911,241 in 1905 is

numerically 1,060,254, or 8.3 per cent, as compared with 18.6 per cent in the former period. In the Middle and Western states the changes are small, but in the direction of lower numbers; yet the industry is so little developed in those parts of the country that no attention need be given to it. In the South the increase is from 4,298,188 spindles in 1900 to 7,508,749 in 1905—numerically 3,210,561, and a percentage of almost exactly 75. The increase exceeds by 466,373 the entire increase between 1890 and 1900, although, owing to the higher number on which the percentage is reckoned, the rate falls from 176.6 per cent to 75 per cent. Among the states, Massachusetts is still the leader, as it has always been, and has, with its 8,411,249 spindles, more than the aggregate of the next four states; but in 1900 its spindles outnumbered those of the next six states. The second place, so long held by Rhode Island, has now been taken by South Carolina. North Carolina is fourth and Georgia is fifth, both having pushed New Hampshire down the line to the sixth place. The changes that have occurred in the relative

rank of the leading states in five years, as shown in the following statement, are remarkable:

RANK.	1905	RANK.	1900
1	Massachusetts.	1	Massachusetts.
2	South Carolina.	2	Rhode Island.
3	Rhode Island.	3	South Carolina.
4	North Carolina.	4	New Hampshire.
5	Georgia.	5	North Carolina.
6	New Hampshire.	6	Connecticut.
7	Connecticut.	7	Maine.
8	Maine.	8	Georgia.

The unusual position of Pennsylvania with respect to its spindle capacity, and the importance of its industry as a whole, was mentioned in former reports. The anomaly is still further emphasized by the current census. It now reports only 266,097 spindles, only 1.1 per cent of those in the United States, but the value of its product is nearly 5.5 per cent of the total.

Table 16 shows the number of mule and frame spindles in cotton mills, arranged by geographic divisions, in 1890, 1900, and 1905, with the total in 1880, when no separation of the two classes was made.

TABLE 16.—NUMBER OF SPINDLES IN COTTON MILLS,¹ BY STATES AND GEOGRAPHIC DIVISIONS: 1880 TO 1905.

STATE.	1905			1900			1890			1880 (total).
	Total.	Mulo.	Frame.	Total.	Mulo.	Frame.	Total.	Mulo.	Frame.	
United States.....	23,155,613	5,221,857	17,933,756	10,008,352	5,593,480	13,444,872	14,188,103	5,363,480	8,824,617	10,653,435
New England states.....	13,911,241	4,147,200	9,763,951	12,850,087	4,427,190	8,373,788	10,836,155	4,301,895	6,444,260	8,632,087
Maine.....	801,246	223,724	607,522	841,521	256,048	584,573	885,762	344,607	541,095	605,024
New Hampshire.....	1,301,281	269,076	1,032,205	1,235,555	287,165	950,390	1,195,433	364,234	831,409	944,053
Vermont.....	108,038	27,710	80,328	100,028	43,316	56,712	71,501	42,735	28,856	55,081
Massachusetts.....	8,411,249	2,320,060	6,082,189	7,784,687	2,559,316	5,228,371	5,824,518	2,400,710	3,395,799	4,230,084
Rhode Island.....	2,049,522	850,238	1,199,284	1,880,622	640,328	1,240,294	1,924,486	811,809	1,112,617	1,704,560
Connecticut.....	1,149,016	447,470	702,439	1,000,574	363,126	637,448	634,155	307,641	536,514	630,370
Middle states.....	1,548,719	845,647	703,072	1,647,251	858,075	788,576	1,633,722	822,613	811,100	1,391,164
New York.....	704,034	376,502	328,132	720,268	367,136	353,132	606,796	334,210	272,589	501,658
New Jersey.....	436,764	348,894	87,900	431,730	367,002	64,638	374,442	304,490	69,962	232,231
Pennsylvania.....	200,007	120,341	145,756	306,037	124,447	182,190	439,638	175,687	263,951	425,391
Delaware.....	7,552	.....	7,552	.....	.....	.....	.....	2,880	51,036	40,188
Maryland.....	133,672	.....	133,672	154,004	.....	154,004	158,030	5,350	153,574	125,700
Southern states.....	7,508,749	194,852	7,313,897	4,298,188	180,534	4,117,654	1,554,000	108,474	1,445,526	* 542,048
Virginia.....	193,062	3,088	189,974	120,827	2,325	124,502	94,294	13,198	81,096	44,340
North Carolina.....	1,880,050	66,760	1,813,290	1,133,432	36,352	1,098,080	337,786	30,920	306,866	92,385
South Carolina.....	2,804,092	15,112	2,818,980	1,431,340	10,752	1,420,587	332,784	4,000	328,784	82,334
Georgia.....	1,316,573	60,272	1,247,301	815,545	84,920	730,619	445,452	20,524	424,928	198,056
Kentucky.....	76,192	21,120	55,072	66,633	18,390	48,243	42,942	8,784	34,158	9,022
Tennessee.....	153,375	10,000	143,375	123,800	20,780	103,110	97,524	21,588	75,936	35,736
Alabama.....	754,047	7,000	751,047	411,328	8,000	403,328	79,234	9,400	69,774	40,432
Mississippi.....	125,352	.....	125,352	75,122	.....	75,122	57,004	.....	57,004	18,568
Arkansas.....	13,844	.....	13,844	9,700	.....	9,700	5,780	.....	5,780	.....
Louisiana.....	50,652	2,500	50,652	55,000	.....	55,000	46,200	.....	46,200	.....
Texas.....	68,170	.....	68,170	48,756	.....	48,756	15,000	.....	15,000	.....
Western states.....	186,904	34,068	152,836	211,920	47,072	164,848	164,226	40,504	123,722	* 88,196
Ohio.....	.....	.....	.....	.....	.....	.....	16,500	8,152	8,408	33,328
Indiana.....	119,252	18,068	101,184	102,488	16,320	86,168	74,604	16,320	58,284	33,360
Illinois.....	32,000	16,000	16,000	31,488	16,000	15,488	21,800	8,000	13,800	.....
Wisconsin.....	13,136	.....	13,136	21,490	2,816	18,680	32,592	5,632	26,960	.....
Iowa.....	.....	.....	.....	.....	.....	.....	6,000	.....	6,000	.....
Missouri.....	12,016	.....	12,016	13,654	.....	13,654	6,670	2,400	4,270	10,312
Nebraska.....	.....	.....	.....	15,488	6,272	9,216	.....	.....	.....	.....
Colorado.....	.....	.....	.....	17,312	5,664	11,648	.....	.....	.....	.....
California.....	10,500	.....	10,500	10,000	.....	10,000	6,000	.....	6,000	.....

¹ Includes cotton small wares in 1890 and 1880.

* Includes in 1880, 11,575 spindles reported by states other than those named.

† Includes in 1880, 22,100 spindles reported by states other than those named.

The tendency, more than once noted, to discontinue the use of mules and to employ frame spindles instead is shown most clearly in the above table. Between 1890 and 1900 there was a small increase in the number of mule spindles—about 200,000—which was less than 4 per cent of the total number. The decrease in the last five years amounts to 341,623. On the other hand, there has been, as has been remarked already, a very large increase in the number of frame spindles. Nearly four-fifths of all the mules in cotton mills are in those in the New England states, and most of the others are in New York and New Jersey. Yet even in most of these states there has been a decrease in number. Connecticut and New York are the only states which show an increase. There are some qualities of yarn which can not be made successfully by ring spinning. For these there will always be a demand for mules, at least until the difficulties heretofore experienced can be overcome. But there are reasons, not unconnected with the labor problem, which render manufacturers desirous of using frames rather than mules wherever it is practicable to do so.

There is one feature of the statistics relating to spindles which is not revealed by any table based upon the inquiries addressed to manufacturers. As has

already been remarked, it is necessary constantly to renew spindles, or at least to replace those in use by others of higher speed and greater efficiency. A mill which this year may report 100,000 spindles is the same, and yet not the same, mill which reported 100,000 spindles in 1900. One-half, or at least a large proportion, of its spindles may have been discarded and replaced by other and better ones. It is not only interesting, it is important, to know how fast and to what extent the replacement of machinery takes place.

During the five years 1900 to 1904, both years inclusive, the number of frame spindles sold by all manufacturers and placed in all mills, old and new, North and South, was 7,772,444. This number compared with 6,000,193 sold from 1880 to 1889, and with 8,901,408 in the decade 1890 to 1899. In other words, the new spindles installed in the last five years were almost seven-eighths as many as those installed in the ten years preceding. As we have seen, the total addition to the spindle capacity of the country was a little more than 4,000,000. Table 17, which is a continuation of one published in the report on the census of 1900, gives the useful details for each year from 1890 to 1904, with the total for the two census periods.

TABLE 17.—NUMBER OF FRAME SPINDLES SOLD: JANUARY 1, 1890, TO JANUARY 1, 1905.

YEAR.	Aggregate.	NORTHERN STATES.				SOUTHERN STATES.			
		Total.	New frames.		Old frames.	Total.	New frames.		Old frames.
			To new mills.	To old mills.			To new mills.	To old mills.	
Total, 1900 to 1904.....	7,772,444	3,346,815	117,298	2,457,646	771,871	4,425,629	2,199,112	2,005,468	221,049
1904.....	1,117,699	325,349	27,360	224,814	73,175	792,350	181,015	584,488	26,847
1903.....	1,682,798	794,818	40,294	642,527	111,997	887,980	402,059	453,870	32,051
1902.....	1,423,626	689,832	19,040	509,264	161,528	733,794	440,171	185,724	107,899
1901.....	1,675,528	574,205	6,600	366,732	201,873	1,101,323	717,537	354,482	29,304
1900.....	1,872,793	962,611	25,004	714,309	223,298	910,182	458,330	426,904	24,948
Total, 1890 to 1899.....	8,901,408	5,617,524	354,764	3,520,640	1,742,120	3,283,884	1,467,624	1,485,459	330,801
1899.....	1,140,378	503,927	2,384	354,444	147,099	636,451	374,769	210,892	50,800
1898.....	730,312	339,226	4,480	231,063	103,683	391,086	205,491	150,117	35,478
1897.....	651,427	278,439	11,424	154,160	112,855	372,988	206,468	121,252	45,268
1896.....	1,518,099	832,027	128,192	512,089	191,746	686,072	309,060	315,976	61,036
1895.....	958,426	669,075	45,120	464,056	159,899	289,351	113,500	145,691	30,100
1894.....	652,767	377,423	18,812	241,397	117,214	175,344	73,048	84,040	18,256
1893.....	1,042,268	823,008	54,056	493,435	274,917	219,260	48,080	135,524	35,656
1892.....	866,616	691,510	36,440	415,483	239,587	175,106	60,552	97,282	17,272
1891.....	656,306	499,999	14,656	298,288	187,055	156,307	18,697	116,425	21,185
1890.....	784,809	602,890	38,600	356,225	208,065	181,919	57,909	108,260	15,750

It is not to be supposed that the exact facts can be obtained from Tables 16 and 17, or that it is necessary to reconcile the figures they present; for many of the new frames in old mills represent an enlargement of the plant of those mills, and others are a substitution of new spindles for old without any increase of capacity. It is certain that a large proportion of the new frames in old mills in the South do signify an increased number of spindles in those mills, and that the number representing a substitution of new spindles for old is not important. The cotton factories of the South are not yet, for the most part, old enough to require renovation of machinery. On the other hand, the

increase in the number of frame spindles in New England (the other divisions of the North show a decrease) was only 1,390,163, and inasmuch as the number of spindles sold in new frames to old mills, and those placed in old frames, aggregated more than 3,200,000, it is fair to assume that many more than one-half, say, 1,800,000, were substituted for obsolete spindles. Upon that assumption more than one-fifth of the frame spindles in use in 1899 were thrown out in the ensuing five years.

Consumption of cotton per spindle.—At the census of 1905 the cotton mills of the country, having 23,155,613 spindles, consumed 1,873,074,716 pounds of cotton of

all kinds. The average consumption of cotton per spindle was therefore 80.89 pounds. This compares with an average of 95.43 pounds per spindle, as reported at the census of 1900. The full comparison by geographic divisions at the last four enumerations will be seen in the following tabular statement:

Cotton consumed per spindle: 1880 to 1905.¹

DIVISION.	1905 (pounds).	1900 (pounds).	1890 (pounds).	1880 (pounds).
United States.....	80.89	95.43	78.70	70.43
New England states.....	60.63	72.64	65.05	62.72
Middle states.....	78.71	88.24	78.46	78.58
Southern states.....	118.48	164.65	161.41	155.94
Western states.....	96.84	111.07	147.55	171.55

¹ Includes cotton small wares in 1890 and 1880.

It must be borne in mind that, as previously stated, the census figures on quantity of cotton consumed approximately represent gross weight, including "tare," which should be considered in making close calculations.

The apparent indication from these figures is that the spindles in 1905 were less efficient, in that they made a smaller average amount of yarn in weight than the spindles in 1900, but the reverse is the truth. The efficiency of spindles is measured by the length rather than by the weight of their product, and even that is to a certain extent misleading, because a spindle spinning coarse yarn produces a greater length of yarn than one spinning finer counts. So far as the report for New England is concerned the large decrease in the weight of cotton consumed per spindle is only partially due to finer spinning, which is the general deduction to be drawn from the statement. The Fall River strike is answerable for not a little of the drop. The spindles were there, but they were consuming cotton only a part of the year. But the very large decrease in the average consumption by southern spindles is undoubtedly the result, almost wholly, of the change in the class of goods produced in the South. In the early days of southern manufacturing the goods produced were almost exclusively of the coarsest, and were made for local use by the poorest of the whites and by negroes. Even when the manufacturing impulse set in, no attempt was made to produce cloth the yarn of which could be classed as medium. As soon as the local demand was fully met, and when there came an ambition to compete with northern manufacturers, the machinery was arranged to spin finer yarns, and ultimately a large part of the cloth production of that part of the country was made for export—goods which are strictly medium in their composition. As has been seen already, there is not yet a large amount of yarn produced in the South that can be put under the head of "fine," but there has been a great increase in the production of that between Nos. 21 to 40. Deductions from the above tabular statement, although confirmatory of the facts

otherwise presented, must be taken with much caution. They are impaired in value by the fact that a large number of spindles in New England were idle during a part of the year, and the figures can not be taken as conclusive either of the efficiency of spindles or of the comparative fineness of yarn, since the average consumption of cotton depends upon a consideration of both facts.

As was remarked in the report on the census of 1900, Table 18, which is a continuation of one first presented in the report on the Eleventh Census, is valuable rather in detail and for purposes of comparison than in consequence of any general deductions that may legitimately be drawn from it.

TABLE 18.—Cotton goods¹—number of spindles to each wage-earner and the labor cost per spindle, by states and geographic divisions: 1880 to 1905.

STATE.	CENSUS.	WAGE-EARNERS AND WAGES.		Number of spindles.	Number of spindles to each wage-earner.	Labor cost per spindle.
		Average number.	Wages.			
United States..	1905	310,468	\$94,377,606	23,155,613	74.59	\$4.08
	1900	207,629	85,126,310	19,008,352	63.80	4.48
	1890	218,876	96,024,538	14,188,103	64.82	4.05
	1880	172,544	42,040,510	10,653,435	61.74	3.95
New England states.	1905	155,081	56,530,767	13,911,241	89.19	4.06
	1900	102,204	55,307,541	12,850,987	79.18	4.31
	1890	147,359	47,822,043	10,836,155	73.54	4.41
	1880	125,770	32,170,861	8,632,087	68.03	3.73
Maine.....	1905	12,382	4,036,858	891,246	71.08	4.53
	1900	13,723	4,330,297	841,521	61.32	5.15
	1890	13,912	4,213,523	885,762	63.07	4.76
	1880	11,769	2,936,640	695,284	59.18	4.22
New Hampshire.	1905	19,731	7,372,808	1,301,221	65.95	5.07
	1900	20,464	6,750,422	1,243,555	60.80	5.44
	1890	19,383	6,242,204	1,195,643	61.69	5.22
	1880	16,395	4,200,000	944,653	57.58	4.55
Vermont.....	1905	851	241,400	108,028	126.04	2.23
	1900	1,015	259,758	100,028	98.55	2.60
	1890	724	204,538	71,501	98.88	2.86
	1880	721	161,748	55,081	76.40	2.94
Massachusetts...	1905	88,033	32,362,325	8,411,240	95.55	3.85
	1900	92,085	32,327,443	7,784,687	84.54	4.15
	1890	75,544	25,118,305	5,824,518	77.10	4.31
	1880	61,246	15,828,571	4,236,084	69.17	3.74
Rhode Island....	1905	21,017	7,890,160	2,049,522	93.51	3.85
	1900	21,823	7,267,119	1,880,622	86.18	3.88
	1890	24,576	7,814,707	1,924,486	78.31	4.06
	1880	21,174	5,320,303	1,704,599	83.34	3.92
Connecticut.....	1905	13,007	4,637,216	1,140,615	88.00	4.03
	1900	13,194	4,363,592	1,000,574	75.84	4.39
	1890	13,220	4,239,546	934,155	70.60	4.54
	1880	14,484	3,632,630	936,370	64.65	3.88
Middle states.....	1905	31,871	11,459,026	1,548,710	48.59	7.40
	1900	34,843	11,306,710	1,647,251	47.28	6.02
	1890	31,841	10,184,589	1,636,722	51.31	6.23
	1880	28,118	6,613,260	1,301,164	49.48	4.76
New York.....	1905	8,580	3,000,193	704,634	32.04	4.26
	1900	8,650	2,582,694	720,268	33.18	3.59
	1890	8,310	2,448,031	606,700	72.07	4.05
	1880	6,227	1,094,755	501,658	60.87	3.55
New Jersey.....	1905	5,302	2,021,841	436,764	31.46	4.63
	1900	5,518	1,887,119	431,730	78.24	4.37
	1890	5,632	1,984,650	374,442	60.48	5.30
	1880	4,170	1,156,961	232,221	55.57	4.93
Pennsylvania....	1905	13,780	5,455,858	266,007	19.80	20.50
	1900	15,607	5,602,339	306,037	19.70	18.27
	1890	12,006	4,388,617	439,038	34.71	9.98
	1880	9,879	2,592,688	425,301	43.06	5.88
Delaware ²	1900	372	138,844	34,552	92.88	4.02
	1890	971	308,540	53,916	55.53	5.72
	1880	791	192,727	40,188	58.30	4.17
Maryland.....	1905	4,131	981,134	141,224	34.19	6.95
	1900	4,727	1,180,614	154,064	32.59	7.70
	1890	4,250	1,055,536	153,930	37.34	6.64
	1880	4,042	796,129	125,706	31.10	6.09

¹ Includes cotton small wares in 1890 and 1880.
² Combined with Maryland in 1905.
³ Includes Delaware.

TABLE 18.—Cotton goods¹—number of spindles to each wage-earner and the labor cost per spindle, by states and geographic divisions: 1880 to 1905—Continued.

STATE.	Census.	WAGE-EARNERS AND WAGES.		Number of spindles.	Number of spindles to each wage-earner.	Labor cost per spindle.
		Average number.	Wages.			
Southern states.....	1905	129,110	\$25,649,575	7,508,749	62.52	\$3.42
	1900	97,494	17,501,648	4,298,188	44.09	4.07
	1890	36,415	7,116,865	1,554,000	42.67	4.58
	1880	16,317	2,759,986	542,048	33.22	5.08
Virginia.....	1905	3,459	883,908	193,062	55.86	4.58
	1900	2,931	698,556	126,827	43.27	5.27
	1890	1,960	373,993	94,294	47.38	3.97
	1880	1,085	169,789	44,340	40.87	3.83
North Carolina..	1905	36,356	7,503,512	1,880,950	51.74	3.99
	1900	30,273	5,127,087	1,133,432	37.44	4.52
	1890	8,515	1,475,932	337,786	39.67	4.37
	1880	3,232	439,659	92,385	28.58	4.76
South Carolina...	1905	37,271	7,701,689	2,864,092	76.85	2.69
	1900	30,201	5,066,840	1,431,349	47.39	3.54
	1890	8,071	1,510,404	332,784	41.23	4.54
	1880	2,018	380,844	82,334	40.80	4.63
Georgia.....	1905	24,139	5,313,392	1,316,573	54.56	4.04
	1900	18,283	3,566,061	815,545	44.61	4.37
	1890	10,314	2,167,036	445,452	43.19	4.86
	1880	6,215	1,135,184	198,656	31.96	5.71
Kentucky.....	1905	1,031	243,215	76,192	73.90	3.19
	1900	1,351	280,407	66,633	49.32	4.21
	1890	818	170,573	42,942	52.50	3.97
	1880	348	63,850	9,022	25.93	7.08
Tennessee.....	1905	2,294	531,406	153,375	66.86	3.46
	1900	2,108	422,035	123,896	58.77	3.41
	1890	2,124	444,573	97,524	45.92	4.56
	1880	1,015	161,071	35,736	35.21	4.51
Alabama.....	1905	11,480	2,457,928	753,087	66.04	3.24
	1900	8,332	1,482,226	411,328	49.37	3.60
	1890	2,088	402,908	79,234	37.95	5.09
	1880	1,448	239,998	49,432	34.14	4.86
Mississippi.....	1905	2,161	518,448	125,352	58.01	4.14
	1900	1,675	339,546	75,122	44.85	4.52
	1890	1,154	263,997	57,004	49.40	4.63
	1880	695	133,214	18,568	26.72	7.17
Texas ²	1905	993	269,737	63,170	68.65	3.95
	1900	984	253,630	48,756	49.53	5.20
All other Southern states.....	³ 1905	938	226,340	72,896	77.71	3.10
	⁴ 1900	1,356	293,470	65,300	48.16	4.49
	⁵ 1890	1,341	307,359	66,980	49.95	4.59
	⁶ 1880	261	27,377	11,575	44.35	2.37
Western states.....	1905	2,496	738,328	186,904	74.88	3.95
	1900	3,298	820,411	211,626	64.26	4.06
	1890	3,261	890,141	164,226	50.36	5.42
	1880	2,330	505,403	88,136	37.83	5.73
Ohio.....	1905	107	27,185	.....	.....	.....
	1900	106	27,861	.....	.....	.....
	1890	554	161,613	16,560	29.89	9.76
	1880	481	104,500	13,328	27.71	7.84
Indiana.....	1905	1,174	302,035	119,282	101.58	2.53
	1900	1,421	323,949	102,488	72.12	3.16
	1890	1,309	310,342	74,604	56.99	4.16
	1880	708	162,829	33,396	47.17	4.88
Illinois ⁷	1890	430	123,986	21,800	50.70	5.69
Wisconsin ⁸	1905	161	43,760	13,136	81.59	3.33
	1900	347	80,567	21,496	61.95	3.75
	1890	490	131,170	32,592	66.51	4.02
Missouri ⁹	1880	508	97,680	19,312	38.02	5.06
All other Western states.....	¹⁰ 1905	1,054	365,348	54,516	51.72	6.70
	¹¹ 1900	1,424	428,034	87,942	61.76	4.87
	¹² 1890	478	163,030	18,670	39.06	8.73
	¹³ 1880	633	140,394	22,100	34.91	6.35

¹ Includes cotton small wares in 1890 and 1880.

² Included in "all other Southern states" in 1890 and 1880.

³ Includes states as follows: Arkansas and Louisiana.

⁴ Includes states as follows: Arkansas, Louisiana, and West Virginia.

⁵ Includes states as follows: Arkansas, Louisiana, and Texas.

⁶ Includes states as follows: Arkansas, Florida, Louisiana, and Texas.

⁷ Included in "all other Western states" in 1905, 1900, and 1880.

⁸ Included in "all other Western states" in 1880.

⁹ Included in "all other Western states" in 1905, 1900, and 1890.

¹⁰ Includes states as follows: California, Illinois, and Missouri.

¹¹ Includes states as follows: California, Colorado, Illinois, Missouri, and Nebraska.

¹² Includes states as follows: California, Iowa, and Missouri.

¹³ Includes states as follows: Illinois, Michigan, Minnesota, Utah, and Wisconsin.

In making comparisons some interesting facts appear. Once more we have to note the effect upon statistics of the labor disturbance in New England. In ascertaining the number of spindles to each wage-earner the average number of wage-earners during the year is taken as a divisor, and that average is less than in a year of normal production. So in ascertaining the labor cost per spindle the total amount paid as wages is the dividend, and that also is reduced below the normal amount. But the figures for the Southern states, comparing years of full occupation and prosperity, do teach something. A general increase from 44.09 spindles to a single operative in 1900 to 62.52 spindles in 1905 indicates a remarkable increase in the efficiency of the labor employed. The number is still much below the New England average of 79.18 spindles in 1900, and inasmuch as fine spinning requires more labor for each spindle, the difference would be larger if that consideration were taken into account. Yet when it is borne in mind that southern cotton manufacturing was begun and has largely continued to be performed by labor drawn from the region of the mills, that it was in no sense skilled labor at the outset, and has not been recruited to any considerable extent from the home and foreign sources of expert help, the result is truly marvelous. The figures showing the labor cost per spindle tell the same story in a different way. In the South as a whole the amount was only \$3.42 per spindle, as compared with \$4.07 in 1900, indicating a considerably higher efficiency of labor. But it is also to be compared with a labor cost of \$4.31 in New England in 1900, and with \$4.06 in 1905, when the amount was reduced by exceptional circumstances having no relation to the efficiency of labor. Making due allowance for the higher cost of fine spinning, there is still a large margin of economy in favor of the South. The figures for South Carolina are fairly startling. They show a labor cost of no more than \$2.69 per spindle. It is of course impossible to estimate just how much less the cost in Massachusetts—reported at \$4.15 in the normal year 1900—would have been if the spinning had been of the average fineness of South Carolina, but no reasonable allowance on that score would have brought down the labor cost to anywhere near the amount reported for South Carolina.

Looms.—Inasmuch as the character of American cotton manufacturing does not change perceptibly, it is to be expected that the number of looms will increase in nearly the same ratio as the number of spindles. The expectation is realized by Table 19, which indicates an increase of almost exactly 20 per cent in five years, as compared with an increase of nearly 22 per cent in spindles.

TABLE 19.—COTTON GOODS¹—NUMBER AND CLASSIFICATION OF LOOMS, BY GEOGRAPHIC DIVISIONS: 1890 TO 1905.

DIVISION.	Census.	NUMBER OF LOOMS—								
		Total.	On plain cloths.				On twills, including sateens.	On fancy weaves.	On tapes and other narrow goods.	On bags and other special fabrics.
			Less than 28 inches wide.	28 to 32 inches wide.	32 to 36 inches wide (inclusive).	More than 36 inches wide.				
United States.....	1905	540,910	31,901	115,960	94,649	160,231	68,038	62,214	1,439	6,472
	1900	450,682	35,601	98,905	79,349	126,082	58,839	45,686	1,709	4,421
	1890	324,866	23,648	91,862	55,356	71,591	53,726	23,233	(?)	5,450
New England states.....	1905	324,058	11,228	81,742	40,343	89,978	55,093	41,443	711	3,520
	1900	298,885	16,765	77,326	37,722	84,916	47,080	31,635	1,580	1,855
	1890	250,116	12,609	72,928	35,003	62,508	46,346	18,900	.....	1,762
Middle states.....	1905	31,748	5,722	1,002	2,568	9,186	1,915	10,007	64	1,284
	1900	36,134	6,442	3,023	3,501	8,035	3,403	10,031	123	1,576
	1890	35,074	5,196	10,601	3,628	5,708	4,930	2,358	.....	2,653
Southern states.....	1905	179,752	14,510	33,167	48,779	59,730	11,630	10,695	270	1,562
	1900	110,010	12,374	17,930	34,446	32,323	8,356	3,856	.....	725
	1890	36,246	5,803	8,309	13,956	2,875	2,442	1,975	.....	906
Western states.....	1905	5,352	432	55	2,950	1,337	.....	69	304	106
	1900	5,053	20	716	3,680	808	.....	164	.....	265
	1890	3,410	40	24	2,709	500	.....	.....	.....	129

¹Includes cotton small wares in 1890.

²Included with bags and other special fabrics in 1890.

The numerical increase of looms is 90,228. Between 1890 and 1900 the increase was 125,816. The rate has therefore been much larger in the last five years than in the preceding decade. By geographic divisions the increase from 1900 to 1905 was 25,173 in New England and 69,742 in the South. There was a decrease of 4,386 in the Middle states and of 301 in the Western states. The classification of looms shows that the increase is, as usual, largest in the case of those making plain goods of standard width. There is a decrease in the number weaving narrow goods—those less than 28 inches in width—although there is a small increase in southern looms of that character. The largest increase of all is in the number weaving sheetings more than 36 inches in width. About 9,000 more than in 1900 are employed upon twills and sateens and 16,500 more are making fancy weaves. It

is interesting to note the large increase of looms making such goods in southern mills. In 1890 only 1,975 looms were reported in those mills; in 1900 the number had not quite doubled, being 3,856; but at present no less than 10,695 are reported, an increase of nearly 7,000 within the last five years, and the total is about one-sixth of the number for the whole country. The cotton manufacturing of Pennsylvania is chiefly weaving. In the whole country there are 43 spindles to one loom, but in Pennsylvania there are only 19 spindles to a loom. The present report shows a falling off of 1,732 looms in that state, or very nearly 11 per cent.

Classification of mills according to machinery.—Table 20 presents a classification of cotton mills, first shown at the census of 1900, according to the machinery employed.

TABLE 20.—COTTON GOODS—NUMBER AND CAPACITY OF SPINNING MILLS, WEAVING MILLS, AND MILLS WHICH DO BOTH SPINNING AND WEAVING, BY STATES AND GEOGRAPHIC DIVISIONS: 1905 AND 1900.

STATE.	Census.	Number of establishments.	SPINNING AND WEAVING MILLS.			SPINNING MILLS.		WEAVING MILLS.		Number of establishments having no spindles or looms for spinning or weaving.
			Number.	Capacity.		Number.	Capacity (number of spindles).	Number.	Capacity (number of looms).	
				Number of spindles.	Number of looms.					
United States.....	1905	1,077	500	19,171,542	522,301	295	3,984,071	169	18,600	23
	1900	973	502	15,882,005	432,950	274	3,126,257	168	17,723	29
New England states.....	1905	308	220	12,097,002	319,711	53	1,813,630	20	4,347	16
	1900	332	223	11,233,320	295,710	76	1,017,601	17	3,175	16
Maine.....	1905	15	13	886,914	24,050	1	4,332	1	130	.....
	1900	15	13	837,021	23,220	1	4,500	1	137	.....
New Hampshire.....	1905	25	21	1,284,280	36,115	3	16,902	.....	.....	1
	1900	23	20	1,235,067	35,123	3	7,648	.....	.....	.....
Vermont.....	1905	4	3	106,108	2,530	1	1,420	.....	.....	.....
	1900	5	3	81,670	2,009	2	16,462	.....	.....	.....
Massachusetts.....	1905	142	105	7,295,418	191,507	22	1,115,831	8	3,170	7
	1900	163	110	6,712,998	176,554	36	1,071,680	10	2,729	7

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TABLE 20.—COTTON GOODS—NUMBER AND CAPACITY OF SPINNING MILLS, WEAVING MILLS, AND MILLS WHICH DO BOTH SPINNING AND WEAVING, BY STATES AND GEOGRAPHIC DIVISIONS: 1905 AND 1900—Continued.

STATE.	Cen- sus.	Number of estab- lish- ments.	SPINNING AND WEAVING MILLS.			SPINNING MILLS.		WEAVING MILLS.		Number of estab- lish- ments having no spin- dles or looms for spinning or weav- ing.
			Number.	Capacity.		Number.	Capacity (number of spindles).	Number.	Capacity (number of looms).	
				Number of spindles.	Number of looms.					
New England States—Continued.										
Rhode Island.....	1905	73	46	1,641,870	44,735	14	407,652	9	998	4
	1900	71	44	1,469,404	39,366	20	411,218	3	106	4
Connecticut.....	1905	49	32	883,003	20,765	12	266,912	2	31	3
	1900	55	33	896,420	19,339	14	104,154	3	206	5
Middle states.....	1905	204	32	893,934	18,064	29	654,785	137	13,084	6
	1900	225	46	1,072,154	23,724	29	575,097	138	12,410	12
New York.....	1905	30	9	573,522	11,857	7	131,112	12	607	2
	1900	34	14	626,040	14,110	7	94,228	10	435	3
New Jersey.....	1905	17	4	71,648	1,745	5	365,116	7	492	1
	1900	20	3	101,688	1,576	4	330,042	10	650	3
Pennsylvania.....	1905	144	11	107,540	2,665	17	158,557	113	11,418	3
	1900	154	17	168,810	4,791	17	137,827	114	11,024	6
Delaware.....	1905	1	1	7,552	238					
	1900	3	2	21,552	738	1	13,000			
Maryland.....	1905	12	7	133,672	2,159			5	567	
	1900	14	10	154,064	2,509			4	301	
Southern states.....	1905	550	329	5,995,214	179,043	212	1,513,535	8	709	1
	1900	400	222	3,366,439	108,044	168	931,749	10	1,966	
West Virginia ¹	1900	1						1	19	
Virginia.....	1905	10	3	158,140	5,429	6	34,922	1	35	
	1900	7	7	126,827	4,608					
North Carolina.....	1905	212	100	1,148,716	42,545	104	732,234	7	674	1
	1900	177	75	649,442	23,992	94	483,990	8	1,477	
South Carolina.....	1905	127	96	2,618,194	72,702	31	245,898			
	1900	80	57	1,304,181	42,193	22	127,168	1	470	
Georgia.....	1905	103	67	1,052,203	31,210	36	264,370			
	1900	67	42	652,611	19,393	25	162,934			
Kentucky.....	1905	4	1	47,072	1,292	3	29,120			
	1900	6	2	37,562	961	4	29,041			
Tennessee.....	1905	16	8	116,275	3,008	8	37,100			
	1900	17	9	97,558	2,995	8	26,338			
Alabama.....	1905	46	28	617,714	15,659	18	140,373			
	1900	31	18	325,560	8,549	13	85,768			
Mississippi.....	1905	14	12	113,544	3,472	2	11,808			
	1900	6	5	73,872	2,464	1	1,250			
Arkansas.....	1905	2	1	7,124	240	1	6,720			
	1900	2	2	9,700	257					
Louisiana.....	1905	3	2	55,752	1,600	1	3,300			
	1900	2	2	55,600	1,584					
Texas.....	1905	13	11	60,480	1,886	2	7,600			
	1900	4	3	33,496	1,018	1	15,260			
Western states.....	1905	15	9	184,792	4,883	1	2,112	4	469	1
	1900	16	11	210,176	5,481	1	1,750	3	172	1
Ohio.....	1905	3						2	400	1
	1900	3						2	158	1
Indiana.....	1905	5	5	119,252	3,165					
	1900	4	4	102,488	2,712					
Illinois.....	1905	2	1	32,000	748			1	19	
	1900	1	1	31,488	700					
Wisconsin.....	1905	3	1	11,024	314	1	2,112	1	50	
	1900	3	2	21,496	577			1	14	
Missouri.....	1905	1	1	12,016	358					
	1900	2	1	11,904	356	1	1,750			
Nebraska ¹	1900	1	1	15,488	416					
Colorado ¹	1900	1	1	17,312	480					
California.....	1905	1	1	10,500	300					
	1900	1	1	10,000	240					

¹No establishments reported in 1905.

This table brings into great prominence the fact that in this country the processes of spinning and weaving are almost universally performed in one and the same establishment; for, although more than one-fourth of the mills do no weaving and nearly one-sixth of them do not spin, the establishments of both classes are of small average capacity. The average number of spindles in spinning and weaving mills is 32,494, and 82.8 per cent of all the spindles is in them; whereas the spinning mills average but 13,505 spindles and contain only 17.2 per cent of the whole number. In weaving the preponderance of the spinning and weaving mills is still more marked, for they average 885 looms to an establishment and contain 96.6 per cent of the whole number; the weaving mills, on the other hand, average only 110 looms to an establishment and contain only 3.4 per cent. Almost three-fourths of the weaving mills are in the state of Pennsylvania, where the average number of looms to an establishment is 101.

As compared with the returns for 1900 the figures

for 1905 do not show a tendency toward specialization. There is, to be sure, an increase of 7.7 per cent in the number of spinning mills and of 27.4 per cent in the number of spindles. But the number of spinning and weaving factories has increased 17.5 per cent and their spindles have increased 20.7 per cent. Although the rate of increase of spindle capacity is somewhat smaller, the numerical increase of the spinning and weaving mills is over four times that of the spinning factories. In number and in loom capacity there has been hardly any change in the weaving mills during the past five years.

Table 21 is a detailed summary for cotton goods, by states and geographic divisions, for the census of 1905.

Table 22 is a detailed summary of materials and products for the United States, by geographic divisions, for the census of 1905. The kind, quantity, and value of materials and products can not be shown by states without disclosing the operations of individual establishments.

TABLE 21.—COTTON GOODS—DETAILED SUMMARY, BY STATES AND GEOGRAPHIC DIVISIONS: 1905.

STATE.	Number of establishments.	CAPITAL.				
		Total.	Land.	Buildings.	Machinery, tools, and implements.	Cash and sundries.
United States.....	1,077	\$605,100,164	\$26,351,753	\$115,361,238	\$245,706,021	\$217,020,552
New England states.....	308	304,259,702	14,741,640	55,416,774	106,648,075	127,452,708
Maine.....	15	21,042,675	1,258,925	3,278,433	7,026,805	9,178,512
New Hampshire.....	25	31,176,461	1,754,300	4,283,052	6,892,710	18,246,303
Vermont.....	4	3,155,177	131,701	538,838	882,350	1,002,288
Massachusetts.....	142	173,060,030	7,358,270	30,682,067	65,553,209	70,075,475
Rhode Island.....	73	43,527,584	2,490,184	6,535,283	14,500,864	16,080,253
Connecticut.....	40	31,088,805	1,742,155	7,000,101	10,883,737	11,363,872
Middle states ¹	203	64,176,280	3,079,815	13,397,601	23,810,587	23,870,277
New York.....	30	17,926,041	586,512	4,440,152	6,793,082	6,106,205
New Jersey.....	17	14,289,787	655,222	2,891,134	5,505,557	5,237,874
Pennsylvania.....	144	25,005,303	1,268,881	4,783,510	7,041,270	11,011,042
Maryland.....	12	6,955,140	569,200	1,282,895	3,670,678	1,523,460
Southern states ²	548	230,210,350	8,296,664	45,271,504	112,637,743	64,044,448
Virginia.....	10	7,067,428	1,639,886	1,178,110	2,871,001	1,377,732
North Carolina.....	212	57,413,418	1,790,581	10,701,840	28,484,810	16,436,178
South Carolina.....	127	82,337,420	1,998,956	15,766,566	41,950,430	22,021,471
Georgia.....	103	42,349,618	1,459,330	9,211,392	19,543,450	12,035,437
Alabama.....	40	24,758,049	670,901	4,906,740	12,048,580	7,041,822
Mississippi.....	14	4,620,153	117,624	1,043,673	2,242,071	1,116,865
Louisiana.....	3	1,795,794	134,018	380,750	820,220	400,800
Texas.....	13	2,729,235	91,452	498,781	1,405,847	733,155
Kentucky.....	4	2,155,883	42,574	416,392	615,150	781,857
Tennessee.....	16	5,113,372	261,442	1,077,341	2,315,458	1,430,131
Western states.....	15	5,930,583	210,500	1,109,905	2,402,741	2,114,377
Ohio.....	3	190,159	1,500	21,042	61,500	105,517
Indiana.....	5	2,270,816	78,000	503,233	1,124,167	671,416
Wisconsin.....	3	431,544	45,000	102,615	151,153	133,376
All other Western states ³	4	3,038,064	95,000	573,075	1,065,021	1,304,068
All other states ⁴	3	487,150	14,134	75,304	207,875	120,747

¹ Delaware included in "all other states."

² Arkansas included in "all other states."

³ Includes establishments distributed as follows: California, 1; Illinois, 2; Missouri, 1.

⁴ Includes establishments distributed as follows: Arkansas, 2; Delaware, 1.

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TABLE 21.—COTTON GOODS—DETAILED SUMMARY, BY STATES AND GEOGRAPHIC DIVISIONS: 1905—Continued.

STATE.	Proprietors and firm members.	SALARIED OFFICIALS, CLERKS, ETC.									
		Aggregate number.	Aggregate salaries.	Officers of corporations.			General superintendents, managers, clerks, etc.				
				Number.	Salaries.	Total number.	Total salaries.	Men.		Women.	
								Number.	Salaries.	Number.	Salaries.
United States.....	367	6,738	\$9,911,767	1,432	\$3,711,429	5,306	\$6,260,338	4,871	\$5,992,287	435	\$208,051
New England states.....	98	2,908	4,950,079	415	1,727,978	2,493	3,222,101	2,286	3,119,864	207	102,237
Maine.....	4	200	341,724	37	145,118	163	196,606	160	195,087	3	1,519
New Hampshire.....	4	309	516,052	29	122,133	280	393,910	254	380,601	26	13,318
Vermont.....	4	27	38,113	4	9,760	23	28,413	22	28,113	1	300
Massachusetts.....	34	1,504	2,658,658	187	928,843	1,317	1,729,815	1,196	1,669,836	121	59,979
Rhode Island.....	43	526	891,360	101	356,459	425	534,861	394	519,990	31	14,871
Connecticut.....	17	342	504,172	57	165,685	285	338,487	260	326,237	25	12,250
Middle states.....	201	992	1,446,536	112	315,727	880	1,130,809	776	1,073,143	110	57,666
New York.....	12	194	281,068	32	93,742	162	187,326	148	181,015	14	6,311
New Jersey.....	4	135	239,051	15	48,905	120	190,146	111	186,084	9	4,062
Pennsylvania.....	182	563	833,587	58	158,100	505	675,487	420	628,892	85	46,595
Maryland.....	8	100	92,830	7	14,980	93	77,850	91	77,152	2	698
Southern states.....	55	2,732	3,360,232	583	1,620,224	1,840	1,740,008	1,742	1,695,176	107	44,832
Virginia.....	45	45	64,794	14	33,085	31	31,769	30	31,353	1	356
North Carolina.....	33	903	973,148	320	470,933	583	502,215	564	495,034	19	7,181
South Carolina.....	6	761	1,088,308	230	529,354	531	478,954	493	465,413	38	13,541
Georgia.....	13	558	725,947	183	344,106	375	381,841	343	364,878	32	16,963
Alabama.....	1	259	342,879	74	148,026	185	194,873	177	191,899	8	2,974
Mississippi.....	64	64	79,321	24	32,170	40	47,151	37	45,471	3	1,680
Louisiana.....	15	15	24,842	3	10,125	12	14,717	9	13,437	3	1,280
Texas.....	36	36	36,187	5	6,300	31	29,887	31	29,887	2	757
Kentucky.....	25	25	25,249	7	12,500	18	12,749	16	11,992	2	100
Tennessee.....	2	66	79,557	23	33,645	43	45,912	42	45,812	1	100
Western states.....	8	94	141,577	20	41,900	74	99,677	63	96,361	11	3,316
Ohio.....	4	6	13,990	2	8,600	4	5,390	4	5,390	2	429
Indiana.....	4	34	50,548	10	24,550	24	25,998	22	25,569	2	286
Wisconsin.....	4	20	31,956	2	150	18	31,866	17	31,520	1	260
All other Western states.....	1	30	45,083	6	8,600	28	36,483	20	33,882	8	2,601
All other states.....	12	12	13,343	2	5,600	10	7,743	10	7,743	.....	.....

STATE.	WAGE-EARNERS, INCLUDING PIECEWORKERS, AND TOTAL WAGES.									
	Greatest number employed at any one time during the year.	Least number employed at any one time during the year.	Average number.	Total wages.	Men 16 years and over.		Women 16 years and over.		Children under 16 years.	
					Average number.	Wages.	Average number.	Wages.	Average number.	Wages.
United States.....	351,415	285,302	310,458	\$94,377,696	145,718	\$52,212,730	124,711	\$35,872,510	40,029	\$6,292,456
New England states.....	174,457	144,464	155,981	58,530,767	76,483	31,133,293	70,113	23,306,172	9,385	2,091,302
Maine.....	13,539	11,600	12,382	4,036,858	5,323	2,050,210	6,469	1,892,853	590	93,795
New Hampshire.....	21,281	17,021	19,731	7,372,808	9,697	4,049,098	9,025	3,246,693	409	77,017
Vermont.....	936	752	851	241,400	370	124,587	430	100,741	51	10,072
Massachusetts.....	100,982	82,106	88,093	32,352,325	43,393	17,787,769	39,054	13,261,481	5,586	1,303,075
Rhode Island.....	23,712	20,240	21,917	7,890,160	10,593	4,355,559	9,577	3,122,844	1,947	431,757
Connecticut.....	13,947	12,145	13,007	4,637,216	7,107	2,786,070	5,158	1,675,560	802	175,586
Middle states.....	35,216	28,592	31,733	11,412,000	13,852	6,378,377	15,116	4,562,193	2,765	471,430
New York.....	9,707	7,516	8,589	3,000,193	4,434	1,746,218	3,860	1,198,389	295	55,588
New Jersey.....	5,764	5,026	5,362	2,021,841	2,016	1,006,946	2,848	918,827	498	96,068
Pennsylvania.....	15,491	12,361	13,739	5,455,858	6,056	3,172,128	6,546	2,054,930	1,187	228,800
Maryland.....	4,254	3,689	3,993	934,108	1,346	453,085	1,862	390,047	785	90,976
Southern states.....	138,177	109,623	120,000	25,022,047	54,577	14,345,914	37,885	7,598,472	27,538	3,677,661
Virginia.....	3,658	3,478	3,456	883,908	1,783	535,847	1,260	288,836	413	59,225
North Carolina.....	42,142	33,467	36,356	7,503,512	15,909	4,065,176	12,235	2,374,443	8,212	1,063,893
South Carolina.....	42,950	34,182	37,271	7,701,689	18,279	4,450,175	10,157	2,023,517	8,835	1,218,997
Georgia.....	27,459	21,956	24,130	5,313,392	10,851	3,067,435	7,873	1,563,361	5,406	682,596
Alabama.....	12,834	9,616	11,480	2,457,428	5,009	1,361,106	3,377	663,647	3,094	403,175
Mississippi.....	2,439	2,056	2,161	518,448	809	246,085	796	198,037	556	74,326
Louisiana.....	1,108	652	828	198,312	232	88,453	408	87,639	188	22,720
Texas.....	1,583	953	993	269,737	420	144,315	368	89,781	205	35,641
Kentucky.....	1,188	961	1,031	243,215	354	103,866	576	121,765	101	17,584
Tennessee.....	2,816	2,302	2,294	531,406	931	274,456	835	157,446	528	99,504
Western states.....	3,204	2,337	2,496	738,328	739	331,491	1,467	363,057	290	43,780
Ohio.....	120	104	107	27,185	20	11,290	87	15,895	.....	.....
Indiana.....	1,596	1,047	1,174	302,035	319	109,713	774	180,436	81	11,886
Wisconsin.....	286	227	161	43,760	65	21,840	88	20,620	8	1,300
All other Western states.....	1,202	959	1,054	365,348	335	188,648	518	146,106	201	30,594
All other states.....	361	286	248	74,554	67	23,655	130	42,616	51	8,283

COTTON MANUFACTURES.

TABLE 21.—COTTON GOODS—DETAILED SUMMARY, BY STATES AND GEOGRAPHIC DIVISIONS: 1905—Continued.

STATE.	AVERAGE NUMBER OF WAGE-EARNERS, INCLUDING PIECEWORKERS, EMPLOYED DURING EACH MONTH.											
	Men 16 years and over.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
United States.....	152,133	151,524	150,720	150,075	147,936	146,342	140,724	131,018	135,524	144,418	147,143	150,150
New England states.....	81,070	81,121	80,442	80,159	79,000	78,103	74,010	66,805	67,656	74,049	76,200	78,464
Maine.....	5,534	5,505	5,354	5,592	5,425	5,406	5,064	4,769	4,742	5,274	5,562	5,640
New Hampshire.....	9,088	9,717	9,681	9,728	9,843	9,774	9,330	9,358	9,068	9,830	9,812	9,926
Vermont.....	385	412	406	400	371	351	341	335	359	359	359	353
Massachusetts.....	47,112	47,212	47,000	46,604	45,996	45,021	42,063	35,497	35,657	41,447	42,655	44,452
Rhode Island.....	11,016	10,888	10,633	10,500	10,312	10,500	10,400	10,152	10,329	10,592	10,732	11,045
Connecticut.....	7,344	7,387	7,368	7,317	7,143	7,042	6,803	6,694	6,601	7,147	7,090	7,039
Middle states.....	14,326	14,121	14,083	13,760	13,536	13,438	13,453	13,447	13,473	14,019	14,114	14,454
New York.....	4,593	4,451	4,398	4,318	4,336	4,288	4,357	4,305	4,140	4,522	4,663	4,837
New Jersey.....	2,063	2,076	2,066	2,030	1,986	1,957	1,961	1,966	1,964	2,011	2,030	2,042
Pennsylvania.....	6,261	6,224	6,229	6,043	5,867	5,910	5,859	5,853	6,047	6,144	6,055	6,180
Maryland.....	1,379	1,370	1,340	1,369	1,337	1,283	1,276	1,323	1,322	1,342	1,306	1,305
Southern states.....	55,822	55,374	55,292	55,271	54,467	54,059	52,627	51,115	53,737	54,851	55,963	56,346
Virginia.....	1,786	1,788	1,788	1,785	1,797	1,801	1,796	1,799	1,705	1,701	1,823	1,827
North Carolina.....	16,478	16,464	16,437	16,303	16,088	15,759	14,844	14,141	15,033	16,000	16,302	16,380
South Carolina.....	18,021	18,146	18,241	18,375	18,111	18,113	17,926	18,224	18,562	18,498	18,442	18,480
Georgia.....	11,395	10,972	10,891	10,876	10,749	10,916	10,640	9,733	10,307	10,814	11,344	11,515
Alabama.....	5,060	5,039	4,974	5,041	5,035	4,896	4,910	4,066	4,974	5,119	5,140	4,946
Mississippi.....	868	870	864	851	821	818	814	707	776	775	770	766
Louisiana.....	294	294	294	241	187	187	187	187	187	242	242	242
Texas.....	511	485	475	402	408	374	371	312	326	375	498	503
Kentucky.....	460	307	405	400	383	339	297	266	298	316	341	376
Tennessee.....	1,009	919	923	937	878	856	842	840	909	921	1,043	1,005
Western states.....	848	850	852	812	780	684	570	496	605	807	766	798
Ohio.....	26	22	21	22	21	20	22	20	19	19	19	9
Indiana.....	374	381	377	374	358	277	209	184	260	386	328	320
Wisconsin.....	93	86	89	49	49	57	57	56	53	50	50	94
All other Western states.....	355	361	365	367	352	333	282	236	273	352	360	375
All other states.....	58	58	60	73	63	58	55	55	53	92	91	88

STATE.	AVERAGE NUMBER OF WAGE-EARNERS, INCLUDING PIECEWORKERS, EMPLOYED DURING EACH MONTH—continued.											
	Women 16 years and over.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
United States.....	131,060	130,545	129,046	129,342	127,542	125,654	110,978	110,370	114,090	123,557	126,151	128,201
New England states.....	74,507	74,340	73,728	73,053	72,045	71,851	67,925	60,190	61,321	68,613	70,186	72,088
Maine.....	6,656	6,048	6,464	6,683	6,555	6,509	6,170	5,903	6,044	6,391	6,727	6,779
New Hampshire.....	9,519	9,541	9,620	9,783	9,783	9,738	9,500	9,360	9,607	9,807	9,744	9,731
Vermont.....	466	430	433	453	457	437	427	384	415	437	397	424
Massachusetts.....	42,764	42,655	42,540	42,302	41,795	40,765	37,684	30,530	31,222	37,307	38,701	40,305
Rhode Island.....	9,778	9,732	9,409	9,315	9,063	9,224	9,246	9,046	9,144	9,418	9,478	9,641
Connecticut.....	5,324	5,334	5,323	5,280	5,202	5,178	4,889	4,877	4,880	5,193	5,139	5,208
Middle states.....	15,431	15,363	15,282	14,960	14,941	14,849	14,704	14,596	14,960	15,308	15,438	15,621
New York.....	3,885	3,807	3,872	3,780	3,811	3,771	3,792	3,600	3,724	3,941	4,072	4,175
New Jersey.....	2,628	2,625	2,881	2,800	2,838	2,822	2,798	2,816	2,821	2,823	2,824	2,830
Pennsylvania.....	6,739	6,676	6,639	6,427	6,429	6,400	6,299	6,259	6,603	6,683	6,660	6,732
Maryland.....	1,870	1,805	1,803	1,892	1,803	1,847	1,815	1,831	1,812	1,861	1,878	1,878
Southern states.....	30,204	30,029	30,079	30,941	30,968	30,632	30,240	34,565	36,446	37,802	38,830	38,786
Virginia.....	1,287	1,277	1,274	1,270	1,288	1,288	1,288	1,137	1,137	1,270	1,200	1,200
North Carolina.....	12,577	12,581	12,764	12,608	12,338	12,125	11,415	10,909	12,081	12,383	12,536	12,504
South Carolina.....	10,152	10,259	10,253	10,475	10,180	10,281	9,907	9,844	9,942	10,031	10,263	10,207
Georgia.....	8,288	8,040	8,000	7,987	7,935	7,914	7,688	6,930	7,424	7,830	8,171	8,230
Alabama.....	3,541	3,540	3,478	3,476	3,380	3,356	3,298	3,247	3,217	3,328	3,375	3,282
Mississippi.....	853	844	834	833	807	802	807	805	770	770	780	761
Louisiana.....	543	545	545	427	307	307	307	307	307	435	433	433
Texas.....	480	445	428	357	324	316	324	274	282	330	435	421
Kentucky.....	643	639	651	640	629	615	487	484	473	557	583	602
Tennessee.....	930	859	852	850	774	728	728	720	817	832	905	956
Western states.....	1,700	1,742	1,720	1,657	1,561	1,200	976	863	1,240	1,680	1,555	1,662
Ohio.....	91	91	91	90	86	85	87	90	89	88	89	67
Indiana.....	887	921	927	928	881	551	425	345	608	967	858	870
Wisconsin.....	143	149	120	60	58	66	66	65	62	69	50	151
All other Western states.....	570	581	582	579	536	506	398	393	391	545	552	574
All other states.....	128	131	128	132	127	122	124	123	123	146	142	135

MANUFACTURES.

TABLE 21.—COTTON GOODS—DETAILED SUMMARY, BY STATES AND GEOGRAPHIC DIVISIONS: 1905—Continued.

STATE.	AVERAGE NUMBER OF WAGE-EARNERS, INCLUDING PIECEWORKERS, EMPLOYED DURING EACH MONTH—continued.											
	Children under 16 years.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
United States	41,423	41,180	41,039	40,803	40,059	39,627	38,318	37,133	38,494	39,961	40,787	41,524
New England states	9,782	9,829	9,751	9,694	9,615	9,510	9,077	8,575	8,570	9,108	9,320	9,789
Maine	599	609	588	606	598	613	583	539	538	585	607	615
New Hampshire	400	374	375	390	417	423	439	414	421	425	416	414
Vermont	32	47	42	49	44	67	76	54	42	51	58	59
Massachusetts	5,933	6,062	5,990	5,922	5,838	5,707	5,302	4,917	4,902	5,295	5,417	5,807
Rhode Island	2,018	2,063	1,937	1,915	1,911	1,913	1,918	1,869	1,892	1,943	1,984	2,061
Connecticut	809	794	819	821	807	787	759	782	775	809	838	833
Middle states	2,871	2,862	2,827	2,814	2,701	2,722	2,689	2,654	2,727	2,760	2,764	2,789
New York	315	298	318	307	297	311	318	308	299	265	261	273
New Jersey	592	515	518	503	486	477	485	487	490	502	506	505
Pennsylvania	1,241	1,222	1,154	1,189	1,150	1,161	1,118	1,085	1,201	1,241	1,251	1,240
Maryland	813	827	837	824	768	773	768	774	767	752	746	771
Southern states	28,427	28,135	28,104	27,933	27,406	27,120	26,267	25,630	26,864	27,699	28,313	28,538
Virginia	422	420	420	423	422	423	418	350	350	423	441	444
North Carolina	8,496	8,468	8,558	8,436	8,305	8,112	7,614	7,326	8,095	8,263	8,405	8,466
South Carolina	8,770	8,925	8,958	8,964	8,744	8,746	8,658	8,705	8,840	8,798	8,918	8,994
Georgia	5,815	5,468	5,396	5,365	5,370	5,393	5,176	4,833	5,120	5,475	5,691	5,770
Alabama	3,148	3,098	3,052	3,123	3,030	2,977	2,931	3,013	3,243	3,233	3,233	3,220
Mississippi	614	611	577	604	559	553	541	469	533	545	538	528
Louisiana	261	261	261	269	158	158	158	158	158	158	158	158
Texas	223	225	231	206	200	175	196	166	168	193	245	242
Kentucky	120	116	122	113	119	97	78	76	76	89	95	109
Tennessee	558	543	529	510	499	486	497	495	511	512	589	607
Western states	308	316	316	294	293	234	245	234	291	320	306	323
Ohio												
Indiana	91	94	98	91	94	40	45	43	101	108	82	85
Wisconsin	25	16	13	2	2	4	3	3	3	3	3	19
All other Western states	192	206	205	201	197	190	197	188	187	209	221	219
All other states	35	38	41	48	44	41	40	40	42	74	84	85

STATE.	SKILLED OPERATIVES (AVERAGE NUMBER).							MACHINERY.		
	Spinners, mule.	Spinners, frame.			Weavers.			Producing spindles, not including twisting and doubling spindles (number).		
		Men 16 years and over.	Men 16 years and over.	Women 16 years and over.	Children under 16 years.	Men 16 years and over.	Women 16 years and over.	Children under 16 years.	Total.	Mule.	Frame.
United States	4,866	10,709	25,701	19,078	48,248	48,325	2,234	23,155,613	5,221,857	17,933,756
New England states	3,691	3,803	12,377	2,535	24,767	28,449	716	13,911,241	4,147,290	9,763,951
Maine	207	99	1,310	177	1,776	2,725	12	891,246	223,724	667,522
New Hampshire	257	373	1,441	184	2,430	3,961	45	1,301,281	269,076	1,032,205
Vermont	19	14	60	32	103	184	.....	108,028	27,716	80,312
Massachusetts	2,135	2,482	7,305	1,402	14,552	16,473	531	8,411,249	2,329,060	6,082,189
Rhode Island	631	346	1,383	460	3,710	3,506	62	2,049,522	850,238	1,199,284
Connecticut	442	489	848	280	2,196	1,600	66	1,149,915	447,476	702,439
Middle states	714	174	1,241	264	4,315	5,236	170	1,541,167	845,647	695,520
New York	342	100	482	37	934	1,572	19	704,634	376,502	328,132
New Jersey	219	22	174	10	343	202	1	436,764	348,804	87,960
Pennsylvania	153	19	242	151	2,810	2,728	91	266,097	120,341	145,756
Maryland		33	343	66	228	734	59	133,672	.....	133,672
Southern states	434	6,637	11,717	16,187	19,061	13,813	1,342	7,494,905	194,852	7,300,053
Virginia	27	290	408	281	756	625	45	193,062	3,088	189,974
North Carolina	58	1,759	3,813	4,192	4,714	3,724	335	1,880,950	66,760	1,814,150
South Carolina	58	2,320	3,364	5,835	7,707	3,598	459	2,864,092	15,112	2,848,980
Georgia	221	984	1,877	3,086	3,035	2,900	267	1,316,573	69,272	1,247,301
Alabama	12	785	1,269	1,863	2,065	1,591	136	758,087	7,000	751,087
Mississippi		70	169	275	203	14	.....	125,352	.....	125,352
Louisiana	4		72	42	.....	227	51	59,052	2,500	56,552
Texas		63	167	186	209	.....	.....	68,170	.....	68,170
Kentucky	24	42	200	11	35	187	15	76,192	21,120	55,072
Tennessee	30	324	378	416	337	453	20	153,375	10,000	143,375
Western states	27	82	325	52	80	750	6	186,904	34,068	152,836
Ohio										
Indiana	17	62	238	38	27	466	.....	119,252	18,068	101,184
Wisconsin		20	23	3	15	59	1	13,136	.....	13,136
All other Western states	10		64	11	38	205	5	54,616	16,000	38,616
All other states			13	41	40	25	77	21,396	.....	21,396

COTTON MANUFACTURES.

TABLE 21.—COTTON GOODS—DETAILED SUMMARY, BY STATES AND GEOGRAPHIC DIVISIONS: 1905—Continued.

STATE.	MACHINERY—continued.									MISCELLANEOUS EXPENSES.				
	Looms (number).									Total.	Rent of works.	Taxes.	Rent of offices, interest, insurance, etc.	Contract work.
	Total.	On plain cloths.				On twills, including sateens.	On fancy weaves.	On tapes and other narrow goods.	On bags and other special fabrics.					
		Less than 28 inches wide.	28 to 32 inches wide.	32 to 36 inches wide.	More than 36 inches wide.									
United States.....	540,910	31,001	115,066	94,649	160,231	68,038	62,214	1,439	6,472	\$20,030,801	\$650,745	\$4,141,364	\$24,078,875	\$460,817
New England states.....	324,058	11,228	81,742	40,343	89,978	55,093	41,443	711	3,520	15,738,154	492,877	2,770,671	12,148,247	320,350
Maine.....	24,189	144	3,405	600	10,924	4,770	3,410	82	755	1,203,933	10,532	265,519	709,467	218,415
New Hampshire.....	36,115	753	10,438	2,087	6,608	9,051	283	.....	205	1,827,545	300	288,211	1,528,075	10,050
Vermont.....	2,530	801	1,280	.....	155	303	.....	.....	.....	101,434	.....	5,808	95,628	.....
Massachusetts.....	194,686	9,394	53,848	32,145	47,574	23,009	20,646	210	870	9,276,447	12,595	1,821,298	7,435,765	0,791
Rhode Island.....	45,733	46	3,301	2,247	17,553	12,037	8,543	416	1,600	2,165,085	450,302	214,861	1,352,864	88,058
Connecticut.....	20,790	90	3,380	2,674	7,164	4,033	2,552	3	.....	1,163,110	10,148	124,078	1,025,548	2,436
Middle states.....	31,510	5,722	1,002	2,550	8,000	1,915	10,007	64	1,284	3,598,481	157,333	303,726	3,050,002	78,300
New York.....	12,464	4,808	50	1,254	4,233	1,126	145	.....	838	954,185	5,750	141,078	806,574	783
New Jersey.....	2,237	28	4	100	810	462	716	.....	117	450,300	3,456	66,918	363,853	16,183
Pennsylvania.....	14,083	545	438	796	2,985	567	.....	64	295	2,020,752	144,157	67,584	1,753,597	61,414
Maryland.....	2,720	341	510	406	932	.....	513	.....	24	167,154	3,970	28,140	136,038	.....
Southern states.....	170,512	14,510	33,117	48,613	50,706	11,030	10,605	270	1,562	10,312,913	5,302	1,040,438	9,230,207	27,876
Virginia.....	5,464	1,432	980	.....	3,017	.....	35	.....	.....	284,601	2,800	29,080	252,111	.....
North Carolina.....	43,219	7,237	10,280	7,982	10,229	2,200	4,589	.....	696	2,637,939	.....	256,269	2,375,861	4,809
South Carolina.....	72,702	3,153	9,209	10,590	32,757	4,428	3,084	270	202	3,220,796	.....	377,000	2,820,120	23,067
Georgia.....	31,210	1,000	5,216	12,335	6,705	3,006	1,702	.....	586	2,305,611	.....	277,100	2,110,412	.....
Alabama.....	15,050	342	5,729	4,448	4,223	568	349	.....	.....	1,002,033	.....	50,241	951,792	.....
Mississippi.....	3,472	685	476	1,101	1,148	02	.....	.....	.....	232,414	.....	12,053	220,358	.....
Louisiana.....	1,600	.....	600	616	.....	.....	384	.....	.....	60,053	.....	3,609	65,054	.....
Texas.....	1,880	.....	510	700	922	50	.....	.....	4	98,436	.....	8,413	85,023	.....
Kentucky.....	1,292	.....	122	1,170	.....	.....	.....	.....	.....	124,413	1,302	8,863	114,248	.....
Tennessee.....	3,008	70	595	678	389	650	552	.....	74	242,020	1,200	10,102	235,818	.....
Western states.....	5,352	432	55	2,950	1,337	.....	00	304	100	258,836	4,233	24,270	212,105	18,222
Ohio.....	400	.....	.....	.....	.....	.....	.....	304	6	10,735	4,233	1,400	5,042	.....
Indiana.....	3,105	410	45	1,985	725	.....	.....	.....	.....	119,844	.....	13,501	100,343	.....
Wisconsin.....	364	20	10	324	10	.....	.....	.....	.....	17,568	.....	2,311	15,257	.....
All other Western states.....	1,423	2	.....	650	602	.....	60	.....	100	110,080	.....	7,004	85,303	18,222
All other states.....	478	.....	50	178	250	.....	.....	.....	.....	22,417	.....	2,253	20,164	.....

STATE.	MATERIALS USED.									Products, total value.
	Aggregate cost.	Principal materials.			Fuel.	Rent of power and heat.	Mill supplies.	All other materials.	Freight.	
		Total cost.	Purchased in raw state.	Purchased in partially manufactured form.						
United States.....	\$282,047,648	\$256,454,065	\$221,821,044	\$33,633,021	\$0,002,348	\$464,023	\$7,207,475	\$8,177,730	\$750,201	\$442,451,218
New England states.....	135,903,140	121,502,143	104,985,215	16,516,928	4,080,050	148,738	3,805,658	5,068,219	338,200	224,072,592
Maine.....	9,173,226	8,410,230	7,810,400	608,830	220,301	16,325	314,704	183,200	10,271	15,405,823
New Hampshire.....	18,406,971	16,850,243	15,705,596	1,150,647	620,040	20,250	269,027	681,735	34,007	20,540,770
Vermont.....	729,004	600,292	629,710	31,582	31,005	300	32,452	200	1,845	1,086,522
Massachusetts.....	70,707,088	70,850,128	62,232,818	8,626,310	3,031,717	84,418	2,185,201	3,453,493	163,041	120,171,440
Rhode Island.....	17,000,470	15,832,332	11,747,125	4,085,207	720,671	14,845	651,012	373,040	70,370	30,628,843
Connecticut.....	10,070,201	8,874,909	6,800,500	2,014,343	340,953	3,600	413,082	375,045	53,102	18,230,156
Middle states.....	30,630,344	27,586,000	15,050,092	12,636,007	708,922	120,117	523,075	1,478,981	113,250	50,077,986
New York.....	8,402,001	7,065,198	6,190,170	1,475,019	243,087	81,512	135,015	230,000	47,180	13,017,004
New Jersey.....	5,142,785	4,100,063	2,047,840	1,512,253	175,705	2,805	63,102	604,050	15,080	8,578,527
Pennsylvania.....	13,211,483	12,072,237	2,918,136	9,154,101	302,701	44,740	201,670	550,838	30,287	24,130,813
Maryland.....	3,873,475	3,688,571	3,293,937	394,634	70,700	.....	94,008	3,184	10,853	5,244,742
Southern states.....	112,832,038	103,878,730	90,508,500	4,370,239	4,021,108	170,790	2,870,043	1,592,640	202,043	163,308,050
Virginia.....	2,802,200	2,688,898	2,596,425	92,473	48,650	.....	62,202	2,020	385	4,484,131
North Carolina.....	33,026,340	30,492,830	27,822,753	2,670,077	1,323,480	0,332	771,634	313,544	114,511	47,254,054
South Carolina.....	34,308,311	31,230,201	30,760,178	470,023	1,478,500	94,485	1,130,578	324,437	41,091	40,437,044
Georgia.....	23,832,207	21,851,341	21,132,744	718,597	610,065	55,160	534,420	671,020	100,682	35,174,248
Alabama.....	12,010,708	11,312,501	11,085,703	226,798	200,092	3,500	204,460	170,327	14,210	10,700,352
Mississippi.....	1,048,842	1,456,207	1,404,002	51,635	93,388	.....	73,041	17,217	8,200	2,402,808
Louisiana.....	780,033	700,026	680,311	28,715	35,853	.....	10,075	14,431	11,248	1,081,051
Texas.....	1,017,908	929,064	918,977	10,987	42,250	8,322	25,247	11,825	.....	1,587,289
Kentucky.....	1,164,070	1,090,105	1,051,887	38,218	38,218	.....	0,622	44,000	.....	1,804,018
Tennessee.....	2,240,073	2,108,516	2,045,800	62,716	55,654	.....	57,326	17,819	1,668	3,500,984
Western states.....	2,505,458	2,330,580	2,121,421	200,159	93,407	11,000	27,783	35,107	0,612	3,757,155
Ohio.....	88,540	84,185	84,185	.....	1,740	.....	800	1,544	277	154,250
Indiana.....	1,130,702	1,063,435	1,068,538	4,807	55,825	.....	8,500	0,942	5,000	1,483,513
Wisconsin.....	377,014	363,472	341,234	22,238	8,610	400	2,112	2,800	420	563,007
All other Western states.....	890,200	810,488	721,040	97,839	27,232	11,500	10,371	23,781	915	1,500,385
All other states.....	170,668	157,404	150,716	688	8,705	4,300	3,416	2,728	.....	275,456

MANUFACTURES.

TABLE 21.—COTTON GOODS—DETAILED SUMMARY, BY STATES AND GEOGRAPHIC DIVISIONS: 1905—Continued.

STATE.	Number of establishments reporting.	Total horse-power.	POWER.											Furnished to other establishments, horse-power	
			Owned.								Rented.				
			Engines.				Water wheels.		Electric motors.		Other power, horse-power.	Electric motors.			Other kind, horse-power.
			Steam.		Gas and gasoline.		Number.	Horse-power.	Number.	Horse-power.		Number.	Horse-power.		
Number.	Horse-power.	Number.	Horse-power.	Number.	Horse-power.	Number.					Horse-power.				
United States	1,073	1,031,843	2,002	702,023	16	1,095	1,218	251,884	707	52,734	722	302	13,565	9,220	15,739
New England states	307	553,077	912	368,888	1	15	799	154,527	303	22,455	.....	33	1,285	6,507	13,988
Maine	15	39,836	26	10,930	.....	.....	.....	124	27,751	41	2,000	8	555	.....	6,333
New Hampshire	25	70,405	90	40,303	.....	.....	.....	104	31,072	40	3,865	8	465	3,700	7,200
Vermont	4	4,353	7	2,064	.....	.....	.....	9	1,259	1	10	1	20	.....	2
Massachusetts	142	309,616	594	237,898	.....	.....	.....	292	54,422	189	14,549	4	65	2,712	375
Rhode Island	72	71,925	115	52,382	.....	.....	.....	132	18,878	25	400	11	170	95	60
Connecticut	49	48,642	80	24,441	1	15	138	23,145	7	1,031	.....	1	10	.....	18
Middle states	200	76,460	289	60,327	6	212	72	11,169	127	1,915	450	26	674	1,713	765
New York	30	25,674	49	16,956	2	85	36	7,435	22	212	450	15	527	9	370
New Jersey	17	15,638	87	14,461	.....	.....	.....	12	965	17	159	.....	.....	62	28
Pennsylvania	141	22,843	129	19,320	4	127	7	324	84	1,273	.....	11	147	1,642	367
Maryland	12	12,245	24	9,550	.....	.....	.....	17	2,445	4	250	.....	.....	.....	.....
Southern states	548	390,695	769	262,993	8	1,463	340	85,888	329	28,078	72	177	11,201	1,000	986
Virginia	10	9,592	15	5,020	.....	.....	.....	33	3,420	3	162	.....	.....	.....	60
North Carolina	212	93,548	283	68,359	8	1,463	132	21,643	44	1,333	.....	3	750	.....	140
South Carolina	127	156,117	183	96,842	.....	.....	.....	84	29,568	200	22,720	133	6,687	.....	654
Georgia	168	80,536	135	59,672	.....	.....	.....	64	22,511	58	3,101	15	2,922	1,000	32
Alabama	46	28,084	75	18,860	.....	.....	.....	21	8,285	13	579	2	300	.....	.....
Mississippi	14	5,604	21	5,825	.....	.....	.....	2	37	.....	42	.....	.....	.....	.....
Louisiana	3	2,050	4	2,020	.....	.....	.....	.....	1	30	.....	.....	.....	.....	.....
Texas	13	3,523	17	3,270	.....	.....	.....	.....	4	71	.....	4	182	.....	75
Kentucky	4	3,085	9	3,085	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tennessee	16	8,346	27	7,840	.....	.....	.....	6	461	4	45	.....	.....	.....	25
Western states	15	10,211	27	9,215	1	5	7	300	8	286	.....	66	405	.....	.....
Ohio	3	330	2	275	1	5	2	50	.....	.....	.....	.....	.....	.....	.....
Indiana	5	5,266	13	5,250	.....	.....	.....	.....	.....	2	16	.....	.....	.....	.....
Wisconsin	3	940	3	670	.....	.....	.....	5	250	.....	.....	1	30	.....	.....
All other Western states	4	3,675	9	3,020	.....	.....	.....	.....	6	270	.....	65	385	.....	.....
All other states	3	800	5	600	.....	.....	.....	.....	.....	.....	200	.....	.....	.....	.....

TABLE 22.—COTTON GOODS—DETAILED SUMMARY OF MATERIALS AND PRODUCTS, UNITED STATES, BY GEOGRAPHIC DIVISIONS: 1905.

DIVISION.	MATERIALS USED.									
	Total cost.	Cotton.								
		Sea-island.			Other domestic.			Egyptian and other foreign.		
		Bales.	Pounds.	Cost.	Bales.	Pounds.	Cost.	Bales.	Pounds.	Cost.
United States	\$282,047,648	54,384	21,802,032	\$4,252,374	3,629,085	1,807,512,278	\$209,972,665	59,620	43,700,406	\$7,596,905
New England states	135,903,140	38,549	15,531,019	2,933,434	1,558,094	794,520,587	96,227,838	45,488	33,378,309	5,763,943
Middle states	30,736,671	11,308	4,301,170	929,735	221,643	111,973,103	13,166,496	7,660	5,634,006	1,040,183
Southern states	112,912,379	4,527	2,029,843	329,205	1,813,659	882,918,392	98,456,910	6,472	4,688,091	792,829
Western states	2,505,458	.....	.....	.....	85,689	18,100,196	2,121,421	.....	.....	.....

DIVISION.	MATERIALS USED—continued.													
	Yarns, purchased.													
	Cotton.		Woolen.		Worsted.		Silk.		Spun silk.		Linen.		Other yarns.	
	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.
United States	91,594,658	\$21,601,483	979,385	\$466,120	419,519	\$306,109	241,332	\$831,477	128,243	\$314,186	515,897	\$143,542	814,425	\$139,712
New England states	29,814,155	8,376,195	710,376	334,486	219,130	163,523	195,871	696,801	42,490	129,658	317,576	88,609	323,803	78,377
Middle states	48,972,626	10,846,351	267,709	131,084	200,389	142,586	45,461	134,676	85,753	184,528	197,321	54,733	478,480	59,645
Southern states	12,189,257	2,308,416	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8,542	1,408
Western states	618,620	170,521	1,300	550	.....	.....	.....	.....	.....	.....	1,000	200	3,600	282

COTTON MANUFACTURES.

TABLE 22.—COTTON GOODS—DETAILED SUMMARY OF MATERIALS AND PRODUCTS, UNITED STATES, BY GEOGRAPHIC DIVISIONS: 1905—Continued.

DIVISION.	MATERIALS USED—continued.									
	Waste.		Starch.		Chemicals and dyestuffs.	Fuel.	Rent of power and heat.	Mill supplies.	All other materials.	Freight.
	Pounds.	Cost.	Pounds.	Cost.						
United States.....	70,522,645	\$3,801,810	53,882,721	\$1,401,230	\$4,537,343	\$0,902,348	\$404,023	\$7,297,475	\$8,177,736	\$750,201
New England states.....	64,320,698	3,115,606	23,680,862	731,477	2,802,106	4,980,086	148,758	3,865,658	5,008,219	338,206
Middle states.....	5,183,974	277,348	4,108,805	113,952	501,611	798,922	133,477	526,595	1,481,549	113,250
Southern states.....	6,282,973	387,266	25,706,370	637,631	1,135,690	4,020,933	170,799	2,877,439	1,602,801	292,043
Western states.....	735,000	21,500	386,684	8,179	7,927	93,407	11,000	27,783	35,167	6,012

DIVISION.	Total value.	Plain cloths for printing or converting.				Brown or bleached sheetings and shirtings.		Tweills and sateens.	
		Not finer than No. 28 warp.		Finer than No. 28 warp.		Square yards.	Value.	Square yards.	Value.
		Square yards.	Value.	Square yards.	Value.				
		Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.
United States.....	\$442,451,218	812,240,704	\$32,945,604	1,005,906,408	\$47,365,018	1,172,369,182	\$61,253,376	360,142,513	\$23,701,305
New England states.....	224,072,562	575,335,710	22,002,978	550,187,298	28,247,137	373,140,737	22,383,212	277,867,170	10,214,221
Middle states.....	51,127,708	77,005,901	3,210,071	3,828,075	287,420	19,430,373	1,594,698	9,181,880	514,140
Southern states.....	163,493,793	159,748,144	6,730,645	495,951,035	18,831,361	737,040,905	35,515,020	70,001,454	3,972,044
Western states.....	3,757,155	100,000	3,000	3,000		42,670,167	1,760,446		

DIVISION.	PRODUCTS—continued.									
	Fancy woven fabrics.		Ginghams.		Dyck.				Drills.	
	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.
United States.....	300,254,085	\$28,480,342	302,310,132	\$22,471,867	0,580,510	\$1,540,745	113,014,693	\$15,465,237	104,735,303	\$12,596,063
New England states.....	215,165,411	20,262,762	183,167,367	13,710,001	650,858	115,265	22,377,010	2,697,662	30,047,654	2,313,409
Middle states.....	41,333,333	4,016,800	8,316,240	736,492	2,442,721	730,084	14,896,731	3,579,094	161,415	10,175
Southern states.....	40,755,020	3,282,684	130,842,555	8,018,474	6,480,040	605,300	74,600,680	9,085,595	164,285,778	10,252,187
Western states.....							830,303	102,800	260,556	20,202

DIVISION.	PRODUCTS—continued.									
	Ticks, donims, and stripes.		Cottonades.		Napped fabrics.		Corduroy, cotton velvet, and plush.		Mosquito and other netting.	
	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.
United States.....	250,375,480	\$23,707,578	25,362,340	\$2,008,971	330,808,140	\$26,108,315	16,014,550	\$4,790,573	30,232,018	\$794,953
New England states.....	109,080,600	11,151,740	2,702,418	332,307	243,402,230	20,385,676	7,571,915	2,151,434	18,024,880	414,206
Middle states.....	8,658,573	1,109,241	8,127,007	1,471,292	1,218,627	63,761	0,720,187	2,387,500	15,435,804	286,350
Southern states.....	138,630,223	11,630,507	14,531,931	1,105,282	80,007,274	5,658,878	1,713,454	251,573	4,772,108	94,208
Western states.....										

DIVISION.	PRODUCTS—continued.									
	Upholstery goods.								Bags and bagging.	
	Tapestries. (Pile goods and curtains.)		Chenille curtains.		Lace and lace curtains.		Other, including covers.		Square yards.	Value.
United States.....	0,005,000	\$4,242,500	208,108	\$63,190	53,511,222	\$7,208,211	2,207,816	\$507,785			57,067,693	$3,053,732
New England states.....	70,358	10,078			511,463	49,948	210,000	15,000	22,756,744	1,805,045
Middle states.....	0,303,648	4,202,055	208,108	63,190	51,075,750	6,016,363	1,180,573	507,037	595,561	105,283
Southern states.....	225,000	30,373					817,243	44,848	25,026,270	1,512,507
Western states.....					1,624,000	241,900			8,680,070	409,037

MANUFACTURES.

TABLE 22.—COTTON GOODS—DETAILED SUMMARY OF MATERIALS AND PRODUCTS, UNITED STATES, BY GEOGRAPHIC DIVISIONS: 1905—Continued.

DIVISION.	PRODUCTS—continued.									
	Tape and webbing.		Linen toweling and other linen goods.		Other towels and toweling.		Yarns for sale.		Sewing cotton.	
	Pieces.	Value.	Square yards.	Value.	Square yards.	Value.	Pounds.	Value.	Pounds.	Value.
United States.....	396,160	\$49,546	1,084,640	\$175,364	40,290,292	\$4,365,470	364,472,763	\$79,885,387	17,163,741	\$15,043,043
New England states.....	158,690	23,334	850,710	133,842	13,052,833	1,187,980	113,541,375	30,494,560	11,881,169	10,486,531
Middle states.....	230,000	22,462	33,930	11,522	10,052,125	1,583,818	44,932,994	9,415,333	4,570,031	4,403,743
Southern states.....					15,975,334	1,569,672	204,224,672	39,540,126	412,541	92,769
Western states.....	7,500	3,750	200,000	30,000	300,000	24,000	1,773,712	435,368	300,000	60,000

DIVISION.	PRODUCTS—continued.							
	Twine.		Batting and wadding.		Waste for sale.		Other products of cotton.	All other products.
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.		
United States.....	6,676,573	\$1,282,947	10,165,850	\$1,173,343	247,335,102	\$10,049,037	\$2,605,801	\$7,438,913
New England states.....	612,278	247,187	8,240,852	933,594	157,220,535	7,049,415	1,009,201	4,156,867
Middle states.....	1,419,433	216,370			12,583,697	539,570	737,902	1,411,865
Southern states.....	3,082,821	478,454	665,634	34,311	76,596,702	2,434,388	813,773	1,821,578
Western states.....	1,562,041	340,936	1,259,164	205,438	934,168	25,664	44,925	48,603

DIVISION.	WEIGHT OF PRODUCTS (POUNDS).			YARN PRODUCED (POUNDS).		
	Yarns spun and woven in mill.	Yarns spun and not woven in mill.	Other products.	No. 20 and under.	No. 21 to 40.	No. 41 and over.
United States.....	1,150,575,140	378,908,578	222,279,679	803,764,679	601,971,584	123,747,455
New England states.....	547,252,776	120,696,030	125,914,258	249,218,058	317,476,791	101,253,957
Middle states.....	52,790,838	50,256,499	15,421,028	68,769,518	29,651,774	4,635,045
Southern states.....	539,137,388	209,281,687	78,624,813	476,894,080	250,666,842	17,858,453
Western states.....	11,385,138	1,674,662	2,317,560	8,883,023	4,176,177	

DIVISION.	BLEACHING, MERCERIZING, DYEING, AND PRINTING.									
	Bleached.						Mercerized.			
	Cloth.		Cotton yarn.		Cotton stock.		Cloth.		Yarn.	
	Square yards.	Added value.	Pounds.	Added value.	Pounds.	Added value.	Square yards.	Added value.	Pounds.	Added value.
United States.....	163,850,648	\$726,520	26,323,599	\$366,831	12,815,649	\$247,304	550,711	\$1,686	1,045,409	\$56,951
New England states.....	133,299,370	593,269	21,014,749	281,247	10,428,099	186,594	550,711	1,686	1,016,124	51,387
Middle states.....	16,619,618	68,706	4,212,317	71,296	1,197,170	42,518			29,285	5,564
Southern states.....	13,579,660	56,525	1,696,533	14,288	890,380	12,192				
Western states.....	352,000	8,020			300,000	6,000				

DIVISION.	BLEACHING, MERCERIZING, DYEING, AND PRINTING—continued.									
	Dyed.						Printed.			Printing machines (number).
	Cloth.		Yarn.		Cotton stock.		Cloth.			
	Square yards.	Added value.	Pounds.	Added value.	Pounds.	Added value.	Square yards.	Added value.		
United States.....	72,715,539	\$664,636	105,122,713	\$3,366,044	64,572,211	\$1,455,386	185,040,034	\$2,671,674	57	
New England states.....	21,579,150	215,084	59,022,072	2,057,163	21,793,376	593,439	181,332,034	2,633,774	51	
Middle states.....	20,962,089	220,724	11,817,196	452,123	3,499,936	72,127	108,000	1,900		
Southern states.....	30,174,300	228,828	34,273,545	856,605	39,188,899	785,320	3,600,000	36,000	6	
Western states.....			9,900	148	90,000	4,500				

COTTON SMALL WARES.

The considerable number of establishments which use cotton yarn as their chief material, and yet do not produce commodities technically described as cotton goods, were in 1900, for the first time, taken out of the general tabulation of cotton manufactures and classified separately. The facts relating to these establishments are presented in Table 23, a comparative summary.

TABLE 23.—Cotton small wares—comparative summary, with per cent of increase: 1905 and 1900.

	1905	1900	Per cent of increase.
Number of establishments.....	77	82	16.1
Capital.....	\$8,010,491	\$6,307,385	25.2
Salaries officials, clerks, etc., number.....	243	180	28.6
Salaries.....	\$320,124	\$220,025	43.0
Wage-earners, average number.....	5,416	4,032	0.8
Total wages.....	\$1,828,100	\$1,603,442	16.0
Men 16 years and over.....	1,565	1,367	14.5
Wages.....	\$740,538	\$671,516	10.3
Women 16 years and over.....	3,452	3,173	8.8
Wages.....	\$1,023,474	\$828,732	23.6
Children under 16 years.....	300	302	1.8
Wages.....	\$64,088	\$63,194	1.4
Miscellaneous expenses.....	\$550,577	\$402,534	20.3
Cost of materials used.....	\$4,207,655	\$3,110,137	35.3
Value of products.....	\$8,010,480	\$6,304,164	25.4
Producing spindles, number.....	39,530	42,600	17.2
Looms, number ¹	18,386	5,070	202.0
Cotton consumed, bales.....	6,070	7,213	17.4
Cotton consumed, pounds.....	3,302,434	3,640,878	17.0

¹ Decrease.

² Includes looms on tapes and other narrow goods (braiding machines) not fully reported in 1900.

The explanation of the diminution of the number of establishments is to be found in the peculiar characteristics of this industry. The products are of great variety and the materials used in any particular establishment are not in all cases uniform from year to year. It is to be noted that the number of establishments reported in New York in 1905 was only 3 as compared with 18 in 1900. That 1 was idle, 4 were out of business, and 5 could not be found is an indication of the transitory character of some of the manufacturing business of this class. The manufacture is undertaken in a small way to produce articles which are either novelties, or as to which the popular taste is capricious, and after a short time deficient capital, or faulty management, or the failure of the market causes the manufacture to cease. But, in addition to the 10 New York concerns which fell victims to these or some other calamities, there were others which either began the use of so much silk yarn that they have been transferred to silk goods, or which have changed their product and are now classed as manufacturers of other products. On the other hand there were some new establishments and, in spite of the disappearances mentioned and transfers, the industry as a whole shows a large expansion during the last five years. The capital has increased from

\$6,397,385 to \$8,010,491. In 1900 the average capital to each establishment reported was less than \$80,000; it is now more than \$104,000. But, as a matter of fact, there are a few large concerns and many small ones. The three which are left in New York have a capital of \$548,200, an average of \$182,733. The 26 in Rhode Island, which is the chief seat of the multiform industries classed under this head, had a capital of \$3,949,625, an average of \$151,909. If we eliminate these from the total there are left 48, with a capital of \$3,512,666, an average of only \$73,181.

The statistics of persons employed and of the wages paid offer no matter requiring comment other than that they exhibit the expansion of business which is discoverable in the facts relating to industries generally, and which is usual in a period of general prosperity.

The number of spindles and the consumption of cotton by them have both decreased, but spinning by such establishments is quite unusual, and the decrease is not more than would be the result of the discontinuance of this process by one small concern. Of the 39,530 spindles reported for the United States in the foregoing table, 36,280 were in Rhode Island, 1,000 in Connecticut, 250 in Pennsylvania, and 2,000 in other states. The number of looms in use shows a great nominal increase, by far the largest part of which arises from the inclusion at this census of braiding machines and similar machinery which were not fully reported in 1900.

Of the materials used, aside from 3,362,434 pounds of raw cotton, valued at \$390,805, by far the largest amount was cotton yarn purchased. The list of yarns, with the quantity and cost thereof, is as follows:

Yarns purchased: 1905.

KIND.	Pounds.	Cost.
Total.....	14,240,020	\$3,233,933
Cotton.....	13,816,858	3,000,717
Woolen.....	8,000	4,000
Worsted.....	21,173	15,780
Silk.....	23,024	98,017
Spun silk.....	10,000	58,024
Linen.....	224,200	17,260
Other.....	135,775	20,035

Ninety-seven per cent in weight of the yarn purchased and 93.1 per cent in value was cotton, in each case a higher proportion than was reported in 1900—a result which is in part due to the present classification of the products of some establishments as silk goods that were then included in this branch of the textile industry. It has been impossible to make any proper classification of products. The articles made are of great variety, and for most of them no state-

MANUFACTURES.

ment of quantity would be intelligible even to persons familiar with the trade. It is interesting to note that the reported value of products both in 1900 and in 1905 is almost exactly equal to the reported capital at the same time.

Table 24 presents a comparative summary for cotton small wares, by states, for 1900 and 1905.

Table 25 is a detailed summary for cotton small wares, by states, for the census of 1905.

Table 26 is a detailed summary of materials and products for the United States for the census of 1905. The kind, quantity, and value of materials and products can not be shown by states without disclosing the operations of individual establishments.

TABLE 24.—COTTON SMALL WARES—COMPARATIVE SUMMARY, BY STATES: 1905 AND 1900.

STATE.	Census.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		WAGE-EARNERS AND WAGES.				
				Number.	Salaries.	Total.		Average number.		
						Average number.	Wages.	Men 16 years and over.	Women 16 years and over.	Children under 16 years.
United States.....	1905 1900	77 82	\$8,010,491 6,397,385	243 189	\$326,124 226,625	5,416 4,932	\$1,828,100 1,563,442	1,565 1,367	3,452 3,173	399 392
Massachusetts.....	1905 1900	19 14	883,262 528,258	48 24	54,859 32,150	607 430	202,692 151,254	194 140	382 241	31 49
New York.....	1905 1900	3 18	548,200 550,938	24 42	32,670 36,449	211 600	71,025 163,454	74 146	133 447	4 7
Pennsylvania.....	1905 1900	21 24	2,169,151 1,945,844	64 50	84,684 64,620	1,474 1,444	487,587 454,947	340 337	978 1,001	156 106
Rhode Island.....	1905 1900	26 16	3,949,625 2,876,699	85 48	129,639 67,924	2,841 2,209	1,000,006 735,888	848 650	1,857 1,379	136 180
All other states.....	1905 1900	8 10	460,253 495,646	22 25	24,272 25,482	283 249	66,790 57,899	109 94	102 105	72 50

STATE.	Census.	MACHINERY.		Miscellaneous expenses.	Cost of materials used.	Value of products.
		Spindles (number).	Looms (number). ²			
United States.....	1905 1900	39,530 42,600	18,386 5,070	\$556,577 462,534	\$4,207,655 3,110,137	\$8,016,486 6,394,164
Massachusetts.....	1905 1900	..... .....	5,506 302	54,737 31,754	500,864 321,007	897,533 646,848
New York.....	1905 1900	..... .....	894 192	22,136 34,497	242,125 460,876	416,000 840,017
Pennsylvania.....	1905 1900	..... .....	250 1,684	3,167 205,117	1,110,094 838,058	2,163,040 2,026,227
Rhode Island.....	1905 1900	..... .....	36,280 39,900	8,288 2,826	290,485 155,731	1,996,034 1,096,455
All other states.....	1905 1900	..... .....	3,000 2,700	531 66	53,594 35,435	358,538 293,741

¹Includes establishments distributed as follows: Connecticut, 3; Georgia, 1; Illinois, 1; New Hampshire, 1; New Jersey, 1; Ohio, 1.

²Includes establishments distributed as follows: Connecticut, 2; Georgia, 1; Indiana, 1; New Jersey, 5; Ohio, 1.

³Includes looms on tapes and other narrow goods (braiding machines), not fully reported in 1900.

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TABLE 25.—COTTON SMALL WARES—DETAILED SUMMARY, BY STATES: 1905.

	United States.	Connecticut.	Massachu- setts.	New York.	Pennsylva- nia.	Rhode Island.	All other states. ¹
Number of establishments.....	77	3	19	3	21	26	5
Capital, total.....	\$8,010,491	\$60,772	\$883,262	\$548,200	\$2,169,151	\$3,949,625	\$360,481
Land.....	\$368,036	\$50	\$31,746	\$33,100	\$67,400	\$225,540	\$10,200
Buildings.....	\$1,248,080	\$300	\$118,912	\$112,900	\$147,250	\$822,129	\$46,598
Machinery, tools, and implements.....	\$2,859,913	\$41,749	\$412,540	\$166,200	\$714,615	\$1,350,183	\$174,626
Cash and sundries.....	\$3,534,453	\$27,673	\$320,064	\$236,000	\$1,299,886	\$1,551,773	\$150,057
Proprietors and firm members.....	65	1	13	1	27	13	10
Salaried officials, clerks, etc.:							
Total number.....	243	8	48	24	64	85	14
Total salaries.....	\$326,124	\$11,712	\$54,859	\$32,670	\$84,084	\$120,639	\$12,560
Officers of corporations—							
Number.....	59	4	14	5	15	17	4
Salaries.....	\$152,292	\$8,800	\$25,595	\$16,000	\$44,880	\$52,017	\$5,001
General superintendents, managers, clerks, etc.—							
Total number.....	184	4	34	19	49	68	10
Total salaries.....	\$173,832	\$2,912	\$29,264	\$16,670	\$39,804	\$77,622	\$7,560
Men.....							
Number.....	145	2	29	16	34	55	9
Salaries.....	\$154,877	\$2,080	\$26,788	\$15,170	\$32,937	\$70,652	\$7,250
Women.....							
Number.....	30	2	5	3	15	13	1
Salaries.....	\$18,955	\$832	\$2,476	\$1,500	\$6,867	\$6,970	\$310
Wage-earners, including pieceworkers, and total wages:							
Greatest number employed at any one time during the year.....	6,020	44	689	251	1,599	3,143	294
Least number employed at any one time during the year.....	4,902	44	504	186	1,394	2,590	184
Average number.....	5,410	44	607	211	1,474	2,841	239
Total wages.....	\$1,828,100	\$15,800	\$202,692	\$71,025	\$487,887	\$1,000,006	\$50,990
Men 16 years and over—							
Average number.....	1,565	23	194	74	340	848	86
Wages.....	\$740,538	\$8,084	\$81,140	\$33,610	\$180,138	\$408,825	\$22,732
Women 16 years and over—							
Average number.....	3,452	21	382	133	978	1,857	81
Wages.....	\$1,023,474	\$7,716	\$115,291	\$36,665	\$270,900	\$597,526	\$10,376
Children under 16 years—							
Average number.....	309	.....	31	4	156	136	72
Wages.....	\$64,088	.....	\$0,252	\$750	\$24,649	\$23,655	\$8,882
Average number of wage-earners, including pieceworkers, employed during each month:							
Men 16 years and over—							
January.....	1,590	23	197	70	337	893	70
February.....	1,598	23	198	80	337	888	72
March.....	1,605	23	200	89	341	883	72
April.....	1,570	23	197	79	346	850	76
May.....	1,554	23	190	80	343	837	75
June.....	1,540	23	191	77	343	828	78
July.....	1,521	23	190	71	322	834	81
August.....	1,548	23	190	73	333	834	95
September.....	1,557	23	187	68	335	840	104
October.....	1,537	23	190	71	348	802	103
November.....	1,577	23	196	65	340	840	104
December.....	1,583	23	196	68	347	847	102
Women 16 years and over—							
January.....	3,475	21	386	134	988	1,873	73
February.....	3,524	21	400	123	992	1,911	77
March.....	3,540	21	401	143	993	1,910	72
April.....	3,508	21	398	147	991	1,879	72
May.....	3,461	21	390	144	980	1,850	76
June.....	3,440	21	384	132	971	1,855	77
July.....	3,359	21	368	120	950	1,822	78
August.....	3,373	21	362	132	940	1,835	83
September.....	3,356	21	347	127	950	1,822	80
October.....	3,352	21	360	126	957	1,795	93
November.....	3,480	21	380	132	1,013	1,840	91
December.....	3,550	21	408	136	1,011	1,883	91
Children under 16 years.....							
January.....	376	.....	28	4	146	137	61
February.....	390	.....	30	4	147	145	64
March.....	402	.....	32	4	150	144	72
April.....	397	.....	32	4	151	134	70
May.....	393	.....	32	4	154	131	72
June.....	400	.....	32	4	154	135	75
July.....	397	.....	30	3	155	132	77
August.....	399	.....	31	4	154	132	75
September.....	407	.....	32	4	160	134	77
October.....	411	.....	32	4	160	135	74
November.....	408	.....	31	5	160	136	79
December.....	411	.....	30	4	160	137	71
Skilled operatives, average number:							
Spinners, mule.....	3	1	.....	.....	2	.....	.....
Spinners, frame.....	29	.....	.....	.....	.....	29	.....
Men 16 years and over.....	29	.....	.....	.....	.....	29	.....
Women 16 years and over.....	16	.....	.....	.....	.....	16	10
Children under 16 years.....	.....	.....	.....	.....	.....	.....	.....
Weavers.....							
Men 16 years and over.....	747	.....	117	35	162	419	14
Women 16 years and over.....	1,909	.....	292	95	787	706	29
Children under 16 years.....	96	.....	.....	.....	44	52	.....
Machinery:							
Producing spindles (not including twisting and doubling spindles), number.....	39,530	1,000	.....	.....	250	36,280	2,000
Mule.....	1,250	1,000	.....	.....	250	.....	.....
Frame.....	38,280	.....	.....	.....	.....	36,280	2,000
Looms, number.....	18,386	7	5,506	894	3,167	8,288	524
On fancy weaves.....	198	.....	.....	.....	100	8	.....
On tapes and other narrow goods.....	18,267	7	5,506	894	3,056	8,280	524
On bags and other special fabrics.....	11	.....	.....	.....	11	.....	.....

¹ Includes establishments distributed as follows: Georgia, 1; Illinois, 1; New Hampshire, 1; New Jersey, 1; and Ohio, 1.

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TABLE 25.—COTTON SMALL WARES—DETAILED SUMMARY, BY STATES: 1905—Continued.

	United States.	Connecticut.	Massachusetts.	New York.	Pennsylvania.	Rhode Island.	All other states.
Miscellaneous expenses, total.....	\$556,577	\$7,385	\$54,737	\$22,136	\$135,625	\$290,485	\$46,200
Rent of works.....	\$61,048	\$2,148	\$8,655	.....	\$35,804	\$12,941	\$1,500
Taxes.....	\$36,816	\$220	\$6,581	\$2,136	.....	\$24,300	\$938
Rent of offices, interest, insurance, and all other sundry expenses not hitherto included.....	\$380,704	\$4,417	\$31,663	\$20,000	\$92,845	\$188,008	\$43,771
Contract work.....	\$78,000	\$600	\$7,838	.....	\$4,335	\$65,236	.....
Materials used, aggregate cost.....	\$4,207,655	\$132,978	\$500,864	\$242,125	\$1,110,094	\$1,996,034	\$225,560
Principal materials, total cost.....	\$3,688,815	\$130,480	\$427,955	\$194,000	\$1,012,573	\$1,727,100	\$196,707
Purchased in raw state.....	\$390,805	.....	.....	.....	\$944	\$298,510	\$91,351
Purchased in partially manufactured form.....	\$3,298,010	\$130,480	\$427,955	\$194,000	\$1,011,629	\$1,428,590	\$105,356
Fuel.....	\$97,035	\$308	\$14,464	\$4,100	\$21,531	\$52,126	\$4,006
Rent of power and heat.....	\$25,195	.....	\$7,279	\$1,000	\$6,080	\$8,710	\$2,126
Mill supplies.....	\$56,683	\$100	\$6,908	\$625	\$7,871	\$19,834	\$1,445
All other materials.....	\$348,394	\$1,074	\$39,681	\$42,000	\$62,039	\$182,544	\$21,056
Freight.....	\$11,533	\$516	\$4,577	\$400	.....	\$5,720	\$320
Products, total value.....	\$8,016,486	\$186,229	\$897,533	\$416,000	\$2,163,040	\$3,944,607	\$409,077
Power:							
Number of establishments reporting.....	76	3	18	3	21	26	5
Total horsepower.....	7,805	339	1,177	350	1,111	4,322	506
Owned—							
Engines—							
Steam—							
Number.....	50	1	10	1	14	20	4
Horsepower.....	5,584	125	662	140	932	3,405	320
Gas and gasoline—							
Number.....	5	.....	1	1	2	1	.....
Horsepower.....	91	.....	36	10	20	25	.....
Water wheels—							
Number.....	16	2	5	.....	.....	6	3
Horsepower.....	1,039	210	309	.....	.....	420	100
Electric motors—							
Number.....	21	.....	.....	.....	3	18	.....
Horsepower.....	310	.....	.....	.....	70	240	.....
Other power, horsepower.....	4	4	.....	.....	.....	.....	.....
Rented—							
Electric motors—							
Number.....	27	.....	8	5	3	9	2
Horsepower.....	530	.....	153	200	28	74	75
Other kind, horsepower.....	247	.....	17	.....	61	158	11
Furnished to other establishments, horsepower.....	24	.....	2	.....	2	20	.....

TABLE 26.—COTTON SMALL WARES—DETAILED SUMMARY OF MATERIALS AND PRODUCTS, UNITED STATES TOTALS: 1905.

Materials used, total cost.....	\$4,207,655	Materials used—Continued.....	\$25,195
Cotton—		Rent of power and heat.....	\$36,683
Domestic, other than sea-island—		Mill supplies.....	\$348,394
Bales.....	6,676	All other materials.....	\$11,533
Pounds.....	3,362,434	Freight.....	\$5,720
Cost.....	\$390,805	Products, total value.....	\$4,010,942
Materials purchased in partially manufactured form—		Tape and webbing.....	.....
Yarns—		Yarns for sale—	
Cotton—		Pounds.....	162,000
Pounds.....	13,816,858	Value.....	\$54,300
Cost.....	\$3,009,717	Waste for sale—	
Woolen—		Pounds.....	314,538
Pounds.....	8,000	Value.....	\$13,020
Cost.....	\$4,000	Other products of cotton, including twine.....	\$3,637,316
Worsted—		All other products.....	\$300,908
Pounds.....	21,173	Weight of products, pounds:	
Cost.....	\$15,780	Yarns spun and woven in mill.....	2,410,268
Silk—		Other products.....	845,810
Pounds.....	23,924	Amount of yarn produced, pounds:	
Cost.....	\$98,617	No. 20 and under.....	344,135
Spun silk—		No. 21 to 40, inclusive.....	2,066,133
Pounds.....	19,090	Bleaching, mercerizing, and dyeing:	
Cost.....	\$58,624	Bleached—	
Linen—		Yarn—	
Pounds.....	224,200	Pounds.....	1,522,450
Cost.....	\$17,260	Added value.....	\$28,440
Other yarns—		Cotton stock—	
Pounds.....	135,775	Pounds.....	10,000
Cost.....	\$29,935	Added value.....	\$300
Waste—		Mercerized—	
Pounds.....	150,000	Yarn—	
Cost.....	\$12,430	Pounds.....	189,600
Starch—		Added value.....	\$11,230
Pounds.....	606,813	Dyed—	
Cost.....	\$15,565	Yarn—	
Chemicals and dyestuffs.....	\$36,032	Pounds.....	513,900
Fuel.....	\$97,035	Added value.....	\$39,230

HOSIERY AND KNIT GOODS

(50)

HOSIERY AND KNIT GOODS.

By EDWARD STANWOOD, Expert Special Agent.

INTRODUCTION.

The invention of knitting machinery preceded that of the practical sewing machine by nearly three centuries. As long ago as 1589 William Lee, of Woodborough, Nottinghamshire, England, invented a knitting frame which was operated successfully and became an important feeder of the commerce of Great Britain. But it is only within comparatively recent times that the machinery has been so far improved that it can produce articles for wear of fine quality and elaborate construction at a cost within the means of all.

The hosiery and knit goods industry in this country is still more recent. It will be seen upon reference to Table 1 that in 1860 the value of the products of the 197 establishments then in operation was about \$7,000,000. Even so late as 1880 the value of knit goods produced was less than \$30,000,000, and the goods manufactured at that time were of the coarsest and cheapest varieties. Substantially all the knit goods of the better class were imported. In 1880 the value of cotton and woolen hosiery and knit goods imported was \$8,065,042, or more than one-fifth of the entire value of the machine made goods of this class consumed in this country. As the population of the country in 1880 was a little more than 50,000,000, it follows that 74 cents represented the average annual expenditure per capita for machine knit goods. At the census of 1905 the value of the domestic production was \$136,558,139. The importation of hosiery and knit goods amounted to \$7,131,230, and the official estimated population was 81,338,064, giving a corresponding per capita expenditure of \$1.77. Considering the great decrease in the cost of production and in the selling price, it is probably not making an exaggerated estimate to assert that the people of the United States purchased from three to four times as much machine knit apparel, in quantity, per capita as they did twenty-five years ago. The increase has been altogether in goods of American production, as the amount of foreign importation shows a decrease.

This is one of the most rapidly growing branches of the textile industry, and in some respects it is the most

interesting. The knitting industry is especially interesting in the constantly increasing variety of its products. The woman's knitted jacket this year may be a totally different article from that of last year in shape, in pattern of knitting, and in coloring. There are, of course, variations and changes in woven fabrics, but to a less extent than is the case with knit goods. "We are all designers," remarked a leading manufacturer. It is easy to see that the chance for variety is great, when it is known that in a large factory, in which hosiery and underwear are made, there are between forty and fifty different classes of help. New uses are constantly found for knit goods. Two illustrations may be given. Enormous quantities of knit fabrics are used for the lining of rubber shoes. A few years ago fire hose was made of leather, but it is now composed of knitted or braided cotton, lined with rubber. So, too, is a large amount of the smaller sizes of hose used for sprinkling lawns and for similar purposes.

RECENT HISTORY OF THE INDUSTRY.

Although the statistics show that there has been a great expansion of this industry during the last five years, it is not to be inferred therefrom that the experience of manufacturers has been one of uninterrupted prosperity, or that all branches have been simultaneously prosperous or depressed. When a trade is growing, by reason of an increasing demand, and when new establishments are being erected to supply that demand, it is natural that there should be active competition. Extraordinary fluctuations in the price of raw materials, too, have been witnessed during the period under review, and such violent changes keep manufacturers in a state of perplexity. Moreover, it is not correct to regard the knit goods industry as a single industry, for it is a class of industries. The wool branch may prosper at the expense of the cotton, or vice versa; and both cotton and wool must be subdivided into hosiery and underwear, the market for each of which is affected by special influences felt by it alone, so that it is impossible to argue from one to the other. Furthermore, after these subdivisions have been made there remain unclassified those establish-

ments which produce neither hosiery nor underwear, but some one or more of the remaining miscellaneous products. The extraordinary variety of products renders it difficult to narrate the market history of any period without going into minute details.

As a general statement it may be said that 1901, the year which followed that of the Twelfth Census, was not one of prosperity. During the greater part of the year the outlook was discouraging, but there was a distinct improvement toward the end of the year, save in cotton hosiery. In this branch there had been indications of severe competition, and during 1901 the rivalry became acute and the conditions were unfavorable throughout the year. It did not, however, reach its worst phase until afterward. Wool underwear, on the other hand, was not only in good request, but prices were firmly maintained. There was also a brisk market for cotton underwear, at a slight decline in the prices of some goods, and many mills were taxed to their utmost capacity to meet the demand. In the case of fleeced underwear sharp competition began in December, 1900. An attempt was made, by association and combination, to put an end to this condition, but it failed, and the demoralization became greater than ever. Later in the year large purchases steadied the market, and at the close of 1901 the outlook was very favorable. Stocks were cleaned up, prices had become firm, and profitable activity was anticipated.

Manufacturers were not disappointed in their expectation, for 1902 was a banner year for wool underwear, sweaters, and other articles for which a large market was created by the popularity of athletics. In cotton underwear a marked tendency was noted in the direction of better goods and a falling off in the demand for the cheaper. There was still sharp competition among the makers of fleeced underwear, and many

mills were for a time operated at a loss, but again there was an improvement late in the year. Both in underwear and hosiery a hindrance was felt in the sharp advance in the cost of cotton and cotton yarn. Yet the demand for hosiery was so great—larger than ever before—that although the year opened slowly, the general trade was excellent and the prospects as the year closed were promising—the price of the raw material alone causing doubt in the minds of manufacturers.

The year 1903 was again a good year for the woolen underwear trade, which was greatly helped by the high price of cotton and the consequent greater demand for woolen goods. So far as the cotton underwear trade was concerned, the year was one full of perplexity and hesitation, and the demand was further affected by the unusual lateness and coolness of the season. Cotton hosiery was affected by the same influences, and on the whole it may be said of 1903 that it was the most depressed season since 1899 for the entire cotton branch. Some manufacturers saved themselves from loss by producing lighter and cheaper goods.

Conditions were reversed for the wool underwear branch in 1904; the price of wool advanced greatly, with the result that the trade was less prosperous. The price of cotton was lower, but so irregular that the cotton branch did not profit greatly by the drop in the price of its raw material. Manufacturers were for a large part of the year uncertain as to the future of cotton, and their customers, being equally uncertain, refrained from purchasing freely. But toward the end of the year conditions improved, and the year, both for hosiery and underwear, was not altogether unsatisfactory.

Table 1 presents a comparative summary of the leading facts relating to the industry at the time of each census since 1860, with percentages of increase.

TABLE 1.—COMPARATIVE SUMMARY, WITH PER CENT OF INCREASE: 1860 TO 1905.

	CENSUS.						PER CENT OF INCREASE.				
	1905 ¹	1900	1890	1880	1870	1860	1900 to 1905	1890 to 1900	1880 to 1890	1870 to 1880	1860 to 1870
Number of establishments.....	1,079	921	796	359	248	197	17.2	15.7	121.7	44.8	25.9
Capital.....	\$106,663,531	\$81,860,604	\$50,607,738	\$15,579,591	\$10,931,260	\$4,035,510	30.3	61.8	224.8	42.5	170.9
Salaried officials, clerks, etc., number.....	4,304	2,809	21,621	(²)	(²)	(²)	53.2	73.3	.....	.....	.....
Salaries.....	\$4,436,941	\$3,124,798	\$1,685,153	(²)	(²)	(²)	42.0	85.4	.....	.....	.....
Wage-earners, average number.....	103,715	83,337	59,588	28,885	14,788	9,103	24.4	39.9	106.3	65.3	62.5
Total wages.....	\$31,536,024	\$24,358,627	\$16,578,119	\$6,701,475	\$4,420,085	\$1,661,972	29.5	46.9	147.4	51.3	166.5
Men 16 years and over.....	25,167	21,154	14,846	7,517	4,252	2,780	19.0	42.5	97.5	76.8	52.9
Women.....	\$10,747,214	\$8,890,728	\$6,041,200	(²)	(²)	(²)	20.9	47.2	.....	.....	.....
Women 16 years and over.....	68,867	53,565	40,826	17,707	7,991	6,323	28.6	31.2	130.6	121.6	26.4
Wages.....	\$19,354,014	\$14,243,808	\$10,006,070	(²)	(²)	(²)	35.9	42.4	.....	.....	.....
Children under 16 years.....	9,681	8,668	3,916	3,661	2,545	(²)	11.7	121.3	7.0	43.9	.....
Wages.....	\$1,434,796	\$1,224,091	\$530,840	(²)	(²)	(²)	17.2	130.6	.....	.....	.....
Miscellaneous expenses.....	\$10,320,176	\$6,599,865	\$3,627,245	(²)	(²)	(²)	56.4	82.0	.....	.....	.....
Cost of materials used.....	\$76,593,782	\$51,071,859	\$35,861,585	\$15,210,951	\$9,835,823	\$3,202,317	50.0	42.4	135.8	54.6	207.1
Value of products.....	\$136,558,139	\$95,482,566	\$67,241,013	\$29,167,227	\$18,411,564	\$7,280,606	43.0	42.0	130.5	58.4	152.9

¹ Exclusive of the statistics of 5 establishments engaged primarily in the manufacture of other products. These establishments manufactured hosiery and knit goods to the value of \$1,579,633.

² Includes proprietors and firm members, with their salaries; number only reported in 1900 and 1905, but not included in this table.

³ Not reported separately.

⁴ Not reported.

A glance at the foregoing table reveals the remarkable fact that in all cases where the returns permit the comparison there has been an increase in every item of the account at every census period, until it has become one of the great branches of the textile industry. Unlike some of the other branches of the textile industry, the number of establishments engaged in knitting is increasing. The addition in the last five years amounts to 158 establishments, or 17.2 per cent.

DISTRIBUTION OF THE INDUSTRY.

In location the establishments manufacturing hosiery and knit goods are widely scattered. In 1905 establishments were reported in 35 states, as against 36 in 1900, but the change is without significance, as it is caused by the disappearance of 1 establishment in Texas and of 1 in Montana, against the introduction of 1 in Kentucky. Geographically, the establishments were located in 1905 and 1900 as follows:

	1905	1900
United States.....	1,070	921
New England states.....	132	133
Middle states.....	667	588
Southern states.....	119	71
Western states.....	101	120

More than three-fifths of the total number of establishments are still located in the 5 Middle states, and, as will be seen from Table 5, most of these are in Pennsylvania and New York, with 370 and 261, respectively. Of the entire increase in number, 158 for the whole country, 70 were in these 2 states, which for a long time have been and still are the leading ones. But the Southern and Western states have also increased largely.

One feature in connection with the distribution of the industry which deserves notice is that, so far as it has developed in the South and West, the manufacture is almost exclusively one of hosiery. Pennsylvania and New Jersey, also, are largely hosiery manufacturing states, whereas New York runs chiefly to underwear. Massachusetts, which is the third state in the number of establishments and in the amount of capital employed, produces both hosiery and underwear in large quantities.

CAPITAL.

The capital employed in this industry has increased by almost \$25,000,000 from 1900 to 1905. The particulars of this increase are exhibited in Table 2.

TABLE 2.—Capital, with per cent of increase: 1890 to 1905.

	CENSUS.			PER CENT OF INCREASE.	
	1905	1900	1890	1900 to 1905	1890 to 1900
Aggregate.....	\$100,663,531	\$81,860,604	\$50,607,738	30.3	61.8
Total fixed capital.....	49,632,183	30,960,919	23,574,761	34.3	50.8
Land.....	3,828,321	3,307,762	2,271,466	13.7	48.3
Buildings.....	13,713,924	9,556,720	6,194,088	43.5	54.3
Machinery, tools, and implements.....	32,089,938	24,036,431	15,100,207	33.5	50.1
Cash and sundries.....	57,031,348	44,899,685	27,032,077	27.0	60.1

The distribution of capital presents some interesting features. Naturally the largest amount is credited to the Middle states. This division reported \$61,902,230 in 1905 out of a total for the United States of \$106,663,531, or 58 per cent; New England, \$20,070,600, or 18.8 per cent; the Southern states, \$7,980,684, or 7.5 per cent; and the Western states, \$16,710,017, or 15.7 per cent. Although there are many great establishments in the Middle states, the average capital of those in New England is the greatest, about \$152,000, against an average of \$92,800 in the Middle states, \$67,000 in the Southern states, and \$103,800 in the Western states.

WAGE-EARNERS AND WAGES.

The number of wage-earners shows a numerical increase of 20,328, which was 24.4 per cent of the number reported in 1900. The largest increase was in the number of women employed. The following tabular statement shows the percentage of men, women, and children reported at each of the last three censuses:

WAGE-EARNERS.	1905	1900	1890
Men.....	24.3	25.4	24.9
Women.....	66.4	64.2	68.5
Children.....	9.3	10.4	6.6

The changes are not particularly significant. It is due largely to the extension of this industry in the South that the proportion of women shows a tendency to increase, and that the decrease in the proportion of children employed is so small. In a new manufacturing region employers are compelled to take such help as they are able to procure, whereas in the large centers they have a more extensive labor market to draw upon.

MACHINERY.

In the matter of machinery, the knitting industry is especially worthy of study. The spindle is necessary to prepare yarn for either weaving or knitting, but there is hardly any comparison between the simplicity of the loom—even such looms as are at work upon the most elaborate fabrics—and the complexity of the knitting machine. Indeed, it is hardly accurate to use the singular number in referring to the knitting machine. In the weaving industry looms are different from one another, but only one loom is required to produce a single fabric. On the other hand, when in the tables of machinery appended to this report, or in statements of capacity of knitting mills, the number of knitting machines is specified, it would be more correct to specify the number of sets of such machines, since it is necessary in some cases to operate five different machines to produce a single garment. Moreover, the necessity that is upon cotton manufacturers to send machinery to the scrap heap and replace it with improved spindles and looms, if they are to have efficient and up-to-date factories, is felt even more keenly by manufacturers of knit goods. Modifications and improvements of machinery are frequent and important, and it is necessary at brief intervals to take out machines that have had but little wear in order to introduce better ones. The patents upon knitting machinery are in a confused state. Some manufacturers, who have hit upon a fresh idea, do not take out patents, but operate their new machines secretly, in order to avoid infringement by rival manufacturers who might accomplish a like result by different means.

The typical machine of this industry is of course the knitting machine, of which there are many varieties. It is supplemented by sewing machines, of which there is more than one to every three knitting machines. In establishments that produce woolen or merino goods, carding and combing machinery is employed; a limited number of mills also prepare their own yarn, and consequently employ spindles as a part of their plant equipment.

Cards.—The number of woolen cards now reported is but 927 as compared with 1,161 in 1900. As at the last census the cards are concentrated for the most part in 2 states—491 in New York and 109 in Connecticut (600 in the two) against 674 in New York and 134 in Connecticut (808 in the two) in 1900. In addition to the woolen cards there are now reported 24 sets of worsted, 50 of shoddy, and 1,000 of cotton cards, the number of which was not reported in 1900. The particulars of the width of these carding machines present nothing worthy of comment. So far as the woolen cards are concerned they may be regarded as a legitimate addition to the wool industry.

Combing machines.—The number of combing machines shows a large relative increase. Only 15

were reported in 1900, and the present number is 224, of which 51 were of American and 173 of foreign manufacture; all but 32 of the whole number are reported in 2 states—120 in Massachusetts and 72 in New York.

Spindles.—The number of producing spindles reported is 596,362. The classification and comparison with the numbers reported in 1900 is as follows:

	1905	1900
Total.....	596,362	510,172
Cotton spindles.....	300,037	205,742
Woolen spindles.....	286,091	290,266
Worsted spindles.....	9,634	14,064

The number of woolen spindles has remained nearly stationary; whereas there has been an increase of nearly 100,000 cotton spindles, due to the enlargement of some of the important mills in the Eastern states and the introduction of the industry in the South. But after all spinning is not a usual process in knitting mills. Only 170 of the 1,079 knitting mills in the country report spindles, either woolen or cotton, as a part of their plant; from which it appears that 84.2 per cent of the establishments purchase all their yarn. Moreover, most of the mills which operate spindles employ but a very small number. Two mills in Massachusetts and 4 in Connecticut have an aggregate of 165,420 of the 596,362 spindles reported, or 27.7 per cent of the whole. As shown in the following tabular statement, 33 selected mills, a little more than 3 per cent of the whole number, have 355,445 spindles, or 59.6 per cent of all in the country:

Spindle equipment—selected states and mills: 1905.

STATE.	NUMBER OF MILLS.			SELECTED MILLS.	
	Total.	Report- ing no spindles.	Report- ing spindles.	Number.	Number of spindles.
Total.....	830	707	123	33	355,445
Connecticut.....	24	8	16	4	62,532
Massachusetts.....	58	48	10	2	102,888
Michigan.....	38	32	6	1	10,000
New York.....	261	186	75	20	133,811
New Jersey.....	25	24	1	1	9,462
North Carolina.....	40	38	2	1	11,248
Pennsylvania.....	370	359	11	2	13,000
South Carolina.....	14	12	2	2	11,904

In these 8 states, which contain almost four-fifths of the number of establishments in the country, only 123 out of 830 establishments report spindles, and one-fourth of this number report 59.6 per cent of all the spindles. In the Southern states there are 119 knitting mills, only 15 of which report spindles to an aggregate of 50,728, or an average of 3,382 to a mill. In the West only 24 of the 161 mills report spindles to the number of 43,675, or 1,820 to a mill.

Knitting machines.—The number and classification of knitting machines in 1900 and 1905 is shown by the

tabular statement which follows. It should be understood that the actual number of knitting machines is larger than that stated below, inasmuch as the important machines only are counted. For whereas but one machine is required, ordinarily, for knitting hose, several machines are needed to produce a single article of some classes of underwear. The number stated is, therefore, in the case of underwear, the number of body machines, and those which are used to knit sleeves, wrists, ankles, and other parts of the garments are not counted.

Knitting machines: 1905 and 1900.

KIND.	1905 (number).	1900 (number).
Total.....	88,374	1 69,047
Spring-beard needle:		
Flat, ribbed.....	1,455	1,091
Flat, plain.....	756	1,432
Full-fashioned flat, ribbed.....	280	65
Full-fashioned flat, plain.....	1,195	1,069
Circular, ribbed.....	1,087	1,467
Circular, plain.....	7,163	6,753
Circular hosiery, automatic.....	1,643	1,700
Lamb and other variety, hand.....	335	330
Latch needle:		
Flat, ribbed.....	2,343	1,055
Flat, plain.....	2,410	1,036
Full-fashioned flat, ribbed.....	770	358
Full-fashioned flat, plain.....	1,317	860
Circular, ribbed.....	24,452	17,490
Circular, plain.....	6,707	6,700
Circular hosiery, automatic.....	30,313	1 19,933
Lamb and other variety, hand.....	6,163	5,473

¹ This number is 20,000 less than the total published at the Twelfth Census. The error was due to a misinterpretation of the schedule.

The total number of knitting machines reported is 88,374 against 69,047 in 1900. The number of spring-beard needle machines is 13,899; the corresponding number in 1900 was 14,513. There has thus been a decrease of 614 in the number of that form of machine. Of latch-needle machines, there are 74,475 against 54,534 in 1900, an increase of 19,941, or 36.6 per cent. The net increase in the number of all machines is 19,327, or 28 per cent. The relatively large increase of latch-needle machines is a result of the expansion of the hosiery branch of the industry, for which the latch needle is better adapted.

Owing to the difference in raw material used, the variety of goods produced by knitting mills, and the difference in production by different machines, the number of knitting machines bears no definite relation to the capital employed, to the number of wage-earners, or to the value of the product. Thus New York, which reports 33 per cent of the total capital, 28.2 per cent of the wage-earners, and 33.8 per cent of the gross value of product, had but 14.3 per cent of the knitting machines. On the other hand, Pennsylvania, with 22.4 per cent of the capital, 27.1 per cent of the wage-earners, and 22.5 per cent of the product, had 38.3 per cent of the knitting machines. These facts serve to show the impossibility of drawing general deductions from aggregates when dealing with an

industry so diverse in itself as the manufacture of knit goods.

Sewing machines.—The total number of sewing machines now reported in use is 30,410, compared with 24,535 in 1900.

MATERIALS USED.

Table 3 is a comparative table, which shows the kind, quantity, and cost of materials used in 1890, 1900, and 1905.

TABLE 3.—Materials used, by kind, quantity, and cost: 1890 to 1905.

KIND.	1905	1900	1890
Total cost.....	\$76,593,782	\$51,071,859	\$35,861,685
Wool, foreign and domestic, in condition purchased:			
Pounds.....	17,300,616	17,953,907	21,639,393
Cost.....	\$6,153,858	\$5,262,135	\$8,254,418
Raw cotton:			
Pounds.....	50,586,760	49,451,301	32,432,617
Cost.....	\$5,809,317	\$3,561,592	\$3,712,215
Mohair:			
Pounds.....	82,502	631,199	160
Cost.....	\$52,252	\$44,053	\$87
Woolen yarn:			
Pounds.....	4,830,343	2,621,893	6,386,370
Cost.....	\$2,798,454	\$1,257,687	\$3,791,497
Worsted yarn:			
Pounds.....	8,789,570	5,823,215	4,146,035
Cost.....	\$7,457,090	\$4,865,394	\$4,279,105
Merino yarn:			
Pounds.....	2,568,800	1,681,484	(¹)
Cost.....	\$1,118,900	\$642,535	(¹)
Cotton yarn:			
Pounds.....	161,500,466	131,820,068	32,248,840
Cost.....	\$34,372,910	\$22,204,918	\$7,588,973
Linen yarn:			
Pounds.....	55,302	71,478	301,095
Cost.....	\$54,362	\$53,588	\$65,335
Silk and spun silk yarn:			
Pounds.....	320,671	266,247	120,341
Cost.....	\$1,200,250	\$946,801	\$600,315
Yarn of jute, ramie, and other vegetable fiber:			
Pounds.....	7,225	44,682	(¹)
Cost.....	\$1,862	\$57,477	(¹)
Shoddy, purchased:			
Pounds.....	7,489,358	3,770,020	4,735,144
Cost.....	\$623,710	\$488,792	\$878,948
Wool waste and noils:			
Pounds.....	6,020,459	5,276,454	5,503,286
Cost.....	\$1,711,660	\$1,487,907	\$2,021,492
All other materials, cost.....	\$14,878,431	\$10,198,070	\$4,069,200

¹ Not reported separately.

In value the materials used were 50 per cent more than in 1900, and more than double the value in 1890. The statement of quantities shows the change that is taking place in this industry. The raw wool purchased at the census of 1905 was more than 4,000,000 pounds less than was consumed by the establishments reporting in 1890, and about 650,000 pounds less than was consumed in 1900. On the other hand, the aggregate of woolen and worsted yarn is more than 5,000,000 pounds greater than the aggregate of the same items for 1900. The purchases of raw cotton in 1905 amounted to a little more than 1,000,000 pounds in excess of that reported in 1900, but the purchases of cotton yarn were almost 30,000,000 pounds more. In 1890 the weights of raw cotton and of cotton yarn purchased are represented by substantially identical figures. In 1900 the weight of cotton yarn was more than two and a half times that of raw cotton. In 1905 the cotton yarn was nearly three and one-fifth times as much in weight as the raw cotton. It is evident

from this, as it is from other facts disclosed by the returns, that the industry is following more and more the English system of separating spinning from what is technically known in Great Britain as manufacturing.

Another fact which has been dwelt upon in former reports, and which has now led to the complete separation of the hosiery and knit goods industry from the wool manufacture, is the sluggish growth of the wool department as compared with the rapid increase of the use of cotton for hosiery and underwear. The gross weight of raw wool, mohair, shoddy, wool waste and noils, and woolen, worsted, and merino yarn, was 42,410,397 pounds in 1890, 38,058,778 pounds in 1900, and 47,090,738 pounds in 1905. It was nearly 5,000,000 pounds more than in 1890, and but 9,000,000 pounds more than in 1900. The combined weight of raw cotton and cotton yarn was 64,681,466 pounds in 1890, 181,271,369 pounds in 1900, and 212,087,226 pounds in 1905. The increase for 1905 was more than 147,000,000 pounds over 1890, and nearly 31,000,000 pounds over 1900. Although it is unscientific to lump together raw fiber and yarn, yet by so doing in this case an indisputable fact is brought out, namely, that the use of wool in the manufacture of the goods of these establishments is relatively declining. The showing would be even more emphatic if we were to eliminate the large and increasing amount of knit goods which are neither hosiery nor underwear, but are outer garments, like sweaters and similar articles.

PRODUCTS.

The kind, quantity, and value of the products of knitting mills in 1890, 1900, and 1905, together with the rate of increase of each item showing quantity and value, from 1890 to 1900, and from 1900 to 1905, are presented in Table 4.

TABLE 4.—Products, by kind, quantity, and value, with per cent of increase: 1890 to 1905.

KIND.	CENSUS.			PER CENT OF INCREASE.	
	1905	1900	1890	1900 to 1905	1890 to 1900
Aggregate value..	\$136,558,139	\$95,482,566	\$67,241,013	43.0	42.0
Total value.....	\$127,531,232	\$88,445,299	\$61,161,035	44.2	44.6
Cotton, merino, and all-wool half hose:					
Dozen pairs.....	18,144,185	13,249,558	7,078,505	36.9	87.2
Value.....	\$17,438,914	\$11,030,244	\$7,434,131	53.1	48.4
Cotton, merino, and all-wool hose:					
Dozen pairs.....	25,999,813	16,641,769	10,062,886	56.2	65.4
Value.....	\$26,152,043	\$16,203,572	\$11,728,075	61.4	38.2
Cotton, merino, and all-wool shirts and drawers:					
Dozens.....	19,707,096	15,818,893	6,862,157	24.6	130.5
Value.....	\$56,338,450	\$45,157,549	\$32,961,997	24.8	37.0
Cotton, merino, and all-wool combination suits:					
Dozens.....	1,433,610	974,127	(¹)	47.2	.....
Value.....	\$6,643,745	\$3,575,561	(¹)	85.8	.....

¹ Not reported separately.

TABLE 4.—Products, by kind, quantity, and value, with per cent of increase: 1890 to 1905.—Continued.

KIND.	CENSUS.			PER CENT OF INCREASE.	
	1905	1900	1890	1900 to 1905	1890 to 1900
Leggings and gaiters:					
Dozen pairs.....	122,462	71,038	25,072	72.4	183.3
Value.....	\$619,998	\$248,523	\$85,401	149.5	191.0
Gloves and mittens:					
Dozen pairs.....	2,260,598	1,898,587	896,150	19.1	111.8
Value.....	\$5,556,260	\$4,244,046	\$1,935,080	30.9	110.3
Hoods, scarfs, nubias, etc.:					
Dozens.....	589,315	343,429	342,497	71.6	0.3
Value.....	\$1,774,862	\$1,002,392	\$1,476,430	77.1	132.1
Cardigan jackets, sweaters, fancy jackets, etc.:					
Dozens.....	811,629	504,090	361,478	36.6	64.4
Value.....	\$8,345,369	\$3,498,837	\$3,576,248	138.5	12.2
Shawls:					
Dozens.....	435,906	157,622	22,990	176.2	585.0
Value.....	\$1,293,348	\$328,720	\$115,467	293.4	184.7
Fancy knit goods, wristers, etc.:					
Dozens.....	582,275	284,685	270,533	104.5	5.2
Value.....	\$2,118,842	\$951,052	\$759,648	122.8	25.2
Boot and shoe linings:					
Square yards.....	11,768,961	10,406,440	7,596,711	13.1	37.0
Value.....	\$1,249,401	\$2,205,093	\$1,088,558	143.3	102.0
Jersey cloth and stockinet:					
Square yards.....	3,354,026	4,488,911	3,065,057	125.3	46.5
Value.....	\$1,145,127	\$1,305,376	\$2,157,692	112.3	130.5
Total value of all partially manufactured products.....	\$1,000,083	\$530,057	\$675,211	88.7	121.5
All-wool and merino yarns:					
Pounds.....	258,690	83,327	852,180	210.5	190.2
Value.....	\$115,013	\$40,387	\$472,703	184.8	191.5
Worsted yarn:					
Pounds.....	232,869	51,202	17,000	354.8	201.2
Value.....	\$230,836	\$36,303	\$13,642	535.9	166.1
Cotton yarn:					
Pounds.....	3,304,615	2,419,282	500,000	36.6	383.0
Value.....	\$654,234	\$422,100	\$150,000	55.0	181.4
Wool rolls, noils, waste, and all other partly manufactured products:					
Pounds.....	(²)	385,863	(²)	.....	.....
Value.....	(²)	\$31,267	\$38,866	.....	119.0
All other products.....	\$6,673,530	\$4,927,903	\$3,183,950	35.4	54.8
Contract work.....	\$208,167	\$273,931	\$63,125	124.0	334.0

¹ Decrease.
² Not reported.

³ Included in "all other products."

In addition to the total value of products (\$136,558,139) reported by establishments classified as hosiery and knit goods in 1905, considerable quantities of knit goods were made in other mills. The value of such goods was as follows: Reported by cotton manufacturers, \$1,356,123; by other than textile mills, \$223,510; total, \$1,579,633, or an aggregate of \$138,137,772.

Few of the items in the above table show a decrease; the most of them indicate a large increase. The aggregate number of hose and half hose, including 42,065 dozen pairs of silk hose, in 1905, and 12,572 dozen pairs in 1900, was 44,186,063 dozen pairs in 1905, and 29,903,899 dozen pairs in 1900, an increase of 47.8 per cent. The product in 1905 reached the prodigious number of 530,232,756 pairs of hose and half hose. Classified by the material of which the hosiery was composed the showing for 1900 and 1905 is as follows:

Hosiery manufactured: 1905 and 1900.

KIND.	1905 (dozen pairs).	1900 (dozen pairs).
Total.....	44,186,003	29,903,869
Cotton half hose.....	15,223,243	11,352,081
Cotton hose.....	24,169,804	15,028,173
Merino half hose.....	1,611,006	957,520
Merino hose.....	746,226	436,891
Woolen half hose.....	1,309,876	439,937
Woolen hose.....	1,083,783	1,176,705
Silk hose.....	42,065	12,572

The rate of progress in the underwear branch of this industry has also been satisfactory. The total number of shirts, drawers, and combination suits manufactured in 1905 was 21,163,561 dozens, as compared with 16,860,555 dozens in 1900, an increase of 25.5 per cent. The underwear production in detail, grouped according to materials, is shown in the subjoined tabular statement:

Underwear manufactured: 1905 and 1900.

KIND.	1905 (dozens).	1900 (dozens).
Total.....	21,163,561	16,860,555
Cotton shirts and drawers.....	17,107,958	12,058,431
Cotton combination suits.....	1,260,301	824,032
Merino shirts and drawers.....	2,113,810	2,075,416
Merino combination suits.....	105,242	130,904
Wool shirts and drawers.....	486,328	1,085,040
Wool combination suits.....	68,007	9,501
Silk or silk mixed shirts and drawers.....	16,045	54,807
Silk or silk mixed combination suits.....	0,810	12,728

Assuming that the shirts and drawers were equal in number, and treating the combination suit as the equivalent of both, the knitting mills produced more than 135,600,000 sets of underwear during the census year 1905.

Hosiery and knit underwear, including silk goods, not stated separately in the above general table of products, account for \$107,551,067, or 78.8 per cent of the total value (\$136,558,139) of the products of knitting mills. The facts regarding the increase of the great variety of other articles of wear, but not of underwear, such as shawls, jackets, sweaters, gloves, mittens, and many others, can be drawn from Tables 4 and 7.

Table 5, which follows, is a comparative summary of the hosiery and knit goods industry, by states and geographic divisions, as reported at each census from 1860 to 1905.

Table 6 presents totals by states for each principal item of the schedule of inquiry as reported at the census of 1905.

Table 7 is a detailed summary of materials and products for the United States as reported at the census of 1905. The kind, quantity, and value of materials and products can not be shown by states without disclosing the operations of individual establishments.

MANUFACTURES.

TABLE 5.—HOSIERY AND KNIT GOODS—COMPARATIVE SUMMARY, BY

STATE.	Census.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.			WAGE-EARNERS AND WAGES.						MACHINERY.				
				Number.	Salaries.	Average number.	Wages.	Total.			Woolen cards.	Combining machines.	Knitting machines.	Sewing machines.	Spindles.		
								Men 16 years and over.	Women 16 years and over.	Children under 16 years.							
United States.....	1905	1,079	\$106,663,531	4,304	\$4,436,941	163,715	\$31,536,024	25,167	68,867	9,681	927	224	88,374	30,410	603,180		
	1900	921	81,820,604	2,809	3,121,798	83,387	24,358,627	21,154	53,565	8,668	1,161	15	69,047	24,535	521,871		
	1890	796	50,607,738	11,621	11,685,153	39,588	16,578,119	14,816	40,826	3,916	1,183	16	36,327	(?)	389,353		
	1880	359	15,579,591	(?)	(?)	28,885	6,701,475	7,517	17,707	3,661	592	3	12,659	4,569	143,023		
	1870	248	10,931,269	(?)	(?)	14,788	4,429,085	4,252	7,991	2,545	519	(?)	5,625	1,668	148,385		
	1860	197	4,035,510	(?)	(?)	9,193	1,661,972	2,780	6,323	(?)	(?)	(?)	(?)	(?)	(?)		
New England states....	1905	132	20,070,609	543	714,299	17,187	6,040,319	4,979	11,473	735	240	130	13,737	4,312	243,892		
	1900	133	19,014,126	415	559,311	15,074	4,879,179	4,340	9,911	793	297	15	12,860	4,001	333,253		
	1890	168	14,538,511	295	315,455	13,208	4,029,429	3,553	9,188	467	329	9	8,638	.....	117,825	
	1880	103	5,156,309	.....	.....	7,818	1,918,715	2,139	4,969	719	207	.....	2,626	816	96,407
	1870	84	4,021,690	.....	.....	5,280	1,898,335	1,678	3,059	543	236	.....	2,466	769	82,656
	1860	47	1,531,709	.....	.....	2,165	487,440	815	1,350	.....	.....	.....	.....	.....	.....
Maine.....	1905	3	15,509	.....	.....	56	12,975	10	44	2	.....	.....	78	6	.....	
	1900	3	9,630	.....	.....	37	7,425	4	31	.....	.....	.....	126	3	.....	
	1890	4	28,095	3	1,950	257	28,215	5	252	.....	.....	.....	91	.....	.....
	1880	1	500	.....	.....	21	801	1	20	.....	.....	.....	.....	.....	.....
New Hampshire.....	1905	21	2,749,589	89	91,570	2,799	943,120	940	1,791	59	54	.....	2,719	335	18,433	
	1900	22	2,525,286	51	58,011	2,492	790,558	899	1,514	88	74	.....	3,174	348	26,867	
	1890	37	2,706,065	57	57,611	3,121	931,519	1,008	2,037	76	112	.....	3,652	.....	30,526
	1880	24	1,224,000	.....	.....	1,753	526,117	540	1,098	115	68	.....	992	118	17,540
	1870	28	855,460	.....	.....	1,081	405,093	344	624	113	58	.....	852	102	17,175
	1860	12	133,000	.....	.....	488	76,188	188	350	.....	.....	.....	.....	.....	.....
Vermont.....	1905	11	1,387,529	36	41,950	916	366,340	316	590	10	32	.....	498	397	8,449	
	1900	14	1,589,786	32	42,024	1,011	339,607	387	651	3	40	.....	655	494	11,076	
	1890	10	754,882	13	13,759	705	256,085	262	438	5	37	.....	221	.....	9,584
	1880	6	492,000	.....	.....	383	101,047	138	227	18	22	.....	69	94	3,865
	1870	7	393,000	.....	.....	331	90,179	89	216	26	23	.....	49	53	26,300
	1860	2	21,500	.....	.....	93	15,792	30	63	.....	.....	.....	.....	.....	.....
Massachusetts.....	1905	58	7,896,240	244	317,784	8,110	2,839,185	2,093	5,498	519	39	120	6,715	2,518	127,406		
	1900	54	6,288,672	166	212,753	6,667	2,091,258	1,658	4,549	460	39	3	5,063	1,856	108,938		
	1890	74	4,497,949	113	102,639	4,562	1,392,630	1,025	3,407	139	52	.....	3,344	.....	40,822
	1880	57	1,467,375	.....	.....	3,411	608,067	786	2,413	212	38	.....	813	257	9,028
	1870	32	1,570,500	.....	.....	2,415	848,864	844	1,404	167	79	.....	1,116	312	19,331
	1860	15	155,200	.....	.....	388	94,692	166	222	.....	.....	.....	.....	.....	.....
Rhode Island.....	1905	15	2,276,874	72	109,216	1,721	573,680	472	1,176	73	6	3	1,170	342	4,652		
	1900	15	2,452,044	65	87,223	1,594	469,193	435	1,015	144	10	3	1,262	316	6,839		
	1890	10	1,728,618	34	33,671	1,504	453,679	332	1,022	149	14	2	755	.....	15,825	
	1880	11	6,000	.....	.....	39	8,490	6	24	9	.....	.....	32	7	.....	
	1870	3	133,000	.....	.....	120	33,200	37	64	19	6	.....	33	.....	1,809
	1860	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Connecticut.....	1905	24	5,814,871	102	162,779	3,594	1,305,019	1,148	2,374	72	109	7	2,557	744	86,952		
	1900	25	6,149,338	101	159,300	3,243	1,131,078	969	2,181	96	134	9	2,662	988	79,536		
	1890	27	4,822,011	75	105,831	3,059	967,301	921	2,031	107	114	7	1,195	.....	45,068	
	1880	14	1,996,131	.....	.....	2,211	664,293	659	1,187	365	79	.....	720	340	15,674
	1870	14	1,159,709	.....	.....	1,333	431,085	364	751	218	70	.....	436	293	18,050
	1860	18	1,225,000	.....	.....	1,196	306,768	481	715	.....	.....	.....	.....	.....	.....
Middle states.....	1905	667	61,902,230	2,583	2,453,035	60,335	18,907,004	14,629	40,246	5,460	549	89	49,239	21,150	261,639		
	1900	588	48,531,122	1,601	1,671,494	51,115	15,479,417	12,799	32,979	5,337	731	.....	40,407	17,592	231,594	
	1890	460	30,231,762	1,003	1,029,130	36,820	10,544,998	9,967	24,076	2,777	779	7	20,538	.....	213,023	
	1880	199	9,883,486	.....	.....	18,201	4,451,850	5,046	10,645	2,510	378	3	8,423	3,681	95,316
	1870	141	6,873,300	.....	.....	9,365	2,596,369	2,524	4,843	1,998	282	.....	3,091	906	65,717
	1860	134	2,476,210	.....	.....	6,888	1,160,624	1,928	4,960	.....	.....	.....	.....	.....	.....
New York.....	1905	261	35,206,059	1,084	1,271,398	29,251	10,144,087	9,068	19,421	762	491	72	12,666	14,695	226,343		
	1900	242	30,203,640	895	930,764	26,470	8,964,097	8,327	17,219	924	674	.....	11,666	12,282	191,522	
	1890	201	19,608,331	471	511,739	19,828	5,925,569	6,413	12,590	825	701	4	5,434	.....	186,057	
	1880	75	5,334,876	.....	.....	7,858	2,036,076	2,389	4,470	999	320	.....	1,311	1,953	71,008
	1870	60	3,318,700	.....	.....	3,741	1,122,890	1,061	1,899	781	230	.....	746	620	49,441
	1860	22	1,102,500	.....	.....	2,701	392,924	597	2,104	.....	.....	.....	.....	.....	.....
New Jersey.....	1905	25	1,934,489	50	67,167	1,742	535,821	592	1,077	73	26	.....	1,345	333	9,462	
	1900	16	1,973,482	61	73,043	1,841	446,608	602	1,087	152	26	.....	1,335	382	8,408	
	1890	15	1,352,143	27	30,036	1,250	312,564	373	760	117	23	.....	694	.....	9,548
	1880	8	804,570	.....	.....	1,070	239,761	320	604	146	23	.....	343	75	6,048
	1870	4	575,500	.....	.....	722	193,200	136	271	315	13	.....	11	138	6,480
	1860	7	477,200	.....	.....	1,491	225,060	329	1,162	.....	.....	.....	.....	.....	.....
Pennsylvania.....	1905	370	23,909,720	1,377	1,066,986	28,143	7,956,087	4,768	18,875	4,510	32	13	33,816	5,890	25,834		
	1900	319	15,743,981	688	638,483	21,540	5,825,783	3,725	13,739	4,076	31	.....	26,120	4,612	31,004	
	1890	236	9,121,632	488	470,155	15,453	4,262,299	3,159	10,624	1,770	45	3	14,492	.....	17,418	
	1880	106	3,743,790	.....	.....	9,272	2,175,913	2,337	5,570	1,365	35	3	6,769	1,653	18,360
	1870	76	2,979,000	.....	.....	4,899	1,280,270	1,325	2,672	902	39	.....	2,332	148	9,796
	1860	103	895,460	.....	.....	2,692	641,116	998	1,694	.....	.....	.....	.....	.....	.....
Delaware.....	1905	7	212,802	27	18,374	323	75,087	30	261	32	.....	4	598	139	.....	
	1900	7	298,511	19	14,686	582	123,103	85	408	89	.....	.....	674	246	.....	
Maryland.....	1905	4	639,160	39	20,110	876	195,922	181	612	83	.....	.....	814	123	.....	
	1900	4	311,508	28	14,518	682	119,456	60	526	96	.....	.....	612	70	.....	
	1890	8	149,656	17	16,900	289	44,566	22	202	65	.....	.....	218	.....	.....
	1880	1	250	.....	.....	1	100	.....	.....	.....	.....	.....	.....	.....	.....
	1870	1	100	.....	.....										

HOSIERY AND KNIT GOODS.

STATES AND GEOGRAPHIC DIVISIONS: 1860 TO 1905.

Miscellaneous expenses.	Cost of materials used.	PRINCIPAL MATERIALS—QUANTITIES CONSUMED.								Value of products.	
		Raw cotton (pounds).	Wool in condition purchased.			Animal hair and noils, purchased (pounds).	Shoddy, purchased (pounds).	Yarns purchased.			
			Total (pounds).	Foreign (pounds).	Domestic (pounds).			Cotton (pounds).	Woolen, worsted, and merino (pounds).		
\$10,320,176	\$76,593,782	50,586,760	17,300,616	1,130,433	16,170,183	254,525	7,480,358	161,500,466	16,197,803	\$136,558,139	1
6,590,865	51,071,859	49,451,301	17,953,907	3,446,838	14,507,060	1,093,854	3,770,626	131,820,068	10,426,592	95,482,556	2
3,627,245	35,861,585	32,432,617	21,639,393	2,734,304	18,905,080	424,466	4,735,144	32,248,849	10,532,405	67,241,013	3
(2)	15,210,951	20,131,151	8,594,895	448,758	8,146,137	66,029	1,523,263	8,354,087	4,571,382	29,167,227	4
(2)	9,835,823	11,463,503	5,596,955	292,300	5,304,655	(3)	189,857	2,188,722	2,220,777	18,411,564	5
(2)	3,202,317	3,802,342	2,927,026	(4)	(4)	(4)	(4)	(4)	(4)	7,280,606	6
2,072,774	13,576,121	17,395,722	5,363,883	540,286	4,823,097	32,000	1,743,473	14,102,617	3,105,520	24,794,934	7
1,114,174	9,325,415	15,764,400	5,716,460	1,408,206	4,308,254	93,741	922,558	10,825,182	2,079,393	17,834,673	8
920,336	8,661,685	7,275,949	8,398,436	1,035,183	7,363,253	128,525	1,081,598	4,938,560	1,800,047	16,034,801	9
	4,034,873	3,338,544	4,348,024	200,440	4,138,584	26,779	366,843	639,320	781,187	7,912,910	10
	3,282,123	3,432,004	2,483,733	141,500	2,342,233		10,000	601,870	315,419	6,910,797	11
	1,092,358	1,693,001	1,457,260							2,374,242	12
615	17,720								28,000	34,000	13
6,380	10,879								18,000	29,075	14
1,019	33,830							6,000	41,365	76,603	15
	1,800								2,000	3,000	16
375,780	2,220,192	1,036,848	803,633		803,633		813,840	2,874,555	641,408	3,074,260	17
175,118	1,319,170	1,942,884	820,271	100,163	711,108		668,821	1,230,881	416,249	2,592,820	18
241,201	1,777,595	728,130	3,456,174	243,850	3,212,324	4,200	900,098	113,600	203,136	3,481,022	19
	1,240,600	1,092,738	1,756,332	76,000	1,680,332	5,000	186,900	10,438	90,000	2,392,779	20
	881,646	905,500	880,750	40,500	840,250			40,735		1,757,445	21
	338,075	308,280	362,120							573,794	22
110,857	1,215,751	924,334	509,502	193,227	316,275		206,014	1,517,116	150,270	1,988,085	23
108,000	1,115,324	711,502	540,034	86,530	454,404		161,145	1,920,712	66,000	1,834,685	24
63,188	646,064	432,800	676,669	66,000	510,669		16,882	233,588	2,000	1,105,958	25
	359,038	406,539	401,333		401,333		2,525		1,700	505,270	26
	191,219	384,789	140,289		140,289					551,129	27
	61,840	50,000	130,000							102,800	28
923,704	5,017,405	12,643,679	1,505,141		1,505,141	32,000	284,674	3,711,210	870,612	10,081,852	29
538,193	2,910,640	10,915,958	1,140,940	2,000	1,144,940		65,075	2,610,885	584,703	6,620,257	30
315,780	2,532,705	2,637,876	1,812,070	52,989	1,759,081		44,500	1,828,589	735,293	5,082,087	31
	1,394,748	338,000	1,088,084	7,266	1,081,818		8,000	510,700	501,130	2,483,506	32
	1,515,326	1,350,100	904,000	25,000	879,000			409,894	249,356	3,213,481	33
	132,075	196,000	196,000							314,120	34
195,293	2,271,069	47,000	559,124	30,005	519,519			4,778,112	1,017,818	3,344,655	35
90,000	1,766,831	125,733	735,548	28,859	706,698	90,566		4,071,207	722,031	2,713,850	36
110,720	1,618,621	1,047,900	788,311	140,000	648,311		12,218	2,280,364	553,792	2,516,604	37
	14,838								23,750	36,000	38
	68,541		113,000		113,000			30,000		137,000	39
406,615	2,825,014	2,143,801	1,085,683	307,454	1,078,529		438,636	1,221,624	397,103	5,371,452	40
205,658	2,202,640	2,008,413	2,472,707	1,181,635	1,291,104	3,175	27,517	961,407	271,444	4,043,077	41
107,422	2,020,621	2,420,183	1,765,209	532,344	1,232,862	124,325	47,000	407,410	354,631	3,771,567	42
	1,013,949	1,501,207	1,101,675	126,174	975,501	21,779	169,418	20,134	64,467	2,332,271	43
	625,301	791,675	438,704	76,000	362,794		10,000	31,250	66,063	1,251,742	44
	560,368	1,189,721	769,140							1,383,528	45
5,434,297	40,228,900	20,543,657	6,285,143	598,042	5,716,591	218,525	4,620,713	107,421,261	7,919,922	80,648,018	46
4,200,577	32,090,721	20,772,879	7,031,403	1,381,117	5,650,286	685,885	2,212,261	101,471,281	5,276,670	60,473,407	47
2,242,270	23,050,630	23,703,610	10,083,581	1,081,363	9,002,218	241,049	3,174,604	23,724,604	5,629,088	42,093,045	48
	10,254,739	10,746,107	4,006,871	239,378	3,767,553	40,150	1,146,420	7,559,707	3,099,359	10,000,588	49
	6,505,973	8,031,430	3,112,622	150,800	2,961,822		179,857	1,570,543	1,871,183	11,405,380	50
	2,082,344	2,105,341	1,402,806							4,847,084	51
3,132,402	28,143,434	24,470,500	4,977,789	439,929	4,537,800	193,029	4,444,651	56,512,123	5,105,538	40,108,600	52
2,100,029	20,218,200	24,337,305	5,528,329	710,834	4,817,495	685,885	2,105,354	59,112,599	3,050,119	35,886,048	53
1,980,427	13,000,190	22,346,828	9,024,692	882,065	8,142,627	215,195	3,099,939	5,635,241	1,730,097	24,776,582	54
	5,072,058	15,626,791	2,548,069	186,329	2,362,043	40,000	1,092,011	538,714	584,026	9,909,540	55
	3,391,840	7,010,839	2,168,822	150,800	2,018,022		179,857	100,000	50,500	5,528,742	56
	870,479	1,348,941	680,000							1,994,000	57
121,008	1,370,513	198,382	139,071	25,270	113,801	7,502		1,815,300	331,739	2,530,178	58
122,374	997,110	217,148	155,160	88,068	67,092			1,923,084	285,057	1,748,148	59
101,146	582,783	370,620	404,847	188,839	216,008	10,673	18,623	462,582	160,229	1,061,403	60
	258,043	487,029	175,184	5,400	169,784	150	15,553		100,400	801,181	61
	188,030	214,200	230,000		230,000			2,500	1,000	598,900	62
	270,952	766,400	419,800							783,464	63
2,102,081	10,010,521	1,874,085	1,108,283	103,443	1,064,840	17,904	175,762	46,895,164	2,424,981	30,753,140	64
1,884,722	10,928,113	2,218,420	1,347,014	582,215	795,899		106,907	38,323,401	1,875,037	21,809,063	65
741,950	8,720,363	977,171	654,042	10,450	643,583	15,181	86,342	17,511,141	3,980,622	10,944,237	66
	4,024,138	633,290	1,282,778	47,592	1,235,126		68,866	7,021,053	2,314,833	8,935,147	67
	2,925,323	797,400	713,800		713,800			1,467,543	1,810,183	5,300,738	68
	928,615	80,000	354,000							2,114,315	69
20,422	164,000							691,510	450	269,107	70
23,471	209,048							1,090,817		420,055	71
52,234	531,432							1,507,104	57,214	951,563	72
21,981	347,250							1,011,889	65,500	514,093	73
0,747	87,315							115,700	98,750	180,823	74
	500							500	500	720	75
	780							500	500	1,000	76
	2,998									6,123	77

* No establishments reported in 1870 and 1880.
 * No establishments reported in 1870.
 * No establishments reported in 1860, 1880, 1870, and 1890.

MANUFACTURES.

TABLE 5.—HOSIERY AND KNIT GOODS—COMPARATIVE SUMMARY, BY

STATE.	Census.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		WAGE-EARNERS AND WAGES.					MACHINERY.				
				Number.	Salaries.	Total.		Average number.			Woolen cards.	Comb- ing ma- chine.	Knit- ting ma- chine.	Sewing ma- chine.	Spin- dles.
						Average number.	Wages.	Men 16 years and over.	Wom- en 16 years and over.	Child- ren under 16 years.					
78 Southern states ¹	1905	119	\$7,980,684	376	\$387,536	11,253	\$2,295,242	2,789	6,319	2,195	33	.....	11,088	2,022	50,936
79	1900	71	3,522,871	201	174,678	6,137	1,115,356	1,480	3,245	1,412	41	.....	5,519	1,014	24,126
80	1890	22	647,099	30	24,708	1,484	288,352	211	894	379	15	.....	795	.....	6,353
81	1880	1	5,000	.....	.....	.....	700	.....	.....	.....	.....	.....	.....	.....	.....
82	1860	3	2,700	.....	.....	.....	1,680	.....	.....	.....	.....	.....	.....	.....	.....
83 Virginia ²	1905	14	715,530	60	49,470	1,842	430,321	456	1,077	309	31	.....	1,310	641	9,516
84	1900	15	978,575	38	36,057	1,845	394,871	601	988	256	34	.....	993	565	12,036
85 North Carolina ³	1905	40	2,080,649	102	124,854	2,944	617,372	632	1,554	758	.....	.....	3,043	330	13,264
86	1900	24	674,869	64	46,224	1,495	255,253	317	735	443	5	.....	1,354	191	2,860
87	1890	5	72,900	5	3,150	179	27,260	19	105	55	.....	.....	136	.....	512
88 South Carolina ⁴	1905	14	823,822	40	30,333	1,058	186,721	367	430	261	.....	.....	1,678	113	11,904
89	1900	6	345,212	15	13,520	359	73,872	73	158	128	.....	.....	785	10	5,650
90 Georgia ⁵	1905	21	1,946,853	88	92,783	1,935	395,986	407	1,164	364	.....	.....	1,677	444	6,560
91	1900	16	928,887	46	39,467	1,208	200,662	217	682	309	.....	.....	1,078	235	.....
92	1890	4	121,494	11	7,860	338	64,092	43	221	74	2	.....	225	.....	960
93 Kentucky ⁶	1860	3	2,700	.....	.....	.....	1,680	.....	.....	.....	.....	.....	.....	.....	.....
94 Tennessee ⁷	1905	16	1,159,989	41	40,770	1,510	341,033	478	1,083	249	.....	.....	1,787	342	.....
95	1900	4	216,950	12	15,300	511	15,900	113	228	170	.....	.....	581	.....	.....
96 Alabama ⁸	1905	8	563,102	22	17,668	505	93,406	111	273	121	.....	.....	499	119	5,372
97	1890	3	94,373	3	2,028	400	62,810	22	137	250	2	.....	128	.....	.....
98 Louisiana ⁹	1890	3	106,600	6	9,150	278	42,691	20	258	.....	.....	.....	169	.....	1,800
99 All other Southern states.	⁹ 1905	6	690,739	23	31,660	1,159	230,408	288	738	133	.....	.....	1,094	33	4,320
100	⁹ 1900	6	378,378	26	24,110	1,719	117,718	159	454	106	2	.....	728	13	3,610
101	¹⁰ 1890	7	251,732	5	2,520	280	91,499	107	173	.....	.....	.....	137	.....	3,081
102	¹¹ 1880	1	5,000	.....	.....	.....	700	.....	.....	.....	.....	.....	.....	.....	.....
103 Western states.....	1905	161	16,710,017	802	882,071	14,940	4,293,459	2,820	10,829	1,291	105	5	14,310	2,896	46,713
104	1900	129	10,792,485	592	719,315	11,061	2,855,045	2,535	7,400	1,126	92	.....	10,261	1,925	32,598
105	1890	146	5,190,366	293	315,860	8,076	1,715,340	1,115	6,668	293	60	.....	6,056	.....	22,152
106	1880	65	534,799	.....	.....	2,862	330,210	339	2,093	430	7	.....	1,609	72	1,660
107	1870	23	36,300	.....	.....	143	24,890	50	89	4	.....	.....	68	2	12
108	1860	13	21,900	.....	.....	46	12,228	33	13	.....	.....	.....	.....	.....	.....
109 Ohio.....	1905	28	2,329,707	134	145,642	2,490	713,580	305	1,840	345	11	1	2,308	643	5,484
110	1900	24	1,067,937	50	55,356	1,413	354,369	154	1,229	30	10	.....	1,147	170	3,920
111	1890	44	1,071,007	67	68,134	1,831	398,496	107	1,649	75	8	.....	1,574	.....	2,456
112	1880	23	187,000	.....	.....	745	94,858	53	574	118	.....	.....	368	4	60
113	1870	5	9,400	.....	.....	22	5,250	16	6	.....	.....	.....	7	.....	.....
114	1860	11	10,900	.....	.....	36	9,264	23	13	.....	.....	.....	.....	.....	.....
115 Michigan ¹⁴	1905	38	3,283,955	175	174,890	3,085	769,247	583	2,342	160	30	.....	2,916	734	16,646
116	1900	32	2,135,916	201	187,574	2,509	580,129	498	1,873	138	28	.....	2,828	588	6,686
117	1890	10	560,917	33	34,435	915	173,909	131	683	1	14	.....	678	.....	3,680
118	1880	11	147,389	.....	.....	962	92,324	80	706	176	4	.....	521	9	920
119 Indiana ¹⁵	1905	5	2,215,433	84	85,489	1,720	509,500	604	830	286	34	.....	886	310	8,100
120	1900	7	2,728,306	103	201,085	2,016	703,129	1,032	874	110	27	.....	633	272	3,500
121	1890	9	716,989	27	29,721	935	177,798	281	593	61	18	.....	670	.....	7,392
122	1880	5	45,000	.....	.....	284	24,700	26	201	57	.....	.....	183	5	.....
123	1870	5	4,050	.....	.....	26	540	7	18	1	.....	.....	9	1	.....
124 Wisconsin ¹²	1905	37	4,370,904	204	233,876	4,224	1,181,498	594	3,251	379	16	1	4,275	458	9,051
125	1900	27	2,558,299	125	150,200	2,722	600,495	341	1,756	625	16	.....	2,832	451	8,694
126	1890	23	1,214,727	57	70,580	2,239	379,144	282	1,852	105	6	.....	1,138	.....	2,800
127	1880	4	10,010	.....	.....	28	3,364	6	20	2	.....	.....	19	4	.....
128 Illinois ¹³	1905	22	2,835,281	63	93,596	2,245	746,682	569	1,625	51	10	3	2,779	344	5,584
129	1900	14	1,530,990	46	66,720	1,805	494,285	417	1,233	155	7	.....	1,975	282	3,480
130	1890	35	1,254,576	74	78,301	1,894	466,808	279	1,479	46	14	.....	1,525	.....	5,824
131	1880	14	105,800	.....	.....	707	92,385	160	471	76	3	.....	433	48	680
132	1870	3	1,800	.....	.....	27	1,800	4	21	2	.....	.....	19	1	12

¹No establishments reported in 1870.
²Included in "all other Southern states" in 1900. No establishments reported in 1880, 1870, and 1860.
³No establishments reported in 1880, 1870, and 1860.
⁴No establishments reported in 1890, 1880, 1870, and 1860.
⁵Included in "all other Southern states" in 1905 and 1890. No establishments reported in 1900, 1880, and 1870.
⁶Included in "all other Southern states" in 1900. No establishments reported in 1880, 1870, and 1860.
⁷Included in "all other Southern states" in 1905 and 1900. No establishments reported in 1880, 1870, and 1860.

HOSIERY AND KNIT GOODS.

STATES AND GEOGRAPHIC DIVISIONS: 1860 TO 1905—Continued.

Miscellaneous expenses.	Cost of materials used.	PRINCIPAL MATERIALS—QUANTITIES CONSUMED.								Value of products.	
		Raw cotton (pounds).	Wool in condition purchased.			Animal hair and noils, purchased (pounds).	Shoddy, purchased (pounds).	Yarns purchased.			
			Total (pounds).	Foreign (pounds).	Domestic (pounds).			Cotton (pounds).	Woolen, worsted, and merino (pounds).		
\$675,042	\$6,280,304	5,659,087	45,000	45,000	.....	473,434	24,106,583	36,054	\$10,780,566	78
346,408	2,798,219	5,976,913	58,000	48,000	.....	150,007	10,607,638	428,180	5,031,336	79
52,760	450,808	982,600	50,500	50,500	.....	140,000	1,307,875	200	973,136	80
.....	1,700	.....	.....	.....	.....	.....	.....	1,400	2,400	81
.....	5,900	1,000	.....	.....	.....	.....	.....	.....	11,700	82
159,567	1,325,602	302,274	.....	.....	.....	411,331	4,446,241	500	2,107,602	83
119,198	707,818	4,136,996	.....	.....	.....	90,694	2,007,316	7,000	1,408,066	84
140,215	1,394,811	2,112,160	.....	.....	.....	.....	5,115,600	.....	2,483,827	85
35,920	504,027	1,300,378	.....	.....	.....	20,000	2,139,604	.....	1,023,150	86
3,097	66,925	.....	.....	.....	.....	.....	277,000	.....	120,875	87
73,864	580,400	1,200,000	.....	.....	.....	.....	1,978,972	.....	1,078,682	88
38,887	237,022	467,539	.....	.....	.....	.....	1,269,500	.....	302,237	89
133,341	1,417,411	595,901	.....	.....	.....	51,978	6,606,954	854	2,325,854	90
73,631	757,430	.....	.....	.....	.....	.....	3,707,218	1,180	1,230,801	91
10,665	70,697	200,000	.....	.....	.....	.....	280,340	.....	106,850	92
.....	5,000	1,000	.....	.....	.....	.....	.....	.....	11,700	93
70,446	660,100	.....	.....	.....	.....	.....	4,701,653	2,000	1,627,823	94
10,270	248,050	.....	.....	.....	.....	.....	1,099,090	20,000	305,150	95
27,026	253,630	884,162	.....	.....	.....	.....	544,112	.....	460,246	96
3,422	103,893	.....	.....	.....	.....	.....	545,400	.....	190,725	97
2,480	58,202	300,000	.....	.....	.....	.....	120,000	.....	151,180	98
60,683	333,245	564,500	45,000	45,000	.....	.....	802,952	32,700	666,532	99
89,502	252,372	72,000	58,000	10,000	.....	.....	39,313	400,000	491,932	100
33,156	160,081	482,600	56,500	56,500	.....	.....	140,000	200	337,606	101
.....	1,700	.....	.....	.....	.....	.....	.....	1,400	2,800	102
2,138,003	10,508,307	988,294	5,607,000	21,505	5,585,585	4,000	651,738	15,780,005	5,136,307	20,334,021	103
878,706	6,248,594	937,019	5,148,044	647,515	4,500,529	314,228	485,800	8,015,907	2,042,340	12,143,150	104
402,873	3,680,462	470,440	3,100,876	617,758	2,483,118	54,922	338,642	2,187,760	2,712,160	7,240,031	105
.....	919,630	46,500	240,000	240,000	10,000	155,000	779,430	1,555,123	106
.....	47,727	600	600	10,300	43,175	95,387	107
.....	21,715	4,000	6,500	.....	.....	.....	.....	.....	46,080	108
298,290	2,177,308	90,600	624,078	.....	624,078	.....	1,640,470	1,070,820	3,097,047	109
90,411	807,673	50,000	140,500	15,000	125,500	.....	432,372	723,320	1,570,285	110
68,001	914,085	359,000	4,000	355,000	5,053	70,000	206,302	967,170	1,635,948	111
.....	241,683	5,000	0,000	245,700	418,825	112
.....	10,360	10,600	23,160	113
.....	13,515	4,000	6,500	.....	.....	.....	.....	.....	31,800	114
452,520	1,844,100	237,638	1,043,144	1,000	1,042,144	0,304	2,218,111	1,048,250	3,023,885	115
205,124	1,450,378	182,497	1,434,008	32,005	1,402,003	3,005	154,304	1,736,071	622,717	2,791,257	116
57,901	285,057	265,555	247,081	25,000	222,081	30,037	67,400	141,067	701,322	117
.....	220,027	40,000	180,000	180,000	10,000	1,300	150,000	377,240	118
201,062	1,105,164	100,120	2,485,778	2,485,778	252,321	1,430,084	65,858	2,165,277	119
108,442	1,200,483	173,038	1,214,122	523,210	690,906	300,000	92,703	945,405	20,005	2,424,304	120
70,437	408,195	61,413	1,095,253	508,758	520,495	25,762	143,572	231,413	77,440	827,104	121
.....	103,280	30,000	81,600	158,200	122
.....	2,842	2,575	6,460	123
608,480	2,270,472	121,000	704,790	15,005	689,791	32,417	3,954,498	1,100,815	4,041,044	124
223,216	1,176,140	124,310	799,357	76,304	722,963	54,833	1,532,591	663,859	2,480,813	125
162,727	890,371	18,361	581,042	20,000	561,042	11,690	131,213	240,545	970,833	1,635,041	126
.....	9,126	7,800	18,817	127
371,651	2,000,041	274,450	682,594	682,594	332,000	5,112,300	624,578	3,570,436	128
126,332	1,261,242	322,500	1,514,400	1,514,400	111,500	3,817,050	335,800	2,145,420	129
68,123	980,780	125,120	818,500	818,500	17,500	27,920	1,223,500	323,560	1,606,035	130
.....	290,805	6,500	60,000	60,000	100,400	286,800	484,124	131
.....	5,775	600	600	600	100	6,100	8,600	132

¹ Includes establishments distributed as follows: Kentucky, 1; Louisiana, 1; Mississippi, 2; West Virginia, 2.
² Includes establishments distributed as follows: Alabama, 1; Louisiana, 1; Mississippi, 1; Texas, 1; West Virginia, 2.
³ Includes establishments distributed as follows: Florida, 1; Kentucky, 2; Virginia, 2; West Virginia, 2.
⁴ Includes West Virginia, 1.
⁵ No establishments reported in 1870 and 1860.
⁶ No establishments reported in 1860.

MANUFACTURES.

TABLE 5.—HOSIERY AND KNIT GOODS—COMPARATIVE SUMMARY, BY

STATE.	Census.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		WAGE-EARNERS AND WAGES.					MACHINERY.				
				Number.	Salaries.	Total.		Average number.			Woolen cards.	Combining machines.	Knitting machines.	Sewing machines.	Spindles.
						Average number.	Wages.	Men 16 years and over.	Women 16 years and over.	Children under 16 years.					
Western states—Cont'd.															
133	Minnesota ¹	1905	10	\$968,394	51	\$72,226	615	\$190,148	87	478	50	4	490	293	1,848
134		1900	8	484,004	21	29,657	293	77,589	51	206	36	3	476	94	1,418
135		1880	3	247,498	10	15,356	119	31,000	17	102			152		
136		1880	1	8,000			12	2,819	8	4			10	2	
137		1870	1	150			1		1						
138	Iowa ²	1890	3	8,950	2	820	7	1,730	1	6			14		
139		1880	3	2,200			6	460	3	3			7		
140		1870	2	5,200			6	1,200	3	3					
141	Missouri ³	1890	7	33,247	8	6,188	117	28,280	1	116			145		
142		1880	4	29,400			118	19,300	3	114	1		68		
143		1870	7	15,709			61	15,600	19	41	1		33		
144		1860	2	11,000			10	2,964	10						
145	Utah ⁴	1905	9	199,352	39	28,354	171	48,211	14	156	1		180	102	
146		1900	5	52,550	13	5,260	91	21,599	15	72	4		101	20	
147		1890	5	33,370	5	3,070	65	13,950		60	5		73		
148	California ⁵	1905	5	256,100	38	36,000	222	87,851	16	194	12		195	85	
149		1900	3	89,160	10	12,160	79	27,880	6	66	7		82	43	
150	All other Western states.	⁶ 1905	7	250,981	14	11,998	168	46,742	48	113	7		281	17	200
151		⁷ 1900	9	145,323	17	14,294	133	25,570	21	91	21	1	187	5	
152		⁸ 1890	7	49,085	10	9,255	144	44,216	16	128			87		

¹ No establishments reported in 1860.² Included in "all other Western states" in 1905 and 1900. No establishments reported in 1860.³ Included in "all other Western states" in 1905 and 1900.⁴ No establishments reported in 1880, 1870, and 1860.

HOSIERY AND KNIT GOODS.

STATES AND GEOGRAPHIC DIVISIONS: 1860 TO 1905—Continued.

Miscellaneous expenses.	Cost of materials used.	PRINCIPAL MATERIALS—QUANTITIES CONSUMED.								Value of products.	
		Raw cotton (pounds).	Wool in condition purchased.			Animal hair and polls, purchased (pounds).	Shoddy, purchased (pounds).	Yarns purchased.			
			Total (pounds).	Foreign (pounds).	Domestic (pounds).			Cotton (pounds).	Woolen, worsted, and merino (pounds).		
\$109,360	\$629,001	67,680	65,500	5,500	60,000	4,000	25,000	1,084,314	380,807	\$1,202,580	133
31,470	107,184	84,264	37,667		37,667	305		254,988	155,141	410,002	134
24,345	87,662							42,000	105,000	183,743	135
	5,000								5,400	10,000	136
	200								200	500	137
410	1,075							3,000	1,275	5,703	138
	1,554								1,536	2,008	139
	1,510							600	300	2,887	140
3,803	30,524							37,500	30,325	81,445	141
	41,575							11,300	41,100	85,000	142
	27,040							15,600	24,400	54,650	143
	8,200									14,880	144
18,700	167,022							136,081	100,201	320,302	145
4,577	24,184		3,000		3,000			15,700	22,075	60,357	146
2,146	25,475							500	33,875	53,500	147
51,740	145,606							21,000	64,850	350,000	148
10,570	71,751							30,020	67,836	126,080	149
25,243	64,524	200	1,200		1,200			105,138	35,113	200,455	150
9,504	50,403	440	4,000		4,000			150,500	30,600	115,633	151
3,981	47,338						2,400	36,500	31,675	125,470	152

* Included in "all other Western states" in 1860. No establishments reported in 1880, 1870, and 1860.
 † Includes establishments distributed as follows: Idaho, 2; Iowa, 1; Kansas, 1; Missouri, 1; Nebraska, 1; Oregon, 1.
 ‡ Includes establishments distributed as follows: Idaho, 1; Iowa, 2; Kansas, 1; Missouri, 2; Montana, 1; Nebraska, 1; Oregon, 1.
 § Includes establishments distributed as follows: California, 2; Colorado, 2; Kansas, 1; Nebraska, 1; Washington, 1.

MANUFACTURES.

TABLE 6.—HOSIERY AND KNIT GOODS—

	United States.	Alabama.	California.	Connecticut.	Delaware.	
1	Number of establishments.....	1,079	8	5	24	7
2	Capital, total.....	\$106,663,531	\$563,102	\$256,100	\$5,814,871	\$212,602
3	Land.....	\$3,828,321	\$41,500	\$300	\$192,300	\$6,050
4	Buildings.....	\$13,713,924	\$105,588	\$10,700	\$719,301	\$18,518
5	Machinery, tools, and implements.....	\$32,089,938	\$249,426	\$68,050	\$1,390,170	\$131,977
6	Cash and sundries.....	\$57,031,348	\$166,588	\$177,050	\$3,513,100	\$56,257
7	Proprietors and firm members.....	991	4	3	7	2
8	Salaried officials, clerks, etc.:					
9	Total number.....	4,304	22	38	102	27
10	Total salaries.....	\$4,436,941	\$17,666	\$36,000	\$162,779	\$18,374
11	Officers of corporations—					
12	Number.....	636	4	4	29	3
13	Salaries.....	\$1,321,925	\$4,050	\$9,300	\$77,305	\$4,680
14	General superintendents, managers, clerks, etc.—					
15	Total number.....	3,668	18	34	73	24
16	Total salaries.....	\$3,115,016	\$13,616	\$26,700	\$85,474	\$13,694
17	Men—					
18	Number.....	2,783	18	21	61	17
19	Salaries.....	\$2,716,438	\$13,616	\$18,460	\$78,974	\$10,678
20	Women—					
21	Number.....	885	—	13	12	7
22	Salaries.....	\$398,578	—	\$8,250	\$6,500	\$3,016
23	Wage-earners, including pieceworkers, and total wages:					
24	Greatest number employed at any one time during the year.....	116,869	586	253	3,782	457
25	Least number employed at any one time during the year.....	92,537	439	193	3,372	309
26	Average number.....	103,715	505	222	3,594	323
27	Total wages.....	\$31,536,024	\$93,406	\$87,851	\$1,805,019	\$75,087
28	Men 16 years and over—					
29	Average number.....	25,167	111	16	1,148	30
30	Wages.....	\$10,747,214	\$29,033	\$11,906	\$666,870	\$12,367
31	Women 16 years and over—					
32	Average number.....	68,867	273	194	2,374	261
33	Wages.....	\$19,354,014	\$48,264	\$73,820	\$723,417	\$58,820
34	Children under 16 years—					
35	Average number.....	9,681	121	12	72	32
36	Wages.....	\$1,434,796	\$16,109	\$2,125	\$14,732	\$4,400
37	Average number of wage-earners, including pieceworkers, employed during each month:					
38	Men 16 years and over—					
39	January.....	24,440	119	16	1,144	34
40	February.....	24,708	115	16	1,118	34
41	March.....	25,089	122	17	1,151	34
42	April.....	25,193	122	17	1,134	26
43	May.....	25,302	118	17	1,157	25
44	June.....	25,317	119	17	1,110	25
45	July.....	25,002	62	16	1,145	25
46	August.....	25,101	61	16	1,156	27
47	September.....	25,476	127	15	1,161	30
48	October.....	25,675	132	15	1,174	31
49	November.....	25,542	116	15	1,158	34
50	December.....	25,159	119	15	1,168	35
51	Women 16 years and over—					
52	January.....	67,064	290	169	2,365	277
53	February.....	68,296	291	187	2,344	287
54	March.....	69,194	285	209	2,357	282
55	April.....	69,368	293	212	2,381	221
56	May.....	69,171	287	222	2,373	215
57	June.....	69,167	255	212	2,385	227
58	July.....	67,995	202	192	2,366	234
59	August.....	68,268	202	192	2,375	257
60	September.....	69,220	286	187	2,360	272
61	October.....	70,132	291	192	2,393	265
62	November.....	69,885	301	187	2,389	286
63	December.....	68,644	293	167	2,400	279
64	Children under 16 years—					
65	January.....	9,332	124	11	63	38
66	February.....	9,464	121	12	63	39
67	March.....	9,555	124	13	62	35
68	April.....	9,585	126	13	64	27
69	May.....	9,678	119	13	66	32
70	June.....	9,713	122	12	73	30
71	July.....	9,625	99	12	79	30
72	August.....	9,561	96	11	84	28
73	September.....	9,718	126	11	77	30
74	October.....	9,955	124	12	79	31
75	November.....	9,937	132	12	77	30
76	December.....	9,949	139	12	77	34
77	Skilled operatives, average number:					
78	Spinners—					
79	Men 16 years and over.....	2,011	—	—	112	—
80	Women 16 years and over.....	662	3	—	81	—
81	Children under 16 years.....	236	16	—	14	—
82	Knitters—					
83	Men 16 years and over.....	7,783	19	10	96	34
84	Women 16 years and over.....	18,012	75	74	564	122
85	Children under 16 years.....	2,902	75	—	20	—
86	Finishers—					
87	Men 16 years and over.....	4,302	32	1	78	21
88	Women 16 years and over.....	33,740	136	134	617	49
89	Children under 16 years.....	2,320	9	12	2	4
90	Machinery:					
91	Sets of cards, number.....	2,001	27	—	191	—
92	Woolen.....	927	—	—	109	—
93	Worsted.....	24	—	—	8	—
94	Shoddy.....	50	—	—	18	—
95	Cotton.....	1,000	27	—	56	—
96	Combing machines, number.....	224	—	—	7	4
97	Of American manufacture.....	51	—	—	1	4
98	Of foreign manufacture.....	173	—	—	6	—
99	Sewing machines, number.....	30,410	119	85	744	139

HOSIERY AND KNIT GOODS.

DETAILED SUMMARY, BY STATES: 1905.

Georgia.	Illinois.	Indiana.	Maine.	Maryland.	Massachusetts.	Michigan.	Minnesota.	New Hampshire.	1
21	22	5	3	4	58	38	10	21	1
\$1,046,863	\$2,895,281	\$2,215,433	\$15,500	\$639,160	\$7,826,240	\$3,283,955	\$668,304	\$2,749,580	2
\$62,842	\$14,075	\$72,666	\$100	\$15,130	\$309,795	\$95,388	\$36,100	\$209,364	3
\$314,082	\$231,983	\$234,854	\$600	\$51,000	\$1,027,825	\$403,334	\$169,701	\$313,406	4
\$756,684	\$933,643	\$432,441	\$5,400	\$165,701	\$1,060,167	\$764,092	\$201,475	\$574,575	5
\$813,245	\$1,555,580	\$1,475,472	\$9,400	\$407,329	\$4,828,463	\$2,021,141	\$561,028	\$1,652,244	6
4	19	5	5	4	40	14	5	20	7
88	63	84	-----	30	244	175	51	80	8
\$92,783	\$93,590	\$85,489	-----	\$20,110	\$317,784	\$174,800	\$72,226	\$91,570	9
28	17	11	-----	2	36	35	11	13	10
\$42,430	\$40,600	\$27,940	-----	\$2,500	\$96,048	\$66,002	\$20,896	\$32,600	11
60	46	73	-----	37	208	140	40	70	12
\$59,353	\$44,096	\$57,549	-----	\$26,610	\$221,736	\$108,888	\$42,330	\$68,970	13
53	35	58	-----	34	145	85	32	61	14
\$46,943	\$38,046	\$51,349	-----	\$25,998	\$187,397	\$86,988	\$37,678	\$50,881	15
7	11	15	-----	3	63	55	8	15	16
\$3,410	\$6,050	\$6,200	-----	\$612	\$34,339	\$21,900	\$4,662	\$8,089	17
2,171	2,544	1,978	69	914	8,937	4,035	735	3,024	18
1,726	2,047	1,418	49	833	7,308	2,205	475	2,473	19
1,935	2,245	1,720	56	876	8,110	3,085	615	2,700	20
\$395,986	\$746,082	\$509,500	\$12,975	\$195,922	\$2,830,185	\$769,247	\$199,148	\$943,120	21
407	560	604	10	181	2,003	583	87	940	22
\$110,324	\$277,957	\$253,298	\$4,260	\$60,881	\$963,737	\$253,473	\$30,230	\$414,823	23
1,164	1,025	830	44	612	5,498	2,342	478	1,701	24
\$234,409	\$459,336	\$223,373	\$8,590	\$127,409	\$1,770,533	\$490,038	\$147,335	\$517,412	25
364	51	286	2	83	519	160	50	59	26
\$45,253	\$9,789	\$32,820	\$125	\$7,632	\$95,915	\$25,136	\$6,583	\$10,885	27
420	555	536	8	171	2,120	479	81	925	28
423	562	555	10	177	2,076	526	77	954	29
413	587	588	9	180	2,073	536	81	977	30
411	587	579	8	189	2,034	540	91	965	31
400	580	592	7	198	2,048	550	93	967	32
387	585	603	13	181	2,034	575	92	952	33
386	562	600	12	181	2,044	613	90	930	34
380	550	629	13	178	2,010	625	89	917	35
366	557	659	12	175	2,079	647	91	932	36
403	506	641	13	176	2,182	675	91	935	37
423	609	620	7	180	2,196	664	89	908	38
424	578	657	8	180	2,214	576	79	918	39
1,188	1,507	995	38	603	5,500	1,671	400	1,809	40
1,188	1,541	746	40	610	5,461	2,032	437	1,847	41
1,104	1,045	769	40	610	5,443	2,117	462	1,886	42
1,188	1,053	794	40	612	5,345	2,192	490	1,881	43
1,105	1,012	814	40	610	5,301	2,264	517	1,858	44
1,160	1,030	861	50	613	5,433	2,323	522	1,846	45
1,123	1,019	839	50	608	5,370	2,045	535	1,751	46
1,123	1,021	862	50	609	5,351	2,030	537	1,709	47
1,145	1,073	895	50	619	5,536	2,099	539	1,757	48
1,160	1,066	891	50	616	5,705	2,617	507	1,735	49
1,170	1,086	907	40	620	5,743	2,530	420	1,713	50
1,175	1,047	887	40	614	5,698	2,366	370	1,700	51
372	47	220	1	84	503	113	48	53	52
372	47	230	1	85	512	143	50	50	53
372	60	248	1	88	522	153	48	59	54
374	60	262	1	81	510	104	51	57	55
364	63	285	2	85	526	171	52	65	56
348	54	293	3	84	511	188	55	64	57
345	54	290	2	79	523	197	56	60	58
344	52	305	3	82	510	191	44	62	59
343	54	314	2	81	500	176	48	60	60
308	53	323	3	79	534	168	52	57	61
379	52	325	2	83	537	131	51	58	62
387	46	337	3	85	531	125	46	57	63
30	10	20	-----	-----	365	77	4	82	64
27	-----	45	-----	-----	280	-----	2	83	65
18	-----	-----	-----	-----	47	-----	-----	86	66
168	260	166	13	22	417	193	30	258	67
343	313	280	28	270	889	1,153	102	383	68
174	17	2	-----	48	90	50	-----	16	69
150	30	84	-----	234	288	118	35	174	70
632	971	362	20	70	3,170	1,194	328	384	71
78	45	66	-----	10	141	43	-----	23	72
20	18	42	-----	-----	501	78	4	69	73
-----	10	34	-----	-----	30	30	4	54	74
-----	4	1	-----						

TABLE 6.—HOSIERY AND KNIT GOODS—

	United States.	Alabama.	California.	Connecticut.	Delaware.	
Machinery—Continued.						
82	Spindles, total number.....	608,180	5,372		86,952	
83	Producing, number.....	596,362	5,372		86,752	
84	Mule, number.....	475,028			86,752	
85	Woolen.....	284,711			36,252	
86	Worsted.....	8,400			6,000	
87	Cotton.....	182,817			44,500	
88	Frame, number.....	120,434	5,372			
89	Woolen.....	1,950				
90	Worsted.....	1,264				
91	Cotton.....	117,220	5,372			
92	Doubling and twisting, number.....	6,818			200	
93	Woolen.....	3,102				
94	Worsted.....	598				
95	Cotton.....	3,208			200	
96	Knitting machines, number.....	88,374	499	195	2,557	598
	Spring-beard needle—					
97	Flat, ribbed.....	1,455			93	
98	Flat, plain.....	756				
99	Full-fashioned flat, ribbed.....	200			19	
100	Full-fashioned flat, plain.....	1,195			440	
101	Circular, ribbed.....	1,087	10		83	26
102	Circular, plain.....	7,163	28		661	
103	Circular hosiery, automatic.....	1,648	60			
104	Lamb and other variety, hand.....	335		8		
	Latch needle—					
105	Flat, ribbed.....	2,343			96	78
106	Flat, plain.....	2,410				93
107	Full-fashioned flat, ribbed.....	770			27	
108	Full-fashioned flat, plain.....	1,317				
109	Circular, ribbed.....	24,452	102	34	264	145
110	Circular, plain.....	6,707			58	24
111	Circular hosiery, automatic.....	30,313	269		736	232
112	Lamb and other variety, hand.....	6,163			80	
113	Miscellaneous expenses, total.....	\$10,320,176	\$27,926	\$51,746	\$466,615	\$26,422
114	Rent of works.....	\$534,273	\$420	\$4,680	\$10,161	\$1,660
115	Taxes.....	\$388,843	\$880	\$1,209	\$29,159	\$203
116	Rent of offices, interest, insurance, and all other sundry expenses not hitherto included.....	\$8,672,315	\$26,626	\$42,257	\$412,224	\$23,059
117	Contract work.....	\$724,245		\$3,600	\$15,071	\$1,500
118	Materials used, aggregate cost.....	\$76,593,782	\$253,639	\$145,666	\$2,825,014	\$164,000
119	Principal materials, total cost.....	\$69,629,021	\$212,735	\$135,134	\$2,434,570	\$134,291
120	Purchased in raw state.....	\$12,078,052	\$88,902		\$1,026,473	
121	Purchased in partially manufactured form.....	\$57,450,969	\$123,833	\$135,134	\$1,408,097	\$134,291
122	Fuel.....	\$1,283,018	\$13,025		\$67,938	\$3,930
123	Rent of power and heat.....	\$202,030		\$1,400	\$5,847	
124	Mill supplies.....	\$541,174	\$8,040	\$357	\$34,901	\$2,371
125	All other materials.....	\$4,564,632	\$17,971	\$4,075	\$262,002	\$21,956
126	Freight.....	\$473,907	\$1,868	\$4,700	\$29,636	\$1,446
127	Products, total value.....	\$136,558,139	\$400,246	\$356,999	\$5,371,452	\$296,197
	Power:					
128	Number of establishments reporting.....	1,002	8	3	24	6
129	Total horsepower.....	83,814	805	21	3,757	290
	Owned—					
	Engines—					
	Steam—					
130	Number.....	795	10		27	7
131	Horsepower.....	57,400	805		2,554	275
	Gas and gasoline—					
132	Number.....	72			1	
133	Horsepower.....	659			5	
	Water wheels—					
134	Number.....	176			17	
135	Horsepower.....	13,522			1,028	
	Water motors—					
136	Number.....	2				
137	Horsepower.....	10				
	Electric motors—					
138	Number.....	414			5	1
139	Horsepower.....	5,076			115	15
	Rented—					
	Electric motors—					
140	Number.....	346		4	1	
141	Horsepower.....	4,626		21	5	
142	Other kind, horsepower.....	2,461			50	
143	Furnished to other establishments, horsepower.....	941				

HOSIERY AND KNIT GOODS.

DETAILED SUMMARY, BY STATES: 1905—Continued.

Georgia.	Illinois.	Indiana.	Maine.	Maryland.	Massachusetts.	Michigan.	Minnesota.	New Hampshire.	
6,560	5,584	8,100			125,406	16,046	1,848	18,433	82
6,352	5,216	8,100			124,580	15,470	1,848	17,993	83
2,400	5,216	8,100			69,076	5,470	1,848	16,477	84
	2,816	7,800			8,392	5,470	1,848	14,798	85
	2,400								86
2,400		300			60,684			1,679	87
3,952					55,504	10,000		1,516	88
									89
									90
3,952					55,504	10,000		1,516	91
208	368				820	1,176		440	92
	168					264		440	93
	200								94
208					826	912			95
1,677	2,770	886	78	814	6,715	2,916	400	2,719	96
									97
23		22			310	6			98
		12			279	14		24	99
					7		25	1	100
					67		18		101
	7				66	105	15	10	102
	15	20			1,100	243	40	18	103
					4	62	11		104
			10		31	73			105
30	270	9	18		180	145	47	6	106
50	209	130			178	100		1	107
	32	10			16		20	3	108
	638	124			1				109
480	765	224		205	1,286	577	133	1,128	110
	48	218		240	171	188	141	244	111
1,070	774	99		360	2,730	452	12	1,148	112
24	21	18		50	289	951	28	136	113
\$133,341	\$371,051	\$201,092	\$915	\$52,234	\$923,704	\$452,520	\$100,300	\$375,780	114
\$500	\$27,980	\$500	\$340		\$20,371	\$7,905	\$2,835	\$4,821	115
\$10,100	\$8,780	\$8,481	\$30	\$1,387	\$74,135	\$19,944	\$3,584	\$12,119	116
\$123,741	\$308,511	\$191,781	\$245	\$40,847	\$752,051	\$393,852	\$102,941	\$336,585	117
	\$27,080	\$1,200		\$10,000	\$78,147	\$30,828		\$22,255	118
\$1,417,411	\$2,090,041	\$1,105,194	\$17,720	\$531,432	\$5,017,405	\$1,844,109	\$626,001	\$2,229,132	119
\$1,274,075	\$1,958,152	\$1,030,123	\$16,750	\$446,583	\$4,467,317	\$1,687,137	\$587,650	\$2,001,786	120
\$51,502	\$254,838	\$906,058			\$1,837,440	\$393,635	\$17,925	\$426,252	121
\$1,222,573	\$1,703,314	\$424,065	\$16,750	\$446,583	\$2,029,877	\$1,293,692	\$570,034	\$1,575,594	122
\$29,861	\$35,072	\$25,748	\$120	\$8,213	\$132,574	\$45,760	\$8,491	\$4,072	123
\$1,640	\$4,382	\$1,750	\$250	\$200	\$7,369	\$4,998	\$608	\$1,523	124
\$15,970	\$3,980	\$8,647	\$900	\$1,000	\$23,586	\$8,994	\$9,078	\$15,323	125
\$91,375	\$59,588	\$28,481		\$67,461	\$95,304	\$73,318	\$19,793	\$147,307	126
\$4,481	\$41,767	\$10,415		\$7,069	\$21,262	\$29,402	\$2,172	\$26,061	127
\$2,325,854	\$3,579,436	\$2,105,277	\$34,000	\$91,593	\$10,081,852	\$3,023,885	\$1,202,586	\$3,074,290	128
									129
21	21	5	1	4	54	34	10	20	130
2,185	1,883	1,715	2	495	10,594	2,781	321	2,228	131
									132
									133
21	21	7		7	67	27	5	8	134
1,785	1,047	1,040		385	7,835	2,118	282	440	135
									136
	2				7	0	2		137
	10				163	67	14		138
		3							139
		200			15	2		21	140
					2,145	150		1,514	141
									142
									143
									144
2	26	18		8	12	16	1	4	145
90	590	300		90	208	280	5	12	146
									147
5	22	1	1	1	16	19	0	8	148
310	201	175	2	20	164	86	20	40	149
	5				39	80		216	150
50					10			10	151

TABLE 6.—HOSIERY AND KNIT GOODS—

	New Jersey.	New York.	North Carolina.	Ohio.
1	25	261	40	28
2	\$1,034,489	\$35,206,050	\$2,080,649	\$2,329,707
3	\$79,088	\$1,238,520	\$102,769	\$44,082
4	\$334,395	\$4,657,689	\$278,343	\$127,874
5	\$307,946	\$10,415,088	\$944,736	\$618,548
6	\$853,050	\$18,894,762	\$754,811	\$1,530,208
7	23	211	38	25
8	56	1,084	102	134
9	\$67,167	\$1,271,898	\$124,854	\$145,642
10	8	161	27	15
11	\$19,080	\$384,772	\$35,110	\$32,400
12	48	923	74	119
13	\$48,087	\$866,026	\$89,745	\$113,242
14	42	738	66	88
15	\$45,835	\$789,247	\$87,254	\$99,912
16	6	185	9	31
17	\$2,252	\$97,379	\$2,490	\$13,830
18	1,900	33,354	3,450	2,818
19	1,470	26,298	2,584	2,170
20	1,742	29,251	2,944	2,490
21	\$535,821	\$10,144,087	\$617,372	\$713,580
22	592	9,068	632	305
23	\$244,376	\$3,803,002	\$202,333	\$146,516
24	1,077	19,421	1,554	1,840
25	\$282,434	\$6,203,443	\$319,506	\$521,195
26	73	762	758	345
27	\$9,011	\$137,642	\$95,533	\$45,869
28	595	8,641	596	807
29	593	8,837	609	291
30	582	9,089	610	308
31	582	9,242	633	324
32	587	9,214	643	328
33	593	9,236	643	336
34	587	9,106	643	335
35	592	9,110	638	339
36	594	9,230	633	306
37	579	9,202	658	266
38	596	9,117	639	267
39	614	8,792	633	253
40	1,113	18,659	1,519	1,902
41	1,139	19,117	1,512	1,915
42	1,090	19,695	1,531	1,936
43	1,081	19,818	1,559	1,942
44	1,021	19,666	1,533	1,997
45	995	19,680	1,539	2,028
46	986	19,127	1,555	1,835
47	1,007	19,260	1,549	1,834
48	1,086	19,628	1,516	1,811
49	1,120	19,900	1,630	1,665
50	1,124	19,586	1,608	1,635
51	1,162	18,916	1,597	1,582
52	76	733	701	342
53	73	745	708	349
54	66	762	735	347
55	60	770	765	348
56	72	770	764	347
57	76	776	763	353
58	72	773	752	364
59	74	758	750	364
60	74	756	763	358
61	70	784	816	331
62	79	765	800	323
63	79	752	779	314
64	40	840	34	8
65	29	2	2	22
66	2	8	10	
67	203	2,297	262	130
68	307	1,530	559	686
69	19	124	360	8
70	53	905	151	27
71	522	12,133	692	1,157
72	3	262	114	43
73	38	749	51	11
74	26	491		11
75				
76		16		
77	12	242	51	
78		72		1
79		31		1
80		41		
81	333	14,695	330	643

¹ Includes establishments distributed as follows: Idaho, 2; Iowa, 1; Kansas, 1; Kentucky, 1; Louisiana, 1; Mississippi, 2; Missouri, 1; Nebraska, 1; Oregon, 1; West Virginia, 2.

HOSIERY AND KNIT GOODS.

DETAILED SUMMARY, BY STATES: 1905—Continued.

Pennsylvania.	Rhode Island.	South Carolina.	Tennessee.	Utah.	Vermont.	Virginia.	Wisconsin.	All other states, ¹	
370	15	14	16	9	11	14	37	13	1
\$23,000,720	\$2,276,874	\$323,822	\$1,150,989	\$100,352	\$1,387,526	\$715,530	\$4,370,904	\$941,720	2
\$971,148	\$104,778	\$29,000	\$23,050	\$4,000	\$8,400	\$15,100	\$74,831	\$27,075	3
\$3,245,365	\$401,807	\$162,923	\$146,148	\$8,000	\$50,000	\$74,032	\$302,158	\$183,638	4
\$8,319,602	\$641,003	\$400,198	\$300,008	\$42,480	\$350,493	\$274,113	\$1,336,181	\$351,001	5
\$11,373,515	\$1,125,266	\$230,801	\$600,783	\$144,872	\$978,033	\$352,285	\$2,567,734	\$370,316	6
498	9	5	4	4	14	11	6	7	7
1,477	72	40	41	30	36	60	204	37	8
\$1,000,980	\$100,216	\$30,333	\$40,770	\$28,354	\$41,950	\$40,470	\$233,876	\$43,058	9
114	11	15	10	5	6	12	48	11	10
\$205,172	\$32,800	\$11,883	\$11,460	\$3,075	\$12,400	\$12,133	\$102,029	\$10,100	11
1,263	61	25	31	34	30	48	156	20	12
\$801,814	\$67,416	\$18,450	\$29,310	\$24,070	\$20,550	\$37,337	\$131,247	\$27,408	13
900	52	22	26	23	27	41	117	21	14
\$717,818	\$61,036	\$17,800	\$27,050	\$10,810	\$27,850	\$35,068	\$115,024	\$25,718	15
363	9	3	5	11	3	7	39	5	16
\$143,996	\$6,380	\$650	\$2,260	\$4,800	\$1,001	\$2,260	\$10,223	\$1,730	17
31,106	1,000	1,281	2,027	237	1,031	2,076	4,584	1,461	18
25,456	1,548	963	1,600	113	722	1,809	3,773	1,184	19
28,143	1,721	1,058	1,810	171	916	1,842	4,224	1,327	20
\$7,959,087	\$573,080	\$186,721	\$341,033	\$48,211	\$304,340	\$430,321	\$1,181,408	\$277,145	21
4,758	472	367	478	14	316	456	594	336	22
\$2,243,660	\$220,006	\$79,577	\$114,661	\$6,548	\$137,994	\$174,245	\$263,827	\$100,604	23
18,875	1,176	430	1,033	150	500	1,077	3,251	851	24
\$5,020,131	\$320,100	\$80,802	\$198,184	\$41,503	\$220,586	\$312,731	\$350,899	\$157,594	25
4,510	73	261	240	1	10	309	379	140	26
\$683,200	\$15,484	\$26,342	\$28,188	\$100	\$1,700	\$43,345	\$57,772	\$18,947	27
4,732	401	304	465	11	323	412	582	334	28
4,767	476	368	480	11	300	417	583	333	29
4,722	483	341	474	11	334	426	612	337	30
4,695	481	342	480	11	326	422	604	330	31
4,741	496	347	488	12	323	425	603	343	32
4,738	472	343	495	15	321	422	607	343	33
4,672	468	342	433	16	323	426	586	333	34
4,718	461	358	487	18	315	426	570	334	35
4,740	465	373	488	18	319	421	613	320	36
4,834	469	400	487	17	294	426	609	340	37
4,807	469	404	478	14	316	425	579	336	38
4,861	463	422	472	14	298	404	571	331	39
18,017	1,183	431	1,126	93	580	1,047	3,153	820	40
19,043	1,106	428	1,137	93	566	1,057	3,253	829	41
18,000	1,193	425	1,126	112	598	1,062	3,372	846	42
18,002	1,103	425	1,135	122	614	1,070	3,349	850	43
18,804	1,188	416	1,113	142	593	1,058	3,346	800	44
18,728	1,154	405	1,091	157	590	1,068	3,321	807	45
18,455	1,161	388	985	168	590	1,067	3,245	869	46
18,507	1,105	414	999	179	580	1,101	3,196	854	47
18,508	1,144	445	1,043	190	606	1,100	3,190	833	48
10,048	1,145	453	1,043	214	585	1,063	3,250	869	49
10,242	1,177	455	1,075	205	612	1,066	3,191	808	50
10,197	1,213	475	1,113	190	542	1,030	3,137	845	51
4,422	67	262	248	1	10	200	371	126	52
4,400	67	260	255	1	10	204	378	123	53
4,474	72	257	255	1	10	200	388	123	54
4,454	73	264	271	1	10	204	371	124	55
4,403	81	263	267	1	10	316	373	118	56
4,479	78	261	247	1	10	322	363	117	57
4,410	82	250	211	1	10	322	364	149	58
4,451	85	251	241	1	10	320	365	149	59
4,503	70	253	231	1	10	320	365	153	60
4,640	65	261	227	1	10	315	384	108	61
4,663	69	267	200	1	10	312	355	104	62
4,686	67	283	275	1	10	307	351	106	63
202	21	17	.....	.....	32	20	38	20	64
50	27	24	.....	.....	.....	5	32	.....	65
52	11	41	.....	.....	.....	6	11	.....	66
2,203	186	148	216	12	62	118	251	19	67
7,055	387	172	360	100	46	120	1,583	304	68
1,472	25	33	79	1	.....	117	110	50	69
1,171	103	110	207	8	28	65	141	78	70
7,751	385	152	281	65	353	561	1,267	204	71
1,084	10	10	30	.....	7	37	237	35	72
77	10	16	.....	.....	33	31	18	12	73
32	6	.....	.....	.....	32	31	16	2	74
8	3	.....	.....	.....	.....	.....	.....	.....	75
7	1	.....	.....	.....	.....	.....	.....	.....	76
30	.....	10	.....	.....	1	.....	2	10	77
13	3	.....	.....	.....	.....	.....	1	.....	78
13	.....	.....	.....	.....	.....	.....	1	.....	79
.....	3	.....	.....	.....	.....	.....	.....	.....	80
5,860	842	113	342	102	307	641	458	50	81

TABLE 6.—HOSIERY AND KNIT GOODS—

	New Jersey.	New York.	North Carolina.	Ohio.
Machinery—Continued.				
82 Spindles, total number.....	9,462	226,343	13,264	5,484
83 Producing, number.....	9,462	225,237	13,264	5,484
84 Mule, number.....	9,462	194,985	13,264	5,484
85 Woolen.....	9,462	146,591		5,484
86 Worsted.....				
87 Cotton.....		48,394	13,264	
88 Frame, number.....		30,252		
89 Woolen.....		1,920		
90 Worsted.....				
91 Cotton.....		28,332		
92 Doubling and twisting, number.....		1,106		
93 Woolen.....		224		
94 Worsted.....				
95 Cotton.....		882		
96 Knitting machines, number.....	1,345	12,666	3,043	2,508
Spring-beard needle—				
97 Flat, ribbed.....	48	642	1	13
98 Flat, plain.....	19	292	20	42
99 Full-fashioned flat, ribbed.....	86	12		1
100 Full-fashioned flat, plain.....	238	57		1
101 Circular, ribbed.....	12	173	10	30
102 Circular, plain.....	55	2,932	1	20
103 Circular hosiery, automatic.....	60	68	63	7
104 Lamb and other variety, hand.....	13	79		
Latch needle—				
105 Flat, ribbed.....	126	525	23	63
106 Flat, plain.....	24	420	240	6
107 Full-fashioned flat, ribbed.....	10	407		35
108 Full-fashioned flat, plain.....	1	48		20
109 Circular, ribbed.....	420	4,981	829	544
110 Circular, plain.....	3	549	84	264
111 Circular hosiery, automatic.....	207	238	1,763	167
112 Lamb and other variety, hand.....	23	1,233	19	1,096
113 Miscellaneous expenses, total.....	\$121,068	\$3,132,492	\$140,215	\$298,296
114 Rent of works.....	\$4,406	\$148,745	\$1,825	\$32,175
115 Taxes.....	\$6,426	\$116,103	\$9,644	\$6,564
116 Rent of offices, interest, insurance, and all other sundry expenses not hitherto included.....	\$108,336	\$2,661,089	\$120,120	\$242,389
117 Contract work.....	\$1,400	\$206,555	\$8,626	\$17,168
118 Materials used, aggregate cost.....	\$1,379,513	\$28,143,434	\$1,394,811	\$2,177,368
119 Principal materials, total cost.....	\$1,260,614	\$25,616,505	\$1,255,587	\$2,052,119
120 Purchased in raw state.....	\$124,531	\$5,113,728	\$236,118	\$252,432
121 Purchased in partially manufactured form.....	\$1,136,083	\$20,502,777	\$1,019,469	\$1,799,687
122 Fuel.....	\$21,310	\$389,309	\$45,880	\$15,391
123 Rent of power and heat.....	\$1,056	\$76,029	\$1,471	\$10,070
124 Mill supplies.....	\$6,428	\$192,387	\$13,876	\$13,780
125 All other materials.....	\$30,431	\$1,738,638	\$72,730	\$63,788
126 Freight.....	\$9,676	\$130,566	\$5,267	\$22,220
127 Products, total value.....	\$2,539,178	\$46,108,600	\$2,483,827	\$3,997,047
Power:				
128 Number of establishments reporting.....	21	224	40	25
129 Total horsepower.....	1,188	26,658	2,323	1,302
Owned—				
Engines—				
Steam—				
130 Number.....	19	155	39	12
131 Horsepower.....	837	16,015	1,789	702
Gas and gasoline—				
132 Number.....	4	25		4
133 Horsepower.....	43	141		79
Water wheels—				
134 Number.....	2	78	5	2
135 Horsepower.....	150	6,839	285	101
Water motors—				
136 Number.....				
137 Horsepower.....				
Electric motors—				
138 Number.....	13	112	23	8
139 Horsepower.....	115	1,348	175	81
Rented—				
Electric motors—				
140 Number.....	6	115	2	22
141 Horsepower.....	43	2,028	30	339
142 Other kind, horsepower.....		287	44	
143 Furnished to other establishments, horsepower.....	1	27		15

HOSIERY AND KNIT GOODS.

DETAILED SUMMARY, BY STATES: 1905—Continued.

Pennsylvania.	Rhode Island.	South Carolina.	Tennessee.	Utah.	Vermont.	Virginia.	Wisconsin.	All other states.	
25,834	4,652	11,904			8,449	9,516	9,051	4,320	82
25,122	4,304	11,904			8,449	9,516	7,557	4,320	83
24,452	3,100				8,449	9,516	7,557	4,320	84
19,852	3,100				8,449	5,520	7,557	1,320	85
4,600						3,996		3,000	86
670	1,204	11,904							87
30									88
	1,204								89
640		11,904							90
712	288						1,494		91
512							1,494		92
20	288								93
180									94
33,816	1,170	1,678	1,787	180	408	1,310	4,275	1,375	95
195		12			40	31	10		97
44		2					8		98
8	67				25		10		99
335							29		100
153	18	78			115		176		101
1,179	372	120			149	160	50		102
1,050		96			3		59	66	103
32		10			1		78		104
448		19		35		55	166	4	105
503		51		6		30	365	4	106
41	2			40			122	5	107
357			30	10		50	24	14	108
9,600	308	438	753	7	51	350	700	228	109
3,318	250	212	10	9	52	60	330	234	110
15,445	128	624	994	10	62	574	1,407	813	111
1,190	25	16		63			732	7	112
\$2,102,081	\$105,203	\$73,864	\$79,446	\$18,790	\$110,857	\$150,567	\$608,486	\$85,026	113
\$177,028	\$4,130		\$2,056	\$3,832	\$14,553	\$30,109	\$20,345	\$4,590	114
\$37,841	\$8,521	\$3,944	\$3,240	\$861	\$5,016	\$4,917	\$14,975	\$1,774	115
\$1,655,051	\$151,095	\$42,720	\$74,144	\$14,007	\$91,288	\$123,583	\$554,221	\$79,592	116
\$232,161	\$30,551	\$27,200				\$958	\$9,045		117
\$16,010,521	\$2,271,009	\$586,400	\$969,196	\$167,022	\$1,215,751	\$1,325,002	\$2,270,472	\$397,769	118
\$14,430,614	\$2,182,503	\$535,836	\$892,269	\$157,758	\$1,104,195	\$1,212,507	\$2,079,360	\$302,542	119
\$959,576	\$148,825	\$123,280			\$353,324	\$19,395	\$253,655	\$90,193	120
\$13,771,038	\$2,033,478	\$412,559	\$892,269	\$157,758	\$750,871	\$1,193,142	\$1,825,705	\$272,340	121
\$217,201	\$37,752	\$10,327	\$16,251	\$351	\$18,002	\$25,070	\$53,984	\$18,260	122
\$66,818	\$4,430		\$1,895	\$2,191	\$925		\$3,790	\$425	123
\$106,043	\$17,381	\$13,373	\$7,560	\$430	\$12,580	\$7,007	\$16,893	\$1,090	124
\$1,112,077	\$19,319	\$17,036	\$45,007	\$3,592	\$78,419	\$75,004	\$99,075	\$11,795	125
\$75,878	\$9,814	\$918	\$6,208	\$2,700	\$1,030	\$4,724	\$20,370	\$2,757	126
\$30,753,140	\$3,344,055	\$1,078,682	\$1,627,823	\$326,392	\$1,988,085	\$2,107,692	\$4,941,944	\$890,987	127
358	15	13	15	9	11	14	35	11	128
15,847	1,665	890	1,181	25	1,393	1,243	2,510	630	129
281	12	12	15		8	18	17	10	130
12,115	1,305	835	992		605	1,210	1,751	622	131
0							10	2	132
67							76	4	133
0	1	1	1		16		3		134
140	40	30	10		696		185		135
2									136
10									137
104			3		1	3	54		138
1,101			129		12	32	408		139
80	6	1	3	9	2	1	18	2	140
753	72	25	50	25	50	1	99	10	141
1,652	88								142
537	250		15				20		143

TABLE 7.—HOSIERY AND KNIT GOODS—DETAILED SUMMARY OF MATERIALS AND PRODUCTS, UNITED STATES
TOTALS: 1905.

Materials used, total cost.....	\$76,593,782	Products—Continued.	
Cotton—		Hosiery and knit goods—Continued.	
Pounds.....	50,586,760	Hose and half hose—Continued.	
Cost.....	\$5,869,317	Merino or mixed—	
Sea-island—		Half hose—	
Pounds.....	369,200	Dozen pairs.....	1,611,058
Cost.....	\$43,195	Value.....	\$2,214,678
Other domestic—		Hose—	
Pounds.....	48,299,443	Dozen pairs.....	746,226
Cost.....	\$5,453,201	Value.....	\$1,182,164
Egyptian and other foreign—		Woolen—	
Pounds.....	1,918,117	Half hose—	
Cost.....	\$342,921	Dozen pairs.....	1,309,876
Wool—		Value.....	\$3,402,406
Foreign, in condition purchased—		Hose—	
Pounds.....	1,130,433	Dozen pairs.....	1,083,783
Cost.....	\$543,418	Value.....	\$2,205,080
Domestic, in condition purchased—		Silk hose—	
Pounds.....	16,170,183	Dozen pairs.....	42,065
Cost.....	\$5,610,440	Value.....	\$522,303
Foreign and domestic, scoured, pounds.....	13,909,144	Shirts and drawers—	
Animal hair—		All-cotton—	
Camel, alpaca, and vicuña—		Dozens.....	17,107,958
Pounds.....	5,000	Value.....	\$39,658,762
Cost.....	\$2,500	Merino or mixed—	
Mohair—		Dozens.....	2,113,810
Pounds.....	82,502	Value.....	\$12,031,754
Cost.....	\$52,252	All-wool—	
Buffalo, cow, and other animal hair—		Dozens.....	485,328
Pounds.....	2,000	Value.....	\$3,647,934
Cost.....	\$125	Silk or silk mixed—	
Materials purchased in partially manufactured form—		Dozens.....	16,045
Wool waste and noils—		Value.....	\$395,410
Pounds.....	6,020,459	Combination suits—	
Cost.....	\$1,711,669	All-cotton—	
Camel, alpaca, and vicuña noils—		Dozens.....	1,260,301
Pounds.....	69,023	Value.....	\$4,478,664
Cost.....	\$31,757	Merino or mixed—	
Mohair noils—		Dozens.....	105,242
Pounds.....	96,000	Value.....	\$1,199,949
Cost.....	\$42,500	All-wool—	
Tops—		Dozens.....	68,067
Pounds.....	182,149	Value.....	\$965,132
Cost.....	\$116,773	Silk or silk mixed—	
Shoddy—		Dozens.....	6,810
Pounds.....	7,489,358	Value.....	\$150,202
Cost.....	\$923,719	Leggings and gaiters—	
Yarns—		Dozen pairs.....	122,462
Cotton—		Value.....	\$619,998
Pounds.....	161,500,466	Gloves and mittens—	
Cost.....	\$34,372,910	Dozen pairs.....	2,260,508
Merino (cotton mixed)—		Value.....	\$5,556,260
Pounds.....	2,588,890	Hoods, scarfs, nubias, etc.—	
Cost.....	\$1,118,999	Dozens.....	589,315
Woolen—		Value.....	\$1,774,862
Pounds.....	4,839,343	Cardigan jackets, sweaters, fancy jackets, etc.—	
Cost.....	\$2,798,464	Dozens.....	811,629
Worsted—		Value.....	\$8,345,369
Pounds.....	8,789,570	Shawls—	
Cost.....	\$7,457,690	Dozens.....	435,306
Silk—		Value.....	\$1,293,348
Pounds.....	170,258	Fancy knit goods, wristers, etc.—	
Cost.....	\$785,899	Dozens.....	582,275
Spun silk—		Value.....	\$2,118,842
Pounds.....	150,413	Boot and shoe linings—	
Cost.....	\$414,300	Square yards.....	11,768,961
Linen—		Value.....	\$1,249,401
Pounds.....	55,392	Eider down—	
Cost.....	\$54,362	Square yards.....	4,843,939
Jute, ramie, and other vegetable fiber—		Value.....	\$1,018,981
Pounds.....	7,225	Jersey cloth and stockinette—	
Cost.....	\$1,862	Square yards.....	3,354,026
All other materials which are components of product, cost.....	\$5,631,618	Value.....	\$1,145,127
Soap—		Astrakhan—	
Pounds.....	5,681,055	Square yards.....	455,274
Cost.....	\$226,294	Value.....	\$354,316
Oil for preparing wool for cards and combs—		Partially manufactured products for sale—	
Gallons.....	264,003	Yarns—	
Cost.....	\$84,851	Cotton—	
Chemicals and dyestuffs.....	\$1,677,252	Pounds.....	3,304,615
Fuel.....	\$1,283,018	Value.....	\$654,234
Rent of power and heat.....	\$202,030	Merino (cotton mixed)—	
Mill supplies.....	\$541,174	Pounds.....	196,037
All other materials.....	\$4,564,632	Value.....	\$100,745
Freight.....	\$473,907	Woolen—	
Cotton yarn made in mill for use therein, pounds.....	39,984,890	Pounds.....	62,653
Products, total value.....	\$136,558,139	Value.....	\$14,268
Hosiery and knit goods—		Worsted—	
Hose and half hose—		Pounds.....	232,869
Cotton—		Value.....	\$230,836
Half hose—		All other products.....	\$4,322,318
Dozen pairs.....	15,223,243	Amount received for contract work.....	\$208,167
Value.....	\$11,821,830		
Hose—			
Dozen pairs.....	24,169,804		
Value.....	\$22,764,799		

WOOL MANUFACTURES

WOOL MANUFACTURES.

By EDWARD STANWOOD, Expert Special Agent.

INTRODUCTION.

During the period of five years between the censuses of 1900 and 1905 the industries which use wool as the chief raw material enjoyed as uninterrupted a season of prosperity as they have ever had. Many circumstances conspired to produce this result. The country as a whole was prosperous; labor was well employed; trade of all sorts was active; and from these conditions it naturally followed that the demand for woollen goods—clothing, hats, carpets, etc., articles of universal use—was large, and that payment for them was prompt. Again, the element of disturbance which has often in the past ruined a promising situation—the pendency of a tariff revision, or the actual occurrence of such a revision—was conspicuously absent. No tariff change has taken place since 1897, and manufacturers have had time to adjust their operations to a fairly stable situation. Moreover, to a greater extent than ever before manufacturers have been in almost exclusive possession of the home market, and have therefore been exempt from the injurious effects of a large but fluctuating importation of foreign goods. In 1896-97, the year of greatest importation of wool manufactures, the value of imports entered for consumption was \$54,127,207. If we assume that the value of the home production was \$290,000,000—it was \$270,500,000 in 1890 and \$297,000,000 in 1900—the importation represented nearly 16 per cent of the domestic consumption in that year—less than one-sixth of the total. During the five years 1901 to 1905, inclusive, the average annual value of importations of wool manufactures was \$17,332,537. In the last year of the series, 1904-5, which may be assumed to correspond with the census year, the importations were valued at \$18,021,041. The value of American manufactures of wool, as reported at the census of 1905, was \$380,934,003. It thus appears that of a total of almost \$399,000,000 worth of wool manufactures marketed in that year, less than 5 per cent was of foreign production.

From a rapid survey of the course of trade it would not be an accurate statement to say that all conditions were favorable to the industry during the whole period under consideration. The year ending May 31, 1900, which was the year reported at the Twelfth Census, was

decidedly unfavorable, as was fully stated in the report upon that enumeration. The extremely depressed condition of the entire trade continued through the whole of the calendar year 1900. But at the beginning of 1901 it began to be recognized that the stock of goods on hand was very small, and a strong and steady demand for goods of all kinds set in. The improvement was a lasting one, for the demand continued and all through the year the mills were well supplied with orders, so that it could be said at the end of the year that the season was the best which the manufacturers had enjoyed for a long time. But the year 1902 was even more prosperous in all branches of the trade, and this condition lasted until the early summer of 1903, when the situation became quite unsatisfactory, particularly in worsteds. It was at this time that apprehension was first aroused as to the declining supply of wool, and yet the market price did not advance materially until the following year—1904. By the middle of the year the shortage of wool became fully apparent, and a sensational advance in price began. The evil of the time affected chiefly the worsted and the carpet branches of the industry, but the cause was different in the two cases.

The manufacture of worsted was greatly affected by the enormous decrease of wool production in Australia which, although in progress for several years, culminated about this time. The market became almost bare of supplies, the price of Australian wool advanced rapidly, and of course other varieties sympathized with and shared in the advance. This would not have been a serious calamity to worsted manufacturers if they had been able to obtain commensurate prices for their yarns and fabrics; but unfortunately the market for goods did not respond to the market for wool, and the business suffered a period of depression.

The difficulties experienced by carpet manufacturers were mainly if not wholly caused by the war between Japan and Russia. The belligerent powers placed large orders in England for goods for their armies—goods that could be and were made with a large admixture of coarse wool ordinarily devoted exclusively to the weaving of carpets. The result was that the price of such wools was also greatly enhanced. The situation will be clearly understood from the facts presented

in the following tabular statement, which shows the quantity, value, and average value per pound of the principal variety of wool used in the carpet manufacture, Class 3, divided according to the terms of the tariff act of 1897. Wool of Class 3, "not on the skin," valued at 12 cents or less per pound pays a duty of 4 cents per pound; if valued at more than 12 cents per pound the duty is 7 cents per pound. The importations of the principal kind of Class 3 wool, "not on the skin," for the years 1901-2 to 1904-5, inclusive (the first six months of the last year formed a part of the census year), were as follows:

YEAR.	VALUED AT 12 CENTS OR LESS PER POUND.			VALUED AT MORE THAN 12 CENTS PER POUND.		
	Quantity (pounds).	Value.	Average per pound (cents).	Quantity (pounds).	Value.	Average per pound (cents).
1901-2.....	96,482,442	\$8,813,910	9.1	1,115,733	\$162,512	14.6
1902-3.....	113,588,436	10,847,957	9.6	2,060,748	468,665	15.8
1903-4.....	85,473,084	8,907,288	10.4	10,167,061	2,986,671	15.6
1904-5.....	75,922,101	7,674,061	10.1	33,028,110	5,887,706	17.8

It will be seen that the amount of wool upon which the higher duty was levied formed about 1 per cent of the total in Class 3 in the first year and 3 per cent in the second, but in the third year it formed 18 per cent and in the last year of the series more than 30 per cent. The situation involved a double hardship for the carpet industry, for not only was the actual price of wool higher but the advance in price carried over a large part of the staple into the class on which the higher duty was levied. Taking the two classes together, 97,598,175 pounds were imported in 1901-2 at a cost and duty amounting to \$12,913,821, an average of 13.2 cents; 116,549,184 pounds in 1902-3 for a cost and duty of \$16,067,411, or 13.8 cents; 104,642,145 pounds in 1903-4 for \$16,654,656, or 15.9 cents; 108,950,211 pounds in 1904-5 for \$18,910,619, or 17.4 cents. An advance of more than 4 cents a pound in the amount paid for raw material, almost 32 per cent, caused the difficulties in the carpet industry.

The situation improved for the worsted manufacturers toward the close of the year 1904, but the improvement seems to have been partially at the expense of the manufacturers of woolen goods. The gradual change that has been for some time taking place in the popular taste, which tends more and more toward worsteds in preference to woolens, caused such a stagnation of the trade in woolen goods that many manufacturers have begun to buy yarns and to weave dress goods instead of the fabrics for which their mills were constructed and which they have produced hitherto.

It will thus be seen that the year covered by the census statistics (1904) was in some respects prosperous, in other respects the conditions were adverse. Upon

the whole it may be classed as a year rather above the average, but not greatly so. It should always be borne in mind in considering the comparisons deduced from the accompanying tables that the year ending May 31, 1900—the year of the Twelfth Census—was one in which the situation was decidedly unfavorable.

SCOPE OF THE INQUIRY.

In the statistics presented at all censuses prior to 1890 the facts relating to hosiery and knit goods were associated with wool manufactures, in many cases in such a way that the two industries were treated as one. There was a certain amount of reasonableness in the method, inasmuch as the material used by the manufacturers of hosiery at that time was wool, by a great preponderance. But the two practices of mixing cotton with wool in the knitting of underwear, and of using cotton exclusively for a large part of the production, rendered the early classification inexpedient. At the census of 1890 there was a differentiation to the extent of making hosiery and knit goods a separate division of the wool industry, and at the census of 1900 a still further separation was made, although the first table of the report upon wool manufactures included both divisions. In this report these two branches of textile manufacture are treated as two separate and distinct divisions, so that none of the tables here presented are based upon returns from any establishment whose chief product is hosiery or knit goods. The propriety of this treatment will be evident when it is stated that of the materials reported, for the census of 1905, as consumed in hosiery and knit goods establishments, 47,090,738 pounds represented raw wool, mohair, woolen, worsted, and merino yarn, shoddy, and wool waste and noils, valued at \$20,216,641; whereas 212,087,226 pounds represented raw cotton and cotton yarns, valued at \$40,242,227. Clearly mills which use from four to five times as much cotton in weight as of wool, and twice as much cotton in value, are not properly classified as engaged in wool manufacture.

This report, then, covers the wool manufacture proper. It adopts the same grouping as that which was observed in the two preceding Census reports, namely, worsted goods; woolen goods; carpets and rugs, other than rag; felt goods; and wool hats. There are also separate reports upon wool scouring and wool pulling, which were first made the subject of special inquiry in 1900; on the shoddy manufacture; and on felt hats, heretofore reported under the head of fur hats.

Table 1 presents the leading facts relating to the wool manufacture as reported at the censuses of 1860 to 1905.

TABLE 1.—WOOL MANUFACTURES—COMPARATIVE SUMMARY, WITH PER CENT OF INCREASE: 1860 TO 1905.

	CENSUS.						PER CENT OF INCREASE.				
	1905	1900	1890	1880	1870	1860 ¹	1900 to 1905	1890 to 1900	1880 to 1890	1870 to 1880	1860 to 1870
Number of establishments.....	1,213	1,414	1,603	2,330	3,208	1,476	14.2	16.5	27.3	27.4	117.3
Capital.....	\$370,801,601	\$310,170,740	\$245,883,743	\$143,512,278	\$121,451,059	\$38,814,422	19.6	26.1	71.3	18.2	212.9
Salaries officials, clerks, etc., number.....	5,616	4,495	3,652	(²)	(²)	(²)	24.9	23.1	.....	.....	.....
Salaries.....	\$8,177,345	\$6,455,495	\$4,057,895	(²)	(²)	(²)	26.7	59.1	.....	.....	.....
Wage-earners, average number.....	179,970	159,108	154,271	132,672	105,071	60,419	13.1	3.1	16.3	26.3	108.4
Total wages.....	\$70,797,524	\$57,033,817	\$54,339,775	\$40,087,612	\$35,028,150	\$11,699,630	22.2	6.6	33.6	13.2	207.1
Men 16 years and over.....	94,841	83,371	78,550	67,042	53,400	29,852	13.8	6.1	15.0	27.2	78.9
Wages.....	\$44,237,484	\$36,412,872	\$33,702,231	(²)	(²)	(²)	21.5	8.0	.....	.....	.....
Women 16 years and over.....	72,222	64,141	64,944	40,107	39,150	20,567	12.6	11.2	32.2	25.4	90.4
Wages.....	\$23,992,408	\$19,549,423	\$18,883,174	(²)	(²)	(²)	22.7	3.5	.....	.....	.....
Children under 16 years.....	12,913	11,596	10,777	15,023	12,521	(²)	11.4	7.6	31.0	24.8	.....
Wages.....	\$2,567,132	\$1,971,522	\$1,754,370	(²)	(²)	(²)	30.2	12.4	.....	.....	.....
Miscellaneous expenses.....	\$21,588,465	\$17,329,932	\$15,022,263	(²)	(²)	(²)	24.6	10.9	.....	.....	.....
Cost of materials used.....	\$242,561,096	\$181,159,127	\$167,233,987	\$140,160,000	\$124,318,792	\$43,447,048	33.9	8.3	12.1	20.0	186.1
Value of products.....	\$480,934,003	\$296,990,484	\$270,527,511	\$238,085,086	\$199,257,262	\$73,454,000	28.3	9.8	13.6	19.5	171.3

¹ Carding mills were not included in 1860.
² Decrease.
³ Includes proprietors and firm members, with their salaries; number only reported in 1900 and 1905, but not included in this table.
⁴ Not reported separately.
⁵ Not reported.

The whole number of establishments reported for 1905 is 1,213, as compared with 1,414 at the Twelfth Census. The 1905 total includes 792 woolen mills, 226 worsted mills, 139 carpet establishments, 39 establishments making felt goods, and 17 wool hat establishments. The reduction of 201 in number is wholly accounted for by a decrease in the number of woolen mills, from 1,035 to 792, caused largely no doubt by the omission of custom carding mills at this census, and by a moderate consolidation of establishments. The worsted mills have increased from 186 to 226—a striking illustration of the favor in which worsted goods are now regarded. The changes in the number of other classes of establishments are unimportant. Each item in the above summary, except the number of establishments, exhibits an increase from 1900 to 1905, and in almost every case the rate of increase in the five years is greater than in the ten years from 1890 to 1900.

RANK OF STATES ACCORDING TO VALUE OF PRODUCTS.

Table 2 shows the rank at the last three census enumerations of the 10 states returning the greatest value of products at the census of 1905.

TABLE 2.—Wool manufactures—rank of ten states leading in aggregate value of products in 1905, distributed by industries: 1890 to 1905.¹

STATE.	1905		1900		1890	
	Rank.	Value of products.	Rank.	Value of products.	Rank.	Value of products.
	TOTAL.					
Massachusetts.....	1	\$109,027,873	1	\$81,041,537	2	\$67,599,321
Pennsylvania.....	2	83,054,501	2	71,878,503	1	72,393,182
Rhode Island.....	3	62,040,703	3	38,071,879	3	32,204,620
New York.....	4	38,880,810	4	30,813,330	4	28,503,500
Connecticut.....	5	18,704,845	5	12,037,032	5	13,733,895
New Jersey.....	6	17,251,031	6	13,703,144	7	8,528,070
Maine.....	7	17,570,590	7	18,412,784	8	7,521,317
New Hampshire.....	8	14,284,480	8	7,624,062	6	10,760,240
Vermont.....	9	4,698,405	10	2,572,046	10	2,723,083
Ohio.....	10	1,382,874	9	1,321,751	12	1,020,002

¹ This table does not include the value of products of states having less than 3 establishments in the various subdivisions; some of the totals, therefore, are less than the correct amounts.

TABLE 2.—Wool manufactures—rank of ten states leading in aggregate value of products in 1905, distributed by industries: 1890 to 1905¹—Continued.

STATE.	1905		1900		1890	
	Rank.	Value of products.	Rank.	Value of products.	Rank.	Value of products.
WORSTED GOODS.						
Massachusetts.....	1	\$51,073,044	1	\$40,557,363	2	\$21,933,775
Rhode Island.....	2	44,477,566	2	33,341,320	1	22,310,634
Pennsylvania.....	3	35,683,015	3	22,100,302	3	17,861,776
New Jersey.....	4	11,925,126	4	6,823,721	7	2,058,692
New York.....	5	7,858,022	5	5,033,250	4	5,703,102
Connecticut.....	6	4,316,534	6	4,550,814	5	4,651,402
Maine.....	7	3,600,000	8	1,779,552	8	(²)
New Hampshire.....	8	3,270,498	7	(²)	6	2,704,976
Ohio.....	9	(²)	9	(²)	10	(²)
WOOLEN GOODS.						
Massachusetts.....	1	44,653,940	1	30,888,104	1	35,771,161
Pennsylvania.....	2	19,222,465	2	25,389,344	2	29,878,010
Maine.....	3	13,969,000	3	11,633,232	6	7,521,317
Connecticut.....	4	11,166,905	4	8,007,218	4	9,082,493
New Hampshire.....	5	11,013,982	5	7,624,062	5	8,004,204
Rhode Island.....	6	8,163,167	7	5,330,550	3	9,884,945
New York.....	7	7,384,755	6	6,715,005	8	5,188,020
Vermont.....	8	4,098,405	9	2,572,046	10	2,723,083
New Jersey.....	9	3,577,674	8	4,755,393	7	5,052,106
Ohio.....	10	1,382,874	10	1,321,751	13	1,513,302
CARPETS AND RUGS, OTHER THAN RAG.						
Pennsylvania.....	1	27,120,311	1	23,113,058	1	22,886,416
New York.....	2	10,404,133	2	15,029,218	2	14,606,116
Massachusetts.....	3	9,713,978	3	6,905,237	3	7,275,009
Connecticut.....	4	3,221,340	5	(²)	4	(²)
New Jersey.....	5	1,748,831	4	1,522,827	5	817,242
FELT GOODS.						
New York.....	1	3,178,768	1	1,734,136	1	1,517,199
Massachusetts.....	2	2,686,011	2	1,526,830	2	918,890
New Jersey.....	3	(²)	3	691,203	4	(²)
Ohio.....	4	(²)	7	(²)	3	409,700
Maine.....	5	(²)	8	(²)	(²)	(²)
Pennsylvania.....	6	370,342	9	180,633	5	322,800
Connecticut.....	7	(²)	4	(²)	(²)	(²)
WOOL HATS.						
New York.....	1	1,054,541	1	1,876,721	2	1,489,132
Pennsylvania.....	2	658,428	2	1,106,076	3	1,444,130
Massachusetts.....	3	(²)	3	1,103,009	1	1,700,486
New Jersey.....	4	(²)	4	(²)	.....	(²)

¹ This table does not include the value of products of states having less than 3 establishments in the various subdivisions; some of the totals, therefore, are less than the correct amounts.

² The value of products for this state in this industry can not be shown separately.
³ Rank can not be determined.
⁴ Not reported.

As was the case in 1900, Massachusetts held the first rank in the total value of products for all branches, with an aggregate of \$109,027,873 (see note 1 of Table 2). Pennsylvania, which was the leader in 1890, dropped to the second place in 1900, and still occupies it, with an aggregate value of \$83,054,561. The increase of almost \$28,000,000 in Massachusetts is more than double the increase for Pennsylvania. These 2 states now report a combined aggregate value of more than \$192,000,000, out of a total for the whole country of nearly \$381,000,000, or slightly more than one-half. Rhode Island is third, New York fourth, and Connecticut fifth; they occupied the same positions in 1890 and 1900. These 3 states report a considerable increase in the value of products, but the value reported by Rhode Island is still less than half that of Massachusetts, and New York does not yet reach one-half the product of Pennsylvania. New Jersey retains the sixth place and Maine the seventh. New Hampshire is eighth, as in 1900, while Vermont and Ohio have interchanged rank, Vermont now being ninth. The 10 leading states in 1900 produced 94.6 per cent of the value of products of all wool manufactures of the country, and the 10 leading states in 1905 produced 95 per cent of the total, a striking illustration of local concentration.

The relative rank of the states in the several branches of the manufacture differs from that in the industry as a whole. The rank in the worsted goods branch has not changed since 1900, except that Maine and New Hampshire, now seventh and eighth, respectively, were reversed in 1900. In the production of woolen goods the changes are not numerous. Rhode Island is sixth and New York seventh, reversing the order of 1900, and Vermont and New Jersey, eighth and ninth, respectively, have also exchanged places since 1900. In the manufacture of carpets and rugs Pennsylvania, first, and New York, second, distance all competitors, as do New York, first, and Massachusetts, second, in the production of felt goods, and New York and Pennsylvania in the manufacture of wool hats.

The 3 cities of Philadelphia, Pa., Lawrence, Mass., and Providence, R. I., are still, as they have been for many years, the leading centers of production in wool manufactures, and both in 1900 and 1905 they stood in the order named. Moreover, each of these cities has very largely increased its production during the last five years. The total value of products of the 3 cities, as shown in the following tabular statement, amounts to \$120,244,118 in 1905, which is 31.6 per cent of the entire value of products of all the establishments reporting.

Rank of three leading cities according to value of products: 1890 to 1905.

	1905		1900		1890	
	Rank.	Value of products.	Rank.	Value of products.	Rank.	Value of products.
Philadelphia, Pa.	1	\$64,666,335	1	\$56,672,007	1	\$58,780,875
Lawrence, Mass.	2	32,476,233	2	25,584,744	3	10,431,192
Providence, R. I.	3	23,101,550	3	18,375,776	2	17,740,431

OWNERSHIP OF MILLS.

It was noted in the report at the census of 1890 that the manufacture of wool has tended far more than that of cotton to remain in the hands of individual owners and of firms, and not to fall under the management of corporations, large or small. But it was added that the tendency even then was, and had been for some years, in the direction of the corporate form of management. The number of establishments under each form of ownership was not disclosed by the statistics at the Eleventh Census, but in 1900 there were 528 establishments operated by individuals, 429 by firms and partnerships, 456 by corporations, and 1 by miscellaneous. At the present census 333 are operated by individuals, 311 by firms, 567 by corporations, and 2 by miscellaneous. The per cent each class forms of the total is indicated in the following tabular statement:

	1905	1900
Total.....	100.0	100.0
Individuals.....	27.5	37.3
Firms.....	25.6	30.3
Corporations.....	46.7	32.3
Miscellaneous.....	0.2	0.1

No doubt a large part of this change is due to the disappearance of many small carding and other mills from the list. But in the worsted branch of the industry the sole cause is the construction of large establishments under corporate management. In 1900 there were 43 worsted mills owned by individuals. The same number is now reported. Of mills owned by partnerships, the number has decreased from 60 to 52, but of those operated by incorporated companies, there is an increase from 83 to 131. Of carpet establishments, the whole number shows an increase from 133 to 139. The corporate establishments have increased from 35 to 49, and the number under both the other forms of management has diminished slightly.

CAPITAL.

The leading facts relative to the capital employed in the wool manufactures of the country are presented in Table 3.

TABLE 3.—Capital, with per cent of increase: 1890 to 1905.

	CENSUS.			PER CENT OF INCREASE.	
	1905	1900	1890	1900 to 1905	1890 to 1900
Aggregate.....	\$370,801,691	\$310,179,749	\$245,886,743	19.6	26.1
Total fixed capital.....	172,183,291	125,226,619	106,146,810	37.5	18.0
Land.....	25,745,617	17,936,483	12,682,857	43.5	41.4
Buildings.....	52,232,351	38,074,295	33,950,456	37.2	12.1
Machinery, tools, and implements.....	94,205,323	60,215,841	59,513,497	36.1	16.3
Cash on hand, unsettled ledger accounts, stock on hand, etc.....	198,678,400	184,953,130	139,736,933	7.4	32.4

The gross capital is \$370,861,691, an increase in five years of \$60,681,942, as compared with an increase of \$64,293,006 in the ten years preceding. By far the largest part of the increase, it will be observed, is in fixed capital, for the active capital consisting of the items cash on hand, unsettled ledger accounts, etc., although the larger of the two divisions, contributed less than 23 per cent of the total increase. The explanation is obvious when the condition of the industry for 1900 and 1905 is considered. In the earlier year the stock on hand unsold and the unsettled accounts were, in their magnitude, an unpleasant reminder of the depressed state into which the wool manufacture had fallen. The aggregate of the items making up the total of active capital increased more than \$45,000,000 in the decade from 1890 to 1900, whereas the fixed capital increased only about \$19,000,000. The improved conditions of the last five years reversed the order of increase. The value of the land occupied shows the large increase of 43.5 per cent; of buildings, 37.2 per cent; and of machinery, etc., 36.1 per cent; but the increase in the item which includes not only working capital but unsold product and delayed collections is but 7.4 per cent.

In 1890 the capital of woolen mills proper greatly exceeded that of worsted mills, the capital of the one having been, in round numbers, \$131,000,000; of the other, \$68,000,000. In the ensuing decade the investment in the worsted manufacture was so large that the mills engaged in that industry reported a capital of \$132,168,110, as against \$124,386,262 for woolen mills. The capital now reported is \$162,464,929 for the worsted, and \$140,302,488 for the woolen industry.

In 1890 the investment of worsted manufacturers in land, buildings, and machinery was less than \$28,000,000. It is now more than \$73,000,000, having increased nearly twofold. On the other hand, the corresponding fixed capital of woolen manufactures, which was nearly \$58,000,000 in 1890, is still less than \$67,000,000. These facts indicate how the popular taste has impressed itself on the entire industry in the last fifteen years. The buildings occupied for the manufacture of worsteds were valued at less than \$8,000,000 in 1890, at more than \$13,000,000 in 1900, and now at more than \$20,000,000. The figures relating to active capital are equally significant. Although there has been so great an expansion of worsted manufactures, the active capital of the mills of that department, which was \$40,000,000 in 1890 and \$85,000,000 in 1900, is now reported at only \$89,000,000. For the reasons already given this small increase, when there has been so great an increase of business, is to be regarded as an evidence of strength rather than of weakness.

The statistics of the other branches of the industry present nothing startling. The capital employed in the manufacture of carpets and rugs was \$38,000,000 in 1890, \$44,000,000 in 1900, and is now nearly \$57,000,000, showing a steady and healthy growth of the business. It may be that the increase of active capital from \$24,500,000 in 1900 to nearly \$30,000,000 in 1905 reflects the situation, almost resembling a blight, which so seriously affected the carpet industry toward the end of the census year. The capital of felt mills shows a satisfactory increase; that of wool hats exhibits a decrease, in continuation of that which was noted in 1900.

Table 46, at the end of this report, shows the capital in detail for each division of the combined industry for the census of 1905.

EMPLOYEES AND WAGES.

The total number of salaried employees has increased as well as the amount of their salaries, but the numbers present no matter of special interest.

The total number of wage-earners has increased from 159,108 to 179,976, or 13.1 per cent—a very much higher rate of increase than that which took place between 1890 and 1900. The total amount of wages has increased at a higher percentage, namely, 22.2, which may indicate either an increase in the wages of those already employed or the employment of higher skilled and better paid labor. As a matter of fact, it is believed that both of these factors contribute to the result, but no reasonable attempt can be made to establish an average rate of wages, inasmuch as that

average would include skilled and unskilled alike, and could not be other than misleading.

Table 4 shows the average number of wage-earners and the proportion of men, women, and children at the last four enumerations:

TABLE 4.—Average number of wage-earners, and proportion of men, women, and children: 1880 to 1905.

	Cen- sus.	Average number.	Per cent of total.
Total.....	1905 1900 1890 1880	179,976 159,108 154,271 131,059	100.0 100.0 100.0 100.0
Men 16 years and over.....	1905 1900 1890 1880	94,841 83,371 78,550 66,347	52.7 52.4 50.9 50.6
Women 16 years and over.....	1905 1900 1890 1880	72,222 64,141 64,944 49,104	40.1 40.3 42.1 37.5
Children under 16 years.....	1905 1900 1890 1880	12,913 11,596 10,777 15,608	7.2 7.3 7.0 11.9

Although the proportions remain nearly constant, the gradual tendency is toward an increase in the relative number of men and a decrease in the relative number of women and children. The large decrease in child labor between 1880 and 1890 was accompanied by an increase in the number of women employed; but otherwise the tendency above noted, though slow, is uninterrupted. It may be observed that there is a similar tendency, still more marked, in the changing proportion of men, women, and children in the cotton industry, and undoubtedly the explanation is the same in both cases—that the increase in speed and efficiency of modern machinery imposes too heavy a burden upon the muscles and nerves of women and children, and that it is found more profitable to employ men.

Although the worsted industry in the matter of capital, cost of materials, and value of products has surpassed the woolen branch, it has not yet overtaken the woolen branch in the matter of wage-earners and their wages, but during the past five years the average number of wage-earners in worsted mills has increased from 57,008 to 69,251, whereas the number in woolen mills has increased only from 68,893 to 72,747. The proportion of women and children employed in worsted mills is very much greater than the corresponding proportion in woolen mills.

POWER.

The power reported by all branches of the wool industry at the census of 1905 was 346,500 horsepower, an increase of 72,238 horsepower during the five-year period, against an increase of 63,620 horsepower during the preceding decade. The percentage of increase was 26.3. The total horsepower for each branch of the

wool industry compared with the average number of wage-earners is shown in Table 5.

TABLE 5.—Horsepower, number of wage-earners, and average horsepower per wage-earner, by industries: 1880 to 1905.

INDUSTRY.	Year.	Total horse- power.	Average number of wage- earners.	Horse- power per wage- earner.
Total.....	1905	346,500	179,976	1.93
	1900	274,262	159,108	1.72
	1890	210,642	154,271	1.37
	1880	140,058	131,059	1.07
Worsted goods.....	1905	150,620	69,251	1.89
	1900	97,383	57,008	1.71
	1890	57,111	42,978	2.82
	1880	16,437	18,639	0.88
Woolen goods.....	1905	162,793	72,747	2.25
	1900	139,645	68,893	2.03
	1890	122,501	70,915	1.59
	1880	106,507	85,202	1.25
Carpets and rugs, other than rag...	1905	39,239	33,221	1.18
	1900	26,932	28,411	0.95
	1890	22,684	28,736	0.79
	1880	10,491	20,299	0.52
Felt goods.....	1905	10,936	3,254	3.36
	1900	7,973	2,688	2.97
	1890	5,051	2,142	2.36
	1880	2,631	1,488	1.77
Wool hats.....	1905	1,912	1,503	1.27
	1900	2,329	2,108	1.10
	1890	3,265	3,590	0.94
	1880	3,932	5,431	0.74

For the period 1900 to 1905 the largest actual increase in power—33,237 horsepower, or 46 per cent of the whole increase—was reported by the worsted manufacturers; the woolen industry added 24,148 horsepower. In percentage of increase the carpet mills show the largest gain, 45.7 per cent. The wool hat manufacture alone shows a decrease, as it does in the magnitude of its operations generally.

The figures for the kinds of power, shown in Table 4C and compared with the 1900 totals, present some interesting facts. Waterpower has increased from 79,056 to only 79,354 horsepower, whereas steampower has increased from 186,252 to 229,246 horsepower. In the worsted industry there was an increase of 21,931 in the horsepower obtained from steam and a decrease of 3,657 in that obtained direct from water. In the woolen branch there was an increase of 14,007 in the horsepower derived from steam, and of 3,573 in the horsepower derived from water. The rapidly extending use of electricity in the woolen industry as a whole is indicated by an increase in the horsepower owned and rented from 7,495 in 1900 to 27,809 in 1905. Although the numerical addition is only 20,314 horsepower, as compared with 42,994 horsepower added to steam plants, the rapidity of the introduction of electric power is highly significant. Of the increase in this kind of power, 10,551 horsepower, or more than one-half, is to be credited to the worsted branch.

The conclusion to be drawn from the last column of Table 5, which shows the horsepower per wage-earner, is that the same influences which have been operating in the past are still potent. As machinery is made

more efficient a larger mechanical power comes under the control of a single workman. As compared with 1880 the horsepower assigned to each person employed has nearly doubled. In the case of worsted goods it has become more than twice what it was a quarter of a century ago.

MACHINERY.

One of the accurate tests of the growth of an industry like that of the wool manufacture is the amount of machinery employed. The following tabular statement shows the number of woolen cards, combing machines, spindles, and looms reported at each census from 1880 to 1905:

Machinery, by kinds: 1880 to 1905.

KIND.	CENSUS.				PER CENT OF INCREASE.		
	1905	1900	1890	1880	1900 to 1905	1890 to 1900	1880 to 1890
Woolen cards.....	5,068	6,605	7,015	6,989	10.6	15.8	0.4
Combing machines..	1,549	1,451	830	515	6.8	72.9	63.9
Spindles.....	4,021,088	3,511,009	2,703,147	2,111,973	14.5	25.7	32.3
Looms.....	77,985	74,190	69,668	57,297	5.1	6.5	21.6

¹Decrease.

Notwithstanding the apparent decrease in the number of woolen cards, which was a feature also of the statistics of the Twelfth Census, it is not believed that there has actually been any considerable decrease. A partial explanation of this statement is that, in spite of the care that was exercised in 1900, it is believed that a certain number of worsted, shoddy, and cotton cards were reported as woolen at that time, whereas in the figures for 1905 all except woolen cards have been excluded. At the census of 1905, 2,298 worsted, shoddy, and cotton cards were reported, but the number of these is without significance in the consideration of machine capacity. The number of such cards which may have crept into the returns for 1900 was undoubtedly much less than the number just given. Another reason, also not significant, for the decrease is the disappearance from the statistics of many small custom carding mills. The number of combing machines has increased from 1,451 in 1900 to 1,549 in 1905, which is an increase at a very much slower rate than that between 1890 and 1900. The number of spindles and looms shows an increase at a higher yearly rate than during the preceding decade.

Cards.—Table 6 shows, by geographic divisions, the number of mills reporting cards and the number of sets of cards in each, for 1890, 1900, and 1905.

TABLE 6.—WOOL MANUFACTURES—NUMBER OF MILLS CLASSIFIED ACCORDING TO SETS OF CARDS, BY GEOGRAPHIC DIVISIONS: 1890 TO 1905.

DIVISION.	Census.	Number reporting sets of cards.	SETS OF CARDS												Carding mills.
			1 set.	2 sets.	3 sets.	4 sets.	5 sets.	6 sets.	7 sets.	8 sets.	9 sets.	10 to 15 sets.	15 to 20 sets.	20 sets and over.	
United States.....	1905	951	158	133	85	80	57	50	43	62	28	105	57	78	(¹)
	1900	976	139	119	76	81	46	51	34	40	22	69	31	37	231
	1890	1,468	347	221	131	107	66	80	36	58	22	106	44	57	193
New England states.....	1905	405	15	34	20	49	28	20	23	42	15	63	34	47	(¹)
	1900	344	13	25	25	46	25	24	19	30	15	46	25	20	31
	1890	504	47	40	44	53	34	30	26	33	16	72	26	37	28
Middle states.....	1905	282	41	43	30	24	10	17	10	12	11	32	20	26	(¹)
	1900	233	36	27	20	19	14	19	9	6	4	17	5	15	42
	1890	460	120	78	53	34	22	34	0	17	0	25	17	18	36
Southern states.....	1905	114	54	21	10	9	6	1	4	1	.....	2	3	3	(¹)
	1900	206	37	25	15	8	2	.....	2	.....	1	.....	.....	2	113
	1890	197	57	38	10	8	2	.....	.....	1	.....	5	.....	1	75
Western states.....	1905	150	48	35	19	7	7	9	6	7	2	8	.....	2	(¹)
	1900	193	53	42	16	8	5	8	4	4	2	5	.....	.....	45
	1890	301	123	56	24	12	8	7	4	7	.....	4	1	1	54

¹Custom carding mills were largely omitted from the factory census of 1905, and therefore are not shown separately in this table.

Although the statistics for the census of 1905 show a moderate increase in the number both of one set and two set mills, it is probably true, as was noted in the report at the Twelfth Census, that the small mill with one or two sets of cards is disappearing, and that the industry is being established in larger and more important mills. It will be observed that the increase in the number of one-set mills is 19, of which 17 are located in the Southern states, where the industry is not as yet prominent. There has, in fact, been an increase

in the number of mills reporting every number of sets from 1 up to 20 and over, and it will be seen that the larger increase is in the mills having the largest number of sets. For example, the number reporting from 10 to 15 sets has increased from 69 to 105; the number of those having from 15 to 20 sets, from 31 to 57; and of those having 20 sets and over, from 37 to 78. In fact, one-half of the increase shown in Table 6 is contributed by those reporting 10 sets or more.

MANUFACTURES.

Table 7, showing the carding machinery—woolen cards only—in the 10 states reporting the greatest number of cards at the census of 1905, from 1870 to 1905, represents with an approach to accuracy the relative rank of the leading states in the woolen manufacture proper.

TABLE 7.—WOOLEN CARDS,¹ BY STATES: 1870 TO 1905.

STATE.	1905 ²		1900		1890		1880		1870	
	Number of cards (sets).	Per cent of total.	Number of cards (sets).	Per cent of total.	Number of cards (sets).	Per cent of total.	Number of cards (sets).	Per cent of total.	Number of cards (sets).	Per cent of total.
United States.....	5,968	100.0	6,605	100.0	7,015	100.0	6,989	100.0	8,705	100.0
Total for 10 states.....	5,172	86.7	5,736	86.8	6,055	86.3	5,667	81.1	6,284	72.2
Massachusetts.....	1,626	27.2	1,504	24.1	1,785	25.4	1,622	23.2	1,423	16.5
Pennsylvania.....	916	15.3	1,262	19.1	1,254	17.9	1,120	16.0	1,429	16.4
New York.....	615	10.3	748	11.3	702	10.0	830	11.9	940	10.8
Connecticut.....	487	8.2	459	7.0	532	7.6	543	7.8	682	7.8
Maine.....	455	7.6	437	6.6	387	5.5	274	3.9	335	3.9
New Hampshire.....	376	6.3	335	5.1	380	5.4	317	4.5	360	4.1
Rhode Island.....	344	5.8	478	7.2	558	8.0	495	7.1	484	5.6
New Jersey.....	154	2.6	207	3.1	202	2.9	161	2.3	98	1.1
Vermont.....	119	2.0	124	1.9	120	1.7	145	2.1	177	2.0
Indiana.....	80	1.4	92	1.4	135	1.9	160	2.3	346	4.0
All other states.....	796	13.3	869	13.2	960	13.7	1,322	18.9	2,421	27.8

¹ The term "woolen cards" was more restrictive in 1905 than at prior censuses, when some cotton, shoddy, and worsted cards may have been thus reported.
² Custom carding mills were largely omitted from the factory census of 1905, although included at prior censuses.

Massachusetts, which reported 1,626 sets of woolen cards out of a total of 5,968 for 1905, has since 1880 contained practically one-fourth of all the woolen cards in the United States. It was already the leader before that time, but not so markedly as since 1880. Pennsylvania also has been second in rank during the whole time, but it does not now contain so large a proportion of the total as formerly. The 5 states of Massachusetts, Pennsylvania, New York,

Connecticut, and Maine reported more than two-thirds (68.7 per cent) of the total, and the 10 states shown separately in the table 86.7 per cent.

The fact that the card regardless of its width is by no means a true measure as a standard for the capacity of woolen mills is indicated by Table 8, which shows the number and width of woolen cards used in wool manufactures, by states, for 1905.

TABLE 8.—NUMBER AND WIDTH OF WOOLEN CARDS, BY STATES: 1905.

STATE.	Total number of sets.	NUMBER OF CARDS OF EACH WIDTH REPORTED.												
		24 inches.	30 inches.	36 inches.	40 inches.	42 inches.	44 inches.	46 inches.	48 inches.	54 inches.	60 inches.	72 inches.	85 inches.	All other.
United States.....	5,968	85	53	32	1,120	12	139	16	2,987	9	1,322	51	2	140
Alabama.....	1				1									
Arkansas.....	10	6	2						1					
California.....	47				1				35		7			4
Connecticut.....	487				79		16		335	9	34	14		
Delaware.....	5								2		3			
Georgia.....	31		1	3					8		19			
Idaho.....	1								1					
Illinois.....	41		7		9				22		3			
Indiana.....	30				10		1		57		12			
Iowa.....	28	1			12				15					
Kansas.....	4								4					
Kentucky.....	76		4		4				21		39	1		
Maine.....	455	7	3	2	123		14	14	233		59			26
Maryland.....	48				1				27					26
Massachusetts.....	1,626	22		10	372	3	71		861		223	26	2	36
Michigan.....	62		3	2	8				43		6			
Minnesota.....	34	3	4		19				8					
Mississippi.....	21								11		10			
Missouri.....	14			2	1				11					
New Hampshire.....	376				217		3		150		6			
New Jersey.....	154		1	1	1				119		32			
New York.....	615	5	2	1	114		22	2	357		57	6		49
North Carolina.....	25		1		6				9		9			
North Dakota.....	4								2		2			
Ohio.....	69	2	4	1	13				28		20			1
Oregon.....	29		1						27		1			
Pennsylvania.....	916	21	2	5	23		1		264		584	4		12
Rhode Island.....	344				43				234		67			
Tennessee.....	70	4	10		5				20		36			4
Texas.....	4								4					
Utah.....	12								12					4
Vermont.....	119	1			20	9	11		34		40			
Virginia.....	49	1	5	2	11				13		12			5
Washington.....	2								2					
West Virginia.....	21	2	1	1	4				7		5			1
Wisconsin.....	79	3	2	2	22				41		5			4

The capacity of a small woolen mill having one or two sets of narrow cards, 24 or 30 inches, can not be compared with a modern well-equipped mill with cards of 60 to 85 inches. Therefore, although the aggregate number of woolen cards in the country is less than in 1900, it is compatible with the truth to assert that the productive capacity of mills is much

larger than it was then—a fact which is abundantly borne out by the statistics of wool consumed and of the quantity of product. Table 8 does not make a comparison between the carding machinery as disclosed for 1905 and that at the preceding census of 1900, which comparison is made in Table 9.

TABLE 9.—WIDTH OF WOOLEN CARDING MACHINES: 1905 AND 1900.

CENSUS.	Total.	24 inches.	30 inches.	36 inches.	40 inches.	42 inches.	44 inches.	46 inches.	48 inches.	54 inches.	60 inches.	72 inches.	85 inches.	All other.
1905.....	5,068	85	53	32	1,120	12	139	16	2,987	9	1,322	51	2	140
1900.....	16,468	290	126	56	1,176	23	133	67	3,372	22	1,136	29	27	41

¹ This number is less than the total number of cards reported at the census of 1900, for the reason that the width was not stated in some of the returns.

The three sizes which are most frequently employed are those of 40, 48, and 60 inches. The diminution of cards of 24 and 30 inches is most marked, the aggregate of the two having been 416 in 1900, and now only 138. There is also a slight decrease in the number of those 40 inches in width, a larger corresponding movement in those of 48 inches, but an increase in sizes 60 and 72. The number of those from 54 to 85 inches, inclusive, has increased by 170, or 14 per cent, since 1900. In that year they aggregated 1,214, as compared with 1,384 in 1905. This change is an incident

of the tendency toward large mills and extensive operations.

Combing machines.—Reference has already been made to the rapid change in recent times from the woolen to the worsted manufacture. The increase in the number of combs during the last five years has been at a slower rate than during the previous twenty years, having been, numerically, only from 1,451 in 1900 to 1,549 in 1905. Table 10 exhibits the number of combs, at each of the last five enumerations, for the 8 states reporting the largest number of combs at the census of 1905.

TABLE 10.—NUMBER OF COMBING MACHINES, BY STATES: 1870 TO 1905.

STATE.	1905		1900		1890		1880		1870	
	Number of combs.	Per cent of total.	Number of combs.	Per cent of total.	Number of combs.	Per cent of total.	Number of combs.	Per cent of total.	Number of combs.	Per cent of total.
United States.....	1,549	100.0	1,451	100.0	839	100.0	515	100.0	261	100.0
Total for 8 states.....	1,495	96.5	1,422	98.0	820	97.7	512	99.4	261	100.0
Massachusetts.....	497	32.1	424	29.2	265	31.5	160	36.9	172	65.9
Pennsylvania.....	377	24.3	357	24.6	188	22.4	121	23.5	29	11.1
Rhode Island.....	201	13.8	287	19.8	193	23.0	70	13.6	7	2.7
New Jersey.....	169	10.9	128	8.8	20	3.5	9	1.7	6	2.3
New York.....	74	4.8	116	8.0	84	10.0	80	15.5	1	0.4
Connecticut.....	37	2.4	57	3.9	27	3.2	21	4.1	34	13.0
Maine.....	26	1.7	19	1.3	5	0.6	.....	.....	.....	.....
New Hampshire.....	24	1.5	34	2.4	29	3.5	21	4.1	12	4.6
All other states.....	54	3.5	29	2.0	19	2.3	3	0.6	.....	.....

The worsted manufacture is concentrated in a few states to a much greater degree than is the woolen manufacture. Almost seven-eighths—86.1 per cent—of the combs in the United States are in the 4 states of Massachusetts, Pennsylvania, Rhode Island, and New Jersey. As has already been remarked, Massachusetts leads not only in the number of combs, but in the increase in the number during the last five years. Pennsylvania is next in number, but New Jersey is second in increase. It seems from the returns that the industry is actually declining in New York, with

a decrease in the number of combs from 116 to 74; in Connecticut, with a decrease from 57 to 37; and in New Hampshire, with a decrease from 34 to 24; but there is a small increase from 19 to 26 in Maine.

It is usually estimated that the capacity of 1 comb is equal to 2½ sets of cards. Upon this basis the total capacity of all woolen cards and combs in 1905 is equivalent to 9,840 cards, as compared with 10,232 in 1900. The distribution of this productive machinery among the 8 leading states is presented in Table 11.

TABLE 11.—Productive machinery (cards and combs) reduced to the card basis, with per cent of total: 1890 to 1905.

STATE.	1905		1900		1890	
	Number of cards (sets).	Per cent of total.	Number of cards (sets).	Per cent of total.	Number of cards (sets).	Per cent of total.
United States.....	9,840	100.0	10,232	100.0	9,112	100.0
Total for 8 states.....	8,709	88.5	9,074	88.7	7,849	86.1
Massachusetts.....	2,808	29.1	2,654	25.9	2,448	26.9
Pennsylvania.....	1,858	18.9	2,154	21.1	1,724	18.9
Rhode Island.....	1,072	10.9	1,195	11.7	1,040	11.4
New York.....	890	8.1	1,038	10.1	912	10.0
Connecticut.....	579	5.9	602	5.9	599	6.6
New Jersey.....	576	5.9	527	5.2	274	3.0
Maine.....	520	5.3	484	4.7	399	4.4
New Hampshire.....	496	4.4	420	4.1	453	4.9
All other states.....	1,131	11.5	1,155	11.3	1,263	13.9

Spindles.—Since the card is an unsatisfactory standard of capacity, the suggestion has been made that the number of spindles be substituted; but the spindles used in the wool manufacture are so various in character and count for so much more in the production of one kind of yarn than of another that it has not been deemed expedient to adopt the spindle as a unit. Nevertheless a certain rough measure of the relative magnitude or the increase of the manufacture may be obtained by the use of the spindle. At the present census the total number of spindles of all kinds reported was 4,021,098, as compared with 3,511,099 in 1900, as is shown in Table 12.

TABLE 12.—SPINDLES,¹ DISTRIBUTED AS TO KIND AND INDUSTRY: 1890 TO 1905.

INDUSTRY.	TOTAL.			WOOLEN SPINDLES.			WORSTED SPINDLES.			COTTON SPINDLES.		
	1905	1900	1890	1905	1900	1890	1905	1900	1890	1905	1900	1890
Total.....	4,021,098	3,511,099	2,793,147	2,280,042	2,031,028	2,016,343	1,630,643	1,325,255	650,557	110,413	154,816	126,247
Worsted goods.....	1,618,297	1,371,026	755,086	1,305,567	1,150,026	207,180	1,424,895	1,129,044	479,675	52,745	95,356	68,225
Woolen goods.....	2,129,727	1,906,581	1,815,389	2,029,175	1,789,683	1,742,288	54,976	65,762	19,750	45,576	51,136	53,342
Carpets and rugs.....	255,347	209,206	208,878	92,483	67,033	53,046	150,772	133,849	151,132	12,092	8,324	4,680
Felt goods.....	17,817	24,286	13,829	17,817	24,286	13,829						

¹ Includes both producing, and doubling and twisting spindles.

The increase in the total number is a little more than 14 per cent in the five years from 1900 to 1905, as compared with an increase of 25.7 per cent for the previous decade. The spindles are classified as woolen, worsted, and cotton. The increase of woolen spindles from 1900 to 1905 is 249,014, or 12.3 per cent, and of worsted spindles 305,388, or 23 per cent, but there is a decrease of 44,403 cotton spindles. The decrease in the number of cotton spindles is not significant, inasmuch as the spinning of cotton in small worsted and woolen mills is not always a measure of economy, and when the spindles are of ancient pattern it is economical to discontinue their use and purchase the yarns that may be needed. The increase in the number of woolen spindles in woolen mills from 1890 to 1900 was 47,395, and in the last five years the increase was 239,492. In worsted mills, however, the number of woolen spindles shows a decrease, in consequence of the continuation of the movement to remove such spindles from worsted mills. There is a very considerable increase in the number of woolen spindles in carpet mills. Of worsted spindles, there is a decrease in woolen mills from 1900 to 1905, but an increase of 299,251 in worsted mills, and one of 16,923 in carpet mills. The average number of woolen spindles to the card in 1905 was 382; in 1900 the average number was 307; and in 1890 it was 246. The average number of worsted spindles to a comb is now reported as 1,052, against 913 in 1900 and 775 in 1890—an increase which is probably to be accounted for by the larger efficiency of the comb.

The number of doubling spindles reported in 1905

is 110,626 woolen, 441,038 worsted, and 12,233 cotton—a total of 563,887. The numbers of woolen and worsted spindles alone are of importance. The larger use of doubling spindles implies a higher grade of manufacture. At the census of 1900 the proportion of doubling woolen spindles was 1 to 20.3 spinning spindles. The 110,626 woolen doubling spindles to the 2,169,416 spinning spindles in 1905, or one doubling to 19.6 spinning, shows a satisfactory advance during the last five years. The ratio of doubling to spinning worsted spindles was 1 to 2.85 in 1900, and in 1905 it was almost 1 to 2.70.

Looms.—The expansion of the woolen industry is shown by nothing more clearly than by a consideration of the looms in the establishments of the various branches; for although the entire number of looms—which was 69,807 in 1890 and 74,190 in 1900—has increased only to 77,985 in 1905, yet an examination of the character of the looms betokens an enormous advance. The following tabular statement presents a classification of the looms making woolen and worsted goods at the censuses of 1890, 1900, and 1905:

Looms on woolen and worsted goods: 1890 to 1905.

KIND.	1905	1900	1890
Total.....	66,293	63,294	58,878
Broad looms: ¹			
On woolen goods.....	27,171	22,364	20,848
On worsted goods.....	19,722	16,710	8,482
Narrow looms: ²			
On woolen goods.....	10,933	14,220	17,653
On worsted goods.....	8,401	9,920	11,447
Hand looms.....	66	80	448

¹ Fifty inches or more, reed space.

² Under 50 inches, reed space.

It will be seen that whereas the number of broad looms—those of 50 inches or more reed space—on woolen goods, has increased from 20,848 in 1890 and 22,364 in 1900 to 27,171 in 1905, and the broad looms on worsted goods have increased from 8,482 in 1890 and 16,710 in 1900 to 19,722 in 1905, there has been a steady decrease of narrow looms, both those on woolen goods and those on worsted goods. Moreover, the number of hand looms has diminished from 448 in 1890 to 80 in 1900 and 66 in 1905. Probably substantially all of the hand looms still reported are merely pattern looms, and are only occasionally in use.

The facts relating to the looms in carpet and rug factories tell a somewhat similar story. The following comparisons are made from Table 46 in this report and similar tables in prior Census reports. In 1890 the number of carpet and rug looms was 10,929; in 1900, 10,896; and in 1905, 11,692—apparently a

very moderate increase in fifteen years. But of the total in 1890, 2,628 were hand looms, of which 638 were used in making ingrain carpets, 158 were Venetian hand looms, and 1,832 were Smyrna rug hand looms. In 1900 the number of hand looms had diminished to 1,055, of which 955 were Smyrna hand looms and 100 ingrain carpet looms. In 1905 the total number of hand looms was 690, of which 124 were ingrain carpet looms, 3 Venetian hand looms, and 563 Smyrna rug looms. The increase of power looms, therefore, is from 8,301 in 1890 to 9,841 in 1900 and 11,002 in 1905.

MATERIALS USED.

Table 13 presents in detail a summary of the kind, quantity, and cost of the principal materials used in the five branches of the wool manufacture as reported at the census of 1905.

TABLE 13.—WOOL MANUFACTURES—MATERIALS USED, BY KIND, QUANTITY, AND COST: 1905.

KIND.	Total.	Worsted goods.	Woolen goods.	Carpets and rugs.	Felt goods.	Wool hats.
Total cost.....	\$242,561,096	\$109,658,481	\$87,830,825	\$37,047,954	\$5,754,026	\$1,369,810
Purchased in raw state:						
Wool, foreign and domestic, in condition purchased—						
Pounds.....	483,526,095	201,308,084	157,335,727	51,320,521	11,868,238	1,633,525
Cost.....	\$119,748,779	\$92,734,716	\$42,608,735	\$10,431,146	\$3,388,588	\$405,594
Animal hair and fur—						
Camel, alpaca, and vicuña hair—						
Pounds.....	1,578,580	1,563,407	15,393	.....	.....	.....
Cost.....	\$320,280	\$315,712	\$4,568	.....	.....	.....
Mohair, domestic and foreign—						
Pounds.....	5,020,196	3,632,483	1,206,348	.....	524,718	166,647
Cost.....	\$1,917,300	\$1,206,401	\$370,810	.....	\$207,801	\$72,258
Buffalo, cow, and other animal hair and fur—						
Pounds.....	30,280,430	544,359	22,442,973	6,805,802	6,449,916	43,380
Cost.....	\$2,186,953	\$95,089	\$1,304,000	\$593,588	\$105,996	\$59,593
Raw cotton—						
Pounds.....	39,593,401	4,333,576	28,279,832	1,997,399	1,082,624	.....
Cost.....	\$4,541,219	\$576,022	\$3,409,285	\$251,112	\$217,200	.....
Purchased in partially manufactured form:						
Tailors' clippings, rags, etc.—						
Pounds.....	81,059,536	5,344	79,361,946	371,822	1,320,424	.....
Cost.....	\$5,748,070	\$392	\$5,698,272	\$14,325	\$95,111	.....
Shoddy—						
Pounds.....	35,782,058	2,327,557	20,561,899	2,297,806	1,532,127	32,067
Cost.....	\$4,833,949	\$413,015	\$4,059,651	\$200,785	\$197,031	\$3,497
Wool, camel, etc., and mohair waste and noils—						
Pounds.....	39,441,641	2,263,875	23,768,663	2,172,481	1,948,669	287,653
Cost.....	\$6,969,557	\$710,487	\$5,345,740	\$341,399	\$452,509	\$119,512
Tops—						
Pounds.....	10,843,036	8,962,183	108,746	1,666,770	75,292	135
Cost.....	\$5,379,333	\$4,959,614	\$113,404	\$253,699	\$52,573	\$73
Yarns—						
Woolen—						
Pounds.....	38,181,458	2,024,978	3,725,110	32,431,400	.....	.....
Cost.....	\$9,270,883	\$1,160,180	\$1,402,702	\$5,648,091	.....	.....
Worsted—						
Pounds.....	42,403,705	26,769,263	4,278,253	11,355,663	196	.....
Cost.....	\$30,309,750	\$21,473,093	\$3,431,418	\$5,405,072	\$167	.....
Merino (cotton mixed)—						
Pounds.....	3,618,407	879,005	1,579,080	1,030,138	124,184	.....
Cost.....	\$770,627	\$320,118	\$260,989	\$159,885	\$32,635	.....
Cotton—						
Pounds.....	60,420,356	13,719,123	18,878,949	27,421,831	409,453	.....
Cost.....	\$12,896,381	\$3,827,767	\$4,205,006	\$4,757,850	\$106,758	.....
Silk—						
Pounds.....	292,578	176,018	25,652	.....	8	.....
Cost.....	\$947,787	\$815,695	\$132,091	.....	\$31	.....
Spun silk—						
Pounds.....	288,748	128,012	81,725	76,009	11	.....
Cost.....	\$914,549	\$499,486	\$232,641	\$182,499	\$22	.....
Linon—						
Pounds.....	8,252,520	1,500	2,007	8,228,206	20,822	.....
Cost.....	\$1,398,145	\$1,275	\$2,005	\$1,355,892	\$8,973	.....
Jute, ramie, and other vegetable fibers—						
Pounds.....	49,705,980	13,171	395,101	49,119,568	178,150	.....
Cost.....	\$3,426,515	\$1,702	\$19,136	\$3,404,510	\$4,161	.....
All other materials.....	\$31,011,959	\$10,517,000	\$15,025,622	\$3,951,464	\$895,470	\$922,313
Materials made in mill for use therein:						
Cotton yarn, pounds.....	5,720,319	938,325	3,008,798	1,773,199	.....	.....
Shoddy, pounds.....	70,801,694	256,597	70,192,848	.....	442,079	560

The amount of new wool "in condition purchased" consumed during the year covered by the census of 1905 in all the divisions of the wool manufacture was 483,526,095 pounds, as compared with 394,369,523

pounds in 1900. Classifying the wool as domestic and foreign, the amounts disclosed at the two census enumerations were as follows:

CENSUS.	Domestic (pounds).	Foreign (pounds).
1905.....	330,963,563	152,562,532
1900.....	257,934,562	136,434,961

The total quantity of new wool was greater by 22.6 per cent in 1905 than in 1900. The consumption of domestic wool was greater by 28.3 per cent; of foreign, by 11.8 per cent. The aggregate amount of shoddy purchased and made in the mill for use therein was 106,584,050 pounds, as compared with 71,496,508 pounds reported in 1900, an increase of 49 per cent. The quantity of raw cotton and cotton yarn purchased is now reported at 97,022,757 pounds, as compared with 98,632,496 pounds in 1900, a decrease of 1.6 per cent. Of wool, camel, etc., and mohair waste and noils the quantity reported in 1905 was 30,441,941 pounds and in 1900, 21,555,797 pounds, an increase of 41.2 per cent. The aggregate amount of yarns of all kinds purchased was 203,079,791 pounds, of a value of \$59,904,637, against a total of 181,104,221 pounds, valued at \$45,588,908, in 1900. The amount of tops nearly doubled in 1905, as compared with 1900. In the earlier year 5,865,566 pounds were reported and in 1905, 10,843,036 pounds. The items of yarns and other materials purchased in partially manufactured form are a duplication of products when such materials were made and sold by establishments engaged in some branch of the wool industry.

Net wool supply.—Table 14 exhibits the net available supply of wool for each year since 1881.

TABLE 14.—Wool produced and imported, domestic exports, and net supply of the United States: 1881 to 1904.

YEAR.	Domestic production (Department of Agriculture) (pounds).	Imports entered for consumption, year ending June 30 ¹ (pounds).	Total production and imports (pounds).	Domestic exports, year ending June 30 ¹ (pounds).	Net supply (pounds).	Per cent of imports to net supply.
1904....	291,783,032	161,720,007	453,503,039	319,750	453,183,289	35.7
1903....	287,450,000	179,651,038	467,101,038	518,919	466,582,119	38.5
1902....	316,341,032	160,437,130	476,778,162	123,278	476,654,884	33.7
1901....	302,502,382	124,863,051	427,365,433	199,568	427,165,865	29.2
1900....	309,961,812	128,250,945	438,212,757	2,200,309	436,012,448	29.4
1899....	272,181,330	77,388,102	349,579,432	1,683,419	347,896,013	22.2
1898....	266,720,684	70,833,668	337,554,352	121,139	336,933,213	20.9
1897....	259,153,251	350,250,028	609,403,279	5,271,535	604,131,744	58.0
1896....	272,474,708	228,647,543	501,122,251	6,945,981	494,176,270	46.3
1895....	369,748,000	265,736,348	635,484,348	4,273,106	631,211,242	46.3
1894....	298,057,284	45,726,056	343,783,340	530,247	343,253,093	30.7
1893....	303,153,000	175,636,042	478,789,042	61,558	478,697,484	30.7
1892....	294,000,000	134,622,336	428,622,336	202,450	428,419,886	31.4
1891....	285,000,000	119,350,280	404,350,280	201,922	404,098,358	29.5
1890....	276,000,000	100,902,105	376,902,105	231,042	376,671,063	28.5
1889....	285,000,000	126,181,273	411,181,273	141,576	410,999,697	32.3
1888....	269,000,000	97,231,267	366,231,267	22,164	366,009,103	29.6
1887....	285,000,000	114,404,173	399,404,173	257,940	399,146,233	29.7
1886....	302,000,000	107,910,549	409,910,549	147,023	409,763,526	26.3
1885....	308,000,000	68,146,652	376,146,652	88,006	376,058,646	18.1
1884....	300,000,000	87,703,031	387,703,031	10,208	387,692,823	22.6
1883....	290,000,000	53,049,967	343,049,967	64,474	342,985,493	15.5
1882....	272,000,000	63,016,769	335,016,769	116,179	334,900,590	18.8
1881....	240,000,000	67,416,967	307,416,967	71,455	307,345,512	21.9

¹ Bureau of Statistics, Department of Commerce and Labor, "Commerce and Navigation of the United States."

² Estimate of the National Association of Wool Manufacturers.

³ Census of 1900, and includes pulled wool estimated at 33,000,000 pounds, but excludes 961,328 pounds of domestic mohair.

It will be observed that the consumption of wool in the mills of the country in 1904 exceeded by more than 30,000,000 pounds the net supply during that year. There is, nevertheless, no reason to doubt the accuracy of the statement, either of the supply or of the consumption, as it is well known that the activity of manufacture was so great as to draw upon the reserves and cause a shortage of wool, which has been reflected in a higher range of prices. The excess was altogether in the domestic article, for the consumption of foreign wool was 9,000,000 pounds less than the importation during the fiscal year 1903-4, and 18,000,000 pounds less than the average importation of that and the preceding year.

Wool consumption.—The largest quantity of foreign wool used in the United States is the carpet wool of Class 3. At the census of 1905 the carpet mills of the country consumed 50,463,653 pounds of this class of wool, and they also made use of 11,355,993 pounds of worsted yarn made in other mills, substantially the whole of which was made from imported Class 3 wool. On the basis of 2 pounds of wool to 1 of yarn, this would mean a consumption of 22,711,986 pounds of imported wool in addition to that purchased in the raw state, or a total of 73,175,639 pounds. They also consumed 32,431,400 pounds of woolen yarn purchased. Assuming, as was done in the report on the census of 1900, that 10,000,000 pounds represents the quantity of foreign wool in the woolen yarn purchased, we have a total consumption of Class 3 wool in the carpet industry of about 83,000,000 pounds, which is 25,000,000 pounds less than the amount entered for consumption of this class—108,133,037 pounds—in the fiscal year 1903-4. Formerly such wool was consumed almost wholly in the manufacture of carpets and of low grade blankets and similar coarse goods, but in recent years considerable quantities of it have been employed in substitution for better grades of wool in the manufacture of certain articles of clothing for men. Attention has already been called to the fact that large amounts of it were used by the contractors in England who supplied clothing for the Russian and Japanese armies during the war between Japan and Russia, with the result of largely advancing the market price. How extensively it has been used in this country is impossible even to conjecture.

In addition to the wool of the sheep used in this industry, there is a small and decreasing consumption of camel's hair and noils and alpaca hair and noils, and a larger and increasing consumption of mohair and of buffalo, cow, and other coarse hair. The amounts used at the censuses of 1900 and 1905 were as follows:

	1905 (pounds).	1900 (pounds).
Camel, alpaca, and vicuña hair and noils	2,260,001	2,862,792
Mohair and noils	6,021,148	3,162,908
Buffalo, cow, and other hair and fur	36,286,430	29,085,363

The amounts are unimportant except in the item of buffalo, cow, and other hair and fur, large quantities of which are used in the manufacture of carpets, felt goods, and still more in the material for horse blankets and similar goods.

The total quantity of wool reported in the wool industry "in condition purchased" was 483,526,095 pounds. The amount reported by knitting mills is 17,300,616 pounds, and by shoddy and felt hat mills 641,492 pounds. We may estimate 30,000,000 pounds as a reasonable addition on account of the amount of wool purchased in the scoured state, and thus reach a total of 531,468,203 pounds of sheep's wool in the raw state. If to this amount we add the hair and fur of other animals—excluding noils, which are classed as partly

manufactured—we have a grand total of 582,276,490 pounds of raw material of animal origin consumed in the textile industries. This amount compares with 479,649,972 pounds ascertained by the same process at the census of 1900. These amounts do not account for all the material of wool and hair consumed, since it is necessary to add to them the equivalent amount of wool for the woollen and worsted yarn imported and used. But the quantity of foreign yarns is not large, and the returns do not disclose the origin of the yarn purchased.

Table 15 is a continuation of one prepared for the report at the Twelfth Census, intended to show the per capita consumption of wool in the United States for each census year beginning with 1840.

TABLE 15.—COMPARATIVE CONSUMPTION OF WOOL IN THE UNITED STATES: 1840 TO 1904.

[Imports and exports for year ending June 30: Bureau of Statistics, Department of Commerce and Labor, "Commerce and Navigation of the United States."]

CENSUS.	Imports of wool entered for consumption (pounds). ¹	Domestic production of wool (pounds).	Domestic exports (pounds).	Net supply (pounds).	Imports of wool manufactures, allowing 3 pounds of wool to the \$1 in value (pounds).	Total consumption (pounds).	Per capita consumption of wool (pounds).
1904.....	101,720,007	² 291,783,032	319,750	453,183,289	52,896,939	506,080,228	³ 6.22
1900.....	128,250,045	⁴ 310,953,140	2,200,309	437,003,776	46,861,460	483,865,236	5.97
1880.....	109,002,105	276,000,000	231,042	385,071,063	162,490,269	548,167,332	8.75
1860.....	99,372,440	232,600,000	191,551	331,680,889	95,593,641	427,184,530	8.52
1870.....	38,634,067	162,000,000	152,892	200,481,175	105,289,422	305,770,597	7.93
1860.....	26,125,891	60,264,013	1,055,928	85,334,876	128,497,923	213,832,799	6.80
1850.....	18,695,294	52,516,990	35,898	71,176,365	58,173,613	129,354,978	5.58
1840.....	⁵ 9,813,212	35,802,114	.....	45,615,326	31,095,276	76,710,602	4.49

¹ Quantities for 1840, 1850, and 1860 are imports, less reexports.
² Estimate of the National Association of Wool Manufacturers.
³ Population in 1904 estimated at 81,338,064.
⁴ Census report. Includes wool and mohair; and pulled wool estimated at 33,000,000 pounds
⁵ Year ending September 30.

Inasmuch as the preceding table shows the consumption of only 506,080,228 pounds in 1904, it is evident that the basis for that statement is not sound in the sense of showing the actual per capita consumption; but as the same system is followed for each census year, it does show the comparative consumption at different times with sufficient accuracy. For the mere fact that the production and importation of raw wool increase at a considerably slower rate than that of the increase of population renders the conclusion inevitable that the average consumption of wool over a long period of time is decreasing. The inference does not need the corroboration of another well-known fact that cotton, either alone or mixed with wool, has largely supplanted pure wool as the material of a great number of fabrics.

Scoured wool.—The 483,526,095 pounds of sheep's wool consumed in the five branches of the wool industry are represented by 282,194,618 pounds of scoured wool. This indicates an apparent shrinkage of 41.6 per cent, which is very much below the actual shrinkage, for of the wool "in condition purchased," a considerable amount was washed or scoured before it was purchased. Although it is thus impossible from the census returns to make even an approach to accuracy

in a statement of the average shrinkage, a comparison of the apparent shrinkage in the wool used by the different branches of the industry may not be without interest:

	Wool in condition purchased (pounds).	Scoured wool (pounds).	Per cent shrinkage.
Total.....	483,526,095	282,194,618	41.6
Worsted goods.....	261,368,084	139,173,774	49.8
Woollen goods.....	157,335,727	102,106,201	35.1
Carpets and rugs.....	51,320,521	31,551,895	38.5
Felt goods.....	11,868,238	8,131,082	31.6
Wool hats.....	1,633,525	1,231,576	24.6

For purposes of comparison Table 16 is presented, showing the average cost per pound of scoured wool consumed in the industry as a whole and in each of its branches during each census year, beginning with 1880. Prior to the present enumeration the course has been steadily downward, but in 1905 the cost, both of raw and of scoured wool, shows a considerable advance in market value. This fact needs no other comment than that it is in strict accordance with the market situation already described in this report. Attention may nevertheless be called to the remarkable advance from 1900 to 1905 in the average cost

per pound of the wool used by carpet mills, amounting to no less than 53.2 per cent; the average cost of 33.06 cents per pound for 1905 was the highest average reported in any census year.

TABLE 16.—Average cost of scoured wool consumed in the wool manufacture and in each industry: 1880 to 1905.

INDUSTRY.	Census.	Quantity (pounds).	Cost.	AVERAGE COST PER POUND.	
				Cents.	Per cent of decrease.
Total	1905	282,194,618	\$119,748,779	42.43	12.6
	1900	238,632,452	89,893,350	37.67	17.3
	1890	198,174,021	90,286,006	45.56	19.5
	1880	165,953,139	93,860,421	56.56	.....
Worsted goods	1905	139,173,774	62,734,716	45.08	15.2
	1900	103,338,616	44,306,141	42.87	16.7
	1890	54,989,749	28,280,287	51.43	11.1
	1880	26,334,635	15,235,878	57.85	.....
Woolen goods	1905	102,106,291	42,698,735	41.82	18.3
	1900	80,369,903	34,497,689	38.60	20.8
	1890	100,226,094	48,859,811	48.75	20.6
	1880	109,724,213	67,380,250	61.41	.....
Carpets and rugs	1905	31,551,895	10,431,146	33.06	53.2
	1900	37,560,231	8,104,107	21.58	21.8
	1890	35,726,837	9,853,787	27.59	6.8
	1880	23,563,216	6,975,129	29.60	.....
Felt goods	1905	8,131,082	3,388,588	41.67	22.7
	1900	6,468,097	2,196,440	33.96	22.3
	1890	4,213,230	1,841,382	43.70	26.5
	1880	2,738,796	1,624,871	59.44	.....
Wool hats	1905	1,231,576	495,594	40.24	3.2
	1900	1,898,605	788,973	41.56	13.4
	1890	3,018,114	1,448,799	48.00	34.7
	1880	3,597,279	2,644,293	73.51	.....
Quantity of wool "in condition purchased," total for the 5 industries	1905	483,526,095	119,748,779	24.76	18.6
	1900	394,369,223	89,893,350	22.79	11.4
	1890	351,158,020	90,286,006	25.71	21.2
	1880	287,597,334	93,860,421	32.64	.....

¹ Increase.

Cotton in the wool industry.—The 1905 census figures do not show a substantial increase in the use of cotton in combination with wool. Wool manufacturers return the consumption of but 36,593,401 pounds of raw cotton, although in 1900 they reported 43,414,502 pounds. Neither of these quantities, however, represents the whole of the cotton that enters into the production of fabrics which are properly classed with the wool industry. There is, first, a large amount which is consumed in factories which are virtually both cotton and worsted mills; that is to say, they are such large spinners of cotton which they weave with worsted yarn in the manufacture of dress goods that it would lead to a serious statistical error if the cotton yarn made by them were not credited to the cotton industry. In the case of some of the largest of these establishments,

their materials and products are divided between the two industries. In the second place there is a large amount of cotton yarn purchased—for 1905 the amount purchased was 60,429,356 pounds, against 55,217,994 pounds in 1900. A considerable amount of the raw cotton here reported is used on the cards with wool in the production of mixed, or merino, yarn, the quantity of which it is impossible to ascertain from the statistics. If we assume that the 60,000,000 pounds of cotton yarn constituted the product of 73,000,000 pounds of raw cotton, the total amount of cotton, aside from that consumed in mills classed with both industries, would be about 110,000,000 pounds, as compared with 108,000,000 pounds in 1900.

Shoddy.—Table 17 exhibits the quantity and the proportion of scoured wool and of shoddy used in the wool industry for the censuses of 1890, 1900, and 1905.

TABLE 17.—Scoured wool and shoddy consumed in the wool manufacture, with per cent of total: 1890 to 1905.

	1905		1900		1890	
	Quantity (pounds).	Per cent of total.	Quantity (pounds).	Per cent of total.	Quantity (pounds).	Per cent of total.
Total.....	388,778,668	100.0	310,128,960	100.0	255,000,496	100.0
Scoured wool.....	282,194,618	72.6	238,632,452	76.9	198,174,021	77.7
Shoddy purchased	35,782,056	27.4	34,496,508	23.1	56,826,475	22.3
Shoddy made.....	70,801,994		37,000,000			

This is the first census at which the amount of shoddy made in mills for use therein has been ascertained with a close approach to accuracy. At the Twelfth Census the amount was partly estimated, as the report at that census states frankly. Evidently the estimate was much too low, for although it is a matter of common knowledge that the comparative use of shoddy has increased, the change has been by no means so extensive as is indicated by the above figures. It is to be remembered that little shoddy is or can be used in the production of worsted goods, which is the branch of the industry that has increased most largely in the last five years. It would be incredible that an addition of 13,000,000 pounds of scoured wool in that period to the amount consumed in the manufacture of woolen goods has been accompanied by an increased shoddy consumption of 35,000,000 pounds.

Table 18 shows the percentage of scoured wool to other fibers in all branches of the wool industry in 1880, 1890, 1900, and 1905.

TABLE 18.—SCOURED WOOL, ANIMAL HAIR, SHODDY, AND COTTON CONSUMED IN THE WOOL MANUFACTURE, WITH PER CENT OF TOTAL: 1880 TO 1905.

	1905 (pounds).	1900 (pounds).	1890 (pounds).	1880 (pounds).	PER CENT OF TOTAL.			
					1905	1900	1890	1880
Total.....	529,286,851	443,431,261	375,635,079	283,086,551	100.0	100.0	100.0	100.0
Scoured wool, including camel, alpaca, and vicuña hair and mohair.....	289,393,614	244,216,804	207,684,746	167,634,157	54.7	55.1	55.3	59.2
Shoddy, ¹ including buffalo, cow, and other animal hair and fur.....	142,870,480	109,581,871	73,678,066	56,070,682	27.0	22.7	19.6	20.1
Cotton and cotton yarn.....	97,022,757	88,632,496	94,372,267	58,481,712	18.3	22.2	25.1	20.7

¹Includes shoddy made in mill for use therein.

The apparent showing is that the proportion of scoured wool to other fibers has slightly declined in five years from 55.1 per cent to 54.7 per cent.

Yarns purchased.—Two tabulations are presented showing the quantity and value of yarns purchased for use in the wool industry. The first is a comparative statement of the quantity and cost of all kinds of yarn purchased, as reported at the censuses of 1880, 1890, 1900, and 1905; the other, Table 19, is a detailed statement for 1905 only, of the several kinds of yarn purchased in each branch of the industry, and shows both the weight and the cost. The total amount of

yarn purchased in an industry so permanently organized as this bears an almost unvarying relation to the amount of raw material reported, and the figures in the first statement suggest no valuable comment.

Yarns purchased: 1880 to 1905.

CENSUS.	Pounds.	Cost.
1905.....	203,079,701	\$50,004,637
1900.....	181,104,221	45,588,008
1890.....	136,654,706	42,142,403
1880.....	55,535,300	20,814,384

TABLE 19.—YARNS PURCHASED, DISTRIBUTED BY KIND AND INDUSTRIES: 1905.

KIND.	TOTAL.		WORSTED GOODS.		WOOLEN GOODS.		CARPETS AND RUGS.		FELT GOODS.	
	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.
Total.....	203,079,701	\$50,004,637	43,711,970	\$28,090,280	28,965,877	\$0,742,988	129,000,120	\$21,010,610	732,824	\$151,747
Woolen.....	38,181,488	9,270,883	2,024,978	1,100,180	3,725,110	1,462,702	32,431,400	6,648,901	.....	187
Worsted.....	42,403,705	30,309,750	26,760,263	21,473,093	4,278,253	3,431,418	5,405,072	.....	196	32,036
Morlino.....	3,618,407	770,627	879,005	320,118	1,879,080	260,089	1,036,138	150,885	124,184	105,758
Cotton.....	60,420,350	12,806,381	13,719,123	8,827,767	18,878,949	4,205,006	27,421,831	4,767,850	409,453	.....
Silk.....	202,578	947,787	176,918	815,665	25,652	132,091	.....	.....	8	31
Spun silk.....	285,748	614,549	128,012	400,486	81,725	232,641	70,000	182,400	11	22
Linen.....	8,252,520	1,368,145	1,500	1,275	2,007	2,005	8,228,200	1,355,892	20,822	8,973
Jute, ramie, and other vegetable fiber.....	49,705,980	3,420,515	13,171	1,702	395,101	10,130	49,119,558	3,404,516	178,150	4,161

When we examine the details of Table 19 and compare them with the 1900 statistics we find some interesting variations. Thus, whereas the woolen yarn shows a positive decrease in 1905 as compared with 1900, the amount of 38,181,488 pounds in 1905 compared with 38,903,178 pounds in 1900, worsted yarn has increased from 34,377,736 pounds in 1900 to 42,403,705 pounds in 1905. This is merely another manifestation of the change of fashion, so often noted in this report, from woolen to worsted goods. There is an important increase in silk yarn of from 70,073 pounds to 202,578 pounds, an increase which is made significant by the high cost of silk yarns, averaging more than \$4.50 a pound. There is also a very large increase in the use of jute, ramie, and other vegetable fibers, from 39,965,180 pounds to 49,705,980 pounds. Practically the whole of the yarns of these materials is consumed in the carpet mills. The amount of linen yarn shows but little variation. This, too, yarn of the coarsest quality, is chiefly consumed in the manufacture of carpets.

Chemicals and dyestuffs.—The amount of chemicals and dyestuffs used in the wool industry bears a fairly constant relation to the amount of wool used. The following tabular statement shows the cost of chemicals and dyestuffs used in the wool industry in 1890, 1900, and 1905, and gives separately the gallons and cost of oil used to lubricate wool for carding and spinning, and the pounds and cost of the soap used in fulling and cleansing fabrics:

Chemicals and dyestuffs, etc.: 1890 to 1905.

CENSUS.	Chemicals and dyestuffs (cost).	OIL.		SOAP.	
		Gallons.	Cost.	Pounds.	Cost.
1905.....	\$9,177,081	4,142,108	\$1,212,463	45,743,400	\$1,895,614
1900.....	7,983,084	3,501,582	1,030,079	36,130,593	1,370,880
1890.....	5,880,012	3,715,114	1,230,012	32,643,591	1,109,359

IMPORTS OF WOOL.

It was shown in the report at the census of 1900 that the importation of foreign wool in the preceding

ten years had varied greatly. There were two complete revisions of the tariff during that decade, and in each case there was a radical reversal of the policy. The act of 1894 admitted wool of all sorts free of duty; the act of 1897 reimposed duties not greatly different from those levied under the act of 1890. The average annual importation in the four years during which the act of 1890 was in operation was about 126,000,000 pounds. During the three years' prevalence of free wool the average was 272,500,000 pounds. In the ensuing years to June 30, 1900, the average was 117,600,000 pounds. The fluctuation was much the greatest in Class 1, clothing wools, the importation of which averaged nearly 142,000,000 pounds in the three years of free wool, as against 34,000,000 pounds during the four previous years, and 28,000,000 pounds during the three following years. The importations for the five years from July 1, 1900, to June 30, 1905, have been as follows:

YEAR.	Total (pounds).	Class 1 (pounds).	Class 2 (pounds).	Class 3 (pounds).
1900-1901.....	124,863,051	35,806,019	7,334,089	81,722,943
1901-2.....	160,437,130	55,203,457	6,745,943	98,487,730
1902-3.....	179,651,038	46,667,412	13,738,408	119,245,218
1903-4.....	161,720,007	39,927,770	13,659,200	108,133,037
1904-5.....	211,287,482	76,769,197	21,922,408	112,595,877
Annual average.....	167,591,742	50,874,771	12,680,010	104,036,961

The use of foreign wools has greatly increased in the last five years, as compared with the periods 1890-94 and 1897-1900, although it has by no means reached the large proportions of the period 1894-97.

The effect of the several tariff laws on the importation of wool manufactures is equally marked and the movement corresponds closely in all particulars to the movement of the raw material, except that in the last five years the importations, although showing an increase, are much less than in the years under the act of 1890. Under the law of 1890 the average value of imports of manufactures of wool of all kinds was about \$31,000,000. Under the act of 1894 it rose to an annual average of \$47,000,000. It declined under the tariff of 1897 to an average of \$14,000,000 in the three years ending with the period of the last census. In the ensuing five years to and including the year 1904-5 the imports entered for consumption were as follows:

1900-1901.....	\$14,729,450
1901-2.....	16,977,872
1902-3.....	19,302,007
1903-4.....	17,632,313
1904-5.....	18,021,041
Annual average.....	17,332,537

Table 20 presents in a condensed form the quantity and value of wool imported into the United States and entered for consumption since 1822. The amounts are stated for five-year periods down to 1890 and from that time for each year. The table shows also the increase in quantity and the percentage of increase for each period of five years and ten years. The table is a continuation of that prepared for preceding reports on the wool industry, but it suggests no fresh comment.

TABLE 20.—IMPORTS OF FOREIGN WOOL: 1822 TO 1905.¹

[Bureau of Statistics, Department of Commerce and Labor, "Commerce and Navigation of the United States."]

PERIOD.	Quantity (pounds).	Value.	Quantity, ten-year periods (pounds).	Value.	INCREASE IN QUANTITY (POUNDS) AND PER CENT OF INCREASE IN QUANTITY.	
					Five years.	Ten years.
1822 to 1825.....	6,736,205	\$1,633,704				
Annual average.....	1,684,051	408,426				
1826 to 1830.....	10,200,102	1,612,260	16,936,307	\$3,245,964	3,463,897	
Annual average.....	2,040,020	322,452			51.42 per cent	
1831 to 1835.....	15,904,169	2,955,115			5,704,067	
Annual average.....	3,180,834	591,023			55.92 per cent	
1836 to 1840.....	46,961,106	4,001,900	62,865,275	6,957,015	31,056,937	45,928,968
Annual average.....	9,392,221	800,380			195.28 per cent	271.19 per cent
1841 to 1845.....	67,113,232	4,548,590			20,152,126	
Annual average.....	13,422,646	909,718			42.91 per cent	
1846 to 1850.....	72,651,360	5,361,488	139,764,592	9,910,058	5,538,128	76,899,317
Annual average.....	14,530,272	1,072,294			8.25 per cent	122.32 per cent
1851 to 1855.....	110,198,202	13,165,013			37,546,842	
Annual average.....	22,039,640	2,633,003			51.68 per cent	
1856 to 1860.....	119,908,085	18,690,041	230,106,287	31,855,054	9,709,883	90,341,695
Annual average.....	23,981,617	3,738,008			8.81 per cent	64.64 per cent
1861 to 1865.....	284,517,282	48,486,353			164,609,197	
Annual average.....	56,903,456	9,693,271			137.28 per cent	
1866 to 1870.....	206,032,175	31,098,855	490,549,457	79,565,208	478,485,107	280,443,170
Annual average.....	41,206,435	6,219,771			427.59 per cent	113.18 per cent
1871 to 1875.....	337,182,602	69,582,838			131,150,427	
Annual average.....	67,436,520	13,916,578			63.66 per cent	
1876 to 1880.....	299,669,315	45,326,434	506,848,917	114,909,322	477,516,237	106,299,460
Annual average.....	59,933,263	9,063,268			422.99 per cent	21.67 per cent
1881 to 1885.....	339,334,286	53,953,737			79,667,971	
Annual average.....	67,866,857	10,790,747			30.68 per cent	
1886 to 1890.....	555,629,267	77,805,485	894,963,653	131,759,222	216,295,081	298,114,736
Annual average.....	111,125,873	15,561,097			63.74 per cent	49.95 per cent

¹ The quantities and values given are for net imports, 1822 to 1866, inclusive, and imports entered for consumption from 1867 to 1905, inclusive.
² In 1834 the exports of foreign wool exceeded the imports.
³ To and including the year 1842, the fiscal year ended on September 30; after that date, on June 30.
⁴ Decrease.

TABLE 20.—IMPORTS OF FOREIGN WOOL: 1822 TO 1905—Continued.

PERIOD.	Quantity (pounds).	Value.	Quantity, ten-year periods (pounds).	Value.	INCREASE IN QUANTITY (POUNDS) AND PER CENT OF INCREASE IN QUANTITY.	
					Five years.	Ten years.
1891	119,360,280	\$17,070,183				
1892	134,622,336	17,697,068				
1893	175,636,042	18,463,080				
1894	45,726,056	5,191,800				
1895	205,720,348	32,624,131				
Total for 5 years.	741,101,002	90,980,877				
Annual average.	148,220,212	18,197,375			185,471,095	33.38 per cent
1896	228,647,543	32,144,454				
1897	350,250,028	53,210,397				
1898	70,333,008	8,705,080				
1899	77,348,102	8,369,239				
1900	128,250,045	15,030,220				
Total for 5 years.	854,870,376	117,468,999	1,505,071,438	\$208,455,870	113,769,314	15.35 per cent
Annual average.	170,974,075	23,493,800			701,007,785	78.33 per cent
1901	124,863,051	15,998,015				
1902	100,437,130	18,385,748				
1903	179,651,038	21,258,031				
1904	161,720,007	22,330,530				
1905	211,387,482	35,444,449				
Total for 5 years.	837,058,708	113,416,779			110,911,068	11.08 per cent
Annual average.	167,411,742	22,683,356				

¹Decrease.

Sources of foreign wool supply.—The three tables which follow show the country of origin of the several classes of wool imported during the years ending on June 30, 1890, on June 30, 1900, and on June 30, 1904, into the three principal ports of Boston, New York, and Philadelphia, where all but a mere fraction of foreign wool is entered.

By far the largest amount of imported wool is that denominated Class 3 in the acts levying duties on imports, and for that reason it is shown first.

TABLE 21.—Imports of Class 3 wool, by countries of production: 1890 to 1904.¹

	1904 (pounds).	1900 (pounds).	1890 (pounds).
Total	114,206,682	105,742,030	80,152,484
Asia	50,178,328	64,237,650	33,378,502
Aden	1,731	7,002	
China	24,012,491	30,684,802	8,704,083
India	9,981,886	9,300,249	7,931,474
Japan	20,112	27,100	
Russia—Asiatic	5,436,446	6,041,346	204,339
Turkey in Asia	13,626,468	7,863,411	12,538,375
All other	2,290,204	9,047,049	3,000,331
Europe	47,377,178	30,200,506	30,868,372
Austria-Hungary	716,417	620,562	11,677
Belgium	135,070	37,257	
Denmark	559,818	137,144	
England	1,805,457	2,234,475	5,103,817
France	1,284,489	330,254	2,108,006
Germany	1,456,540	1,080,837	718,572
Greece		21,722	
Greenland, Iceland, etc.	616,930	502,730	64,104
Italy	249,004	67,862	444
Ireland	6,626	35,860	
Netherlands	110,727		
Portugal	700,510	183,891	339,650
Russia—Baltic and White seas		6,013,750	3,367,982
Russia—Black Sea	17,066,335	5,725,704	10,504,887
Russia—all other		1,038,198	1,862,263
Scotland	17,668,405	10,025,107	5,144,822
Serbia	207,067	383,473	28,331
Spain	1,144,478	54,035	32,837
Sweden		140	
Switzerland	75,552	61,315	35,685
Turkey in Europe	2,240,433	465,002	1,733,019
All other	230,242		

¹Bureau of Statistics, Department of Commerce and Labor, "Monthly Summaries of Commerce and Finance."

TABLE 21.—Imports of Class 3 wool, by countries of production: 1890 to 1904.—Continued.

	1904 (pounds).	1900 (pounds).	1890 (pounds).
South America	10,700,000	10,615,231	15,427,402
Argentina	10,049,000	8,651,184	13,531,096
Brazil	104,071	254,705	175,607
Chile	513,822	864,047	1,034,953
Ecuador		622,087	1,087
Uruguay		23,208	84,509
Venezuela	30,407		
West Indies	9,420	14,877	48,134
British		60	32,793
Danish			357
Dutch	9,420	14,817	14,984
Africa	781	330,048	154,826
British Africa	781	62,925	
Turkey in Africa		183,235	154,826
All other		80,888	
Australasia		311,337	21,237
All other countries		372	204,011

¹Bureau of Statistics, Department of Commerce and Labor, "Monthly Summaries of Commerce and Finance."

In the report on wool manufactures at the Twelfth Census attention was called to the changes that had taken place in the sources of carpet wools in the preceding decade. Of a total increase in importations of 25,589,546 pounds, the Chinese Empire had contributed 22,279,919 pounds, and the other changes had nearly balanced one another. A decrease of about 4,500,000 pounds from Argentina was rather more than offset by an increase of 5,800,000 pounds from Asiatic Russia. The quantity from France was reduced, and that from Germany was augmented by nearly equal amounts. The changes disclosed by Table 21 are not, perhaps, significant of any permanent and continuing movement, but they differ greatly from those exhibited five years ago. The total increase is about 8,500,000 pounds. Much more than this increase is shown in the importation from European countries. European

Russia produced 17,966,335 pounds of the importation in 1904, as compared with 12,777,718 pounds in 1900, and the United Kingdom contributed 19,570,488 pounds, as against 12,295,532 pounds in 1900. European Turkey, which sent less than 500,000 pounds in 1900 is now credited with 2,240,433 pounds. There was an increase of 5,673,047 pounds from Asiatic Turkey, and of 1,097,885 pounds from Argentina, but a decrease of 5,172,411 pounds from China.

The countries of production of clothing wool, Class 1, and the imports in 1890, 1900, and 1904 are shown by Table 22.

TABLE 22.—Imports of Class 1 wool, by countries of production: 1890 to 1904.¹

	1904 (pounds).	1900 (pounds).	1890 (pounds).
Total.....	45,401,957	37,036,621	15,492,107
Australasia.....	25,792,098	22,684,590	11,928,921
South America.....	18,805,031	13,182,040	1,166,890
Argentina.....	18,018,443	11,113,095	168,355
Brazil.....	129,485	351,190	67,981
Chile.....	544,895	1,367,410	783,575
Peru.....	112,208	5,126	2,740
Uruguay.....	112,208	345,219	144,239
Europe.....	389,147	420,790	1,271,510
Belgium.....	20,432	.....	.....
England.....	245,617	224,010	884,807
France.....	9,271	63,027	262,333
Germany.....	37,140	18,627	7,199
Iceland.....	.....	157	.....
Ireland.....	.....	68,251	.....
Italy.....	2,593	100	.....
Netherlands.....	.....	34,788	.....
Portugal.....	7,151	.....	.....
Russia—Baltic and White seas.....	.....	10,514	334
Scotland.....	56,652	.....	509
Spain.....	1,271	816	91,460
Turkey in Europe.....	.....	500	24,868
All other.....	20	.....	.....
Africa.....	301,227	660,680	1,105,730
British Africa.....	301,182	626,141	1,102,793
All other.....	45	34,539	2,937
Asia.....	41,027	61,961	18,056
China.....	.....	.....	10,456
India.....	19,733	.....	.....
Turkey in Asia.....	17,912	61,933	3,800
All other.....	3,382	28	3,800
All other countries.....	73,427	26,560	1,000

¹ Bureau of Statistics, Department of Commerce and Labor, "Monthly Summaries of Commerce and Finance."

Clothing wool is, more than any other variety, brought into direct competition with the domestic article, although in quantity carpet wool constitutes two-thirds of the total importation. The two great sources of Class 1 wool are Australasia and Argentina.

In 1904 the Australasian wool of this class received at the three ports reached a total of 25,792,098 pounds, and that from Argentina, 18,018,443 pounds. Combined they accounted for 43,810,541 pounds, leaving only 1,591,416 pounds to be accounted for from all other countries. As compared with 1900, Australasia sent 3,107,508 pounds more, Argentina 6,905,348 more, and the rest of the world, 1,647,520 pounds less.

The importation of combing wools—Class 2—is not of great importance, although it is evidently on the increase, for use in the worsted branch of the industry. As will be seen from Table 23, the British Isles are the great source of this class of wool.

TABLE 23.—Imports of Class 2 wool, by countries of production: 1890 to 1904.¹

	1904 (pounds).	1900 (pounds).	1890 (pounds).
Total.....	10,732,401	9,885,173	7,658,806
Europe.....	7,121,964	8,064,596	7,312,278
Austria-Hungary.....	.....	55	.....
England.....	5,591,793	5,693,724	6,897,404
France.....	.....	296	11,520
Germany.....	10,097	.....	110
Ireland.....	1,250,155	1,660,971	.....
Netherlands.....	.....	78,240	.....
Portugal.....	10,098	.....	.....
Scotland.....	92,337	450,527	.....
Turkey in Europe.....	167,484	180,783	403,238
Asia.....	2,119,693	930,705	157,432
China.....	.....	13,357	110,647
India.....	86,937	743	.....
Russia in Asia.....	.....	39,674	.....
Turkey in Asia.....	1,790,186	841,993	46,785
All other.....	242,570	34,908	.....
South America.....	1,209,834	748,867	19
Argentina.....	100,548	.....	.....
Colombia.....	.....	.....	19
Peru.....	1,109,286	543,866	.....
Uruguay.....	.....	205,001	.....
Africa.....	280,805	15,538	3,412
British Africa.....	280,616	11,601	3,412
All other.....	189	3,847	.....
North America.....	105	.....	185,665
British Columbia.....	.....	.....	25,804
Quebec, Ontario, Manitoba, Nova Scotia, and Northwest Territory.....	105	.....	159,861
Australasia.....	.....	125,467	.....

¹ Bureau of Statistics, Department of Commerce and Labor, "Monthly Summaries of Commerce and Finance."

Of a total of 10,732,401 pounds of this class reported, the United Kingdom furnished 6,934,285 pounds, Asiatic Turkey 1,790,186 pounds, and Peru 1,109,286 pounds, leaving 898,694 pounds as the production of other countries.

Table 24 shows the total amount of foreign wool entered for consumption, classified as in the tariff laws, giving the quantities and values of each class, for every fiscal year from 1867 to 1904, inclusive.

TABLE 24.—FOREIGN WOOL ENTERED FOR CONSUMPTION IN THE UNITED STATES,¹ BY CLASS, QUANTITY, AND VALUE: 1867 TO 1904.

YEAR.	Total pounds.	NO. 1.—CLOTHING.		NO. 2.—COMBING.		NO. 3.—CARPET.	
		Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
1904.....	161,720,007	39,927,770	\$7,258,325	13,650,200	\$2,828,970	108,133,037	\$12,243,232
1903.....	179,651,038	46,667,412	7,182,151	13,738,408	2,520,270	110,245,218	11,556,004
1902.....	160,437,130	55,203,457	8,161,210	6,745,943	1,163,966	98,497,730	9,000,572
1901.....	124,893,051	35,806,019	6,805,719	7,334,089	1,462,894	81,722,943	7,609,402
1900.....	128,250,945	19,369,622	3,700,696	9,010,970	2,094,373	98,970,344	9,181,151
1899.....	77,388,192	9,583,053	1,505,954	2,160,370	572,205	65,644,769	6,225,080
1898.....	70,333,608	18,122,092	3,320,651	3,865,082	776,583	48,345,894	4,608,455
1897.....	360,250,028	200,485,006	34,307,110	37,940,945	7,182,064	111,814,987	11,729,623
1896.....	228,647,543	117,533,750	19,512,199	12,992,576	3,121,030	88,121,217	9,511,225
1895.....	205,726,348	106,516,023	16,595,687	14,722,000	2,892,542	144,488,235	13,135,902
1894.....	45,726,056	7,860,841	1,449,254	1,334,631	337,679	36,530,584	3,404,878
1893.....	175,036,042	35,403,022	6,555,040	7,035,439	1,535,812	133,197,581	10,312,237
1892.....	134,622,336	38,641,130	7,731,730	5,421,081	1,222,884	90,560,125	8,742,454
1891.....	110,390,280	26,520,670	6,025,462	6,073,921	1,040,203	85,805,689	8,404,468
1890.....	109,902,105	21,387,807	4,856,040	7,602,978	1,805,536	80,851,280	8,412,867
1889.....	126,181,273	22,973,088	4,704,015	6,051,719	1,550,309	96,556,466	11,112,435
1888.....	97,231,267	16,952,513	3,048,779	5,568,068	1,322,862	74,710,866	9,000,459
1887.....	114,404,173	23,195,734	4,330,498	9,703,992	2,270,058	81,504,477	9,741,814
1886.....	107,010,549	23,321,759	4,344,180	4,872,739	1,106,116	79,716,051	8,343,908
1885.....	68,146,652	13,472,432	2,904,633	3,891,014	921,252	50,782,306	5,558,479
1884.....	87,703,931	20,703,843	4,700,605	4,474,306	1,058,758	62,525,692	7,833,036
1883.....	53,049,997	11,546,530	2,567,443	1,373,114	343,087	40,130,323	5,580,558
1882.....	93,016,769	13,489,923	3,042,408	2,318,671	648,252	47,208,175	6,642,609
1881.....	67,416,967	20,609,707	4,761,454	4,421,491	1,271,332	42,385,769	6,038,041
1880.....	99,372,440	26,785,172	6,412,273	13,266,856	3,801,730	59,320,412	7,690,663
1879.....	40,102,642	5,229,987	1,114,301	1,709,601	413,761	33,163,054	3,688,751
1878.....	39,801,161	9,016,012	2,431,044	3,028,869	969,683	29,858,280	3,694,640
1877.....	40,114,304	9,294,029	2,202,640	2,509,954	830,715	28,310,411	3,070,617
1876.....	40,275,678	8,643,366	2,187,713	3,167,307	1,153,504	28,405,005	4,546,399
1875.....	51,686,294	13,117,679	3,002,535	7,769,157	2,153,261	30,799,458	4,472,826
1874.....	56,793,737	2,398,210	815,307	27,087,437	6,199,150	27,308,000	4,608,410
1873.....	84,212,582	6,029,488	1,744,200	49,540,231	12,729,501	28,642,863	5,908,465
1872.....	94,315,933	16,871,332	4,183,950	41,155,460	8,962,131	36,289,141	6,435,408
1871.....	50,174,056	5,957,461	1,201,201	17,065,600	3,107,835	26,550,995	3,335,638
1870.....	38,634,067	6,530,403	1,240,152	2,752,569	766,147	29,351,005	3,416,024
1869.....	34,605,939	2,512,201	505,715	4,533,367	1,092,397	27,659,371	3,053,052
1868.....	24,582,551	4,081,679	618,588	1,804,272	332,816	18,006,600	2,704,708
1867.....	37,683,675	1,270,359	415,009	150,302	31,827	36,283,017	5,332,074

¹ Bureau of Statistics, Department of Commerce and Labor, "Commerce and Navigation of the United States."

It is well known that during the period of free wool under the tariff law of 1894 the importation of wool was very heavy. In anticipation of the change which took place in 1897, when wool was restored to the dutiable list, the importation was excessive, with the result that the amount imported that year was much the largest in the history of the country, and very nearly five times as much as was imported in the following year. The excess was gradually absorbed, and by the beginning of the present century the trade had returned to its normal condition. In the most recent years the average importation has been larger than in any period except during the free wool era just mentioned. It is noteworthy that the increase has extended to all the classes. Thus the importation of Class 1 wool, in the last four years, which amounted to 177,604,658 pounds, was less than the importation during the single year 1897, but the average of the four

years, 44,401,164 pounds, was larger than the importation in any one year before 1894.

Of Class 2 the aggregate of the four years was 41,477,640 pounds, which exceeded the amount in the year 1897, and the average, 10,369,410 pounds, was only four times exceeded in the last thirty years. The case of Class 3 carpet wools is more remarkable, for the aggregate of the four years, 407,588,928 pounds, was not reached in the three years of free wool, and the average of the four years, 101,897,232 pounds, was only 16,000,000 pounds less than the average of those exceptional years.

PRODUCTS.

The aggregate value of products in the wool industry, as reported for 1905, is \$380,934,003, and the general classification of these goods, showing both quantities and values, is exhibited in Table 25.

TABLE 25.—WOOL MANUFACTURES—PRODUCTS, BY KIND, QUANTITY, AND VALUE, WITH PER CENT OF INCREASE: 1890 TO 1905.

KIND.	CENSUS.			PER CENT OF INCREASE.	
	1905	1900	1890	1900 to 1905	1890 to 1900
Aggregate value.....	\$380,934,003	\$296,990,484	\$270,527,511	28.3	9.8
Total piece goods—					
Square yards.....	476,206,439	399,141,585	349,909,764	19.3	14.1
Value.....	\$225,056,781	\$175,209,197	\$158,405,033	28.5	10.6
Woolen, worsted, union, and cotton warp cloths, coatings, cassimeres, jeans, etc., for men's wear:					
Square yards.....	188,474,272	169,177,028	122,064,528	11.4	38.6
Value.....	\$119,184,657	\$97,852,209	\$88,261,748	21.8	10.9
Woolen, worsted, union, and cotton warp overcoatings, cloakings, etc., for men's and women's wear:					
Square yards.....	37,040,657	29,647,495	14,883,893	24.9	99.2
Value.....	\$23,312,918	\$21,666,019	\$13,082,801	7.6	65.6
Woolen, worsted, union, and cotton warp dress goods, sackings, tricots, opera flannels, cashmeres, buntings, ladies' cloth, alpaca, etc., for women's wear:					
Square yards.....	158,717,073	155,767,439	127,259,709	21.2	22.4
Value.....	\$68,667,227	\$45,278,216	\$32,285,906	51.7	40.2
All-wool, union, and cotton warp flannels:					
Square yards.....	20,269,730	20,117,663	61,195,501	0.8	167.1
Value.....	\$4,344,262	\$4,613,129	\$18,582,549	15.8	175.2
Satinets:					
Square yards.....	22,343,617	13,051,729	18,630,656	71.2	129.9
Value.....	\$4,077,233	\$2,873,181	\$4,296,082	41.9	133.1
Linings, Italian cloth, and lastings:					
Square yards.....	17,619,325	10,157,039	4,585,080	73.5	121.5
Value.....	\$4,505,927	\$2,228,434	\$1,255,520	102.2	77.5
Jersey cloth:					
Square yards.....	(²)	2,784	7,476	.....	162.8
Value.....	(²)	\$1,010	\$13,636	.....	192.6
Carriage cloths:					
Square yards.....	1,741,765	1,220,408	1,282,921	42.7	14.9
Value.....	\$964,557	\$696,999	\$626,791	38.4	11.2
Total—					
Square yards.....	29,807,098	27,811,002	31,835,333	7.2	112.6
Value.....	\$9,763,459	\$8,429,579	\$11,020,843	15.8	127.5
Woven shawls of wool or worsted:					
Square yards.....	895,777	600,104	4,758,652	49.3	187.4
Value.....	\$557,370	\$500,523	\$2,026,523	11.4	176.2
All-wool, union, and cotton warp blankets:					
Square yards.....	19,869,262	18,155,505	20,793,644	9.4	112.7
Value.....	\$6,242,079	\$5,200,959	\$7,153,900	20.0	127.3
All-wool, union, and cotton warp horse blankets:					
Square yards.....	7,066,873	7,315,304	5,507,074	4.8	32.8
Value.....	\$1,723,916	\$1,740,988	\$1,721,510	11.0	1.1
Carriage robes:					
Square yards.....	1,375,186	1,740,089	775,063	121.0	124.2
Value.....	\$1,240,094	\$687,109	\$646,904	25.6	52.6
Total value.....	\$2,564,018	\$3,709,311	\$3,634,133	130.9	2.1
Woolen, worsted, and union upholstery goods:					
Square yards.....	3,233,405	541,909	4,131,288	496.7	186.0
Value.....	\$1,847,722	\$736,461	\$2,365,881	134.9	166.8
Braids and picture cords, etc.:					
Running yards.....	(³)	(³)	133,859,751	.....	.....
Value.....	\$716,296	\$2,922,850	\$1,268,252	175.5	130.5
Total value of carpets and rugs.....	\$56,861,775	\$43,582,772	\$46,464,417	30.5	16.2
Ingrain carpets, 2 and 3 ply, and ingrain art carpets:					
Square yards.....	39,818,986	42,352,500	36,726,370	16.0	15.3
Value.....	\$15,577,847	\$15,405,081	\$15,924,452	1.1	13.3
Tapestry and body Brussels, tapestry velvet, Wilton, Axminster, and Moquette carpets:					
Running yards.....	43,824,109	32,423,883	36,536,565	35.2	111.3
Value.....	\$30,703,823	\$21,036,996	\$27,125,980	46.0	122.4
All other carpets:					
Square yards.....	(²)	(²)	1,394,153	.....	.....
Value.....	(²)	(²)	\$451,486	.....	.....
Smyrna carpets and rugs:					
Square yards.....	3,828,282	3,651,661	(⁴)	4.8	.....
Value.....	\$4,134,500	\$3,680,618	\$2,700,718	12.3	36.3
All other rugs:					
Square yards.....	6,155,493	6,195,054	5,133,767	10.6	.....
Value.....	\$6,445,605	\$3,460,077	\$261,781	86.3	1,221.7
Total value of felt goods.....	\$8,626,266	\$5,364,289	\$4,214,524	60.8	27.3
Felt cloths, endless belts, trimmings, linings, etc.:					
Square yards.....	14,060,025	6,933,524	6,662,759	102.8	4.1
Value.....	\$5,733,699	\$3,078,949	\$2,930,199	86.2	5.1
All other felts, value.....	\$2,892,567	\$2,285,340	\$1,284,325	26.6	77.9
Wool hats:					
Dozens.....	446,121	823,425	1,046,461	145.8	121.3
Value.....	\$2,290,070	\$3,166,761	\$5,229,176	127.7	139.4
Total value of yarns and partially manufactured products.....	\$69,450,915	\$49,723,385	\$38,797,490	39.7	28.2
Wool-hat bodies:					
Dozens.....	31,712	56,006	(⁵)	143.4	.....
Value.....	\$205,491	\$120,262	(⁵)	70.9	.....
Woolen (all-wool), and woolen and worsted (union or merino) yarns:					
Pounds.....	56,648,835	49,796,682	41,362,993	13.8	20.4
Value.....	\$15,509,591	\$11,748,895	\$12,590,267	32.0	16.7

1 Decrease.

2 None reported.

3 Not reported.

4 In 1890 there were reported 1,430,036 Smyrna rugs, at a value of \$2,368,000, and 127,177 square yards of Smyrna carpet, at a value of \$332,718.

5 Number of rugs reported in 1890.

TABLE 25.—WOOL MANUFACTURES—PRODUCTS, BY KIND, QUANTITY, AND VALUE, WITH PER CENT OF INCREASE: 1890 TO 1905—Continued.

KIND.	CENSUS.			PER CENT OF INCREASE.	
	1905	1900	1890	1900 to 1905	1890 to 1900
Worsted yarn and tops, and mohair and similar yarns:					
Pounds.....	64,001,546	46,784,385	29,359,182	36.8	59.4
Value.....	\$45,310,533	\$32,095,805	\$22,397,721	41.2	43.3
Cotton yarn:					
Pounds.....	1,740,312	3,531,992	3,102,036	150.7	10.6
Value.....	\$342,438	\$527,046	\$632,340	135.0	116.7
Wool rolls, noils, waste, and all other partially manufactured products:					
Pounds.....	41,350,253	23,283,240	12,850,039	77.6	81.2
Value.....	\$8,082,862	\$5,231,377	\$3,175,653	54.5	64.7
Total value of hosiery and knit goods.....		\$21,463	\$36,034		140.4
Woolen, merino, and cotton half hose:					
Dozen pairs.....	(2)	4,290	2,438		76.0
Value.....	(2)	\$13,520	\$7,721		75.1
Woolen, merino, and cotton hose:					
Dozen pairs.....	(2)	908	9,147		100.1
Value.....	(2)	\$3,302	\$21,303		84.5
Gloves and mittens:					
Dozen pairs.....	(2)	1,238	1,031		135.9
Value.....	(2)	\$4,641	\$6,050		133.2
All other products.....	\$5,131,786	\$9,170,673	\$1,071,524	116.8	213.0
Amount received for contract work.....	\$1,188,933	\$1,613,054	\$154,337	126.3	945.2

(2) Decrease.

(2) None reported.

Net value of products.—In dealing with such an industry as that with which we are now concerned it is not merely difficult—it is impossible—to ascertain the net value of its products with more than an approach to accuracy. We are confronted with duplications of materials and products at every turn. Although it is a well-known fact that, as a general statement, the woolen and worsted yarns, waste, and noils which are the product of one mill are disposed of and used by other mills, it is not true that all such products are either subjected to further processes of manufacture, or if so used are consumed in the wool industry. For example, we may refer to the case of woolen yarns of which by far the largest part is consumed in weaving mills; but there are also large quantities in the aggregate sold in the shops to women who knit stockings and other articles in the household; and this Census report shows a consumption of millions of pounds of such yarns in knitting mills which are now removed entirely from the category of wool manufactures. It is probable, therefore, that we can do no better than to follow the rule for elimination of duplications which was adopted at the Twelfth Census. The rule is as follows: Deduct from the gross value of products the cost of all waste and noils; tops; woolen, worsted, and merino yarns; hat bodies and hats in the rough reported as materials; also the amount received for contract work reported under products. The total amount thus subtracted from the gross value for the present census is \$53,915,080, from which should be subtracted the duty paid value of foreign yarns (\$232,413) imported during the census year, which leaves a net value, according to this method of calculating it, of \$327,251,336. At the census of 1900 the amount deducted was \$41,026,641 and the net value, \$255,963,843. The gross value of products in 1905 is

28.3 per cent higher than in 1900, the amount deducted—which has increased from \$41,026,641 to \$53,682,667—has increased 30.8 per cent, which indicates that mills make use of about the same proportions of raw fibers and partly manufactured materials from year to year.

Classification of products.—In classifying establishments which are engaged in the wool manufacture it is a simple matter to make a distinct grouping of mills producing carpets and rugs, and of other mills which produce felt goods. It is not quite such a simple matter to make a clear and distinct line of division between those which should be classified as woolen and those which should be classified as worsted mills, inasmuch as there are many mills which employ both woolen and worsted yarn in their weaving, and a large number which are not only able to, but actually do, change as the market requires, from worsted to woolen or from woolen to worsted. It follows that we find considerable quantities of worsted goods produced in woolen mills and of woolen goods in worsted mills. It is of course only by a combination of the two that general and accurate results can be ascertained.

The productions of the wool manufacture are classified as at the former census by groups. The first group comprises all the piece goods, the quantity of which has increased from 399,141,585 square yards in 1900 to 476,206,439 square yards in 1905; the yardage increase is 77,064,854, or 19.3 per cent. In value the increase is from \$175,209,197 to \$225,056,781, or 28.5 per cent. In the second group—shawls, blankets, and carriage robes—there is also an increase of both quantity and value, whereas there was a decrease in both between 1890 and 1900. The increase in quantity is 7.2 per cent, and in value 15.8 per cent. These two groups form the general class of woven

goods, and comprise the whole of the class except a small amount of upholstery goods.

Woven goods.—Table 26 presents a classification of substantially the products of the first and second groups, but the small amount of woven goods produced in felt and carpet mills does not appear in the table. The amount so excluded in 1905 is only 191,581 square yards, which is less than one twenty-fifth of 1 per cent of the total.

TABLE 26.—*Woven goods produced in woolen and worsted mills, with per cent of increase: 1890 to 1905.*

CLASS.	Cen- sus.	Square yards.	Per cent of in- crease.	Value.	Per cent of in- crease.
Total.....	1905	505,821,056	18.6	\$234,737,036	28.1
	1900	428,572,856	12.0	183,306,664	8.2
	1890	381,004,461	.....	168,409,239	.....
All-wool, whether woolen or worsted.....	1905	240,597,488	20.4	158,300,336	34.5
	1900	216,359,702	66.3	117,757,169	44.1
	1890	130,115,152	.....	81,742,586	.....
Union or cotton mixed.....	1905	63,197,407	10.2	26,288,407	13.7
	1900	57,334,570	1.8	23,111,686	14.9
	1890	56,322,882	.....	24,304,966	.....
Cotton warp, with weft partly or wholly of wool, worsted, or hair (or cotton weft with warp of wool).....	1905	182,057,061	19.1	50,058,293	18.0
	1900	152,878,534	121.4	42,437,799	133.0
	1890	194,566,427	.....	63,361,687	.....

¹Decrease.

It will be seen not only that the total amount of woven goods has increased largely, but that the same is true of each class of such goods. It will be understood that the class "all-wool" includes all woven goods which are composed wholly of animal fiber, whether sheep's wool, hair, or shoddy. The "union or cotton mixed" comprises such fabrics as are composed of cotton carded with wool or other animal fiber and entering into the constitution of the same yarn. The other class consists of fabrics of which either the warp or the weft is chiefly or wholly cotton.

Still another classification shows in full detail the kind, quantity, value, and value per square yard of all woven cloths except carpets and rugs and upholstery goods reported in 1900 and 1905. The fabrics are distinguished as woolen and worsted, and the woolen goods are separately shown as all-wool; union, or cotton mixed with wool on the card; and woolen goods with cotton or part cotton warp. The totals differ slightly from those in the preceding statement for the reason that in the returns for both years the woven goods produced in felt and carpet mills are included in Table 27. The amount in each case was small; for 1905 it was 191,581 yards, valued at \$83,204; and for 1900 it was 376,947 yards, valued at \$331,102.

TABLE 27.—WOVEN FABRICS—KINDS DISTINGUISHED AS WOOLEN AND WORSTED, QUANTITY, VALUE, AND VALUE PER SQUARE YARD: 1905 AND 1900.

CLASS AND KIND.	1905			1900		
	Square yards.	Value.	Value per square yard (cents).	Square yards.	Value.	Value per square yard (cents).
Total woven goods.....	506,013,537	\$234,820,240	.....	426,049,803	\$183,637,766	.....
<i>Woolen goods.</i>						
Total, all-wool.....	133,333,399	73,106,066	.....	104,060,656	58,126,778	.....
Wool cloths, doeskins, cassimeres, chevots, tweeds, indigo flannels, and broadcloths, for men's wear.....	42,487,566	29,556,252	69.6	34,551,266	22,860,783	66.2
Woolen overcoatings, cloakings, kerseys, etc., for men's or women's wear.....	22,411,530	16,934,112	75.6	18,732,922	16,135,436	86.1
Wool dress goods, sackings, tricots, ladies' cloth, broadcloth, etc., for women's wear.....	48,889,643	19,832,687	40.6	33,597,692	12,978,546	38.6
Carriage cloths of all weights.....	1,741,765	964,557	55.4	1,220,408	696,999	57.1
Flannels for underwear.....	8,710,131	2,045,858	23.5	9,345,556	2,352,086	25.2
Blankets.....	7,414,563	2,793,284	37.7	5,465,277	2,325,307	42.5
Horse blankets.....	740,237	418,219	56.5	518,452	259,221	50.0
Carriage robes.....	42,187	93,727	222.2	28,979	17,877	61.7
Woven shawls.....	895,777	557,370	62.2	600,104	500,523	83.4
Total, union or cotton mixed.....	63,197,407	26,288,407	.....	57,334,570	23,111,686	.....
Unions, tweeds, chevots, cassimeres, or other goods for men's wear.....	35,103,110	15,050,726	42.9	30,767,915	13,695,830	44.5
Overcoatings and cloakings.....	5,373,053	3,353,758	62.4	6,087,366	3,518,613	57.8
Sackings, tricots, and dress goods for women's wear, opera and similar flannels.....	11,690,740	4,926,596	42.1	11,176,752	3,669,584	32.8
Flannels for underwear.....	7,273,761	1,528,928	21.0	6,217,094	1,284,578	20.7
Blankets.....	3,114,110	1,198,706	38.5	1,530,696	561,049	36.7
Horse blankets.....	618,800	222,543	36.0	1,094,537	223,943	20.9
Carriage robes.....	23,833	7,150	30.0	460,210	152,499	33.1
Total, cotton warp, wool filled.....	98,526,697	25,905,689	.....	84,326,910	22,592,812	.....
Wool filling cassimeres, doeskins, jeans, tweeds, coatings, suitings, and other cotton warp goods for men's wear.....	34,602,165	10,877,081	31.4	37,160,449	11,024,538	29.7
Wool filling overcoatings and cloakings.....	8,198,406	2,478,878	30.2	3,917,498	1,430,430	36.5
Astrakhans.....	.....	.....	.....	32,576	14,150	43.4
Satinets and linseys.....	22,343,617	4,077,233	18.2	13,051,729	2,873,181	22.0
Wool filling dress goods and repellents.....	12,139,080	3,230,561	26.6	7,496,898	1,890,483	25.2
Domest flannels and shirtings.....	4,285,838	769,476	18.0	4,555,013	976,465	21.4
Cotton warp blankets.....	9,340,589	2,250,089	24.1	11,159,532	2,314,003	20.7
Horse blankets.....	6,807,836	1,083,154	17.2	5,702,315	1,252,824	22.0
Carriage robes.....	1,300,168	1,139,217	87.0	1,250,900	816,733	65.3

TABLE 27.—WOVEN FABRICS—KINDS DISTINGUISHED AS WOOLEN AND WORSTED, QUANTITY, VALUE, AND VALUE PER SQUARE YARD: 1905 AND 1900—Continued.

CLASS AND KIND.	1905			1900		
	Square yards.	Value.	Value per square yard (cents).	Square yards.	Value.	Value per square yard (cents).
<i>Worsted goods.</i>						
Total, worsted.....	210,956,034	\$109,430,078	.....	181,227,667	\$70,806,480	.....
Worsted coatings, serges, and suitings for men's wear.....	59,592,811	56,731,196	95.2	54,033,079	43,003,550	79.6
Worsted overcoatings and cloakings.....	1,057,608	546,170	51.6	877,133	567,300	64.7
Worsted dress goods, cashmeres, serges, and other worsted goods for women's wear.....	66,428,825	27,802,181	41.9	57,712,080	16,316,392	28.3
Mohair dress goods.....	268,416	163,648	61.0	.....	.....	.....
Worsted filling cassimeres, dooskins, jeans, tweeds, coatings, suitings, and other cotton warp goods for men's wear.....	16,688,620	6,969,402	41.9	12,063,719	7,267,608	57.4
Worsted filling dress goods, delaines, cashmeres, serges, mohairs, alpacas, and other stuffs for women's wear.....	49,300,369	12,711,554	25.8	45,784,011	10,423,206	22.8
Linings, Italian cloths, and lustings.....	17,619,325	4,565,927	25.6	10,157,039	2,228,434	21.9

The separate returns of these fabrics for 1905 are shown in Table 46 at the end of this report.

The aggregate production of all-wool fabrics for 1905 was 133,333,399 square yards, having a value of \$73,196,066, which was 28.1 per cent more in quantity and 25.9 per cent more in value than at the census of 1900. The most important items in this class of goods are the first three mentioned in Table 27. The first and largest item according to value in the whole list of all-wool goods is that of wool cloths for men's wear, comprising cassimeres, chevots, broadcloths, etc. This item shows a considerable increase in quantity, 23 per cent, and a still larger increase, 29.3 per cent, in value. At the last census an increase of quantity during the decade 1890 to 1900 was noted, but a large reduction of average cost per square yard accompanied it. The average value in 1880 was 93.9 cents per square yard, which declined to 66.2 cents in 1900. The present returns show an average of 69.6 cents. Changes of this sort do not necessarily imply anything more than a small advance or decline in the cost of the raw material, and even a higher or lower market rate might be masked by a larger or smaller use of shoddy in the constitution of goods. It is to be noted that there has been an increase in the average value of three of the six classes of cloths for men's wear—wool cloths, etc.; unions, tweeds, etc.; wool filling cassimeres, etc.; satinets and linseys; worsted coatings, etc.; and worsted filling cassimeres, etc.—the three exceptions being unions, tweeds, etc.; satinets and linseys; and worsted filling cassimeres, etc. There was an increase in quantity of all except the wool filling cassimeres, etc. Combining the six classes, we find that the aggregate quantity in 1905 was 210,817,889 square yards, as compared with 182,228,757 square yards in 1900, and the value \$123,261,890 and \$100,725,390 in the two years, respectively. The large increase in the value of worsted coatings, amounting to almost 20 per

cent, is not accounted for by the increase in the price of wool, and seems to indicate a higher average quality.

In quantity the second largest group of fabrics consists of women's dress goods, which are in six classes: Wool dress goods, etc.; sackings, tricots, etc.; wool filling dress goods, etc.; worsted dress goods, etc.; mohair dress goods; and worsted filling dress goods, etc. The aggregate quantity in 1905 is reported at 188,717,073 square yards, against 155,767,439 square yards in 1900, with a value of \$68,667,227 in 1905 and \$45,278,216 in 1900—an increase of 21.2 per cent in quantity and 51.7 per cent in value. As between women's goods classified as woolen and worsted there has been an increase of 20,448,121 square yards of woolen stuffs, as compared with 12,501,513 square yards of worsteds, showing a larger proportional increase of woolens, which fact is again contrary to the general impression derived from trade circles. In average price there was a moderate increase in each of the classes of woolen goods and of worsted filling cassimeres, and a large increase in the case of pure worsteds.

Overcoatings and cloakings are in four classes—all-wool, union, cotton warp, and worsted—all of which, except the union goods, show an increase in quantity, accompanied in each case, except in that of union goods, by a considerable decrease in average value. The aggregate amount of such fabrics reported in 1905 was 37,040,657 square yards, and in 1900, 29,614,919 square yards. Their value was placed at \$23,312,918 in 1905, and at \$21,651,869 in 1900. The increase in quantity was 25.1 per cent, but in value only 7.7 per cent. By far the largest amount of overcoatings consists of those classed as all-wool. For obvious reasons the use of cotton, either in the form of cotton warp or as carded with wool, does not produce a popular fabric for outer wear in winter.

The manufacture of flannels seems to have remained almost stationary during the last census period. The aggregate quantity now reported, in the three classes—all-wool, union, and cotton warp—is 20,269,730 square yards, which compares with 20,117,663 square yards in 1900. The total value shows a decrease from \$4,613,129 in 1900 to \$4,344,262 in 1905. It is quite possible that neither of these comparisons, nor the totals on which they are based, should be regarded as significant, inasmuch as there are goods which are in reality flannels in every essential of yarn and weaving which, owing to changing fashions, sometimes are and sometimes are not classed as flannels.

The only other large group of products which it is necessary to consider in detail consists of blankets, which, likewise, are all in the category of woolen goods, and are in three classes—all-wool, union, and cotton warp. But they include a great variety of articles, from the finest all-wool blanket to the coarsest horse blanket chiefly or wholly of hair. Carriage robes are also properly included, although many goods of this class differ widely from an ordinary blanket. In the aggregate there has been but little change since 1900, either in quantity or value. Combining all these goods, we reach an aggregate of 28,911,321 square yards, as compared with 27,210,898 square yards in 1900, and a value of \$9,206,089 and \$7,929,056 in the two years, respectively. Of blankets proper, there were 19,869,262 square yards in 1905, valued at \$6,242,079, against 18,155,505 square yards, valued at \$5,200,959, in 1900; of horse blankets, 7,666,873 square yards, valued at \$1,723,916, in 1905, and 7,315,304 square yards, valued at \$1,740,988, in 1900; of carriage robes, 1,375,186 square yards, valued at

\$1,240,094, in 1905, and 1,740,089 square yards, valued at \$987,109, in 1900.

Miscellaneous products.—The third group of products of the wool industry, which includes such diverse articles as upholstery goods, braids, and picture cords, etc., shows an extraordinary variation. The quantity of upholstery goods diminished in 1900, as compared with 1890, by nearly seven-eighths, but in 1905 shows an amount almost six times as great as in 1900. The other item which in value was more than doubled between 1890 and 1900 is now only one-fourth as much as in 1900. As a result of this combination the group shows a decrease of 30.9 per cent as a whole.

Carpets and rugs.—The production of carpets and rugs constitutes one of the great branches of the wool industry. As in the case of the worsted manufacture, an increase in the importance of the industry has been shown at every census since the manufacture was undertaken in this country. How completely the home manufacturer has possessed himself of the American market is shown by the fact that whereas the present statistics show the manufacture of 82,670,843 square yards of carpets and rugs, valued at \$56,861,775, the amount of carpets and carpeting (which corresponds closely to the carpets and rugs of home manufacture) imported in the year ended June 30, 1904, was but 848,976 square yards, valued at \$2,798,148—but little more than 1 per cent of the home product in quantity and less than 5 per cent in value. As is well known, only the most costly carpets and rugs are imported in any considerable quantity. Table 28, which follows, shows the kind and quantity of carpets produced in the United States, as ascertained at each census beginning with 1880:

TABLE 28.—QUANTITY AND KIND OF CARPETS PRODUCED: 1880 TO 1905.

CENSUS.	Total carpets (running yards).	Ingrain, 2-ply (square yards).	Ingrain, 3-ply (square yards).	Ingrain, art (square yards).	Venetian (running yards).	Tapestry Brussels (running yards).	Body Brus- sels (running yards).	Wilton (running yards).
1905	83,643,095	30,492,156	3,065,795	6,261,035	.....	13,798,765	4,032,216	1,730,496
1900	74,673,638	136,608,292	13,222,557	2,328,906	.....	11,649,932	3,581,991	(2)
1890	74,643,733	132,918,659	3,251,368	553,513	.....	20,008,961	9,442,348	(2)
1880	39,282,634	121,986,434	1862,394	.....	1,984,201	9,441,195	4,077,190	(2)

CENSUS.	Tapestry vel- vet (running yards).	Wilton and Wilton velvet (running yards).	Axminster and Moquette (run- ning yards).	Cottage (square yards).	Dutch (square yards).	Rag (square yards).	All other (square yards).
1905	10,711,051	(2)	8,551,581	.....	.....	.....	.....
1900	5,706,754	4,782,835	6,702,371	.....	.....	.....	.....
1890	2,482,123	1,030,101	13,572,527	.....	.....	171,310	1,312,818
1880	60,000	157,629	303,366	241,220	12,000	157,005	.....

¹ Does not include a small quantity of carpet made in woolen mills.

² Wilton carpet was included in the class "Wilton and Wilton velvet" prior to 1905.

³ Carpet reported in 1905 as Wilton velvet included with tapestry velvet, and the classification of Wilton velvet abandoned.

The total number of running yards of carpet for 1905 is 83,643,095, as compared with 74,673,638 in 1900. There has been a slight decrease in one of the two great divisions of this manufacture, namely, ingrain carpets, the aggregate of which at this census was 39,818,986 square yards, against 42,249,755 square yards in 1900. This decrease, however, is much more than offset by a large increase in the amount of the three-quarter yard goods, comprising the Brussels, Wiltons, tapestries, and similar carpetings. The total running yards of these goods in 1905 was 43,824,109,

which is equivalent to 32,868,082 square yards, and brings the total to 72,687,068 square yards, which compares with 66,567,667 square yards in 1900 and 64,125,589 square yards in 1890. The increase in quantity in four years has been much greater than that in the preceding decade. Another table, herewith presented, brings together the quantities and values of the several kinds of carpets, as reported in 1900 and 1905, in such a way as to enable a comparison of the current average value of each class of goods at the censuses of 1900 and 1905.

TABLE 29.—CARPETS, BY KIND, QUANTITY, VALUE, AND VALUE PER YARD: 1905 AND 1900.

KIND.	1905			1900		
	Square yards.	Value.	Value per yard (cents).	Square yards.	Value.	Value per yard (cents).
Aggregate.....	72,687,068	\$46,281,670	.....	66,567,667	\$30,413,553	.....
Total.....	39,818,986	15,577,847	.....	42,249,755	15,370,557	.....
Ingrain, 3-ply.....	30,492,156	11,841,732	38.8	30,688,292	13,222,057	36.0
Ingrain, 3-ply.....	3,065,795	1,446,570	47.2	3,222,557	1,146,273	35.0
Ingrain, art.....	6,261,035	2,290,545	36.0	2,328,906	1,007,627	43.3
Total.....	<i>Running yards.</i> 43,824,109	30,703,823	.....	<i>Running yards.</i> 43,243,883	21,036,990	.....
Tapestry Brussels.....	18,798,705	9,955,043	53.0	11,649,932	5,520,065	47.4
Body Brussels.....	4,032,210	3,898,675	96.7	3,581,991	2,970,867	83.2
Wilton.....	1,730,406	2,726,067	157.6	(2)	(2)	.....
Tapestry velvet.....	10,711,051	7,754,081	72.4	5,706,754	3,743,353	65.6
Wilton and Wilton velvet.....	(3)	(3)	.....	4,782,835	4,030,842	84.3
Axminster and Moquette.....	8,551,581	6,368,757	74.5	6,702,371	4,762,260	69.6

1 Reported as three-fourths yard wide, equivalent to 32,868,082 square yards in 1905 and 24,317,912 square yards in 1900.
 2 Wilton carpet was included in the class of "Wilton and Wilton velvet" prior to 1905.
 3 Carpet reported in 1905 as Wilton velvet included with tapestry velvet and the classification of Wilton velvet abandoned.

The striking feature of the above statistics is the large but somewhat irregular advance in average value throughout the list, with the exception of art ingrain, in which cases peculiar conditions undoubtedly caused the variation. The extremely high cost of carpet wool in the year covered by the present census returns is ample explanation of the advance in the prices of carpets.

The distinction between carpets and rugs—those at least which are woven like the carpets mentioned in the preceding statement—is a shadowy one, for which there seems but one reason sufficient to cause their tabulation separately, namely, to show the increasing favor with which floor coverings woven in a single piece are held. At prior censuses a distinction was made between Smyrna carpets and Smyrna rugs. At the census of 1905 they have been combined and included under the subdivision of rugs. Table 30 presents a comparison of the kinds, quantity, and value of rugs reported in 1890, 1900, and 1905. Prior to the year 1900 the quantity was reported in the number of pieces. The adoption of the square yard as a standard gives an opportunity for the first time to make an intelligible comparison.

TABLE 30.—Production of rugs, by kind, quantity, and value: 1890 to 1905.

	1905	1900	1890
Total:			
Square yards.....	9,983,775	9,842,383	.....
Value.....	\$10,580,105	\$7,137,605	\$2,961,499
Tapestry—			
Square yards.....	2,009,834	18,750	.....
Value.....	\$1,509,673	\$9,000	.....
Wilton—			
Square yards.....	1,097,186	339,784	140,644
Value.....	\$1,983,777	\$545,967	\$87,702
Axminster and Moquette—			
Square yards.....	1,767,920	327,598	160,000
Value.....	\$2,107,383	\$342,262	\$66,000
Ingrain—			
Square yards.....	874,511	303,417	14,278
Value.....	\$494,912	\$168,324	\$34,262
Smyrna carpets and rugs—			
Square yards.....	3,828,282	3,051,661	(2)
Value.....	\$4,134,500	\$3,680,618	\$2,609,718
Other woollen rugs—			
Square yards.....	406,042	45,111,173	126,845
Value.....	\$369,800	\$2,301,434	\$73,517

1 Quantities in 1890 are all number of rugs instead of square yards.
 2 In 1890 there were reported 1,429,536 Smyrna rugs, at a value of \$2,367,000, and 127,177 square yards of Smyrna carpets, at a value of \$32,718.
 3 Does not include the value of a small quantity of rugs made in felt mills.
 4 Does not include a small quantity of rugs made in felt mills.

The number of square yards of rugs reported in 1905 is 9,983,775, an increase over 1900 of 141,392 square yards. Their value was \$10,580,105, as compared with \$7,137,605 in 1900. The general average

value per square yard is now \$1.06, against 73 cents in 1900, a result which is due partly to the very great increase in the amount of the highest priced goods manufactured, and partly to the higher cost of wool. The amount of Wilton rugs has increased from 339,784 square yards to 1,097,186, or more than three times as much, and that of Axminster and Moquette rugs, which was only 327,598 square yards in 1900, is now reported at 1,767,920 square yards, or nearly five and a half times as much.

Uniting the two classes, carpets and rugs, the aggregate quantity now reported is 82,670,843 square yards, as compared with 76,410,050 square yards in 1900, an increase of 8.2 per cent. There has been a decline in the amount of ingrain carpets and rugs of 1,949,675 square yards, but an increase in the amount of all classes of three-quarter yard goods; the largest increases are in the tapestries.

Felt goods.—The production by felt goods mills included 191,581 square yards of various kinds of woolen and worsted goods, valued at \$83,204. The felt mills are evidently operating less and less upon such goods, as the quantity reported in 1900 was 347,916 square yards, of a value of \$312,235. In the production of felt goods proper the industry shows a gratifying growth as Table 31 indicates.

TABLE 31.—*Felt goods, by kind, quantity, and value: 1905 and 1900.*¹

KIND.	1905		1900	
	Quantity.	Value.	Quantity.	Value.
Total		\$8,293,093		\$5,285,074
Felt cloth, square yards	3,689,610	1,830,627	2,056,002	548,543
Endless belts, pounds	1,770,124	1,707,216	21,114,357	1,020,835
Boot and shoe linings, square yards	2,823,137	781,450	1,052,538	540,110
Hair felting, square yards	605,214	191,998	125,000	56,950
Trimming and lining felts, square yards	5,145,340	1,188,908	2,469,530	796,718
All other felts		2,592,894		2,261,918

¹This table does not include a small quantity of felt goods made by other branches of the wool industry.

²Reported in square yards in 1900.

There has been a large increase in square yards in every class of felt goods, amounting to 79.5 per cent in felt cloths, 168.2 per cent in boot and shoe linings, 384.2

per cent in hair feltings, and 108.3 per cent in trimming and lining felts. The increase in endless belts can not be stated, as the amount was reported in square yards in 1900 and in pounds in 1905. Inasmuch as the total increase in reported value was only 56.9 per cent, the indication is that on the whole a lower scale of prices prevailed.

Wool hats.—The production of the establishments manufacturing wool hats shows a decrease. The number of hats reported in 1905 is 446,121 dozens, valued at \$2,290,070, as compared with 811,425 dozens, valued at \$3,161,361, in 1900. These mills also produced 300 dozens of "fur hats," now classified as felt hats, valued at \$5,400, in 1905, against 43,994 dozens, valued at \$285,705, in 1900. There was also a large decrease in the number and value of wool hat bodies and hats in the rough.

Partially manufactured products.—The items constituting the group of partially manufactured goods embrace yarns, noils, waste, shoddy, and wool hat bodies and hats in the rough. The several kinds of yarn are by far the most important products of the group, the production of which in 1900 amounted to 100,113,009 pounds, and has now reached the amount of 122,390,693 pounds, or an increase of 22.3 per cent.

DIVISIONS OF THE WOOL INDUSTRY.

The five subdivisions of the wool industry, as classified by the trade and in the census statistics, are worsted goods, woolen goods, carpets and rugs, felt goods, and wool hats.

Worsted goods.—The worsted industry, which was hardly known in 1860, when there were but three mills of this class in the country, has grown with extraordinary rapidity, and in 1900 for the first time exceeded the class of woolen goods in the amount of capital employed, the cost of materials, and the value of products. It was and is still inferior to the older branch in the number of wage-earners and the amount of their compensation, but the margin has become so small that undoubtedly at the next enumeration it will have taken first rank in these respects. Table 32 shows the leading facts regarding the worsted industry at each enumeration from 1860 to 1905.

TABLE 32.—WORSTED GOODS—COMPARATIVE SUMMARY, WITH PER CENT OF INCREASE: 1860 TO 1905.

	CENSUS.						PER CENT OF INCREASE.				
	1905	1900	1890	1880	1870	1860	1900 to 1905	1890 to 1900	1880 to 1890	1870 to 1880	1860 to 1870
Number of establishments	226	186	143	76	102	3	21.5	30.1	88.2	125.5	3,300.0
Capital	\$162,464,929	\$132,168,110	\$68,085,116	\$20,374,043	\$10,085,778	\$3,230,000	22.9	94.1	234.2	102.0	212.3
Salaries of officials, clerks, etc., number	1,847	1,363	2,615	(²)	(²)	(²)	34.9	122.0	.....	.....	.....
Salaries	\$2,904,960	\$2,342,218	\$935,217	(²)	(²)	(²)	24.0	150.4	.....	.....	.....
Wage earners, average number	60,251	57,008	42,978	18,803	12,920	2,378	21.5	32.6	128.6	45.5	443.3
Total wages	\$26,269,787	\$20,092,738	\$14,944,966	\$5,683,027	\$4,368,857	\$543,684	30.7	34.4	163.0	30.1	703.6
Men 16 years and over	29,883	25,595	19,071	6,435	3,864	1,101	16.8	34.2	196.4	66.5	251.0
Wages	\$14,493,965	\$11,300,071	\$8,430,625	(²)	(²)	(²)	28.3	34.0	.....	.....	.....
Women 16 years and over	32,130	25,829	20,082	9,473	7,152	1,277	24.4	28.6	112.0	32.5	460.1
Wages	\$10,379,154	\$7,831,109	\$5,877,717	(²)	(²)	(²)	32.5	38.2	.....	.....	.....
Children under 16 years	7,238	5,584	3,825	2,805	1,904	(²)	29.6	46.0	32.1	52.0	.....
Wages	\$1,300,668	\$961,558	\$636,624	(²)	(²)	(²)	45.3	51.0	.....	.....	.....
Miscellaneous expenses	\$8,301,579	\$6,767,611	\$4,917,760	(²)	(²)	(²)	22.7	37.6	.....	.....	.....
Cost of materials used	\$109,658,481	\$77,075,222	\$50,706,769	\$22,013,628	\$14,208,198	\$2,442,775	42.3	52.0	130.3	53.9	485.7
Value of products	\$165,745,052	\$120,314,344	\$79,194,652	\$33,549,942	\$22,090,331	\$3,701,378	37.3	51.9	136.1	51.9	406.8
Number of spindles	1,618,207	1,371,026	755,080	240,118	200,517	(²)	18.0	81.6	214.5	19.7	.....
Number of looms	30,910	26,372	19,065	14,411	9,128	(²)	17.2	38.1	32.5	135.2	.....
Number of combing machines	1,312	1,194	673	288	161	(²)	9.9	77.4	133.7	78.9	.....

¹ Decrease.
² Includes proprietors and firm members, with their salaries; number only reported in 1900 and 1905, but not included in this table.
³ Not reported separately.
⁴ Not reported.

The number of establishments has increased in the interval between the last two censuses from 186 to 226, and the capital employed from \$132,168,110 to \$162,464,929. The average capital per establishment is a little short of \$720,000, which is in striking contrast to the average capital of woolen mills—\$177,000—and even this average capital of woolen mills has been increased during the last five years by the dropping out of more than 200 small establishments. The total capital of worsted mills has increased by 22.9 per cent, the number of wage-earners by 21.5 per cent, and their total wages by 30.7 per cent. The rate of increase in the cost of materials used and the value of products is almost twice as great as the above percentages—in the case of materials, 42.3 per cent; in the products, 37.8 per cent. The worsted industry consumed by far the largest amount of wool, and that of the highest price; and much the smallest amount—save in the cases of felt goods and wool hats—of any materials that may be denominated adulterants. The quantity of scoured wool reported as consumed amounted to 139,173,774 pounds, which was very nearly one-half the total consumption by all branches of the industry, namely, 282,194,618 pounds. The cost of this wool “in condition purchased” was \$62,734,716, out of a total consumption by all branches of \$119,748,779 in value. The total weight of all other fibers purchased in the raw state consumed in worsted mills, with the single exception of cotton, was 5,740,249 pounds, which was

only 4.1 per cent of the weight of scoured wool—a fact which bears abundant testimony to the purity of the goods produced in the worsted mills. Undoubtedly a large part of such other materials was used by the worsted mills in the production of woolen goods, of which, in the aggregate, they made a large amount.

Woolen goods.—The card wool branch of the wool industry is the great historic branch, and the production of worsted yarn and worsted goods upon anything like the scale upon which it is now seen is comparatively recent. But a change of taste which bids fair to be permanent has caused a great invasion of many branches of the woolen industry by the producers of worsted goods. An inspection of Table 33, which follows, suggests that there was a considerable increase in the production of woolen goods in 1905 as compared with 1900. In the report at the last census it was noted that the largest production of woollens reported at any census year was in 1880, and the figures for 1890 and 1900 showed a decrease in both decades. It will be seen that the expectation then expressed has not been verified by the statistics presented for 1905, although the number of establishments reporting is only 792 as compared with 1,035 in 1900—a decrease of 23.5 per cent, which has already been explained as a result of omitting from the statistics custom carding mills and of the discontinuance of operations by small and unprofitable mills. Almost every other item in the summary shows an increase.

TABLE 33.—WOOLEN GOODS—COMPARATIVE SUMMARY, WITH PER CENT OF INCREASE: 1850 TO 1905.

	CENSUS.							PER CENT OF INCREASE.					
	1905	1900	1890	1880	1870	1860	1850	1900 to 1905	1890 to 1900	1880 to 1890	1870 to 1880	1860 to 1870	1850 to 1860
Number of establishments.....	792	1,035	1,311	1,090	2,891	1,260	1,559	23.5	121.1	134.1	131.2	129.4	119.2
Capital.....	\$140,302,488	\$124,380,262	\$130,939,940	\$96,095,564	\$98,824,531	\$30,862,654	\$28,118,650	12.8	15.0	36.3	12.8	220.2	9.8
Salaries of officials, clerks, etc., number.....	2,477	2,246	2,456	(¹)	(²)	(³)	(³)	10.3	17.8	.....	.....	.....	.....
Salaries.....	\$3,430,855	\$2,934,048	\$2,339,737	(³)	(³)	(³)	(³)	16.9	25.4	.....	.....	.....	.....
Wage-earners, average number.....	72,747	88,853	76,915	86,504	80,053	41,360	39,252	5.6	10.4	111.1	8.1	93.6	30.7
Total wages.....	\$28,827,536	\$24,757,093	\$26,159,194	\$25,836,392	\$26,877,575	\$9,610,254	(³)	16.4	15.3	1.2	13.9	179.7	.....
Men 16 years and over.....	44,452	40,601	42,150	40,978	42,728	24,841	(³)	9.5	13.6	110.3	9.9	72.0	0.6
Wages.....	\$19,850,052	\$16,913,731	\$17,059,323	(³)	(³)	(³)	(³)	17.4	10.9	.....	.....	.....	.....
Women 16 years and over.....	24,552	24,535	30,139	29,372	27,682	16,519	16,574	0.1	18.6	2.7	6.1	67.6	10.3
Wages.....	\$8,184,449	\$7,218,057	\$8,371,274	(³)	(³)	(³)	(³)	13.4	13.8	.....	.....	.....	.....
Children under 16 years.....	8,743	3,757	4,626	10,154	9,643	(³)	(³)	10.4	18.8	154.4	5.3	.....	.....
Wages.....	\$793,055	\$625,188	\$708,597	(³)	(³)	(³)	(³)	26.9	11.8	.....	.....	.....	.....
Miscellaneous expenses.....	\$8,218,766	\$7,248,634	\$8,402,624	(³)	(³)	(³)	(³)	13.1	13.5	.....	.....	.....	.....
Cost of materials used.....	\$57,830,825	\$71,011,956	\$82,270,335	\$100,845,611	\$96,432,601	\$36,586,287	\$25,755,991	23.7	13.7	118.4	4.6	163.6	42.0
Value of products.....	\$142,196,658	\$118,430,158	\$133,577,977	\$160,636,721	\$155,405,358	\$61,894,986	\$43,207,545	20.1	11.3	116.8	3.3	151.1	43.3
Number of spindles.....	2,129,727	1,906,581	1,815,380	1,759,746	1,845,496	(³)	(³)	11.7	5.0	3.3	14.8	.....	.....
Number of looms.....	32,957	34,881	39,118	35,634	34,183	(³)	(³)	15.5	10.8	9.8	4.2	.....	.....

¹ Decrease.
² Includes proprietors and firm members, with their salaries; number only reported in 1900 and 1905, but not included in this table.
³ Not reported separately.
⁴ Not reported.

Although the number of establishments has decreased by 243, the capital has increased by \$15,916,226, a consequence of the establishment of a small number of very large corporations. The number of wage-earners has increased 5.6 per cent, the total wages 16.4 per cent, the cost of materials 23.7 per cent, and the value of products 20.1 per cent. The number of spindles is 223,146 greater than in 1900, an increase of 11.7 per cent, but the number of looms has decreased by 1,924—an apparently somewhat singular and anomalous change, but it is undoubtedly to be explained by two facts—the discontinuance of small mills and the introduction of improved and efficient machinery in the new establishments.

The indication of these figures, as has been observed, does not bear out the situation as it has appeared to the trade and to trade papers; but it may be said in explanation of these statistics, that they indicate merely an increase in the calendar year 1904 over the twelve-month from June 1, 1899, to May 31, 1900. The earlier year was, as is well known, a year of light

production comparatively, and the year 1904 was a much better year for the woolen industry than that which preceded or than that which followed it; in fact, this branch of the manufacture since the census year 1904 has been in an extremely unsatisfactory condition.

Turning now to the consumption of materials and the products of woolen mills we find that at the census of 1905 they used 157,335,727 pounds of wool “in condition purchased,” as compared with 150,200,616 pounds in 1900, an increase of 4.8 per cent. The quantity of shoddy has apparently increased by 49.1 per cent—from 66,855,105 pounds to 99,694,747 pounds. It has already been suggested that this increase is probably much less than this in consequence of the amount shown in 1900 having been partly estimated, whereas the amount now given rests entirely upon actual returns.

Carpets and rugs.—The carpet and rug industry has made large progress during the last five years, as indicated by the following comparative summary:

TABLE 34.—CARPETS AND RUGS, OTHER THAN RAG—COMPARATIVE SUMMARY, WITH PER CENT OF INCREASE: 1860 TO 1905.

	CENSUS.						PER CENT OF INCREASE.				
	1905	1900	1890	1880	1870	1860	1900 to 1905	1890 to 1900	1880 to 1890	1870 to 1880	1860 to 1870
Number of establishments.....	139	133	173	195	215	213	4.5	123.1	111.3	19.3	0.9
Capital.....	\$56,781,074	\$44,449,299	\$38,208,842	\$21,468,687	\$12,540,750	\$4,721,768	27.7	16.3	78.0	71.2	165.6
Salaries of officials, clerks, etc., number.....	1,023	687	385	(¹)	(²)	(³)	48.9	78.4	.....	.....	.....
Salaries.....	\$1,396,691	\$881,368	\$510,857	(³)	(³)	(³)	58.5	72.5	.....	.....	.....
Wage-earners, average number.....	23,221	28,411	28,736	20,371	12,098	6,681	16.9	11.1	41.1	68.4	81.1
Total wages.....	\$13,724,233	\$11,121,383	\$11,122,259	\$6,835,218	\$4,681,718	\$1,545,692	23.4	(³)	62.7	46.0	202.9
Men 16 years and over.....	16,930	13,860	13,655	10,104	6,808	3,910	22.2	1.5	35.1	48.4	74.1
Wages.....	\$8,271,441	\$6,651,180	\$6,510,457	(³)	(³)	(³)	24.4	2.2	.....	.....	.....
Women 16 years and over.....	14,408	12,468	13,076	8,570	4,316	2,771	15.6	14.0	52.0	98.6	55.8
Wages.....	\$5,084,201	\$4,113,142	\$4,248,249	(³)	(³)	(³)	23.6	13.2	.....	.....	.....
Children under 16 years.....	1,883	2,083	2,005	1,697	974	(³)	19.6	3.9	18.2	74.2	.....
Wages.....	\$368,591	\$337,061	\$363,553	(³)	(³)	(³)	3.2	1.8	.....	.....	.....
Miscellaneous expenses.....	\$4,162,146	\$2,751,879	\$1,819,441	(³)	(³)	(³)	51.2	51.3	.....	.....	.....
Cost of materials used.....	\$37,947,954	\$27,228,719	\$28,644,905	\$18,984,877	\$13,577,993	\$4,417,686	30.4	14.9	50.9	39.8	207.3
Value of products.....	\$61,586,433	\$48,192,351	\$47,770,193	\$31,792,802	\$31,761,573	\$7,867,636	27.8	0.9	50.3	46.1	176.9
Number of spindles.....	255,347	209,206	208,858	115,100	(³)	(³)	22.1	0.2	81.4	.....	.....
Number of looms.....	13,853	12,511	11,235	7,252	5,426	(³)	10.7	11.4	54.9	33.7	.....

¹ Decrease.
² Includes proprietors and firm members, with their salaries; number only reported in 1900 and 1905, but not included in this table.
³ Not reported separately.
⁴ Less than one-tenth of 1 per cent.
⁵ Not reported.

The amount of capital shows the large increase of 27.7 per cent; the number of wage-earners an increase of 16.9 per cent; the amount of wages, 23.4 per cent; cost of materials, 39.4 per cent; and the value of products, 27.8 per cent. These last two items emphasize the fact, which has already been brought out otherwise, that the industry has had to deal during the last five years with a puzzling problem in the matter of a great increase in the price of carpet wool. The total amount of wool used "in condition purchased" was 51,320,521 pounds at a cost of \$10,431,146, as compared with 51,871,334 pounds, valued at \$8,104,107, in 1900; from which it appears that whereas the quantity used has decreased about 1 per cent, the cost has increased 28.7 per cent. The quantities of materials used in the carpet manufacture at the last three census periods are indicated in Table 35.

TABLE 35.—Materials used in the carpet manufacture: 1890 to 1905—Continued.

	1905 (pounds).	1900 (pounds).	1890 (pounds).
Worsted yarn.....	11,355,693	9,218,267	10,555,799
Merino yarn.....	1,036,138	237,070	.....
Cotton yarn.....	27,421,831	19,825,561	17,920,498
Linen yarn.....	8,228,200	8,388,211	9,719,242
Jute and other yarns.....	40,195,558	39,034,827	23,852,517
Foreign and domestic wool, scoured....	31,551,805	37,560,231	35,726,837

TABLE 35.—Materials used in the carpet manufacture: 1890 to 1905.

	1905 (pounds).	1900 (pounds).	1890 (pounds).
Total.....	196,241,691	172,973,472	145,556,699
Foreign wool, in condition purchased..	50,463,653	51,761,523	54,742,234
Domestic wool, in condition purchased..	856,868	109,811	2,130,332
Hair, all kinds.....	9,805,802	6,189,757	4,647,025
Cotton.....	1,907,369	1,943,942	1,725,761
Tailors' clippings, rags, etc.....	371,822	(¹)	(¹)
Shoddy.....	2,207,806	744,233	598,512
Waste, noils, and tops.....	3,770,251	2,525,054	892,548
Woolen yarn.....	32,431,400	32,996,316	18,763,201

¹Not reported separately.

The amount of wool "in condition purchased" shows very little decrease from 1900 to 1905—only 1 per cent—but the amount of scoured wool shows a decrease amounting to 16 per cent, indicating that on the average there was a much larger shrinkage of wool in its preparation for the spindle. The total quantity of all fibrous materials used, treating the wool as "in condition purchased" instead of as scoured, was 196,241,691 pounds, an increase of a little more than 23,000,000 pounds, as compared with 1900. Ten million pounds of this increase was chiefly jute yarn, 2,000,000 pounds in round numbers was worsted yarn, and 1,500,000 pounds was shoddy. The other changes were unimportant.

Table 36 shows the number of looms in carpet factories in each of the last three census years, classified according to the character of the goods manufactured.

TABLE 36.—CARPET MANUFACTURES—LOOMS: 1890 TO 1905.

CENSUS.	Aggreg- gate.	LOOMS ON CARPETS AND RUGS.																LOOMS ON WOOLEN OR WORSTED GOODS.			
		Total.	Power.	Hand.	Ingrains.				Venetian.		Tapestry.		Body Brush- sels (power).	Wilton (power).	Ax- min- ster (power).	Mo- quette (power).	Rug.		Power.		Hand.
					Power.	Hand.	Broad.		Power.	Hand.	Brush- sels (power).	Velvet (power).					Power.	Hand.	Broad.	Nar- row.	
							Power.	Hand.													
1905.....	13,853	11,692	11,002	690	4,180	82	412	42	88	3	1,207	1,047	540	630	1,300	127	1,438	563	805	1,356	.....
1900.....	12,511	10,754	9,798	1,048	4,354	92	240	1	80	.....	1,054	737	544	507	611	150	1,383	955	814	897	46
1890.....	11,235	10,808	8,300	2,508	4,214	631	.....	.....	109	157	1,498	58	1,224	62	95	462	578	1,810	104	44	99

The total number of looms has increased from 12,511 in 1900 to 13,853 in 1905; the carpet looms, from 10,754 to 11,692. There has been an increase in the number of power looms of 1,296, but a decrease of hand looms of 358. There were less than a third as many hand looms reported at this census as at that of 1890. Of the 690 hand looms reported for 1905, 563 were employed in the manufacture of Smyrna rugs, and 403 of them were operated in New Jersey and 143 in

Pennsylvania. In fact the use of hand looms is confined almost exclusively to these two states, which report 617 out of the total of 690.

Felt goods.—The felt goods industry is not large in comparison with the three branches which have already been mentioned, but it is a growing industry. Table 37 gives the principal facts in relation to it at the censuses of 1890, 1900, and 1905.

MANUFACTURES.

TABLE 37.—Felt goods—comparative summary, with per cent of increase: 1890 to 1905.

	CENSUS.			PER CENT OF INCREASE.	
	1905	1900	1890	1900 to 1905	1890 to 1900
Number of establishments.....	39	36	34	8.3	5.9
Capital.....	\$9,667,136	\$7,125,276	\$4,400,621	35.7	59.7
Salaried officials, clerks, etc., number.....	201	136	1124	47.8	9.7
Salaries.....	\$350,594	\$231,065	\$157,916	51.7	46.3
Wage-earners, average number.....	3,254	2,688	2,142	21.1	25.5
Total wages.....	\$1,356,754	\$1,024,835	\$883,380	32.4	16.0
Men 16 years and over.....	1,957	1,957	1,474	39.1	32.8
Wages.....	\$1,135,013	\$820,637	\$721,796	38.3	13.7
Women 16 years and over.....	599	658	596	6.2	30.0
Wages.....	\$219,147	\$191,060	\$134,273	14.7	42.3
Children under 16 years.....	9	73	162	87.7	54.9
Wages.....	\$2,554	\$13,108	\$27,311	80.2	52.0
Miscellaneous expenses.....	\$612,756	\$356,164	\$232,871	72.0	52.9
Cost of materials used.....	\$5,754,026	\$3,801,028	\$2,809,937	51.4	35.3
Value of products.....	\$8,948,594	\$6,461,661	\$4,654,768	38.5	38.8
Number of spindles.....	17,817	24,286	13,829	26.6	75.6
Number of looms.....	265	284	210	16.7	35.2

¹Includes proprietors and firm members and their salaries; number only reported in 1900 and 1905, but not included in this table.

²Decrease.

The capital increased no less than 35.7 per cent during the five years; wage-earners, 21.1 per cent; wages, 32.4 per cent; cost of materials used, 51.4 per cent; and value of products, 38.5 per cent.

Table 37 indicates that there has been apparently a considerable decrease in the number of spindles and looms. The explanation is a simple one: like other branches of the wool industry some establishments classified as "felt goods" have made certain quantities of woven goods, the amounts of which are indicated in Table 46. Some of the mills of this class have gone out of business or have discontinued the production of woven goods since 1900, and in one case, at least,

a mill which was classified in 1900 as "felt goods" increased so largely its production of satinetts and overcoatings that its classification was changed, and its report was classified as woolen goods.

Wool hats.—Table 38 shows the leading facts relating to the wool hat industry from 1890 to 1905.

TABLE 38.—Wool hats—comparative summary, with per cent of increase: 1890 to 1905.

	CENSUS.			PER CENT OF INCREASE.	
	1905	1900	1890	1900 to 1905	1890 to 1900
Number of establishments.....	17	24	32	129.2	125.0
Capital.....	\$1,646,064	\$2,050,802	\$4,142,224	119.7	150.5
Salaried officials, clerks, etc., number.....	68	57	92	19.3	138.0
Salaries.....	\$94,245	\$66,766	\$113,968	41.2	141.4
Wage-earners, average number.....	1,503	2,108	3,500	128.7	139.8
Total wages.....	\$619,194	\$937,855	\$1,249,976	134.0	125.0
Men 16 years and over.....	1,030	1,358	2,220	124.2	138.8
Wages.....	\$487,013	\$727,253	\$980,030	133.0	125.8
Women 16 years and over.....	433	651	1,121	123.5	141.9
Wages.....	\$125,957	\$195,995	\$251,661	135.7	122.1
Children under 16 years.....	40	99	159	159.6	137.7
Wages.....	\$6,224	\$14,607	\$18,285	157.4	120.1
Miscellaneous expenses.....	\$293,208	\$185,644	\$249,568	57.9	125.6
Cost of materials used.....	\$1,369,810	\$2,042,202	\$2,802,041	132.9	127.1
Value of products.....	\$2,457,266	\$3,591,940	\$5,329,921	131.6	132.6

¹Decrease.

²Includes proprietors and firm members, with their salaries; number only reported in 1900 and 1905, but not included in this table.

In almost every particular the industry known as wool hats has declined during the last five years. A considerable number of establishments have gone out of business. Capital, the number of wage-earners, the amount of wages, the cost of materials, and the value of products all show a decline, which is, of course, wholly due to the small and decreasing demand for the product of these establishments.

FELT HATS.

At previous censuses the designation "fur hats" has been employed to denote this industry on account of the chief material entering into its products. But the term "felt hats" is so universal, both in popular use and in the trade, that it seemed advisable to adopt it.

A full account was given in the report at the Twelfth Census of the process of manufacturing such hats, and it is unnecessary at present to do more than to summarize the condition of the industry as disclosed at the census of 1905, and to note the progress made in the intervening period of five years.

Table 39 presents a summary of the leading statistics of the industry in 1900 and 1905:

TABLE 39.—Felt hats—comparative summary: 1905 and 1900.

	CENSUS.		Per cent of increase.
	1905	1900	
Number of establishments.....	216	171	26.3
Capital.....	\$23,258,104	\$16,701,308	39.3
Salaried officials, clerks, etc., number.....	1,367	726	88.3
Salaries.....	\$1,488,236	\$943,998	57.7
Wage-earners, average number.....	22,047	18,880	16.8
Total wages.....	\$11,282,237	\$9,119,264	23.7
Men 16 years and over.....	15,432	13,187	17.0
Wages.....	\$9,166,347	\$7,231,777	26.8
Women 16 years and over.....	6,166	5,436	13.4
Wages.....	\$2,035,685	\$1,840,454	10.6
Children under 16 years.....	449	257	74.7
Wages.....	\$80,205	\$47,033	70.5
Miscellaneous expenses.....	\$2,831,197	\$1,416,737	99.8
Cost of materials used.....	\$15,975,206	\$13,513,668	18.2
Value of products.....	\$36,629,353	\$27,811,187	31.7

Contrary to the situation in many other important classes of manufacture the number of establishments shows a considerable increase, the number now reporting being 216, as against 171 in 1900. New Jersey, Connecticut, Pennsylvania, and New York contain now, as then, the largest number of establishments. All but 19 of the 171 establishments reported in 1900 were in these 4 states; all but 29 of those reporting in 1905, out of 216, were in the same states. The number in New York has been almost trebled—from 15 to 43.

The capital employed shows the large increase of 39.3 per cent in five years—from a gross amount of \$16,701,308 in 1900 to \$23,258,104 in 1905. The increase is much the largest in Pennsylvania—from \$5,726,529 in 1900 to \$8,777,678 in 1905, or 53.3 per cent; but it exceeds 45 per cent in both New Jersey and New York. The increase was unimportant in Connecticut and in Massachusetts, which latter state ranks fifth among the states in the importance of this industry.

The average number of wage-earners has not increased at so rapid a rate as the capital employed, but although there was only a moderate increase in each of the states reporting, Pennsylvania exhibits an increase of no less than 60 per cent—from 2,890 to 4,619. In

the amount of wages there has been an increase of 23.7 per cent, indicating a higher average rate, although as in all such cases a variety of circumstances other than numbers and amount must be taken into consideration. Notwithstanding the varying rates of increase in the several states the order of the 4 leading states in the amount of wages is the same as at the census of 1900: New Jersey, Connecticut, New York, and Pennsylvania. It will be observed that this industry is essentially one in which men are employed. In 1900 and also in 1905 the proportion of men to the whole number of wage-earners was almost exactly 70 per cent, and of women, 28 per cent. The slight fractional decrease in each case is accounted for by the increase of the proportion of children from 1.4 to 2 per cent. Almost the entire increase in the number of children, it may be noted, took place in Pennsylvania.

The cost of materials used shows an increase of 18.2 per cent; the value of products increased from \$27,811,187 to \$36,629,353, or at the rate of 31.7 per cent—a remarkable increase for so short a period. In quantity wool hats manufactured in felt hat factories increased from 180 dozens in 1900 to 18,179 dozens in 1905; and felt hats from 1,882,372 dozens in 1900 to 2,611,875 dozens in 1905, or 38.7 per cent.

SHODDY.

There is, perhaps, no article produced in manufacture, no article used in manufacture, and no article in common use, that bears a reputation more undeserved than does shoddy. Its very name is a synonym for pretense and fraud. To the popular mind goods containing shoddy are not merely destitute of wearing quality, but are suggestive of the unwholesome second-hand clothing shop, and inspire one with apprehension lest the fabric should communicate loathsome disease to the wearer of apparel in which there is this substance of ill repute. All this is unwarranted by the facts, as all are aware who understand the shoddy process, the method of making use of shoddy, and the benefits which the use of it confers upon the user. It is not the case, as is too commonly supposed, that a garment—or the cloth which is made into a garment—is or can be composed wholly of shoddy. New wool or animal hair is always the basis of the yarn and a certain amount of shoddy is mixed with it on the card. The fiber is too short to be carded and spun alone. Then, too, the process of making shoddy is one which insures absolute cleanness and the destruction of all active germs, whether innocuous or pathogenic. And when the combination with wool has been completed the cloth into which the yarn is woven, although not so durable as the cloth made from new wool, is by no means so lacking in wearing quality as is commonly supposed, but is quite as warm and quite as comfort-

able as if it were made wholly of wool never before used, and the price at which garments containing shoddy can be produced make them a boon to the poor people who could not afford to buy clothing made of new wool.

There are several products of the shoddy industry which are classified according to the length of the fiber after the materials—wool waste and noils, tailors' clippings, rags, etc.—have been passed through the picker and the garnet machine. They are—and their relative value may be seen from the reported average value per pound as disclosed in the census statistics—shoddy and mungo, valued at 12.6 cents per pound; wool extract, 11.4 cents per pound; and flocks, 4.8 cents per pound. Flocks are practically wool dust, which is used largely in giving a surface to waterproof goods.

The industry is a growing one. It has increased apparently at a more rapid rate during the past five years than the wool industry proper. It may be that the rate of growth has not been so great as appears from the returns, inasmuch as the reports in 1900 were defective to a certain extent, and the estimates necessary to present the whole industry may have been beneath the truth. Table 40 gives a comparative statement of the leading facts relating to the industry, so far as ascertained, at each census period since 1860, with the rate of increase.

TABLE 40.—SHODDY—COMPARATIVE SUMMARY, WITH PER CENT OF INCREASE: 1860 TO 1905.

	CENSUS.						PER CENT OF INCREASE.				
	1905	1900	1890	1880	1870	1860	1900 to 1905	1890 to 1900	1880 to 1890	1870 to 1880	1860 to 1870
Number of establishments.....	97	105	94	73	56	30	17.6	11.7	28.8	30.4	80.7
Capital.....	\$5,804,164	\$5,272,929	\$3,754,063	\$1,165,100	\$815,950	\$123,500	10.1	40.5	222.2	42.8	500.7
Salaried officials, clerks, etc., number.....	172	130	144	(?)	(?)	(?)	23.7	13.5	.....	.....	.....
Wage-earners, average number.....	\$245,403	\$166,794	\$149,483	(?)	(?)	(?)	47.2	11.5	.....	.....	.....
Total wages.....	2,689	1,926	2,155	1,282	632	290	8.5	110.6	68.1	102.8	117.9
Men 16 years and over.....	\$834,822	\$748,948	\$707,069	\$460,326	\$198,372	\$54,124	11.5	5.9	76.6	101.8	266.5
Wages.....	1,625	1,425	1,252	695	419	141	14.0	13.8	80.1	65.9	197.2
Women 16 years and over.....	\$723,550	\$620,444	\$534,250	(?)	(?)	(?)	16.6	16.1	.....	.....	.....
Wages.....	458	480	865	466	171	149	14.6	144.5	74.4	190.1	14.8
Children under 16 years.....	\$110,242	\$124,004	\$168,549	(?)	(?)	(?)	111.1	126.4	.....	.....	.....
Wages.....	6	21	38	91	42	(?)	171.4	144.7	158.2	116.7	.....
Miscellaneous expenses.....	\$1,040	\$4,500	\$4,500	(?)	(?)	(?)	176.9	4.7	.....	.....	.....
Cost of materials used.....	\$461,527	\$293,149	\$238,094	(?)	(?)	(?)	57.4	23.1	.....	.....	.....
Value of products.....	\$6,055,751	\$4,875,192	\$6,003,035	\$3,366,650	\$1,068,603	\$227,925	24.2	118.8	78.3	266.4	382.0
	\$5,406,425	\$6,730,974	\$7,887,000	\$4,989,615	\$1,768,592	\$402,550	24.9	114.7	58.1	182.1	339.3

1 Decrease.

2 Includes proprietors and firm members, with their salaries; number only reported in 1900 and 1905, but not included in this table.

3 Not reported separately.

4 Not reported.

The number of establishments is smaller than in 1900, but the capital and most of the other items in the foregoing summary show an increase, the only exceptions being the number of women and children and their wages; the difference, however, is more than made up by the larger number of men. The rates of increase of the important items are: Capital, 10.1 per cent; wage-earners, 8.5 per cent; wages, 11.5 per cent; cost of materials, 24.2 per cent; value of products, 24.9 per cent.

The location of shoddy mills is dictated, to a certain extent, by the proximity to the source of supply of the material, but chiefly by the nearness to the market—that is, to the woolen mills that use their product. Of the 97 establishments now reported, 31 are in Massachusetts, 23 in Pennsylvania, 11 in New York, 6 in Connecticut, and 4 in New Jersey—75 in these 5 states, which are 5 of the 6 leading states in the woolen manu-

facture. The same 5 states which thus had 77.3 per cent of the number of establishments report 68.8 per cent of the capital employed, 72.4 per cent of the cost of materials, and 72 per cent of the value of products. Of the machinery, they had 78.5 per cent of the total number of cards, 77.3 per cent of the pickers, and 86.2 per cent of the garnet machines. The 22 establishments in other states than the 5 mentioned above were located as follows: In Ohio, 5; in Rhode Island, 4; in Vermont, 3; in Maine, 2; in California, 2; and 1 each in New Hampshire, Michigan, Illinois, Wisconsin, Georgia, and Tennessee. The number of establishments in the 5 leading states is the same as in 1900, and the decrease has been in the states where there is little or no manufacture of woolen goods.

Table 41 shows the raw material of the shoddy industry and the usable product of the mills.

TABLE 41.—SHODDY—PRINCIPAL MATERIALS AND PRODUCTS: 1905.

	MATERIALS.			PRODUCTS.	
	Pounds.	Cost.		Pounds.	Value.
Total.....	78,433,085	\$5,365,305	Total.....	63,789,807	\$7,704,915
Wool, foreign and domestic.....	507,492	127,927	Shoddy and mungo.....	54,401,295	6,831,689
Animal hair.....	505,000	14,154	Wool extract.....	6,375,768	727,912
Cotton.....	44,400	5,331	Flocks.....	2,968,203	143,536
Shoddy.....	187,100	12,385	Yarn and waste.....	44,541	1,778
Wool and other waste and noils and tops.....	8,177,996	609,567			
Tailors' clippings and rags.....	68,921,097	4,295,641			

Notwithstanding the economy of the process and the use of all available materials but little more than four-fifths of the material purchased, in weight, becomes salable product.

In order to show the full amount of shoddy and

mungo available for use in the census year the following tabular statement includes the production for sale and the production in mills for their own consumption. Wool extract and flocks, which can not be used for spinning with wool, are not included:

Total production of shoddy and mungo: 1905.

	Pounds.
Total.....	127,897,263
Made for sale by shoddy mills.....	54,401,295
Made for sale by wool manufacturers.....	1,733,974
Made for use in mill by wool manufacturers.....	70,801,994
Made for sale by other than textile mills.....	960,000

It may be mentioned that the whole of the shoddy used in the country is of domestic production. The amount of imported shoddy entered for consumption in the year ending June 30, 1905, was 50 pounds, and of mungo, 50 pounds.

Table 42 presents a comparative summary, by states, of the general facts of the shoddy industry from 1880 to 1905.

TABLE 42.—SHODDY—COMPARATIVE SUMMARY, BY STATES: 1880 TO 1905.

STATE.	Census.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		WAGE-EARNERS AND WAGES.								Miscellaneous expenses.	Cost of materials used.	Value of products.
				Number.	Salaries.	Total.		Men 16 years and over.		Women 16 years and over.		Children under 16 years.				
						Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.			
United States.	1905	97	\$5,804,164	172	\$245,403	2,089	\$834,822	1,625	\$723,540	458	\$110,242	6	\$1,040	\$461,527	\$0,055,731	\$8,406,425
	1900	105	5,272,029	139	166,704	1,626	748,048	1,425	620,444	450	124,004	21	4,500	253,149	4,875,192	6,730,974
	1890	94	3,754,063	144	140,483	2,155	707,009	1,252	534,250	865	108,540	38	4,300	238,094	6,063,035	7,837,000
	1880	73	1,165,100	(2)	(2)	1,282	400,320	605	(2)	496	(2)	91	(2)	(2)	3,303,050	4,989,615
California ¹	1900	3	10,225	.....	.....	8	3,040	8	3,940	.....	.....	.....	.....	580	9,150	17,678
Connecticut.....	1905	6	517,150	14	16,324	124	55,157	117	53,021	7	2,136	.....	.....	26,753	362,407	468,445
	1900	7	404,074	8	8,191	118	44,163	101	40,461	7	1,402	10	2,309	33,601	362,438	537,733
	1890	7	305,336	14	13,271	166	72,545	142	60,185	16	4,600	8	1,760	26,090	442,852	648,069
	1880	8	86,000	.....	.....	139	35,345	93	.....	38	.....	8	.....	.....	261,200	347,500
Illinois ²	1890	3	110,037	4	6,500	110	20,754	37	10,228	73	10,526	.....	.....	11,610	103,722	182,110
	1880	2	22,000	.....	.....	31	12,300	16	.....	12	.....	3	.....	.....	74,500	100,000
Massachusetts.....	1905	31	1,206,351	47	68,875	444	180,008	370	173,457	62	15,683	3	468	123,506	1,249,985	1,814,944
	1900	29	709,294	30	34,330	307	127,715	260	114,492	44	12,704	3	420	50,027	685,123	988,180
	1890	29	602,850	20	28,135	406	152,613	300	121,084	106	30,620	.....	.....	62,687	1,170,808	1,614,459
	1880	30	460,500	.....	.....	471	173,439	334	.....	105	.....	32	.....	.....	1,308,715	2,305,985
New Hampshire ³	1890	3	23,000	1	1,033	24	16,650	21	10,650	.....	.....	.....	.....	1,795	86,816	111,818
	1880	3	17,300	.....	.....	23	5,700	13	.....	8	.....	2	.....	.....	39,000	49,000
New Jersey.....	1905	4	541,103	16	26,600	223	87,134	183	76,088	40	10,146	.....	.....	38,043	563,886	866,268
	1900	4	538,936	15	30,100	156	56,027	128	40,445	28	6,582	.....	.....	25,798	526,492	685,048
	1890	4	103,225	10	8,150	117	35,605	64	26,480	40	8,225	4	900	20,150	301,113	389,640
	1880	1	35,000	.....	.....	30	25,000	10	.....	5	.....	15	.....	.....	80,734	137,500
New York.....	1905	11	514,140	18	20,008	195	79,558	166	72,195	29	7,363	.....	.....	47,607	406,690	701,954
	1900	9	320,861	7	0,130	167	65,730	137	58,695	28	6,781	2	263	18,122	310,783	443,529
	1890	12	482,520	10	17,300	173	60,061	140	54,654	27	4,707	6	640	11,640	343,012	471,478
	1880	7	32,700	.....	.....	78	33,610	43	.....	32	.....	3	.....	.....	321,220	407,590
Ohio.....	1905	5	622,447	21	37,088	426	158,352	268	121,479	158	36,873	.....	.....	60,124	948,155	1,230,267
	1900	6	1,307,746	35	55,225	474	164,579	229	102,736	245	61,843	.....	.....	69,259	1,077,520	1,478,712
	1890	3	744,530	12	20,100	684	162,000	179	80,260	485	81,340	20	1,000	28,200	1,100,480	1,377,500
	1880	1	250,000	.....	.....	246	40,000	30	.....	216	.....	.....	.....	.....	675,000	700,000
Pennsylvania.....	1905	23	1,216,336	34	42,792	300	142,188	274	120,772	83	20,844	3	572	74,880	1,713,379	2,204,279
	1900	20	972,070	34	24,746	308	148,240	285	126,604	80	21,064	3	572	57,728	1,069,044	1,448,886
	1890	18	640,382	37	34,716	302	116,459	211	92,183	91	24,276	.....	.....	50,305	1,205,253	1,633,770
	1880	11	180,000	.....	.....	143	47,431	90	.....	40	.....	13	.....	.....	510,977	656,895
Rhode Island.....	1905	4	67,056	.....	.....	43	10,752	42	10,544	1	208	.....	.....	9,155	60,007	113,433
	1900	9	228,930	3	3,400	131	56,307	127	55,006	4	1,301	.....	.....	23,828	360,126	515,043
	1890	10	104,250	14	10,498	132	51,516	129	50,580	3	930	.....	.....	22,278	1,165,235	1,350,792
	1880	6	40,600	.....	.....	83	18,500	51	.....	26	.....	6	.....	.....	137,054	195,045
Vermont ⁴	1905	3	435,384	9	9,576	123	49,146	86	38,722	37	10,424	.....	.....	32,445	463,567	630,865
	1900	3	245,982	1	1,000	93	45,345	67	38,142	26	7,203	.....	.....	7,609	208,712	382,852
	1880	2	15,000	.....	.....	15	3,896	10	.....	9	.....	.....	.....	.....	37,000	50,000
All other states.....	1905	10	384,179	13	23,240	151	53,027	110	47,362	41	6,565	.....	.....	19,014	197,975	357,070
	1900	9	285,811	6	3,576	104	36,803	83	30,833	18	5,034	3	936	6,591	165,889	232,704
	1890	5	67,933	4	3,780	41	15,206	26	12,046	15	3,250	.....	.....	3,264	83,679	107,343
	1880	2	11,000	.....	.....	23	5,005	9	.....	5	.....	0	.....	.....	21,350	34,500

¹ Includes proprietors and firm members, with their salaries; number only reported in 1900 and 1905, but not included in this table.

² Not reported separately.

³ Not reported.

⁴ Included in "all other states" in 1905 and 1900. No establishments reported in 1880.

⁵ Included in "all other states" in 1905 and 1900.

⁶ Included in "all other states" in 1890.

⁷ Includes establishments distributed as follows: California, 2; Georgia, 1; Illinois, 1; Maine, 2; Michigan, 1; New Hampshire, 1; Tennessee, 1; Wisconsin, 1.

⁸ Includes establishments distributed as follows: Georgia, 1; Illinois, 2; Indiana, 1; Maine, 2; New Hampshire, 2; Wisconsin, 1.

⁹ Includes establishments distributed as follows: California, 1; Maine, 2; Vermont, 1; Wisconsin, 1.

¹⁰ Includes establishments distributed as follows: Maine, 1; Maryland, 1.

WOOL SCOURING AND WOOL PULLING.

Among the minor industries tributary to the establishments in which wool is the chief raw material, the most important are wool scouring and wool pulling by independent establishments. By far the largest part of the scouring—a process to which all wool must be subjected before it can be used—is done in the mills which manufacture; and much less than one-half of the wool pulled from sheepskins is obtained by the concerns which make pulling wool their chief business. Inasmuch as all the wool used is scoured it is a matter of no importance whatever to learn what was the amount operated upon in the independent establishments reported. However, the Bureau of the Census estimates the amount treated at the census of 1905 at 81,495,099 pounds besides 769,500 pounds reported as scoured in a tanning and currying establishment, which is less than one-sixth of the wool reported as used in all the textile industries at the census of 1905. The general facts relating to the business of wool scouring in the establishments reported at the censuses of 1900 and 1905 are given in Table 43.

TABLE 43.—Wool scouring—comparative summary, with per cent of increase: 1905 and 1900.

	CENSUS.		Per cent of increase.
	1905	1900	
Number of establishments.....	27	25	8.0
Capital.....	\$1,187,716	\$1,061,123	11.9
Salaries of officials, clerks, etc., number.....	55	45	22.2
Salaries.....	\$77,694	\$72,011	7.9
Wage-earners, average number.....	779	720	8.2
Total wages.....	\$397,811	\$338,008	17.5
Men 16 years and over.....	702	646	8.7
Wages.....	\$375,578	\$310,924	18.5
Women 16 years and over.....	57	74	19.5
Wages.....	\$19,610	\$21,082	19.6
Children under 16 years.....	10	.....	.....
Wages.....	\$2,623	.....	.....
Miscellaneous expenses.....	\$149,155	\$102,030	40.2
Cost of materials used.....	\$214,624	\$193,826	10.7
Amount received for work done.....	\$1,052,909	\$889,809	18.3

¹Decrease.

All of the items in Table 43 show an increase, except the number of women employed and their wages. The changes are, however, quite unimportant. The practice of locating scouring mills in regions of wool production, as well as in the neighborhood of spinning mills, is illustrated by the addition of 1 mill each in Colorado, Arkansas, Minnesota, and Oregon; but 2 less are reported from California and 1 less from New Mexico than in 1900.

It should be said in explanation of two of the items in Table 43 that the cost of materials used does not include the value of the wool operated upon. It would have been impossible to obtain the facts necessary for an accurate statement of that amount, since some of the establishments scoured wool for the owners of the wool and had no knowledge of its cost, whereas others bought the wool and sold it after scouring. For the same reason the "amount received for work done," which is substituted for the usual "value of products," represents the aggregate of receipts for work done for

others and of profit on wool scoured on their own account.

The comparative summary for wool pulling is presented in Table 44.

TABLE 44.—Wool pulling—comparative summary, with per cent of increase: 1905 and 1900.

	CENSUS.		Per cent of increase.
	1905	1900	
Number of establishments.....	34	34	.....
Capital.....	\$2,534,029	\$944,715	168.2
Salaries of officials, clerks, etc., number.....	65	35	85.7
Salaries.....	\$74,415	\$35,422	110.1
Wage-earners, average number.....	681	475	43.4
Total wages.....	\$364,754	\$247,950	47.1
Men 16 years and over.....	680	475	43.2
Wages.....	\$364,394	\$247,950	47.0
Children under 16 years.....	1	.....	.....
Wages.....	\$360	.....	.....
Miscellaneous expenses.....	\$128,396	\$47,395	170.9
Cost of materials used.....	\$103,984	\$53,975	92.7
Amount received for work done.....	\$881,706	\$531,287	66.0

It will be observed that the capital, miscellaneous expenses, and one or two other items in Table 44 exhibit a much larger increase than is suggested by the increase in the amount of business. The apparent discrepancy is without special significance, inasmuch as it arises from the inability of some large concerns engaged in more than one industry to make an accurate division between them.

The estimate by the Bureau of the Census of the amount of wool pulled at the census of 1905 by the 34 establishments whose business is summarized in the table is 16,707,943 pounds, to which should be added 9,201,196 pounds reported as pulled under contract by tanning and slaughtering establishments, and 16,377,333 pounds of wool reported as a by-product by slaughtering and meat packing establishments—a total of 42,286,472 pounds. The estimate of the secretary of the National Association of Wool Manufacturers, made independently and without the benefit of the census returns, was 42,000,000 pounds. The close correspondence of the two estimates tends strongly to confirm the accuracy of both.

Tables 45 to 55, inclusive, which follow, are comparative and detailed summaries for the several industries embraced in this report.

Table 45 is a comparative summary for combined wool manufactures, by states and geographic divisions, from 1840 to 1905.

Table 46 presents detailed statistics for the combined wool industry and for each industry, 1905.

Tables 47 to 51 show the complete statistics for each of the 5 industries of the wool industry—worsted goods, woollen goods, carpets and rugs, felt goods, and wool hats—by states, 1905.

Table 52 is a summary of the felt hat industry, by states, 1905.

Table 53 is a summary of the shoddy industry, by states, 1905.

Tables 54 and 55 are summaries of the wool scouring and wool pulling industries, by states, 1905.

MANUFACTURES.

TABLE 45.—WOOL MANUFACTURES—COMPARATIVE SUMMARY.

	STATE.	Cen- sus.	Number of estab- lish- ments. ¹	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		WAGE-EARNERS AND WAGES.				
					Number.	Salaries.	Total.		Average number.		
							Average number.	Wages.	Men 16 years and over.	Women 16 years and over.	Children under 16 years.
1	United States.....	1905	1,213	\$370,861,691	5,016	\$8,177,345	179,976	\$70,797,524	94,841	72,222	12,913
2		1900	1,414	310,179,749	4,495	6,455,495	159,108	57,933,817	83,371	64,141	11,596
3		1890	1,693	245,886,743	* 3,652	* 4,057,695	154,271	54,339,775	78,550	64,944	10,777
4		1880	2,330	143,512,278	(*)	(*)	132,672	40,687,612	67,942	49,107	15,623
5		1870	3,208	121,451,059	(*)	(*)	105,071	35,928,150	53,400	39,150	12,521
6		1860	1,476	38,814,422	(*)	(*)	50,419	11,699,630	29,852	20,567	(*)
7		1850	1,675	31,971,631	(*)	(*)	45,438	(?)	26,550	18,879	(*)
8		1840	1,420	15,765,124	(*)	(*)	21,342	(4)	21,342	(*)	(*)
9	New England states.....	1905	482	215,695,277	2,576	3,984,006	98,263	40,549,544	55,704	36,929	5,630
10		1900	458	177,844,108	2,096	3,350,088	82,472	31,230,772	46,540	31,424	4,508
11		1890	518	134,627,725	1,316	1,837,640	77,747	28,190,048	34,939	31,138	4,286
12		1880	564	75,522,666	.....	.....	67,582	21,300,036	24,992	25,712	6,931
13		1870	675	63,856,145	.....	.....	54,851	19,588,984	36,493	22,605	5,784
14		1860	420	24,700,353	.....	.....	36,130	7,032,555	16,993	13,137	.....
15		1850	482	17,667,892	.....	.....	22,820	.....	11,980	10,540	.....
16		1840	489	9,259,935	.....	.....	11,268	.....	11,268	.....	.....
17	Maine.....	1905	74	17,960,418	263	405,728	8,937	3,599,570	5,614	3,009	314
18		1900	81	14,512,120	225	281,761	7,324	2,762,564	4,699	2,425	200
19		1890	78	9,456,830	126	136,841	5,067	1,824,670	3,162	1,755	150
20		1880	66	4,016,328	.....	.....	3,244	1,000,528	1,810	1,140	294
21		1870	103	4,187,745	.....	.....	3,104	1,065,151	1,562	1,287	225
22		1860	28	940,400	.....	.....	1,064	273,596	565	499	.....
23		1850	36	467,600	.....	.....	624	.....	310	314	.....
24		1840	24	316,105	.....	.....	532	.....	532	.....	.....
25	New Hampshire.....	1905	44	14,411,232	207	257,372	6,581	2,755,062	3,743	2,655	183
26		1900	45	11,250,265	131	166,074	5,461	2,045,316	3,130	2,201	130
27		1890	52	12,015,721	120	161,508	5,102	2,160,657	3,160	2,758	184
28		1880	61	7,150,855	.....	.....	5,599	1,701,619	2,811	2,284	504
29		1870	82	5,626,100	.....	.....	5,081	1,788,894	2,259	2,328	494
30		1860	54	2,647,300	.....	.....	2,655	687,746	1,291	1,364	.....
31		1850	61	2,437,700	.....	.....	2,127	.....	926	1,201	.....
32		1840	66	740,345	.....	.....	893	.....	893	.....	.....
33	Vermont.....	1905	17	5,659,649	98	152,600	2,235	922,825	1,565	624	46
34		1900	24	3,202,151	57	78,525	1,557	603,963	1,060	470	27
35		1890	29	3,394,352	44	42,475	1,541	582,965	603	601	37
36		1880	44	2,300,161	.....	.....	2,084	544,138	1,171	783	130
37		1870	66	2,330,000	.....	.....	1,895	640,628	935	759	201
38		1860	46	1,746,300	.....	.....	2,073	214,572	895	1,178	.....
39		1850	72	886,300	.....	.....	1,303	.....	683	710	.....
40		1840	95	1,406,950	.....	.....	1,450	.....	1,450	.....	.....
41	Massachusetts.....	1905	202	112,437,120	1,176	1,920,568	40,576	20,475,603	27,741	19,027	2,808
42		1900	195	60,128,754	1,048	1,710,084	42,069	16,057,840	23,668	16,420	2,286
43		1890	219	66,568,586	624	926,458	37,739	13,732,316	20,336	15,391	1,712
44		1880	214	36,764,000	.....	.....	34,717	11,027,822	17,588	14,060	3,069
45		1870	226	26,722,100	.....	.....	28,025	9,809,718	13,228	11,961	2,836
46		1860	147	14,005,853	.....	.....	15,638	3,658,589	8,964	6,674	.....
47		1850	119	9,059,342	.....	.....	11,130	.....	6,167	4,963	.....
48		1840	144	4,179,850	.....	.....	5,076	.....	5,076	.....	.....
49	Rhode Island.....	1905	82	45,599,808	436	654,412	21,610	9,102,479	11,060	8,624	1,896
50		1900	78	41,307,542	407	750,404	17,854	6,721,040	9,141	7,230	1,483
51		1890	69	24,310,743	246	333,073	17,541	6,228,686	8,703	7,111	1,727
52		1880	61	13,016,116	.....	.....	12,125	3,708,257	5,871	4,387	1,567
53		1870	76	10,467,500	.....	.....	7,894	2,869,492	3,644	3,184	1,066
54		1860	58	3,169,000	.....	.....	4,232	1,069,728	2,594	1,638	.....
55		1850	45	1,013,000	.....	.....	1,758	.....	987	771	.....
56		1840	41	685,350	.....	.....	961	.....	961	.....	.....
57	Connecticut.....	1905	63	19,627,044	376	574,226	9,324	3,693,705	5,951	2,990	383
58		1900	65	17,412,846	218	303,140	8,207	3,040,040	5,147	2,678	382
59		1890	71	18,971,468	150	236,894	9,757	3,630,754	5,759	3,522	476
60		1880	88	12,255,206	.....	.....	9,813	3,322,672	5,688	3,058	1,067
61		1870	117	14,571,000	.....	.....	8,852	3,413,101	4,804	3,086	962
62		1860	87	3,191,500	.....	.....	4,488	1,128,324	2,684	1,784	.....
63		1850	149	3,773,950	.....	.....	5,488	.....	2,907	2,581	.....
64		1840	119	1,931,335	.....	.....	2,356	.....	2,356	.....	.....
65	Middle states ²	1905	462	130,841,453	2,374	3,407,725	60,104	26,346,593	33,383	29,627	6,064
66		1900	502	110,361,026	1,747	2,361,313	64,973	23,567,092	31,558	27,456	5,959
67		1890	652	85,140,259	1,412	1,527,627	62,345	22,401,695	29,582	27,416	5,347
68		1880	794	53,534,368	.....	.....	54,138	16,682,073	26,797	20,144	7,197
69		1870	1,024	37,194,960	.....	.....	36,322	12,619,089	18,182	13,028	5,112
70		1860	659	10,472,728	.....	.....	16,121	3,717,095	9,928	6,193	.....
71		1850	717	8,351,903	.....	.....	13,602	.....	8,540	5,253	.....
72		1840	620	5,519,175	.....	.....	8,464	.....	8,464	.....	.....
73	New York.....	1905	79	40,346,645	688	905,013	20,019	8,087,456	10,325	9,055	639
74		1900	100	32,078,305	57	864,861	18,027	6,610,259	8,553	8,330	1,144
75		1890	138	26,853,583	357	462,654	17,336	6,133,609	7,814	8,213	1,309
76		1880	189	18,248,698	.....	.....	16,428	5,189,180	7,405	6,931	2,092
77		1870	272	14,451,232	.....	.....	12,487	4,315,710	6,199	4,583	1,705
78		1860	168	4,133,568	.....	.....	6,123	1,351,955	3,475	2,648	.....
79		1850	249	4,450,370	.....	.....	6,474	.....	4,262	2,412	.....
80		1840	323	3,469,349	.....	.....	4,636	.....	4,636	.....	.....

¹ The number of establishments affords no clew to the growth or condition of the industry of wool manufacturing. This is due to the fact that at all censuses, except those of 1905 and 1860, the custom carding mill has been counted as a wool factory, although it is not, in the modern use of the term, a factory, and should not, therefore, be included with the statistics of factory manufacture.

² Includes proprietors and firm members, with their salaries; number only reported in 1900 and 1905, but not included in this table.

³ Not reported separately.

⁴ Not reported.

MANUFACTURES.

TABLE 45.—WOOL MANUFACTURES—COMPARATIVE SUMMARY, BY

	STATE.	Cen- sus.	Num- ber of estab- lish- ments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		WAGE-EARNERS AND WAGES.							
					Number.	Salaries.	Total.		Average number.					
							Average number.	Wages.	Men 16 years and over.	Women 16 years and over.	Children under 16 years.			
81	Middle states—Continued.													
82	New Jersey.....	1905	43	\$21,076,850	327	\$554,767	10,136	\$3,368,140	4,577	4,771	788			
83		1900	43	18,924,677	210	376,450	8,232	2,574,506	3,877	3,626	729			
84		1890	35	6,441,571	99	136,517	5,872	1,940,254	2,867	2,786	219			
85		1880	37	2,991,125	.....	.....	4,072	1,152,754	2,287	1,118	667	
86		1870	36	1,524,200	.....	.....	1,522	498,054	709	552	201	
87		1860	45	646,200	.....	.....	986	226,788	608	378	.....		
88		1850	41	494,274	.....	.....	898	.....	411	457	.....		
		1840	31	314,650	.....	.....	427	.....	427	.....	.....	
89	Pennsylvania.....	1905	334	67,477,463	1,329	1,802,760	37,967	14,620,536	17,922	15,517	4,528			
90		1900	353	57,696,913	900	1,007,315	37,550	14,045,809	18,412	15,220	3,918			
91		1890	467	52,021,256	940	914,378	38,473	14,117,254	18,572	16,189	3,712			
92		1880	548	31,898,226	.....	.....	32,989	10,162,244	16,688	11,936	4,365	
93		1870	672	20,615,413	.....	.....	21,573	7,607,489	10,831	7,714	3,028	
94		1860	407	5,211,510	.....	.....	8,484	2,016,384	5,488	2,990	.....		
95		1850	350	3,005,064	.....	.....	5,726	.....	3,490	2,236	.....		
96		1840	235	1,510,546	.....	.....	2,930	.....	2,930	.....	.....	
97	Delaware ¹	1890	3	450,974	9	12,298	288	91,097	139	110	39			
98		1880	5	352,559	.....	.....	261	108,504	171	59	31	
99		1870	11	354,500	.....	.....	399	115,187	186	110	103	
100		1860	4	117,000	.....	.....	114	27,564	78	58	.....		
101		1850	8	148,500	.....	.....	140	.....	122	18	.....		
102		1840	2	107,000	.....	.....	83	.....	83	.....	.....	
103	Maryland ²	1905	6	1,940,186	50	54,285	982	270,461	559	284	139			
104		1900	4	1,330,549	7	35,625	877	221,215	576	264	97			
105		1890	9	372,875	7	4,450	376	119,451	190	115	68			
106		1880	15	343,700	.....	.....	388	69,391	246	100	42	
107		1870	32	215,245	.....	.....	339	87,099	255	69	15	
108		1860	35	364,450	.....	.....	414	94,404	281	133	.....		
109		1850	38	244,000	.....	.....	362	.....	292	100	.....		
110		1840	29	117,630	.....	.....	388	.....	388	.....	.....	
111	Southern states ³	1905	117	8,721,228	212	253,702	5,046	1,284,936	2,193	2,101	752			
112		1900	214	7,591,498	214	234,875	4,700	979,188	1,902	2,037	761			
113		1890	222	7,894,776	325	226,117	5,392	1,638,729	2,303	2,431	688			
114		1880	447	2,994,517	.....	.....	2,645	493,634	1,498	745	402	
115		1870	589	3,327,952	.....	.....	2,888	575,529	1,831	669	388	
116		1860	115	1,744,100	.....	.....	2,205	418,368	1,429	776	.....		
117		1850	155	747,360	.....	.....	1,119	.....	608	311	.....		
118		1840	115	304,650	.....	.....	488	.....	488	.....	.....	
119	Virginia.....	1905	24	1,046,094	29	28,537	649	179,242	357	238	54			
120		1900	28	783,527	39	37,667	362	103,773	214	127	21			
121		1890	35	845,221	45	22,995	399	94,023	249	119	31			
122		1880	48	456,750	.....	.....	365	71,720	251	95	19	
123		1870	68	435,375	.....	.....	278	58,765	190	56	32	
124		1860	45	463,600	.....	.....	494	100,692	381	113	.....		
125		1850	121	302,640	.....	.....	668	.....	478	190	.....		
126		1840	41	112,350	.....	.....	222	.....	222	.....	.....	
127	West Virginia ⁴	1905	14	679,441	26	28,500	412	141,578	271	123	18			
128		1900	34	721,218	16	17,440	414	113,960	240	145	20			
129		1890	30	336,281	34	11,512	253	50,407	138	104	11			
130		1880	55	293,170	.....	.....	353	44,161	226	96	31	
131		1870	74	236,100	.....	.....	316	59,828	207	79	30	
132	North Carolina.....	1905	13	562,333	25	24,040	425	94,813	213	183	29			
133		1900	16	347,830	17	9,065	206	39,094	106	91	9			
134		1890	27	339,088	25	10,411	299	54,918	145	125	29			
135		1880	49	203,100	.....	.....	185	23,195	120	50	15	
136		1870	52	237,800	.....	.....	249	39,101	151	81	17	
137		1860	7	223,000	.....	.....	253	60,036	113	140	.....		
138		1850	1	18,000	.....	.....	30	.....	15	15	.....		
139		1840	3	9,800	.....	.....	4	.....	4	.....	.....	
140	South Carolina ⁵	1880	11	7,900	.....	.....	13	1,173	13	.....	.....	
141		1870	15	25,900	.....	.....	53	3,815	32	13	8	
142		1860	1	50,000	.....	.....	92	11,400	37	55	.....		
143		1840	3	4,300	.....	.....	6	.....	6	.....	.....	
144	Georgia.....	1905	9	915,664	20	26,598	781	156,415	369	294	118			
145		1900	14	455,114	13	16,936	561	97,159	284	189	88			
146		1890	14	298,533	17	9,367	162	23,034	64	71	27			
147		1880	32	180,733	.....	.....	142	25,070	72	45	25	
148		1870	46	936,585	.....	.....	563	122,138	251	191	121	
149		1860	11	242,500	.....	.....	383	63,348	167	216	.....		
150		1850	3	68,000	.....	.....	78	.....	40	38	.....		
151		1840	1	2,000	.....	.....	10	.....	10	.....	.....	

¹ Two establishments for Delaware included in Maryland in 1905; in 1900, 2 establishments included in total for Middle states.
² Includes 2 establishments for Delaware in 1905.
³ Includes 2 establishments in South Carolina in 1900.

STATES AND GEOGRAPHIC DIVISIONS: 1840 TO 1905—Continued.

MACHINERY.				Miscellaneous expenses.	Cost of materials used.	PRINCIPAL MATERIALS—QUANTITIES CONSUMED.					Value of products.		
Woolen cards.	Combing machines.	Looms.	Spindles.			Wool in condition purchased.			Raw cotton and fur and nolls, purchased (pounds).	Animal hair and nolls, purchased (pounds).		Shoddy, purchased (pounds).	
						Total (pounds).	Foreign (pounds).	Domestic (pounds).					
154	169	4,776	220,488	\$1,267,168	\$11,606,306	37,944,206	3,080,032	33,863,274	2,794,121	746,052	204,764	\$18,142,520	81
207	128	3,570	176,340	1,052,701	8,495,338	18,609,055	6,646,754	13,022,301	2,010,438	91,185	195,083	13,790,284	82
202	29	1,533	77,009	547,886	5,450,490	12,524,210	1,348,047	11,176,163	2,626,882	460,110	2,027,640	8,803,237	83
161	9	1,285	35,701		3,858,092	6,990,378	665,001	6,325,377	1,550,502	1,107,749	2,676,856	5,067,803	84
98		776	26,730		1,618,753	2,850,325	480,347	2,369,978	407,398		27,000	2,616,461	85
61		270	10,301		596,895	1,443,800		1,443,800	230,500			1,197,094	86
					548,307	1,510,280						1,104,416	87
												440,710	88
016	377	16,579	758,427	4,658,388	53,953,180	99,306,459	46,700,507	52,605,952	30,147,639	31,092,393	7,340,250	83,054,561	89
1,262	357	17,265	641,657	4,833,661	45,137,649	73,162,801	40,453,005	32,709,796	37,610,684	24,142,230	6,874,350	71,878,503	90
1,254	188	22,101	474,618	3,221,842	45,173,677	69,187,219	27,877,283	41,309,936	44,218,488	14,258,852	14,232,953	72,303,182	91
1,120	121	16,789	363,387		38,749,330	66,751,365	14,623,030	42,128,335	27,771,271	2,940,522	15,463,878	58,886,250	92
1,129	20	13,265	340,114		28,010,301	31,723,147	6,014,170	25,708,977	11,504,634		7,870,203	45,221,795	93
483		4,334	108,326		5,674,197	7,793,219			4,337,000			10,501,767	94
					3,282,718	7,500,370						6,321,866	95
												2,310,061	96
15		220	7,306	27,404	295,605	531,198	35,369	495,829	314,500		95,890	482,022	97
13		126	4,306		448,295	836,883	203,206	633,677	55,100	20,084	346,778	665,253	98
30		227	8,756		392,614	546,187	12,455	533,732	185,000		96,030	576,067	99
8		70	1,000		75,807	146,000			100,000			153,035	100
					204,172	393,000						251,000	101
												104,700	102
53	2	267	20,906	80,914	868,884	1,815,747		1,815,747	1,050,040	11,596	38,706	1,311,199	103
47		179	15,828	54,181	667,036	1,038,908		1,038,908	637,730		58,326	1,218,378	104
30		114	11,150	14,442	424,855	886,200	100,000	786,200	32,050		40,000	570,516	105
30		136	6,880		381,724	822,550		822,550	37,589	250	207,200	538,308	106
61		160	12,348		241,224	521,741	21,450	500,291	37,885		1,000	441,596	107
44		66	2,480		280,431	1,087,772		1,087,772	73,000			635,757	108
					165,568	430,300						295,140	109
												235,900	110
317	24	3,823	159,268	507,111	4,291,830	5,836,577	336,117	5,500,460	8,649,060	750,000	1,937,150	7,095,537	111
373	16	3,201	123,800	200,046	3,494,870	7,948,193	512,883	7,435,310	7,236,610	1,550	1,060,458	6,888,416	112
385	4	3,788	106,511	362,477	4,009,966	8,730,576	357,700	8,372,786	5,395,513	61,731	1,188,847	6,700,545	113
549		1,315	47,989		2,736,623	6,024,080	85,000	5,939,080	1,455,408	500	279,647	3,958,571	114
908		1,322	50,311		2,715,827	5,912,589	1,200	5,911,389	610,459		2,762	4,278,311	115
232		206	16,544		1,634,730	5,042,682		5,042,682	421,800			2,840,550	116
					750,203	2,438,026						1,293,642	117
												321,357	118
49	0	203	21,058	49,285	759,520	1,552,172	1,100	1,551,072	481,649		248,882	1,240,786	119
52	2	221	14,822	22,780	391,650	1,184,231	9,000	1,175,231	101,434		124,351	627,581	120
54		212	12,382	43,972	375,175	975,745	25,367	950,378	105,112	1,500	58,585	600,800	121
54		154	8,186		383,080	862,812		862,812	104,170	500	60,500	577,068	122
116		137	6,236		317,809	742,200		742,200	27,200			488,352	123
50		121	7,574		389,204	1,131,000		1,131,000	10,000			717,827	124
					488,809	1,554,110						841,013	125
												147,792	126
21	8	160	12,419	32,401	372,608	596,579	25,160	571,413	420,703		106,035	673,142	127
53	1	258	14,180	32,610	359,753	843,959	3,000	840,959	262,417		135,412	567,300	128
41		163	7,164	15,418	202,801	600,823	6,001	594,822	31,229		9,633	328,800	129
72		170	6,081		245,843	602,390		602,390	4,000		33,810	356,986	130
132		120	6,387		307,051	673,003		673,003				476,763	131
25		302	9,500	27,533	494,477	624,459	73,520	551,133	763,435		37,957	691,945	132
25		161	5,334	14,527	204,061	577,750		577,750	90,763		38,365	289,596	133
35		160	10,900	14,768	195,353	440,200	50,700	389,500	282,860	40,374	40,000	308,046	134
57		30	2,471		255,707	576,145	80,000	496,145	118,164		12,444	303,160	135
73		97	2,806		166,197	355,693		355,693	10,000			298,638	136
23		20	1,000		151,005	504,500		504,500				291,000	137
					13,950	30,000						23,750	138
												3,900	139
11					19,455	48,050		48,050				24,075	140
25		9	350		22,338	55,696		55,696	1,300		700	34,459	141
10					60,900	250,000						80,000	142
												1,000	143
31	1	634	20,064	41,077	508,814	276,800	10,400	266,400	1,818,025		486,855	778,430	144
31	3	503	11,008	22,430	290,296	272,678	6,200	266,478	1,718,472	1,550	111,357	491,001	145
20		110	3,552	10,887	95,900	208,002	32,000	176,002	87,815	10,867	10,000	173,245	146
42		88	2,224		165,065	306,274		306,274	134,418			230,300	147
73		395	14,465		208,176	620,937		620,937	165,000			471,523	148
30		20	1,480		200,475	1,008,000		1,008,000	142,500			404,420	149
					30,302	153,816						88,750	150
												3,000	151

⁴No establishments reported in 1860, 1865, and 1840.

⁵No establishments reported in 1905 and 1860; data for 2 establishments included in total for Southern states in 1900; included in "all other Southern states" in 1890.

MANUFACTURES.

TABLE 45.—WOOL MANUFACTURES—COMPARATIVE SUMMARY, BY

STATE.	Cen- sus.	Num- ber of estab- lish- ments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		WAGE-EARNERS AND WAGES.				
				Number.	Salaries.	Total.		Average number.		
						Average number.	Wages.	Men 16 years and over.	Women 16 years and over.	Children under 16 years.
Southern states—Continued.										
152 Kentucky.....	1905	21	\$1,065,002	47	\$69,282	917	\$261,458	299	453	135
153	1900	37	1,022,474	23	41,472	808	190,148	184	454	230
154	1890	42	2,705,683	90	89,478	1,504	503,827	804	922	178
155	1880	48	890,750	.....	.....	823	166,189	253	253	217
156	1870	125	700,449	.....	.....	683	159,373	454	187	92
157	1860	37	408,590	.....	.....	437	103,284	350	87	.....
158	1850	25	243,820	.....	.....	318	.....	256	62	.....
159	1840	40	158,000	.....	.....	200	.....	200	.....	.....
160 Tennessee.....	1905	27	2,309,772	44	54,350	1,415	327,202	507	504	344
161	1900	51	2,399,518	64	67,673	1,632	294,116	557	759	316
162	1890	49	1,393,679	71	48,620	927	191,037	359	444	124
163	1880	106	418,664	.....	.....	402	67,963	249	111	42
164	1870	148	373,868	.....	.....	428	62,780	342	61	25
165	1860	1	6,000	.....	.....	10	2,472	8	2	.....
166	1850	4	10,900	.....	.....	17	.....	15	2	.....
167	1840	26	25,000	.....	.....	45	.....	45	.....	.....
168 Alabama ¹	1900	12	153,303	4	3,650	118	17,695	25	90	3
169	1890	6	18,325	3	1,025	13	2,100	8	5	.....
170	1880	14	28,900	.....	.....	18	3,057	13	5	.....
171	1870	14	22,375	.....	.....	41	4,881	38	1	2
172	1860	6	140,000	.....	.....	108	34,116	95	103	.....
173 Mississippi ¹	1900	4	315,700	5	10,166	302	55,192	146	111	45
174	1890	7	1,553,455	13	11,280	1,009	294,930	402	443	224
175	1880	8	331,500	.....	.....	218	53,100	111	61	46
176	1870	11	195,250	.....	.....	116	28,800	34	31	51
177	1860	4	75,500	.....	.....	235	22,620	202	33	.....
178 Arkansas ²	1905	4	28,150	.....	.....	11	2,947	6	4	1
179	1900	13	43,525	3	903	27	5,158	14	11	2
180	1890	6	27,435	9	2,950	22	3,281	7	12	3
181	1880	25	85,550	.....	.....	90	13,226	62	21	7
182	1870	13	32,500	.....	.....	31	6,870	29	.....	2
183	1840	1	12,600	.....	.....	1	.....	1	.....	.....
184 Texas ³	1900	3	285,663	10	15,763	134	40,674	76	34	24
185	1890	4	371,270	17	18,115	342	120,680	125	176	41
186	1880	1	97,500	.....	.....	36	25,700	28	8	.....
187	1870	20	97,250	.....	.....	160	20,278	80	16	4
188	1860	2	60,000	.....	.....	43	7,680	36	7	.....
189	1850	1	8,000	.....	.....	8	.....	4	4	.....
190 All other Southern states ⁴	1905	5	1,243,842	21	22,305	436	121,281	171	212	53
191	1890	2	5,800	1	364	2	427	2	.....	.....
192	1870	3	34,500	.....	.....	30	8,900	23	3	4
193	1860	1	75,000	.....	.....	60	6,720	40	20	.....
Western states.....										
194	1905	136	12,817,436	355	441,022	6,475	2,184,806	2,921	3,162	392
195	1900	194	12,156,823	401	450,939	5,861	1,788,245	2,684	2,861	316
196	1890	287	13,254,618	513	391,937	7,207	2,020,697	3,261	3,517	429
197	1880	595	8,877,427	.....	.....	7,227	1,697,463	3,816	2,387	1,054
198	1870	963	14,897,772	.....	.....	10,172	2,802,135	6,212	2,809	1,151
199	1860	280	1,727,241	.....	.....	1,873	481,812	1,485	438	.....
200	1850	205	1,351,490	.....	.....	1,811	.....	1,341	470	.....
201	1840	191	681,365	.....	.....	1,122	.....	1,122	.....	.....
202 Ohio.....	1905	27	3,585,422	75	92,205	1,773	563,031	558	944	271
203	1900	38	2,709,986	84	94,805	1,234	383,848	408	767	29
204	1890	69	2,479,872	106	85,224	1,325	363,802	581	500	154
205	1880	123	1,383,310	.....	.....	1,432	279,614	773	445	214
206	1870	225	3,066,010	.....	.....	2,329	574,164	1,351	710	268
207	1860	122	662,000	.....	.....	753	185,268	567	188	.....
208	1850	130	870,210	.....	.....	1,201	.....	903	298	.....
209	1840	130	537,915	.....	.....	935	.....	935	.....	.....
210 Michigan.....	1905	16	887,350	40	43,400	624	239,076	380	242	2
211	1900	17	920,009	29	27,769	512	170,568	323	189	.....
212	1890	33	993,087	44	25,063	536	156,710	284	221	31
213	1880	39	558,800	.....	.....	347	76,240	203	114	30
214	1870	54	1,011,050	.....	.....	667	202,813	408	208	51
215	1860	16	103,950	.....	.....	126	30,672	77	49	.....
216	1850	15	94,000	.....	.....	129	.....	78	51	.....
217	1840	4	34,120	.....	.....	37	.....	37	.....	.....
218 Indiana.....	1905	15	1,886,317	40	56,252	1,091	347,011	454	613	24
219	1900	22	2,069,232	72	77,443	1,165	341,472	495	624	46
220	1890	46	2,939,356	108	87,820	2,039	522,019	810	1,117	112
221	1880	81	2,273,795	.....	.....	1,741	462,481	846	587	308
222	1870	175	3,821,913	.....	.....	2,469	726,113	1,450	711	308
223	1860	79	464,341	.....	.....	533	150,276	436	97	.....
224	1850	33	171,545	.....	.....	276	.....	189	67	.....
225	1840	37	77,954	.....	.....	103	.....	103	.....	.....

¹Included in "all other Southern states" in 1905. No establishments reported in 1850 and 1840.
²No establishments reported in 1890 and 1880.
³Included in "all other Southern states" in 1905. No establishments reported in 1840.
⁴No establishments reported in 1900, 1880, 1850, and 1840.

STATES AND GEOGRAPHIC DIVISIONS: 1840 TO 1905—Continued.

MACHINERY.				Miscellaneous ex-penses.	Cost of ma-terials used.	PRINCIPAL MATERIALS—QUANTITIES CONSUMED.					Value of products.		
Woolen cards.	Combing ma-chines.	Looms.	Spindles.			Wool in condition purchased.			Raw cot-ton and fur and nolls, pur-chased (pounds).	Animal hair and nolls, pur-chased (pounds).		Shoddy, purchased (pounds).	
						Total (pounds).	Foreign (pounds).	Domestic (pounds).					
76	1	986	33,636	\$131,375	\$774,987	1,191,365		1,191,365	1,716,516		461,803	\$1,273,241	152
58	9	533	27,095	59,894	974,417	2,747,742	393,917	2,353,825	1,437,569		144,124	1,431,684	153
100	4	1,661	40,316	184,343	1,631,860	2,828,377	57,037	2,771,340	2,892,500		785,940	2,721,988	154
151		513	14,110		852,405	1,688,663		1,688,663	667,444		117,151	1,204,988	155
208		322	10,509		831,628	1,639,367		1,639,367	275,250			1,812,458	156
83		94	3,900		510,902	1,452,500		1,452,500	170,700			845,226	157
					205,287	673,900						318,819	158
												151,246	159
70	3	1,078	47,258	147,334	945,483	1,171,940	7,500	1,164,440	3,181,414		504,727	1,706,396	160
90		1,239	38,654	86,141	874,359	1,523,442	101,766	1,421,676	3,189,821		487,089	1,517,194	161
80		925	19,938	56,293	799,036	1,448,486	187,625	1,260,861	1,462,907		197,690	1,216,419	162
98		167	6,800		423,054	883,328		883,328	189,416		55,433	620,724	163
177		80	3,614		503,737	1,030,153		1,030,153	101,449		2,002	696,844	164
1			500		5,225	10,000		10,000				8,100	165
					1,075	6,200		6,200				6,310	166
												14,290	167
8		72	160	15,193	58,107	129,041		129,041	179,562			94,571	168
6		288	419		10,997	10,599		10,599	7,500		20,000	17,150	169
15		10	100		40,361	135,366		135,366	10,000			63,745	170
24		2	50		57,338	196,570		196,500	2,000			89,698	171
14		20	1,000		80,790	204,435		204,435	5,000			191,474	172
26		130	8,916	17,817	103,308	244,434		244,434	83,666			172,908	173
31		370	9,199	18,054	598,039	1,595,824		1,595,824	416,000		36,000	924,185	174
15		121	3,734		211,046	494,033		494,033	205,896			260,005	175
17		30	344		79,596	154,790		154,790	32,700			147,323	176
13		21	1,000		119,849	270,597		270,597	75,600			168,507	177
10	1	24	1,200	475	13,887	40,260	4,340	35,950	1,750			20,245	178
7		40	1,000	308	28,598	129,637		129,637	14,000			42,401	179
7		24	735	762	28,030	67,500		67,500	5,550			38,360	180
20		41	1,360		85,972	189,000		189,000	30,600		300	127,430	181
17					55,782	115,330		115,330				78,690	182
												129	183
4		94	2,000	17,428	117,327	291,070		291,070	86,700		19,200	199,340	184
9		135	1,000	17,333	188,607	572,400		572,400	103,000		1,000	359,230	185
2		12	600		44,435	175,000		175,000				80,500	186
20		30	1,070		86,817	278,045		278,045				152,968	187
4					25,980	81,000		81,000	18,000			38,790	188
					10,000	30,000		30,000				15,000	189
26	4	340	14,124	76,641	422,054	382,772	214,085	168,687	275,568	750,000		702,343	190
2		2	50	278	1,064	2,600		2,600	1,000			2,433	191
13		100	4,000		19,107	59,875		59,875	1,500			31,295	192
4					31,300	99,180		99,180				46,200	193
428	27	2,400	177,007	1,128,599	7,508,394	21,725,519	2,533,525	19,191,994	2,067,686	6,138	1,941,903	12,375,039	194
403	14	2,813	176,407	722,046	5,889,712	18,096,587	1,400,230	17,596,351	2,145,184	85,854	968,484	9,992,370	195
574	15	3,133	176,890	814,072	7,125,149	22,859,293	1,743,013	21,116,280	2,956,355	10,762	943,658	11,073,341	196
807	3	2,786	156,612		7,087,320	17,792,458	195,000	17,597,458	1,508,482	80,500	600,980	10,722,024	197
1,701		3,984	226,638		10,006,478	20,631,163	167,825	20,473,338	903,027	5,225		16,697,376	198
383		382	18,989		1,225,844	3,246,761		3,246,761			2,280,306	2,280,306	199
					999,898	2,858,990		2,858,990				1,770,635	200
												778,448	201
69	11	756	34,733	479,886	2,137,295	4,624,396	1,458,394	3,165,912	751,594	3,931	278,068	3,586,528	202
78	5	674	30,400	242,007	1,681,160	3,262,140	24,825	3,237,315	947,347	6,666	217,040	2,820,321	203
104	5	712	32,263	136,050	1,398,892	3,590,244	474,764	3,025,480	367,162	3,000	199,680	2,280,092	204
182	2	638	35,200		1,153,929	2,695,424	165,000	2,530,424	310,824	80,000	134,063	1,779,430	205
334		1,052	52,789		2,119,820	3,072,234	62,200	3,010,034	175,464			3,467,999	206
173		96	5,827		462,994	1,190,751		1,190,751				843,510	207
					578,423	1,657,726		1,657,726				1,111,027	208
												685,757	209
62		157	10,448	125,173	796,643	2,524,285	450,000	2,074,285	150,197		133,736	1,338,493	210
52		159	14,707	49,676	641,133	2,396,454	953,981	1,442,473	58,659		119,261	998,830	211
64		158	13,559	60,280	893,374	2,033,321	408,026	1,625,295	2,440		269,148	988,652	212
51		197	10,988		356,614	800,025		800,025	5,319		37,163	481,517	213
116		232	15,050		651,700	1,391,880		1,391,880	3,550			1,204,808	214
14		20	1,000		69,010	163,100		163,100				136,246	215
					43,402	162,250		162,250				60,242	216
												9,794	217
80	2	597	40,676	136,458	1,109,092	3,381,413	169,167	3,212,246	536,369	1,301	71,851	1,780,499	218
92		910	46,864	112,428	970,592	3,552,301	400,000	3,152,301	848,443	1,104	88,235	1,658,965	219
135	4	1,006	46,600	235,503	1,850,515	4,324,884	632,833	5,602,651	1,961,374	600	154,303	5,036,982	220
160	1	814	36,886		1,823,300	4,360,456	10,000	4,350,456	831,776		345,650	2,729,347	221
346		1,180	57,083		2,684,315	5,029,618	80,167	4,949,451	513,595			4,329,711	222
112		177	8,268		352,392	940,000		940,000				649,771	223
					120,486	413,350		413,350				205,802	224
												58,897	225

* Includes establishments distributed as follows: Alabama, 2; Mississippi, 1; Texas, 2.
 † Includes establishments distributed as follows: Louisiana, 1; South Carolina, 1.
 ‡ Includes establishments distributed as follows: Louisiana, 2; Florida, 1.
 § Includes Louisiana, 1.

MANUFACTURES.

TABLE 45.—WOOL MANUFACTURES—COMPARATIVE SUMMARY, BY

	STATE.	Cen- sus.	Num- ber of estab- lish- ments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		WAGE-EARNERS AND WAGES.				
					Number.	Salaries.	Total.		Average number.		
							Average number.	Wages.	Men 16 years and over.	Women 16 years and over.	Children under 16 years.
226	Western states—Continued.	1935	30	\$2,537,251	70	\$90,348	1,204	\$406,084	587	554	63
227	Wisconsin ¹	1900	36	2,414,652	67	88,890	1,066	317,554	477	463	126
228	1890	33	2,496,377	69	93,570	1,018	297,169	454	553	11	
229	1880	48	1,349,954	.....	.....	847	214,993	426	378	43
230	1870	67	1,247,389	.....	.....	802	230,706	519	211	72
231	1860	15	100,000	.....	.....	105	27,036	74	31	.....
232	1850	9	31,225	.....	.....	25	.....	25	.....	.....
233	Illinois.....	1905	10	1,106,851	44	64,801	532	191,395	288	240	4
234	1900	14	1,610,425	57	77,623	727	252,457	398	294	35	
235	1890	23	1,649,918	49	40,783	865	272,097	433	405	27	
236	1880	53	1,327,553	.....	.....	1,042	296,225	527	365	150
237	1870	109	2,962,443	.....	.....	1,736	535,185	1,040	468	228
238	1860	25	210,100	.....	.....	166	45,180	132	34	.....
239	1850	16	154,500	.....	.....	178	.....	124	54	.....
240	1840	16	26,205	.....	.....	34	.....	34	.....	.....
241	Minnesota ²	1905	16	633,726	28	34,300	343	129,137	180	161	2
242	1900	19	762,825	20	23,450	300	90,662	160	119	21	
243	1890	21	563,771	25	19,025	316	101,942	169	146	1	
244	1880	13	190,500	.....	.....	229	46,108	108	73	50
245	1870	10	246,600	.....	.....	146	45,592	77	60	9
246	Iowa.....	1905	10	713,225	17	15,946	246	89,231	137	109	2
247	1900	12	494,074	26	16,611	256	64,596	126	128	.....
248	1890	14	694,600	38	28,850	340	104,350	150	174	16	
249	1880	34	653,500	.....	.....	499	117,792	307	132	60
250	1870	85	1,440,454	.....	.....	1,088	269,432	685	293	110
251	1860	12	82,500	.....	.....	120	23,632	96	24	.....
252	1850	1	10,000	.....	.....	7	.....	7	.....	.....
253	1840	.....	.....	.....	.....	.....	.....	.....	.....	.....
254	Missouri.....	1905	5	511,664	15	11,510	160	50,740	102	58
255	1900	25	490,747	18	20,928	237	63,314	139	79	19	
256	1890	35	720,616	54	25,288	456	97,122	209	188	50	
257	1880	98	726,150	.....	.....	689	109,877	412	144	133
258	1870	156	716,824	.....	.....	718	137,408	548	85	85
259	1860	11	103,750	.....	.....	70	19,728	53	17	.....
260	1850	1	20,000	.....	.....	25	.....	15	10	.....
261	1840	9	5,100	.....	.....	13	.....	13	.....	.....
262	Kansas ³	1880	5	131,925	124	25,825	66	40	18
263	1870	9	96,000	.....	.....	91	30,682	56	24	11
264	Utah ⁴	1905	3	446,915	9	8,240	284	89,254	139	119	26
265	1900	6	454,981	14	10,050	194	69,681	100	65	29	
266	1890	9	579,209	15	13,505	259	90,681	150	95	14	
267	1880	11	382,000	.....	.....	277	68,108	150	79	48
268	1870	15	223,400	.....	.....	106	48,040	58	39	9
269	All other Western states ⁵	⁶ 1905	4	508,685	17	23,960	218	79,847	96	122
270	⁶ 1900	5	229,292	14	13,370	170	64,093	58	103	9	
271	⁷ 1890	4	103,112	5	2,800	53	13,845	21	28	4	
272	⁸ 1870	1	65,000	.....	.....	20	2,000	20	.....	.....
273	Pacific states ⁹	1905	16	2,786,297	59	89,990	1,088	481,645	640	403	45
274	1900	16	2,226,294	47	58,280	1,102	368,520	687	363	52	
275	1890	14	3,069,065	86	74,365	1,580	383,606	1,081	452	47	
276	¹⁰ 1880	20	2,283,300	.....	.....	1,080	424,400	892	149	39
277	1870	14	2,174,200	.....	.....	888	324,413	713	39	86
278	1860	2	170,000	.....	.....	90	49,800	67	23	.....
279	Oregon ⁹	¹⁰ 1905	8	1,323,982	27	44,605	595	238,717	335	221	39
280	1900	11	1,175,820	29	32,820	672	208,695	423	216	33	
281	1890	6	1,350,585	44	32,775	358	142,538	201	134	23	
282	1880	10	566,800	.....	.....	216	86,088	166	33	17
283	1870	9	389,200	.....	.....	179	112,213	129	8	42
284	1860	1	70,000	.....	.....	30	16,200	27	3	.....
285	California ⁹	1905	5	1,462,315	32	45,385	493	192,928	305	182	6
286	1900	8	1,050,474	13	25,400	490	159,825	264	147	19	
287	1890	8	2,618,480	42	41,590	1,222	246,068	880	318	24	
288	1880	9	1,670,500	.....	.....	835	324,318	708	108	19
289	1870	5	1,785,000	.....	.....	659	230,200	584	21	44
290	1860	1	100,000	.....	.....	00	33,600	40	20	.....

¹No establishments reported in 1840.

²No establishments reported in 1870, 1850, and 1840.

³Included in "all other Western states" in 1905, 1900, and 1890. No establishments reported in 1860, 1850, and 1840.

⁴No establishments reported in 1880, 1860, 1850, and 1840.

⁵Includes establishments distributed as follows: Idaho, 1; Kansas, 2; North Dakota, 1.

STATES AND GEOGRAPHIC DIVISIONS: 1840 TO 1905—Continued.

MACHINERY.				Miscellaneous expenses.	Cost of materials used.	PRINCIPAL MATERIALS—QUANTITIES CONSUMED.					Value of products.		
Woolen cards.	Combing machines.	Looms.	Spindles.			Wool in condition purchased.			Raw cotton and cotton yarn, purchased (pounds).	Animal hair and fur and nolls, purchased (pounds).		Shoddy, purchased (pounds).	
						Total (pounds).	Foreign (pounds).	Domestic (pounds).					
79	8	311	37,518	\$190,868	\$1,487,778	4,383,198	165,964	4,217,234	92,837	806	745,700	\$2,435,473	220
72	9	296	31,744	128,005	1,168,397	4,523,001	18,096	4,504,905	163,754	.....	308,033	1,894,420	227
63	6	258	24,802	124,124	1,117,013	3,125,572	164,090	2,961,482	111,223	6,262	199,274	1,844,364	228
75	220	16,689	.....	892,793	2,066,188	.....	2,066,188	50,955	500	35,235	1,480,069	229
135	226	16,445	.....	688,193	1,642,637	15,468	1,627,169	500	.....	.....	1,268,417	230
19	20	1,000	.....	85,743	265,000	.....	.....	.....	.....	.....	172,720	231
.....	32,630	134,200	.....	.....	.....	.....	.....	87,902	232
41	130	14,258	59,770	623,284	1,301,783	350,000	951,783	352,225	.....	352,439	1,007,824	233
46	184	16,156	80,086	550,320	1,439,452	.....	1,439,452	60,717	78,000	128,244	1,030,087	234
57	323	18,745	110,159	789,310	2,506,621	59,000	2,507,621	319,170	.....	67,253	1,293,506	235
106	374	20,992	.....	1,332,708	3,003,740	.....	3,003,740	114,531	.....	83,007	1,896,400	236
250	633	36,888	.....	1,701,323	3,560,829	.....	3,560,829	151,650	.....	.....	2,840,249	237
37	20	1,000	.....	112,697	327,800	.....	.....	.....	.....	.....	163,388	238
.....	115,367	306,964	.....	.....	.....	.....	.....	206,672	239
.....	9,540	240
34	1	119	8,719	51,923	462,672	2,263,413	.....	2,263,413	60,000	.....	25,410	701,224	241
38	143	9,524	36,178	273,483	1,285,311	.....	1,285,311	3,525	.....	8,475	406,812	242
37	125	7,510	46,211	309,378	1,358,290	3,334	1,281,977	.....	.....	4,000	539,965	243
21	59	3,862	.....	155,867	557,580	.....	557,580	.....	.....	.....	253,378	244
19	39	2,064	.....	108,540	254,857	20,000	537,580	6,365	.....	18,000	219,862	245
28	5	160	0,397	33,664	364,568	1,194,108	.....	1,194,108	16,138	100	63,623	572,936	246
26	112	9,552	16,831	175,426	773,053	.....	773,053	4,603	.....	2,756	296,500	247
36	158	10,828	40,050	565,593	1,880,532	300	1,880,232	10,010	.....	46,000	605,218	248
56	166	11,025	.....	435,747	1,407,510	.....	1,407,510	18,597	.....	895	679,904	249
199	374	31,462	.....	988,073	2,273,428	.....	2,273,428	23,148	.....	1,225	1,647,066	250
13	20	1,000	.....	67,293	168,700	.....	.....	.....	.....	.....	127,640	251
.....	3,500	14,500	.....	.....	.....	.....	.....	13,000	252
.....	800	253
14	65	4,808	18,085	175,165	557,521	.....	557,521	38,100	.....	131,000	205,292	254
36	106	7,792	21,067	206,579	464,946	.....	464,946	279,233	.....	80,779	348,074	255
52	261	12,084	29,776	311,881	1,052,229	4,000	1,048,229	155,305	.....	7,000	548,467	256
126	193	12,622	.....	681,711	1,811,635	.....	1,811,635	115,227	.....	4,000	930,061	257
258	183	10,371	.....	840,313	1,979,071	.....	1,979,071	25,500	.....	.....	1,250,213	258
16	20	890	.....	56,745	191,400	.....	.....	.....	.....	.....	143,025	259
.....	10,000	80,000	.....	.....	.....	.....	.....	56,000	260
.....	13,750	261
9	41	2,636	.....	107,251	304,000	.....	304,000	23,200	.....	2,000	211,525	262
24	29	1,610	.....	80,105	200,000	.....	200,000	1,300	.....	.....	153,150	263
12	82	5,240	23,564	170,220	744,802	.....	744,802	41,835	.....	25,000	268,340	264
17	94	0,974	17,354	121,828	744,469	.....	744,469	64,212	.....	1,701	222,343	265
31	99	7,000	27,155	163,864	800,500	.....	800,500	38,632	.....	.....	338,534	266
21	114	5,422	.....	147,226	566,900	.....	566,900	31,097	.....	1,000	279,424	267
19	31	1,430	.....	98,272	276,000	.....	276,000	8,320	.....	.....	199,000	268
9	53	2,210	8,698	180,847	750,000	.....	750,000	28,400	.....	115,000	328,430	269
6	36	2,724	18,414	101,818	591,460	.....	591,460	8,700	.....	3,000	242,112	270
5	33	1,528	4,765	45,410	217,160	.....	217,160	250	.....	.....	101,931	271
1	5	240	.....	12,775	50,000	.....	50,000	.....	.....	4,000	21,000	272
78	1	386	28,718	254,962	1,071,351	4,200,115	175,743	4,024,372	220,681	2,000	115,572	1,065,595	273
65	317	23,110	152,584	875,300	4,043,205	.....	4,043,205	174,819	.....	113,798	1,585,178	274
91	387	24,050	255,230	1,116,418	5,005,619	145,000	4,920,619	213,804	.....	68,111	1,939,965	275
83	208	23,388	.....	1,277,025	4,720,100	20,000	4,700,100	234,020	25,000	95,150	2,253,888	276
67	275	8,200	.....	335,736	2,871,400	.....	2,871,400	100,000	.....	1,800	1,098,411	277
10	45	780	.....	77,000	550,000	.....	.....	.....	.....	.....	235,000	278
31	181	12,966	124,000	566,988	2,458,923	.....	2,458,923	123,136	2,000	85,742	1,142,356	279
35	175	12,187	74,323	465,855	1,997,654	.....	1,997,654	107,384	.....	73,084	897,824	280
21	95	0,652	80,000	327,602	1,306,148	.....	1,306,148	106,540	.....	5,000	614,932	281
21	56	4,248	.....	227,488	985,250	.....	985,250	6,000	.....	1,000	540,030	282
21	90	4,320	.....	227,595	943,400	.....	943,400	.....	.....	.....	595,857	283
4	15	280	.....	27,000	150,000	.....	.....	.....	.....	.....	85,000	284
47	1	205	15,752	130,383	504,363	1,741,192	175,743	1,565,449	97,545	.....	20,830	823,239	285
30	142	10,432	78,261	409,445	2,045,311	.....	2,045,311	67,435	.....	40,714	687,354	286
70	202	18,578	168,324	788,916	3,699,471	145,000	3,554,471	107,318	.....	53,111	1,325,933	287
60	230	18,740	.....	997,539	3,574,850	20,000	3,554,850	228,020	25,000	94,150	1,634,858	288
40	185	3,880	.....	608,141	1,028,000	.....	1,028,000	100,000	.....	1,800	1,102,754	289
6	30	500	.....	50,000	400,000	.....	.....	.....	.....	.....	150,000	290

* Includes establishments distributed as follows: Colorado, 1; Idaho, 1; Kansas, 1; North Dakota, 1; Wyoming, 1.
 † Includes establishments distributed as follows: Idaho, 1; Kansas, 1; South Dakota, 2.
 ‡ Includes New Mexico, 1.
 § No establishments reported in 1850 and 1840.
 ¶ Includes 1 establishment in Washington.

MANUFACTURES.

TABLE 46.—WOOL MANUFACTURES—SUMMARY, BY INDUSTRIES: 1905.

	NUMBER OF ESTABLISHMENTS BY CHARACTER OF OWNERSHIP.					CAPITAL.				
	Total.	Individual.	Firm and limited partnership.	Incorporated company.	Miscellaneous.	Total.	Land.	Buildngs.	Machinery, tools, and implements.	Cash and sundr.es.
Total.....	1,213	333	311	567	2	\$370,861,091	\$25,745,617	\$52,232,351	\$94,205,323	\$198,678,400
Worsted goods.....	226	43	52	131	2	162,464,929	11,766,470	20,201,406	41,595,093	88,901,960
Woolen goods.....	792	236	202	352	2	140,302,488	10,223,761	21,226,953	35,080,550	73,761,215
Carpets and rugs.....	139	44	46	49	.....	56,781,074	3,153,804	8,696,950	15,129,294	29,801,029
Felt goods.....	39	4	4	31	.....	9,667,136	531,582	1,865,762	2,143,294	5,126,493
Wool hats.....	17	6	7	4	.....	1,646,064	70,000	241,280	247,083	1,087,701

	Proprietors and firm members.	SALARIED OFFICIALS, CLERKS, ETC.									
		Aggregate.		Officers of corporations.		General superintendents, managers, clerks, etc.					
		Number.	Salaries.	Number.	Salaries.	Total.		Men.		Women.	
						Number.	Salaries.	Number.	Salaries.	Number.	Salaries.
Total.....	1,107	5,616	\$8,177,345	792	\$2,250,889	4,824	\$5,926,456	4,281	\$5,647,753	543	\$278,703
Worsted goods.....	188	1,847	2,904,900	207	712,129	1,640	2,192,831	1,479	2,108,580	161	84,451
Woolen goods.....	729	2,477	3,430,855	458	1,040,766	2,019	2,390,089	1,712	2,203,455	237	126,594
Carpets and rugs.....	149	1,023	1,396,081	78	349,350	945	1,047,341	857	939,419	108	47,422
Felt goods.....	18	201	350,594	45	135,044	156	215,550	126	200,014	30	15,330
Wool hats.....	23	68	94,245	4	13,000	64	80,645	57	76,446	7	4,200

	WAGE-EARNERS, INCLUDING PIECEWORKERS, AND TOTAL WAGES.									
	Greatest number employed at any one time during the year.	Least number employed at any one time during the year.	Total.		Men 16 years and over.		Women 16 years and over.		Children under 16 years.	
			Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.
Total.....	202,954	154,478	179,976	\$70,797,524	94,841	\$44,237,484	72,222	\$23,992,908	12,913	\$2,567,132
Worsted goods.....	78,244	58,859	69,251	26,266,787	29,883	14,409,965	32,130	10,379,154	7,238	1,396,668
Woolen goods.....	82,241	42,815	72,747	28,897,556	44,452	19,850,052	24,562	8,184,440	3,743	793,055
Carpets and rugs.....	36,472	28,875	33,221	13,724,233	16,930	8,271,441	14,408	5,064,201	1,883	363,591
Felt goods.....	3,744	2,829	3,254	1,356,754	2,546	1,115,013	669	219,147	6	2,594
Wool hats.....	2,253	1,050	1,503	619,194	1,030	487,013	433	125,957	40	6,224

	AVERAGE NUMBER OF WAGE-EARNERS, INCLUDING PIECEWORKERS, EMPLOYED DURING EACH MONTH.											
	Men 16 years and over.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Total.....	94,780	94,925	95,983	95,162	94,960	93,674	92,911	92,933	94,396	95,794	96,389	96,185
Worsted goods.....	23,914	23,850	30,202	29,618	29,219	28,700	28,291	28,761	29,942	30,718	31,602	31,589
Woolen goods.....	44,109	44,281	44,997	44,672	44,891	43,975	44,076	44,011	44,475	44,893	44,562	44,452
Carpets and rugs.....	17,597	17,623	17,478	17,511	17,294	17,100	16,549	16,125	15,969	16,336	16,594	16,984
Felt goods.....	2,351	2,369	2,446	2,426	2,445	2,699	2,716	2,723	2,728	2,607	2,559	2,483
Wool hats.....	759	802	860	935	1,031	1,140	1,279	1,313	1,282	1,240	1,042	677

	AVERAGE NUMBER OF WAGE-EARNERS, INCLUDING PIECEWORKERS, EMPLOYED DURING EACH MONTH—continued.											
	Women 16 years and over.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Total.....	72,246	72,587	73,229	72,496	72,052	70,871	69,937	70,281	71,717	73,366	73,956	73,926
Worsted goods.....	31,648	31,773	32,265	31,866	31,250	30,672	30,613	31,137	32,218	33,590	34,408	34,000
Woolen goods.....	24,751	24,867	24,967	24,711	24,909	24,356	24,006	23,936	24,125	24,740	24,594	24,462
Carpets and rugs.....	14,847	14,904	14,937	14,837	14,779	14,087	14,003	13,918	13,779	13,883	13,914	14,408
Felt goods.....	688	703	702	711	703	685	693	688	700	700	708	707
Wool hats.....	312	340	338	371	431	471	622	602	615	453	332	289

TABLE 46.—WOOL MANUFACTURES—SUMMARY, BY INDUSTRIES: 1905—Continued.

AVERAGE NUMBER OF WAGE-EARNERS, INCLUDING PIECEWORKERS, EMPLOYED DURING EACH MONTH—continued.												
Children under 16 years.												
January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Total.....	12,785	12,817	12,862	12,666	12,604	12,335	12,714	12,998	13,202	13,318	13,373	13,282
Worsted goods.....	6,995	7,041	7,102	7,061	6,917	6,872	7,036	7,338	7,465	7,646	7,762	7,621
Woolen goods.....	3,706	3,758	3,773	3,684	3,750	3,535	3,764	3,775	3,844	3,827	3,753	3,747
Carpets and rugs.....	2,053	1,987	1,951	1,876	1,885	1,864	1,832	1,813	1,822	1,801	1,827	1,885
Felt goods.....	10	10	10	13	10	9	9	8	8	8	8	8
Wool hats.....	21	21	26	35	42	55	73	64	63	36	23	21

	SKILLED OPERATIVES (AVERAGE NUMBER).						MACHINERY.							
	Spinners.			Weavers.			Sets of cards (number).				Combing machines (number).			
	Men 16 years and over.	Women 16 years and over.	Children under 16 years.	Men 16 years and over.	Women 16 years and over.	Children under 16 years.	Total.	Woolen.	Worsted.	Shoddy.	Cotton.	Total.	Of American manufacture.	Of foreign manufacture.
Total.....	9,863	8,202	3,502	27,163	24,003	508	8,266	6,968	1,028	174	496	1,540	386	1,153
Worsted goods.....	2,527	5,603	2,388	9,004	7,369	228	1,841	300	1,346	1	104	1,312	259	1,053
Woolen goods.....	6,776	1,568	1,020	11,013	12,539	251	5,140	4,730	41	138	231	128	81	47
Carpets and rugs.....	531	936	154	7,055	5,030	40	688	386	238	3	50	109	46	63
Felt goods.....	60	5		91	115		466	419	3	32	12			
Wool hats.....							124	124						

MACHINERY—continued.												
Spindles (number).												
Total.	Producing.						Doubling and twisting.					
	Mule.			Frame.			Woolen.			Worsted.	Cotton.	
	Woolen.	Worsted.	Cotton.	Woolen.	Worsted.	Cotton.	Woolen.	Worsted.	Cotton.	Woolen.	Worsted.	Cotton.
Total.....	4,021,008	2,140,753	313,862	40,320	28,063	875,743	57,870	110,626	441,038	12,223		
Worsted goods.....	1,618,207	130,333	306,662	16,030	300	731,331	32,302	9,032	386,902	4,443		
Woolen goods.....	2,120,727	1,902,206	7,233	24,320	28,363	32,568	16,076	98,546	15,408	4,280		
Carpets and rugs.....	255,347	90,685				132,044	8,302	1,788	38,728	3,500		
Felt goods.....	17,817	17,457						560				

MACHINERY—continued.											
Total.	Looms on woolen and worsted goods (number).						Looms on carpets and rugs (number).				
	Power.			Hand.			Total.	Ingrain.		Broad ingrain.	
	Broad (50 inches or over, reed space).		Narrow (under 50 inches, reed space).	On woolen or worsted goods.	Power.	Hand.		Power.	Hand.		
	On woolen goods.	On worsted goods.	On woolen goods.							On worsted goods.	
Total.....	66,293	27,171	19,722	10,933	8,401	66	11,602	4,180	82	412	42
Worsted goods.....	30,910	3,192	18,604	1,442	7,508	14					
Woolen goods.....	32,057	23,071	961	8,630	303	52					
Carpets and rugs.....	2,161	678	127	826	530		11,602	4,180	82	412	42
Felt goods.....	265	230		35							

MACHINERY—continued.												
Looms on carpets and rugs (number)—Continued.												
Total.	Venetian.		Tapestry Brussels (power).	Tapestry velvet (power).	Body Brussels (power).	Wilton (power).	Axminster (power).	Moquette (power).	Wilton rug (power).	Tapestry rug (power).	Smyrna rug.	
	Power.	Hand.									Power.	Hand.
Total.....	88	3	1,207	1,047	540	639	1,306	127	71	236	1,131	563
Carpets and rugs.....	88	3	1,207	1,047	540	639	1,306	127	71	236	1,131	563

MANUFACTURES.

TABLE 46.—WOOL MANUFACTURES—SUMMARY, BY INDUSTRIES: 1905—Continued.

	MACHINERY—continued.			MISCELLANEOUS EXPENSES.				
	Pickers (number).	Garnet machines (number).	Formers for felt hats (number).	Total.	Rent of works.	Taxes.	Rent of offices, interest, insurance, etc.	Contract work.
Total.....	1,812	245	14	\$21,588,465	\$332,357	\$1,524,793	\$18,010,607	\$1,220,708
Worsted goods.....	112	41	.....	8,301,579	432,728	500,069	6,687,346	681,435
Woolen goods.....	1,529	177	.....	8,218,766	288,640	646,223	6,873,819	410,084
Carpets and rugs.....	79	18	.....	4,162,146	91,026	334,060	3,612,946	124,114
Felt goods.....	72	9	10	612,766	8,270	35,566	566,501	2,429
Wool hats.....	20	.....	4	293,208	11,693	8,875	209,995	2,645

	MATERIALS USED.						
	Aggregate cost.	Total cost.	Purchased in raw state.				Foreign and domestic, scoured (pounds).
			Wool.				
			Foreign, in condition purchased.		Domestic, in condition purchased.		
Pounds.	Cost.	Pounds.	Cost.				
Total.....	\$242,561,096	\$128,713,591	152,562,532	\$37,674,830	330,963,563	\$82,073,949	282,194,618
Worsted goods.....	109,658,481	64,958,627	74,224,096	21,373,152	187,143,988	41,361,564	139,173,774
Woolen goods.....	87,830,825	47,875,088	24,679,225	5,387,163	132,656,502	37,311,572	102,106,291
Carpets and rugs.....	37,947,954	11,275,846	50,463,653	10,114,184	856,868	316,962	31,551,895
Felt goods.....	5,754,026	3,979,585	3,089,041	769,464	8,779,197	2,619,124	8,131,082
Wool hats.....	1,369,810	624,445	106,517	80,867	1,527,008	464,727	1,231,576

	MATERIALS USED—continued.							
	Purchased in raw state—Continued.							
	Animal hair and fur.							
	Camel, alpaca, and vicuña hair.	Mohair.				Buffalo, cow, and other animal hair and fur.		
		Domestic.		Turkish and other foreign.				
Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.	
Total.....	1,578,800	\$320,280	2,684,573	\$839,731	2,935,623	\$1,077,629	36,280,430	\$2,185,953
Worsted goods.....	1,563,407	315,712	1,881,028	574,226	1,751,455	692,265	544,359	65,036
Woolen goods.....	15,393	4,568	457,005	149,516	809,283	221,294	22,442,973	1,304,690
Carpets and rugs.....	.....	.....	.....	.....	.....	.....	8,805,802	593,588
Felt goods.....	.....	.....	243,730	85,306	280,983	122,495	6,449,916	165,996
Wool hats.....	.....	.....	72,750	30,683	93,897	41,576	43,380	56,593

	MATERIALS USED—continued.							
	Purchased in raw state—Continued.							
	Cotton.							
	Total.		Sea-island.		Other domestic.		Egyptian and other foreign.	
	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.
Total.....	36,593,401	\$4,541,219	433,444	\$52,834	32,417,357	\$3,948,504	3,742,600	\$539,881
Worsted goods.....	4,333,576	576,622	12,000	2,875	2,473,503	337,245	1,848,073	236,502
Woolen goods.....	28,279,832	3,496,235	421,444	49,959	25,963,861	3,142,947	1,894,627	303,379
Carpets and rugs.....	1,997,369	251,112	.....	.....	1,997,369	251,112	.....	.....
Felt goods.....	1,982,624	217,200	.....	.....	1,982,624	217,200	.....	.....

TABLE 46.—WOOL MANUFACTURES—SUMMARY, BY INDUSTRIES: 1905—Continued.

	MATERIALS USED—continued.								
	Purchased in partially manufactured form.								
	Total cost.	Tailors' clippings, rugs, etc.		Shoddy.		Wool waste and noils.		Camel, alpaca, and vicuña noils.	
Pounds.		Cost.	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.	
Total.....	\$85,406,911	81,059,536	\$5,748,070	35,782,056	\$4,833,949	29,350,788	\$6,057,841	681,201	\$186,153
Worsted goods.....	31,480,518	5,314	362	2,327,557	413,015	2,224,408	688,257	1,702	876
Woolen goods.....	26,404,584	70,361,946	5,668,272	20,591,899	4,059,651	22,758,543	5,067,713	679,499	185,277
Carpets and rugs.....	22,957,580	371,822	14,325	2,297,806	200,785	2,170,156	340,708	.....	.....
Felt goods.....	1,080,578	1,320,424	65,111	1,532,127	187,031	1,019,318	441,660	.....	.....
Wool hats.....	513,651	.....	.....	32,067	3,407	287,363	119,407	.....	.....

	MATERIALS USED—continued.							
	Purchased in partially manufactured form—Continued.							
	Mohair noils.		Tops.		Yarns.			
Pounds.	Cost.	Pounds.	Cost.	Woolen.		Worsted.		
				Pounds.	Cost.	Pounds.	Cost.	
Total.....	400,952	\$125,563	10,843,036	\$5,370,333	33,181,488	\$9,270,883	42,403,705	\$30,309,750
Worsted goods.....	37,705	21,354	8,062,183	4,959,614	2,024,978	1,100,180	28,769,263	21,473,093
Woolen goods.....	330,921	92,750	198,746	113,464	3,725,110	1,402,702	4,278,253	3,431,418
Carpets and rugs.....	2,325	511	1,006,770	253,099	32,431,400	6,648,091	11,355,993	5,405,072
Felt goods.....	20,651	10,843	76,202	52,573	.....	.....	100	167
Wool hats.....	290	105	135	73	.....	.....	.....	.....

	MATERIALS USED—continued.							
	Purchased in partially manufactured form—Continued.							
	Yarns—Continued.							
	Morino (cotton mixed).		Cotton.		Silk.		Spun silk.	
	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.
Total.....	3,618,407	\$770,627	60,429,356	\$12,896,381	202,578	\$947,787	285,748	\$914,549
Worsted goods.....	870,005	329,118	13,719,123	3,827,747	176,918	815,665	128,012	499,480
Woolen goods.....	1,579,080	200,089	18,878,949	4,205,096	26,652	132,001	81,725	232,611
Carpets and rugs.....	1,034,138	150,886	27,421,831	4,757,850	.....	.....	76,000	182,400
Felt goods.....	124,184	32,636	409,453	105,758	8	31	11	22

	MATERIALS USED—continued.								
	Purchased in partially manufactured form—Continued.								
	Yarns—Continued.				Wool hat bodies and hats in the rough.		All other materials which are components of the product (cost).	Soap.	
Linen.		Jute, ramie, and other vegetable fiber.		Dozens.	Cost.	Pounds.		Cost.	
Pounds.	Cost.	Pounds.	Cost.	Dozens.	Cost.	Pounds.	Cost.		
Total.....	9,252,620	\$1,368,145	49,705,980	\$3,420,515	12,089	\$25,097	\$2,635,368	45,743,400	\$1,895,614
Worsted goods.....	1,690	1,276	13,171	1,702	.....	.....	207,764	15,780,471	653,834
Woolen goods.....	2,097	2,005	305,101	10,130	.....	.....	1,534,469	21,683,227	1,048,004
Carpets and rugs.....	8,228,209	1,355,892	49,119,558	3,404,510	.....	.....	230,636	3,000,212	100,640
Felt goods.....	20,823	8,973	178,150	4,161	.....	.....	201,607	1,859,017	87,883
Wool hats.....	.....	.....	.....	.....	13,080	25,097	304,602	40,482	5,544

MANUFACTURES.

TABLE 46.—WOOL MANUFACTURES—SUMMARY, BY INDUSTRIES: 1905—Continued.

	MATERIALS USED—continued.								Cotton yarn made in mill for use therein (pounds).	Shoddy made in mill for use therein (pounds).
	Oil for preparing wool for cards and combs.		Chemicals and dyestuffs (cost).	Fuel (cost).	Rent of power and heat (cost).	Mill supplies (cost).	All other materials (cost).	Freight (cost).		
	Gallons.	Cost.								
Total.....	4,142,108	\$1,212,463	\$9,177,681	\$5,097,417	\$278,080	\$3,167,494	\$5,339,850	\$1,581,977	5,720,319	70,801,994
Worsted goods.....	658,093	392,618	2,823,569	2,101,684	108,780	1,378,129	2,307,629	483,658	938,325	256,567
Woolen goods.....	3,089,062	778,965	4,652,981	2,995,733	74,181	1,319,706	2,076,128	898,997	3,008,798	70,102,843
Carpets and rugs.....	369,311	110,362	1,467,416	714,929	32,673	462,349	784,816	101,274	1,773,196	.....
Felt goods.....	84,484	29,554	189,750	171,666	2,355	54,110	91,337	76,248	.....	442,079
Wool hats.....	1,158	129	63,935	46,967	120	13,200	79,949	21,890	.....	500

	Aggregate value.	PRODUCTS.							
		All-wool woven goods, whether woolen or worsted.							
		Wool cloths, doeskins, cassimeres, chevots, etc.		Worsted coatings, serges, and suitings.		Woolen overcoatings, cloakings, kerseys, etc.		Worsted overcoatings and cloakings.	
		Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.
Total.....	\$30,934,003	42,487,506	\$29,556,252	59,592,811	\$56,731,196	22,411,530	\$16,934,112	1,057,668	\$546,170
Worsted goods.....	165,745,052	1,044,843	752,768	55,147,589	53,359,053	271,871	164,838	617,120	300,308
Woolen goods.....	142,196,658	41,472,723	28,803,484	4,455,222	3,372,113	22,139,659	16,769,274	440,548	300,308
Carpets and rugs.....	61,586,433	.....	.....	.....	.....	.....	.....	.....	245,862
Felt goods.....	8,948,594	.....	.....	.....	.....	.....	.....	.....	.....
Wool hats.....	2,457,266	.....	.....	.....	.....	.....	.....	.....	.....

	PRODUCTS—continued.									
	All-wool woven goods, whether woolen or worsted—Continued.									
	Wool dress goods, sackings, tricots, etc., and opera and similar flannels.		Worsted dress goods, cashmeres, serges, buntings, etc.		Carriage cloths of all weights.		Flannels for underwear.		Blankets.	
	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.
Total.....	48,889,643	\$19,832,687	66,428,825	\$27,802,181	1,741,705	\$964,557	8,710,131	\$2,045,858	7,414,563	\$2,793,284
Worsted goods.....	3,743,372	1,915,559	65,918,276	27,517,441	155	277	.....	.....	390,691	98,344
Woolen goods.....	45,131,024	17,910,458	510,549	284,740	1,741,610	964,280	8,710,131	2,045,858	6,925,488	2,652,685
Felt goods.....	15,247	6,670	.....	.....	.....	.....	.....	.....	98,384	42,255

	PRODUCTS—continued.								Union or cotton mixed woven goods.	
	All-wool woven goods, whether woolen or worsted—Continued.								Unions, tweeds, chevots, cassimeres, etc.	
	Horse blankets.		Carriage robes.		Woven shawls.		Mohair dress goods.		Square yards.	Value.
	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.
Total.....	740,237	\$418,219	42,187	\$93,727	895,777	\$557,370	268,416	\$163,648	35,103,110	\$15,050,726
Worsted goods.....	5,053	2,767	.....	.....	188,668	56,912	247,000	150,000	3,318,918	1,792,019
Woolen goods.....	735,184	415,452	42,187	93,727	707,109	500,458	21,416	13,648	31,784,192	13,258,707

TABLE 46.—WOOL MANUFACTURES—SUMMARY, BY INDUSTRIES: 1905—Continued.

PRODUCTS—continued.												
Union or cotton mixed woven goods—Continued.												
Overcoatings and cloakings.		Sackings, tricots, etc., and opera and similar flannels.		Flannels for underwear.		Blankets.		Horse blankets.				
Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.			
Total.....	5,373,953	\$3,353,758	11,630,740	\$4,926,506	7,273,761	\$1,528,928	3,114,110	\$1,198,706	618,800	\$222,543		
Worsted goods.....	601,302	305,019	1,709,081	700,241	7,273,761	1,528,928	3,114,110	1,198,706	618,800	222,543		
Woolen goods.....	4,771,751	3,048,739	9,921,659	4,226,265								
PRODUCTS—continued.												
Union or cotton mixed woven goods—Continued.												
Goods woven on cotton warps, with weft partly or wholly of wool, worsted, or hair (or cotton weft with warp of wool).												
Carriage robes.		Wool filling cassimeres, doerskins, tweeds, eatings, etc.		Worsted filling cassimeres, doerskins, tweeds, eatings, etc.		Wool filling overcoatings and cloakings.		Satinets and linseys.				
Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.			
Total.....	23,833	\$7,150	34,602,165	\$10,877,081	16,688,620	\$6,960,402	8,198,400	\$2,478,878	22,343,617	\$4,077,233		
Worsted goods.....	23,833	7,150	388,769	285,566	9,908,650	5,540,858						
Woolen goods.....			34,213,396	10,591,515	6,719,970	1,419,544	8,198,400	2,478,878	22,339,112	4,074,800		
Felt goods.....									4,505	2,433		
PRODUCTS—continued.												
Goods woven on cotton warps, with weft partly or wholly of wool, worsted, or hair (or cotton weft with warp of wool)—Continued.												
Worsted filling dress goods, cassimeres, serges, mohairs, etc.		Wool filling dress goods and repellents.		Domest flannels and shirtings.		Linings, Italian cloths, and lastings.		Cotton warp blankets.				
Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.			
Total.....	46,300,369	\$12,711,554	12,130,080	\$3,230,561	4,285,838	\$709,470	17,619,325	\$4,505,927	9,340,580	\$2,250,089		
Worsted goods.....	48,364,201	12,379,936	184,310	137,575	4,285,838	709,470	13,879,521	4,159,907	9,267,144	2,218,243		
Woolen goods.....	936,168	331,618	11,054,701	3,092,986			3,739,804	345,930	73,435	31,846		
Felt goods.....												
PRODUCTS—continued.												
Goods woven on cotton warps, with weft partly or wholly of wool, worsted, or hair (or cotton weft with warp of wool)—Continued.												
Horse blankets.				Carriage robes.				Woolen and worsted upholstery goods.		Other upholstery goods (value).	Carpets and rugs.	
Horse blankets.		Carriage robes.		Woolen and worsted upholstery goods.		Other upholstery goods (value).		Carpets.		Ingrain, 2-ply.		
Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	
Total.....	6,307,836	\$1,083,154	1,300,166	\$1,139,217	3,233,405	\$1,847,722	\$716,200	30,492,150	\$11,841,732			
Worsted goods.....					321,757	383,625	691,193					
Woolen goods.....	6,307,836	1,083,154	1,300,166	1,139,217	738,082	525,312	25,100					
Carpets and rugs.....					2,172,666	938,785		30,492,150	11,841,732			

MANUFACTURES.

TABLE 46.—WOOL MANUFACTURES—SUMMARY, BY INDUSTRIES: 1905—Continued.

PRODUCTS—continued.										
Carpets and rugs—Continued.										
Carpets—Continued.										
Ingrain, 3-ply.		Ingrain, art.		Tapestry Brussels.		Body Brussels.		Tapestry velvet.		
Square yards.	Value.	Square yards.	Value.	Running yards of 27 inches wide.	Value.	Running yards of 27 inches wide.	Value.	Running yards of 27 inches wide.	Value.	
Total.....	3,065,795	\$1,445,570	6,261,035	\$2,290,545	18,798,765	\$9,955,043	4,032,216	\$3,898,675	10,711,051	\$7,754,681
Carpets and rugs.....	3,065,795	1,445,570	6,261,035	2,290,545	18,798,765	9,955,043	4,032,216	3,898,675	10,711,051	7,754,681
PRODUCTS—continued.										
Carpets and rugs—Continued.										
Carpets—Continued.					Rugs.					
Wilton.		Axminster and Moquette.		Tapestry.		Wilton.		Axminster and Moquette.		
Running yards of 27 inches wide.	Value.	Running yards of 27 inches wide.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	
Total.....	1,730,496	\$2,726,667	8,551,581	\$6,368,757	2,009,834	\$1,509,673	1,097,186	\$1,983,777	1,767,920	\$2,107,383
Carpets and rugs.....	1,730,496	2,726,667	8,551,581	6,368,757	2,009,834	1,509,673	1,097,186	1,983,777	1,767,920	2,107,383
PRODUCTS—continued.										
Carpets and rugs—Continued.						Felt goods.				
Rugs—Continued.										
Ingrain.		Smyrna carpets and rugs.		Other woolen rugs.		Felt cloths.		Trimming and lining felts, felt skirts, etc.		
Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	
Total.....	874,511	\$494,912	3,828,282	\$4,134,500	406,042	\$349,860	3,716,210	\$1,864,127	5,145,340	\$1,188,908
Carpets and rugs.....	874,511	494,912	3,828,282	4,134,500	406,042	349,860				
Felt goods.....							3,689,610	1,830,627	5,145,340	1,188,908
Wool hats.....							26,600	33,500		
PRODUCTS—continued.										
Felt goods—Continued.										
Endless belts.		Boot and shoe linings.		Hair felting.		All other felts (value).		Wool hats.		
Pounds.	Value.	Square yards.	Value.	Square yards.	Value.	All other felts (value).		Dozens.	Value.	
Total.....	1,770,124	\$1,707,216	2,823,137	\$781,450	605,214	\$191,998	\$2,892,567	446,121	\$2,290,070	
Woolen goods.....							294,173			
Felt goods.....	1,770,124	1,707,216	2,823,137	781,450	605,214	191,998	2,592,894			
Wool hats.....							5,500	446,121	2,290,070	

TABLE 4G.—WOOL MANUFACTURES—SUMMARY, BY INDUSTRIES: 1905—Continued.

	PRODUCTS—continued.									
	Partially manufactured products for sale.									
	Felt hats.		Woolen yarn, all wool.		Worsted yarn and tops.		Woolen yarn, union or merino (cotton mixed).		Worsted yarn, union or merino (cotton mixed).	
	Dozens.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Total.....	300	\$5,400	43,734,323	\$10,283,017	62,042,798	\$44,400,176	9,433,088	\$2,699,266	3,481,421	\$2,527,308
Worsted goods.....			4,575,159	1,593,529	156,200,807	141,335,042	79,687	25,720	3,314,549	2,460,558
Woolen goods.....			38,303,161	8,400,365	4,046,950	1,662,205	8,744,077	2,512,298		
Carpets and rugs.....			832,500	278,525	12,604,981	11,492,928	609,024	161,248	166,875	66,750
Felt goods.....			23,503	10,593						
Wool hats.....	300	5,400								

	PRODUCTS—continued.											
	Partially manufactured products for sale—Continued.											
	Mohair and similar yarn.		Cotton yarn.		Wool card rolls.		Nolls.		Waste.		Shoddy and mungo.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Total.....	1,068,748	\$820,357	1,740,312	\$342,438	302,610	\$135,538	16,238,144	\$5,022,007	22,378,230	\$2,062,667	1,733,974	\$246,888
Worsted goods.....	1,068,748	820,357	1,740,312	342,438	301,410	134,038	14,045,135	4,755,323	13,324,037	2,263,828	1,733,974	246,888
Woolen goods.....					1,200	600	434,465	110,653	4,621,130	184,355		
Carpets and rugs.....							858,544	156,631	4,000,904	190,095		
Felt goods.....									342,740	7,747		
Wool hats.....									88,510	6,641		

	PRODUCTS continued.								POWER.			
	Partially manufactured products for sale—Continued.								Owned.			
	Flocks.		Wool hat bodies and hats in the rough.		All other products (value).	Amount received for contract work (value).	Number of establishments reporting.	Total horsepower.	Engines.			
	Pounds.	Value.	Dozens.	Value.					Steam.		Gas and gasoline.	
					Number.	Horse-power.	Number.	Horse-power.				
Total.....	607,295	\$24,802	31,712	\$205,491	\$5,126,386	\$1,188,633	1,100	346,500	1,760	229,246	43	1,760
Worsted goods.....	15,849	532			1,335,005	444,676	225	130,620	487	95,111	11	347
Woolen goods.....	679,000	23,780			1,888,007	743,861	784	163,793	828	96,940	30	1,358
Carpets and rugs.....					1,438,745	80	135	30,240	166	20,631	2	65
Felt goods.....	2,440	541	13,125	105,000	448,205	200	30	10,930	61	6,149		
Wool hats.....			18,587	100,491	15,524	140	10	1,912	18	1,415		

	POWER—continued.										
	Owned—Continued.					Rented.					Furnished to other establishments.
	Water wheels.		Electric motors.		Other power (horse-power).	Electric.		Other kind.	Horse-power.		
	Number.	Horse-power.	Number.	Horse-power.		Number.	Horse-power.			Horse-power.	
Total.....	606	70,354	505	23,586	432	157	4,223	7,860	2,095		
Worsted goods.....	141	16,834	274	11,243	385	70	2,260	4,440	505		
Woolen goods.....	705	55,931	125	5,804	35	31	1,232	2,493	702		
Carpets and rugs.....	25	2,688	181	5,294	12	15	263	966	672		
Felt goods.....	30	3,171	13	1,180		40	436		51		
Wool hats.....	5	430	2	65		1	2		15		

1 Includes 4,772,582 pounds of worsted tops and shubbing, valued at \$2,855,171.
 2 Includes 1,018 pounds of worsted tops and shubbing, valued at \$136.
 3 Includes 1 water motor with 10 horsepower.

TABLE 47.—WORSTED GOODS—DETAILED SUMMARY, BY STATES: 1905.

	United States.	Connecticut.	Maine.	Massachusetts.	New Hampshire.	New Jersey.	New York.	Pennsylvania.	Rhode Island.	Wisconsin.	All other states. ¹
Number of establishments.....	226	11	6	49	3	15	10	74	50	3	5
Capital, total.....	\$162,464,919	\$4,379,180	\$2,512,193	\$59,563,759	\$3,570,636	\$14,382,076	\$9,448,732	\$27,385,436	\$38,789,543	\$538,691	\$1,854,653
Land.....	\$11,706,470	\$90,100	\$34,358	\$6,399,921	\$121,068	\$281,049	\$238,000	\$940,711	\$3,588,015	\$21,008	\$44,790
Buildings.....	\$29,201,406	\$584,576	\$283,283	\$8,121,171	\$450,000	\$2,401,175	\$707,027	\$2,900,785	\$4,558,882	\$67,423	\$347,524
Machinery, tools, and implements.....	\$41,595,093	\$801,455	\$522,266	\$15,532,852	\$736,187	\$4,023,862	\$3,180,782	\$6,621,198	\$9,054,067	\$104,888	\$57,526
Cash and sundries.....	\$88,901,910	\$3,102,889	\$1,722,256	\$29,449,835	\$2,272,781	\$7,665,910	\$5,322,423	\$16,617,142	\$21,588,529	\$254,772	\$204,843
Proprietors and firm members.....	188	1	40	40	24	20	20	83	18		
Salaries of officials, clerks, etc.:											
Total number.....	1,847	78	55	451	20	216	146	503	215	11	32
Total salaries.....	\$2,904,910	\$122,534	\$65,772	\$767,016	\$43,656	\$258,961	\$214,797	\$749,175	\$519,458	\$23,100	\$40,221
Officers of corporations—											
Number.....	207	16	6	46	4	20	8	55	42	2	8
Salaries.....	\$712,129	\$44,800	\$11,392	\$166,358	\$13,001	\$50,500	\$7,880	\$207,970	\$156,563	\$7,000	\$16,665
General superintendents, managers, clerks, etc.—											
Total number.....	1,640	62	49	405	26	196	138	448	283	9	24
Total salaries.....	\$2,192,831	\$77,734	\$54,380	\$600,658	\$30,655	\$278,461	\$206,917	\$541,205	\$363,095	\$16,100	\$23,556
Men—											
Number.....	1,479	57	43	346	24	189	129	409	254	7	21
Salaries.....	\$2,108,589	\$73,762	\$51,238	\$570,170	\$29,656	\$275,171	\$201,732	\$521,161	\$355,244	\$15,430	\$21,980
Women—											
Number.....	161	5	6	59	2	7	9	39	29	2	3
Salaries.....	\$84,451	\$2,032	\$3,042	\$29,688	\$1,029	\$3,290	\$5,185	\$20,044	\$17,851	\$720	\$1,570
Wage-earners, including pieceworkers, and total wages:											
Greatest number employed at any one time during the year.....	78,244	1,978	1,793	24,312	2,000	6,380	4,138	16,198	19,947	248	1,241
Least number employed at any one time during the year.....	58,859	1,546	1,556	17,242	1,183	5,491	3,445	11,622	15,671	174	929
Average number.....	69,251	1,811	1,656	21,182	1,599	6,024	3,708	14,059	17,987	209	1,040
Total wages.....	\$26,269,787	\$701,941	\$657,774	\$8,328,564	\$534,959	\$1,857,461	\$1,324,512	\$4,971,543	\$7,542,920	\$70,629	\$299,184
Men 16 years and over—											
Average number.....	29,883	1,176	826	10,105	399	2,083	1,558	4,767	8,654	82	223
Wages.....	\$14,493,965	\$507,622	\$392,941	\$4,827,373	\$162,158	\$695,281	\$675,320	\$2,418,191	\$4,423,374	\$43,798	\$107,907
Women 16 years and over—											
Average number.....	32,139	517	656	9,546	1,124	3,325	1,914	6,837	7,547	110	554
Wages.....	\$10,379,154	\$172,185	\$217,996	\$3,148,040	\$354,182	\$835,121	\$600,571	\$2,098,094	\$2,776,710	\$24,851	\$151,604
Children under 16 years—											
Average number.....	7,238	118	164	1,531	76	616	236	2,425	1,786	17	269
Wages.....	\$1,396,068	\$22,134	\$26,837	\$352,951	\$18,619	\$87,059	\$48,621	\$455,658	\$342,836	\$2,250	\$39,673
Average number of wage-earners, including pieceworkers, employed during each month:											
Men 16 years and over—											
January.....	29,964	1,140	808	10,320	400	2,017	1,590	4,763	8,624	87	215
February.....	29,850	1,128	791	10,301	398	2,060	1,574	4,708	8,584	85	211
March.....	30,202	1,132	837	10,345	400	2,088	1,566	4,709	8,812	92	221
April.....	29,618	1,169	853	9,930	401	2,108	1,560	4,446	8,854	85	212
May.....	29,299	1,192	840	9,829	403	2,070	1,531	4,335	8,801	82	216
June.....	28,760	1,171	846	9,572	399	2,041	1,578	4,497	8,545	88	223
July.....	28,291	1,148	817	9,449	399	2,046	1,294	4,434	8,401	83	220
August.....	28,761	1,144	844	9,620	399	2,091	1,284	4,728	8,247	82	222
September.....	29,942	1,187	872	9,960	396	2,117	1,606	5,017	8,405	74	218
October.....	30,718	1,224	863	10,340	393	2,124	1,648	5,126	8,692	77	231
November.....	31,602	1,226	843	11,039	405	2,128	1,705	5,201	8,740	76	230
December.....	31,689	1,241	818	10,755	395	2,106	1,760	5,240	8,933	73	248
Women 16 years and over—											
January.....	31,648	524	650	9,613	1,129	3,309	1,864	6,726	7,191	121	521
February.....	31,773	510	645	9,573	1,123	3,347	1,857	6,744	7,278	123	523
March.....	32,265	505	655	9,753	1,127	3,366	1,881	6,717	7,597	123	521
April.....	31,866	514	610	9,587	1,131	3,363	1,877	6,472	7,586	121	525
May.....	31,230	517	651	9,236	1,132	3,321	1,854	6,395	7,478	118	528
June.....	30,672	506	657	8,869	1,127	3,259	1,850	6,440	7,273	115	549
July.....	30,613	492	662	8,542	1,126	3,208	1,866	6,428	7,233	107	549
August.....	31,137	494	668	9,085	1,125	3,213	1,868	6,744	7,276	101	563
September.....	32,288	510	677	9,400	1,124	3,303	1,929	7,011	7,680	101	563
October.....	33,580	549	670	10,000	1,117	3,350	1,962	7,347	7,945	97	553
November.....	34,408	539	639	10,255	1,112	3,467	2,016	7,520	8,177	97	586
December.....	34,060	544	638	10,219	1,115	3,347	2,084	7,800	7,850	96	667
Children under 16 years—											
January.....	6,995	114	153	1,513	78	568	231	2,410	1,656	18	254
February.....	7,041	109	154	1,526	77	594	230	2,423	1,657	19	252
March.....	7,102	106	169	1,515	75	590	229	2,408	1,740	19	251
April.....	7,091	111	172	1,499	74	613	231	2,353	1,743	18	247
May.....	6,872	115	161	1,452	74	622	230	2,313	1,691	18	251
June.....	7,026	118	162	1,412	74	593	238	2,317	1,699	17	272
July.....	7,338	121	163	1,455	76	620	244	2,298	1,764	17	278
August.....	7,465	119	159	1,536	76	636	238	2,377	1,606	16	275
September.....	7,446	122	170	1,550	77	658	243	2,418	1,629	16	282
October.....	7,762	125	164	1,614	77	632	240	2,542	1,666	14	272
November.....	7,621	129	175	1,656	76	634	246	2,616	1,621	16	293
December.....	7,621	127	166	1,644	78	632	242	2,625	1,760	16	301
Skilled operatives, average number:											
Spinners—											
Men 16 years and over.....	2,527	37	138	593	14	203	486	696	284	2	74
Women 16 years and over.....	5,663	34	163	1,748	226	370	663	1,583	701	25	180
Children under 16 years.....	2,338	8	103	501	16	233	152	913	220	16	226
Weavers—											
Men 16 years and over.....	9,004	548	294	2,285	83	801	517	1,501	2,887	16	72
Women 16 years and over.....	7,369	60	221	2,343	722	275	617	1,540	1,261		331
Children under 16 years.....	228		11	58		6	13	65			75
Machinery:											
Sets of cards, number.....											
Woolen.....	1,841	40	10	701	29	125	93	406	374	10	24
Worsted.....	300	33	4	50		8	30	68	101		
Shoddy.....	1,346	10	6	457	29	117	13	338	262	10	24
Cotton.....	1										
Combing machines, number.....											
Of American manufacture.....	1,312	10	21	194	14	162	57	314	285	8	19
Of foreign manufacture.....	259			422	4	13	12	55	48	6	7
Total.....	1,053	10	21	308	10	149	45	259	237	2	12

¹ Includes establishments distributed as follows: Ohio, 2; Texas, 1; West Virginia, 2.

TABLE 47.—WORSTED GOODS—DETAILED SUMMARY, BY STATES: 1905—Continued.

	United States.	Connecticut.	Maine.	Massachusetts.	New Hampshire.	New Jersey.	New York.	Pennsylvania.	Rhode Island.	Wisconsin.	All other states.
Machinery—Continued.											
Spindles, total number.....	1,618,207	33,460	21,838	498,890	51,944	146,182	100,361	365,718	368,600	5,320	16,885
Producing, number.....	1,216,930	27,576	17,060	376,309	43,424	114,897	79,033	273,644	269,256	3,208	12,523
Mule, number.....	452,997	20,520	1,500	85,620	3,640	68,480	33,439	133,006	105,802		300
Woolen.....	130,335	20,520		16,474		7,080	9,490	34,420	41,742		
Worsted.....	306,662		1,500	53,146	3,640	60,800	23,940	99,276	64,000		300
Cotton.....	16,000			16,000							
Frame, number.....	763,933	7,056	15,560	290,089	39,784	46,417	45,694	139,948	163,464	3,208	12,223
Woolen.....	300	300									
Worsted.....	731,331	6,756	15,560	258,387	39,784	46,417	45,694	139,948	163,464	3,208	12,223
Cotton.....	32,302			32,302							
Doubling and twisting, number.....	401,277	5,884	4,778	122,590	8,520	31,285	30,328	92,074	99,344	2,112	4,362
Woolen.....	9,932	2,324		1,920			1,900	228	3,500		
Worsted.....	386,002	3,560	4,778	116,227	8,520	31,285	28,428	91,846	95,784	2,112	4,362
Cotton.....	4,443			4,443							
Looms on woolen and worsted goods, number.....	30,910	727	875	10,437	2,002	2,493	1,453	5,783	6,808	16	417
Power—											
Broad, 50 inches or over, reed space—											
On woolen goods.....	3,192	67		2,066		70	70	764	155		
On worsted goods.....	18,694	500	354	4,404	1,002	2,423	1,065	3,240	5,273	16	417
Narrow, under 50 inches, reed space—											
On woolen goods.....	1,442	2		1,094			3	338	5		
On worsted goods.....	7,568	157	521	2,772	1,000		306	1,437	1,375		
Hand—											
On woolen or worsted goods.....	14	1		1			8	4			
Pickers, number.....	112	10		32			5	22			3
Garnet machines, number.....	41	5	1	11			3	13			
Miscellaneous expenses, total.....	\$8,301,579	\$220,040	\$211,886	\$1,026,340	\$240,215	\$803,573	\$634,068	\$2,060,250	\$2,088,280	\$26,804	\$209,522
Rent of works.....	\$432,728	\$17,550	\$4,045	\$81,043	\$2,100	\$6,740	\$123,048	\$127,580	\$70,622		
Taxes.....	\$500,000	\$13,400	\$5,630	\$239,374	\$23,023	\$25,878	\$25,157	\$31,544	\$128,457	\$1,843	\$5,073
Rent of offices, interest, insurance, and all other sundry expenses not hitherto included.....	\$6,877,346	\$182,671	\$202,211	\$1,241,019	\$215,092	\$794,465	\$486,458	\$1,437,433	\$1,815,187	\$24,061	\$287,840
Contract work.....	\$681,430	\$0,320		\$04,004		\$00,400	1	\$469,093	\$71,020		
Materials used, aggregate cost.....	\$109,058,481	\$3,006,032	\$2,282,590	\$39,753,501	\$2,469,627	\$7,061,876	\$3,882,042	\$24,090,803	\$30,439,026	\$355,130	\$1,531,364
Principal materials, total cost.....	\$102,155,015	\$2,992,725	\$2,114,081	\$31,103,237	\$2,364,037	\$7,381,197	\$3,606,536	\$22,992,180	\$28,040,062	\$335,031	\$1,255,200
Purchased in raw state.....	\$61,068,627	\$410,088	\$740,220	\$22,068,202	\$2,100,236	\$5,933,434	\$2,912,035	\$15,235,220	\$14,300,083	\$203,013	\$925,581
Purchased in partially manufactured form.....	\$37,196,388	\$2,552,037	\$1,373,855	\$9,038,065	\$107,801	\$1,447,703	\$694,501	\$7,756,051	\$13,733,379	\$71,718	\$329,718
Fuel.....	\$2,101,094	\$62,527	\$68,620	\$737,080	\$51,658	\$152,480	\$85,602	\$305,036	\$371,008	\$11,274	\$23,094
Rent of power and heat.....	\$168,780		\$9,442	\$72,874	\$15,580	\$1,260		\$42,820	\$20,708		
Mill supplies.....	\$1,378,129	\$42,103	\$10,324	\$408,617	\$0,103	\$55,001	\$112,725	\$380,700	\$303,697	\$658	\$3,097
All other materials.....	\$3,371,265	\$4,825	\$55,097	\$1,318,858	\$30,822	\$280,486	\$17,514	\$283,354	\$1,328,684	\$3,013	\$34,053
Freight.....	\$483,658	\$20,747	\$24,417	\$117,295	\$1,424	\$85,447	\$60,065	\$52,011	\$102,777	\$3,654	\$15,221
Products, total value.....	\$165,745,052	\$4,316,534	\$3,609,990	\$51,073,944	\$3,270,498	\$11,025,126	\$7,858,622	\$35,083,015	\$44,477,596	\$401,043	\$2,138,084
Power:											
Number of establishments reporting.....	225	11	6	49	3	15	9	74	50	3	5
Total horsepower.....	130,620	2,100	2,812	46,474	5,028	9,040	10,317	21,590	20,528	343	2,119
Owned—											
Engines—											
Steam—											
Number.....	487	13	5	190	20	25	21	87	115	2	9
Horsepower.....	95,111	1,205	1,527	81,433	2,053	8,555	5,250	10,024	24,360	200	1,414
Gas and gasoline—											
Number.....	11	1	1	4			2	2	1		
Horsepower.....	347	20	15	50			180	72	10		
Water wheels.....											
Number.....	141	7	4	53	4	3	14	15	50	1	
Horsepower.....	10,834	760	240	7,641	650	100	3,235	320	3,820	78	
Electric motors—											
Number.....	274	2	0	110	3	11	28	42	20	2	38
Horsepower.....	11,243	075	075	5,278	350	950	1,652	570	993	65	795
Other power, horsepower.....	355							330	55		
Rented—											
Electric motors—											
Number.....	70		7	31	8	3		17	4		
Horsepower.....	2,260		355	803	575	37		200	230		
Other kind, horsepower.....	4,440			1,260	2,000	7		1,074	150		
Furnished to other establishments, horsepower.....	565		100	110				170	185		

¹Includes 1 water motor with 10 horsepower.

TABLE 48.—WOOLEN GOODS—DETAILED

	United States.	Arkansas.	California.	Connecticut.	Georgia.
1 Number of establishments.....	792	4	7	48	8
2 Capital, total.....	\$140,302,488	\$28,150	\$961,281	\$10,651,584	\$814,694
3 Land.....	\$10,223,761	\$1,150	\$75,000	\$523,640	\$35,025
4 Buildings.....	\$21,226,953	\$2,750	\$129,696	\$1,722,541	\$128,118
5 Machinery, tools, and implements.....	\$35,030,559	\$16,300	\$295,825	\$2,370,208	\$271,656
6 Cash and sundries.....	\$73,761,215	\$7,950	\$460,760	\$6,030,195	\$379,995
7 Proprietors and firm members.....	729	6	1	38	4
8 Salaried officials, clerks, etc.:					
9 Total number.....	2,477		25	202	17
10 Total salaries.....	\$3,430,855		\$33,385	\$293,213	\$21,698
11 Officers of corporations—					
12 Number.....	458		10	50	5
13 Salaries.....	\$1,040,766		\$16,270	\$110,450	\$11,200
14 General superintendents, managers, clerks, etc.—					
15 Total number.....	2,010		15	152	12
16 Total salaries.....	\$2,390,089		\$17,115	\$182,763	\$10,398
17 Men—					
18 Number.....	1,782		13	147	12
19 Salaries.....	\$2,263,495		\$16,280	\$179,973	\$10,398
20 Women—					
21 Number.....	237		2	5	
22 Salaries.....	\$126,594		\$835	\$2,790	
23 Wage-earners, including pieceworkers, and total wages:					
24 Greatest number employed at any one time during the year.....	82,241	35	614	6,231	731
25 Least number employed at any one time during the year.....	62,865	20	230	4,809	633
26 Average number.....	72,747	11	430	5,618	647
27 Total wages.....	\$28,827,556	\$2,947	\$139,400	\$2,296,483	\$129,187
28 Men 16 years and over—					
29 Average number.....	44,452	6	256	3,828	293
30 Wages.....	\$19,850,052	\$1,742	\$104,547	\$1,702,339	\$66,912
31 Women 16 years and over—					
32 Average number.....	24,552	4	168	1,627	247
33 Wages.....	\$8,184,449	\$995	\$53,429	\$556,742	\$49,694
34 Children under 16 years—					
35 Average number.....	3,743	1	6	163	107
36 Wages.....	\$793,055	\$210	\$1,424	\$37,402	\$13,581
37 Average number of wage-earners, including pieceworkers, employed during each month:					
38 Men 16 years and over—					
39 January.....	44,109	12	245	3,880	277
40 February.....	44,281	6	226	3,609	275
41 March.....	44,907	6	275	3,946	276
42 April.....	44,672	6	298	3,893	273
43 May.....	44,891	6	300	3,878	269
44 June.....	43,975	6	236	3,788	271
45 July.....	44,076	5	288	3,750	270
46 August.....	44,011	5	280	3,521	303
47 September.....	44,475	5	260	3,719	301
48 October.....	44,893	5	208	3,921	316
49 November.....	44,592	5	185	3,877	337
50 December.....	44,452	5	221	3,854	345
51 Women 16 years and over—					
52 January.....	24,751	7	194	1,637	242
53 February.....	24,867	1	152	1,658	243
54 March.....	24,967		177	1,663	240
55 April.....	24,711		195	1,623	242
56 May.....	24,909	8	191	1,625	234
57 June.....	24,356	8	183	1,597	237
58 July.....	24,006	8	178	1,565	237
59 August.....	23,936	8	173	1,515	246
60 September.....	24,325	8	148	1,626	252
61 October.....	24,740		135	1,664	261
62 November.....	24,504		139	1,669	262
63 December.....	24,462		151	1,682	268
64 Children under 16 years—					
65 January.....	3,706		9	168	107
66 February.....	3,758		9	166	108
67 March.....	3,773		11	167	108
68 April.....	3,684		10	151	109
69 May.....	3,750	1	7	162	109
70 June.....	3,635	2	8	163	105
71 July.....	3,764	2	5	158	104
72 August.....	3,775	2	2	155	107
73 September.....	3,844	2	2	162	109
74 October.....	3,827	1	4	159	106
75 November.....	3,753	1	2	168	107
76 December.....	3,747	1	3	177	108
77 Skilled operatives, average number:					
78 Spinners—					
79 Men 16 years and over.....	6,736	3	40	495	69
80 Women 16 years and over.....	1,568		9	14	20
81 Children under 16 years.....	1,020		3	7	67
82 Weavers—					
83 Men 16 years and over.....	11,013		43	1,128	73
84 Women 16 years and over.....	12,369	14	103	768	184
85 Children under 16 years.....	231	1		3	
86 Machinery:					
87 Sets of cards, number.....					
88 Woolen.....	5,149	10	36	389	47
89 Worsted.....	4,739	10	36	386	31
90 Shoddy.....	41				
91 Cotton.....	188				3
92 Combing machines, number.....	231				2
93 Of American manufacture.....	128	1	1	8	1
94 Of foreign manufacture.....	81	1	1	8	1
95 Spindles, total number.....	47				
96 Producing, number.....	2,129,727	1,200	15,752	148,800	20,034
97 Mule, number.....	2,011,493	1,140	15,006	138,846	19,994
98 Woolen.....	1,933,786	420	15,006	138,846	19,994
99 Worsted.....	1,902,266	420	15,006	138,846	14,994
100 Cotton.....	7,200				
101 Frame, number.....	24,320				5,000
102 Woolen.....	77,707	720			
103 Worsted.....	28,363	720			
104 Cotton.....	32,368				
105	16,976				

TABLE 48.—WOOLEN GOODS—DETAILED

	New Hampshire.	New Jersey.	New York.	North Carolina.	Ohio.	
1	Number of establishments.....	41	16	41	12	23
2	Capital, total.....	\$10,850,596	\$3,669,760	\$6,213,044	\$418,733	\$1,707,826
3	Land.....	\$1,090,333	\$171,650	\$322,275	\$43,267	\$133,637
4	Buildings.....	\$1,640,003	\$682,438	\$925,585	\$76,618	\$350,742
5	Machinery, tools, and implements.....	\$2,996,171	\$1,014,338	\$1,329,268	\$137,834	\$438,164
6	Cash and sundries.....	\$5,124,089	\$1,801,334	\$3,635,916	\$161,014	\$779,283
7	Proprietors and firm members.....	32	13	41	15	34
8	Salaried officials, clerks, etc.:					
9	Total number.....	177	52	160	23	41
10	Total salaries.....	\$213,706	\$81,387	\$241,258	\$21,040	\$54,342
11	Officers of corporations—					
12	Number.....	23	9	25	6	16
13	Salaries.....	\$37,808	\$24,432	\$98,151	\$8,025	\$26,690
14	General superintendents, managers, clerks, etc.—					
15	Total number.....	154	43	135	17	25
16	Total salaries.....	\$175,838	\$56,955	\$143,107	\$13,015	\$27,452
17	Men—					
18	Number.....	129	41	98	15	24
19	Salaries.....	\$102,592	\$56,360	\$115,260	\$12,215	\$26,852
20	Women—					
21	Number.....	25	2	37	2	1
22	Salaries.....	\$13,246	\$595	\$27,847	\$800	\$600
23	Wage-earners, including pieceworkers and total wages:					
24	Greatest number employed at any one time during the year.....	5,643	3,097	3,838	420	813
25	Least number employed at any one time during the year.....	4,810	2,608	2,900	351	606
26	Average number.....	4,982	2,676	3,473	343	722
27	Total wages.....	\$2,220,103	\$970,704	\$1,422,969	\$70,813	\$236,794
28	Men 16 years and over—					
29	Average number.....	3,344	1,476	2,127	167	326
30	Wages.....	\$1,634,420	\$603,380	\$970,405	\$43,145	\$131,074
31	Women 16 years and over—					
32	Average number.....	1,531	1,043	1,259	150	377
33	Wages.....	\$561,789	\$342,372	\$434,637	\$24,556	\$102,741
34	Children under 16 years—					
35	Average number.....	107	157	87	26	19
36	Wages.....	\$23,894	\$24,952	\$17,927	\$3,112	\$2,979
37	Average number of wage-earners, including pieceworkers, employed during each month:					
38	Men 16 years and over—					
39	January.....	3,522	1,680	2,132	116	321
40	February.....	3,537	1,685	2,170	116	326
41	March.....	3,577	1,609	2,166	171	340
42	April.....	3,560	1,510	2,148	170	337
43	May.....	3,513	1,474	2,114	171	341
44	June.....	3,364	1,397	2,142	170	340
45	July.....	3,316	1,390	2,030	183	329
46	August.....	3,077	1,397	2,106	182	330
47	September.....	2,994	1,383	2,128	185	313
48	October.....	3,044	1,388	2,141	185	308
49	November.....	3,231	1,396	2,117	179	308
50	December.....	3,393	1,403	2,130	176	313
51	Women 16 years and over—					
52	January.....	1,615	1,198	1,253	132	376
53	February.....	1,648	1,195	1,279	133	378
54	March.....	1,656	1,155	1,281	155	386
55	April.....	1,652	1,118	1,287	152	382
56	May.....	1,620	1,071	1,281	153	383
57	June.....	1,577	959	1,283	149	380
58	July.....	1,531	963	1,113	160	380
59	August.....	1,376	958	1,274	162	377
60	September.....	1,369	964	1,281	159	364
61	October.....	1,382	969	1,281	151	372
62	November.....	1,448	977	1,251	162	373
63	December.....	1,498	989	1,244	142	373
64	Children under 16 years—					
65	January.....	99	162	91	24	18
66	February.....	97	161	92	24	18
67	March.....	100	160	93	23	18
68	April.....	104	159	91	24	18
69	May.....	106	158	86	24	18
70	June.....	103	158	86	22	18
71	July.....	103	165	89	33	23
72	August.....	104	165	87	33	22
73	September.....	114	159	83	34	20
74	October.....	111	149	84	24	18
75	November.....	120	145	83	23	18
76	December.....	123	143	79	24	19
77	Skilled operatives, average number:					
78	Spinners—					
79	Men 16 years and over.....	474	226	307	31	74
80	Women 16 years and over.....	69	141	41	6	45
81	Children under 16 years.....	3	71	7	2	2
82	Weavers—					
83	Men 16 years and over.....	871	497	446	32	57
84	Women 16 years and over.....	798	426	507	110	219
85	Children under 16 years.....		6	3	4	
86	Machinery:					
87	Sets of cards, number.....					
88	Woolen.....	393	138	258	37	57
89	Worsted.....	376	115	241	25	57
90	Shoddy.....		3	4		
91	Cotton.....	17	20	11		
92	Combing machines, number.....				12	
93	Of American manufacture.....	10	4	5		
94	Of foreign manufacture.....	10	2	3		
95	Spindles, total number.....					
96	Producing, number.....	183,030	70,416	95,840	9,509	19,324
97	Woolen.....	178,680	66,396	90,503	8,779	18,592
98	Worsted.....	176,370	56,596	83,271	7,124	18,352
99	Cotton.....			82,951	7,124	18,352
100	Frame, number.....			320		
101	Woolen.....	2,260	9,800	7,232	1,635	240
102	Worsted.....	2,260	6,000		655	240
103	Cotton.....		3,800	7,232		
104					1,000	

¹ Includes establishments distributed as follows: Alabama, 1; Delaware, 2; Idaho, 1; Kansas, 2; Mississippi, 1; North Dakota, 1; Texas, 1; Washington, 1.

SUMMARY, BY STATES: 1905—Continued.

Oregon.	Pennsylvania.	Rhode Island.	Tennessee.	Utah.	Vermont.	Virginia.	West Virginia.	Wisconsin.	All other states. ¹		
7	144	32	27	3	17	24	12	26	10	1	
\$1,271,982	\$16,988,766	\$6,810,265	\$2,309,772	\$446,015	\$5,659,649	\$1,046,094	\$425,611	\$1,807,341	\$1,759,707	2	
\$67,307	\$869,374	\$687,729	\$44,595	\$25,250	\$643,356	\$47,250	\$16,880	\$107,430	\$88,178	3	
\$131,044	\$2,342,603	\$669,780	\$838,962	\$67,590	\$631,985	\$181,264	\$88,119	\$251,512	\$367,491	4	
\$124,545	\$1,831,197	\$2,047,353	\$492,238	\$94,500	\$1,624,856	\$307,901	\$127,807	\$452,678	\$617,370	5	
\$748,099	\$8,965,591	\$3,114,404	\$933,977	\$259,665	\$2,459,442	\$509,679	\$102,805	\$995,821	\$666,659	6	
3	180	26	22	1	17	23	13	27	4	7	
25	295	111	44	9	98	29	21	53	38	8	
\$42,665	\$362,462	\$134,554	\$54,350	\$8,240	\$152,600	\$28,537	\$24,100	\$60,448	\$46,437	9	
5	38	13	14	1	10	4	6	10	7	10	
\$15,690	\$72,304	\$22,636	\$30,790	\$1,800	\$21,600	\$7,300	\$11,500	\$14,100	\$16,091	11	
20	257	98	30	8	88	25	15	43	31	12	
\$27,005	\$299,158	\$111,818	\$23,650	\$6,440	\$131,000	\$21,237	\$12,600	\$46,348	\$30,346	13	
18	233	94	28	7	80	25	15	38	28	14	
\$25,625	\$278,764	\$108,391	\$23,130	\$5,900	\$126,268	\$21,237	\$12,600	\$44,284	\$28,746	15	
2	24	7	2	1	8	.....	.....	5	3	10	
\$1,380	\$11,394	\$3,427	\$520	\$540	\$4,732	.....	.....	\$2,064	\$1,600	17	
641	10,796	4,001	1,718	299	2,530	699	325	1,029	744	18	
533	8,049	2,980	1,293	279	1,914	537	256	811	581	19	
566	9,674	3,623	1,415	284	2,235	649	290	928	660	20	
\$219,742	\$3,604,199	\$1,659,659	\$327,202	\$80,254	\$922,825	\$170,242	\$105,044	\$310,450	\$226,618	21	
311	5,334	2,439	507	139	1,595	357	203	467	334	22	
\$160,788	\$2,374,188	\$1,129,347	\$169,017	\$54,100	\$989,135	\$118,254	\$55,001	\$192,765	\$141,658	23	
210	3,302	1,077	564	119	624	238	80	415	293	24	
\$63,078	\$1,021,068	\$408,717	\$116,664	\$31,101	\$223,662	\$53,638	\$10,846	\$109,793	\$76,533	25	
39	1,038	110	344	26	46	54	7	46	63	26	
\$5,876	\$208,943	\$21,495	\$50,521	\$3,963	\$10,028	\$7,350	\$1,097	\$7,892	\$8,527	27	
325	5,441	2,384	476	129	1,457	365	180	434	347	28	
298	5,499	2,434	474	126	1,456	367	180	434	352	29	
303	5,555	2,475	485	126	1,514	372	205	443	352	30	
317	4,974	2,434	478	140	1,648	376	205	477	339	31	
324	4,538	2,334	480	144	1,528	376	200	470	280	32	
325	4,960	2,380	490	146	1,586	342	208	482	325	33	
325	5,358	2,428	513	146	1,648	338	204	481	329	34	
307	5,251	2,508	522	147	1,638	352	208	495	329	35	
340	5,280	2,464	525	148	1,604	342	208	481	341	36	
305	5,385	2,470	535	148	1,575	342	209	482	340	37	
299	5,388	2,475	544	145	1,629	361	206	465	327	38	
268	5,369	2,440	544	126	1,597	351	205	454	338	39	
224	3,359	1,088	554	109	602	237	69	383	280	40	
213	3,371	1,120	551	109	612	234	70	389	295	41	
220	3,403	1,052	540	109	650	230	75	392	290	42	
218	3,120	1,114	524	118	653	244	81	400	296	43	
221	3,356	1,098	525	125	648	257	77	414	283	44	
223	3,046	1,084	527	125	651	236	82	412	288	45	
231	3,272	1,062	562	125	628	240	86	420	288	46	
218	3,200	1,072	570	125	611	248	80	434	296	47	
221	3,266	1,037	579	125	594	235	82	442	298	48	
214	3,405	1,077	585	125	608	239	86	434	295	49	
205	3,439	1,078	627	124	612	223	86	427	291	50	
184	3,492	1,036	624	109	619	224	80	424	298	51	
30	1,030	110	350	26	30	50	.....	48	64	52	
30	1,058	109	354	26	40	50	.....	48	68	53	
30	1,060	114	348	26	48	55	.....	50	68	54	
30	1,027	102	282	27	50	57	11	50	63	55	
30	1,094	85	288	27	48	62	15	47	55	56	
30	911	88	280	26	49	48	14	47	61	57	
30	903	110	363	26	49	62	0	47	62	58	
30	1,039	121	367	26	49	57	0	46	63	59	
30	1,080	122	374	26	49	50	7	46	63	60	
44	1,084	110	371	26	43	58	7	45	64	60	
44	1,041	122	368	25	44	48	7	38	64	61	
20	1,042	118	371	25	44	51	5	40	64	62	
37	1,358	413	60	33	208	55	53	52	62	64	
13	415	29	98	1	.....	9	6	90	29	65	
.....	347	33	166	2	7	21	0	.....	10	66	
60	1,085	677	162	20	471	76	67	120	117	67	
101	1,348	373	407	40	302	147	34	153	126	68	
.....	64	18	.....	.....	6	7	2	.....	4	69	
29	773	205	162	12	128	50	21	80	46	70	
20	712	243	70	12	110	49	21	76	42	71	
13	.....	7	.....	.....	.....	.....	.....	2	2	72	
16	.....	15	3	.....	8	1	.....	.....	.....	73	
32	.....	26	.....	.....	1	.....	.....	.....	.....	74	
35	.....	6	3	.....	.....	6	4	.....	2	75	
10	.....	3	.....	.....	.....	6	4	.....	1	76	
26	.....	6	.....	.....	.....	.....	.....	.....	1	77	
11,586	343,167	120,740	47,258	5,240	51,218	21,058	0,431	30,278	20,680	78	
10,404	317,064	116,118	46,672	4,950	50,738	19,912	8,574	27,550	19,023	79	
10,404	306,218	110,118	36,672	4,950	50,738	19,422	8,034	26,258	17,005	80	
10,404	263,218	110,118	36,672	4,950	50,738	19,422	8,034	26,258	17,005	81	
.....	7,200	.....	.....	.....	.....	.....	.....	.....	.....	82	
.....	5,800	.....	.....	.....	.....	.....	.....	.....	.....	83	
.....	10,846	.....	10,000	.....	.....	400	540	1,202	1,928	84	
.....	1,430	.....	.....	.....	.....	400	540	380	200	85	
.....	9,416	.....	10,000	.....	.....	.....	.....	912	1,600	86	
.....	.....	.....	.....	.....	.....	.....	.....	.....	128	87	

TABLE 48.—WOOLEN GOODS—DETAILED

	United States.	Arkansas.	California.	Connecticut.	Georgia.	
Machinery—Continued.						
Spindles—Continued.						
88	Doubling and twisting, number.....	118,234	60	746	9,954	100
89	Woolen.....	98,546	60	746	9,954	100
90	Worsted.....	15,408				
91	Cotton.....	4,280				
92	Looms on woolen and worsted goods, number.....	32,957	24	205	2,474	546
Power—						
Broad, 50 inches or over, reed space—						
93	On woolen goods.....	23,071	4	203	1,879	70
94	On worsted goods.....	901			135	
Narrow, under 50 inches, reed space—						
95	On woolen goods.....	8,630	19	2	451	476
96	On worsted goods.....	303	1		9	
Hand—						
97	On woolen or worsted goods.....	52				
98	Pickers, number.....	1,529	6	24	112	8
99	Garnet machines, number.....	177		2	11	2
100	Miscellaneous expenses, total.....	\$8,218,766	\$475	\$109,146	\$565,572	\$35,898
101	Rent of works.....	\$288,640		\$1,460	\$21,150	\$460
102	Taxes.....	\$646,223	\$155	\$4,745	\$41,168	\$2,880
103	Rent of offices, interest, insurance, and all other sundry expenses not hitherto included.....	\$6,873,819	\$220	\$90,691	\$483,361	\$32,528
104	Contract work.....	\$410,084	\$100	\$12,250	\$20,193	
105	Materials used, aggregate cost.....	\$87,830,825	\$13,837	\$467,011	\$6,976,287	\$424,211
106	Principal materials, total cost.....	\$79,682,116	\$12,912	\$415,671	\$6,401,377	\$395,549
107	Purchased in raw state.....	\$47,875,088	\$11,185	\$341,238	\$3,662,173	\$227,111
108	Purchased in partially manufactured form.....	\$31,807,028	\$1,727	\$74,433	\$2,739,204	\$168,438
109	Fuel.....	\$2,662,161	\$650	\$10,862	\$241,605	\$12,126
110	Rent of power and heat.....	\$74,181	\$180	\$7,329	\$600	\$1,000
111	Mill supplies.....	\$1,319,766	\$70	\$8,372	\$123,822	\$9,690
112	All other materials.....	\$3,193,664	\$75	\$18,519	\$110,293	\$925
113	Freight.....	\$898,997		\$6,258	\$98,590	\$4,921
114	Products, total value.....	\$142,196,658	\$20,245	\$754,190	\$11,166,965	\$655,998
Power:						
115	Number of establishments reporting.....	784	4	7	48	8
116	Total horsepower.....	163,793	93	1,025	13,289	1,181
Owned—						
Engines—						
Steam—						
117	Number.....	828	2	14	58	5
118	Horsepower.....	96,940	59	945	7,141	863
Gas and gasoline—						
119	Number.....	30			2	
120	Horsepower.....	1,358			45	
Water wheels—						
121	Number.....	765			76	4
122	Horsepower.....	55,931			5,688	168
Electric motors—						
123	Number.....	125			7	
124	Horsepower.....	5,804			405	
125	Other power, horsepower.....	35				
Rented—						
Electric motors—						
126	Number.....	31		5		
127	Horsepower.....	1,232		80		
128	Other kind, horsepower.....	2,493	34		10	150
129	Furnished to other establishments, horsepower.....	792			5	

SUMMARY, BY STATES: 1905--Continued.

Illinois.	Indiana.	Iowa.	Kentucky.	Maine.	Maryland.	Massachusetts.	Michigan.	Minnesota.	Missouri.	
1,100	827	383	504	16,430	2,038	22,562	2,132	518	84	88
1,100	827	383	504	16,430	2,038	17,066	2,132	518	84	89
						3,636				90
130	539	160	980	2,746	225	1,800	167	119	65	91
						10,251				92
122	286	141	320	2,577	221	0,995	138	117	62	93
4	1					269				94
4	252	19	666	130	4	2,980	19	2	3	95
				139		7				96
17	26	10	29	133	7	345	10	16	7	97
	2	1	1	15	1	23	2	1	1	98
\$50,294	\$117,586	\$33,064	\$131,375	\$1,015,149	\$70,016	\$2,249,956	\$83,997	\$51,023	\$18,085	100
\$2,680	\$360	\$3		\$4,700		\$84,267	\$4,000	\$800		101
\$1,841	\$9,089	\$2,595	\$6,408	\$70,444	\$9,905	\$254,665	\$7,056	\$4,743	\$1,167	102
\$42,703	\$108,217	\$31,066	\$124,967	\$933,370	\$60,111	\$1,633,176	\$72,941	\$45,814	\$17,518	103
				\$0,035		\$277,848		\$566		104
\$495,291	\$997,267	\$261,568	\$774,987	\$8,528,645	\$734,234	\$27,048,500	\$694,593	\$402,672	\$176,155	105
\$467,639	\$930,596	\$219,633	\$729,216	\$7,678,260	\$636,906	\$24,237,400	\$518,426	\$427,321	\$161,350	106
\$320,009	\$808,397	\$227,658	\$412,451	\$5,173,000	\$514,253	\$12,764,572	\$469,997	\$382,434	\$114,622	107
\$147,330	\$131,199	\$41,995	\$307,762	\$2,565,170	\$92,743	\$11,472,834	\$48,429	\$44,887	\$46,737	108
\$15,413	\$34,791	\$18,260	\$30,086	\$300,223	\$10,824	\$897,671	\$33,133	\$12,998	\$5,179	109
\$2,401	\$300		\$95	\$7,854		\$2,983	\$300	\$2,542		110
\$2,976	\$6,905	\$2,748	\$13,508	\$130,648	\$3,620	\$463,530	\$5,242	\$440	\$401	111
\$2,542	\$11,988	\$10,918	\$1,046	\$273,032	\$73,701	\$1,217,338	\$34,161	\$18,478	\$3,635	112
\$1,960	\$3,687	\$3,989	\$10,637	\$131,728	\$9,083	\$229,599	\$4,271	\$883	\$4,404	113
\$783,300	\$1,597,107	\$572,936	\$1,273,241	\$13,969,600	\$1,119,971	\$44,653,940	\$977,493	\$701,224	\$265,292	114
0	13	10	20	66	4	131	15	16	5	115
1,150	1,092	1,102	2,201	16,444	2,210	48,381	1,286	941	332	116
0	14	0	22	54	5	207	16	8	6	117
845	1,660	800	1,963	5,170	575	30,071	1,067	400	245	118
				1		4		2		119
				35		130	27	32		120
2	9	8	2	111	10	185	3	8	3	121
175	160	304	13	10,109	1,435	14,494	57	176	82	122
	5	2	4	0	0	40	5		1	123
	47	1	185	355	200	3,486	100		5	124
	35									125
1	2			11		1	1			126
26	60			775		70	35			127
119			40			150		333		128
30						135	0			129

TABLE 48.—WOOLEN GOODS—DETAILED

	New Hampshire.	New Jersey.	New York.	North Carolina.	Ohio.
Machinery—Continued.					
Spindles—Continued.					
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TABLE 49.—CARPETS AND RUGS, OTHER THAN RAG—DETAILED SUMMARY, BY STATES: 1905.

	United States.	Connecticut.	Massachusetts.	New Jersey.	New York.	Pennsylvania.	All other states. ¹
Number of establishments.....	139	3	10	8	12	102	4
Capital, total.....	\$56,781,074	\$4,304,158	\$7,904,650	\$2,097,815	\$19,830,452	\$22,284,077	\$359,922
Land.....	\$3,153,894	\$623,060	\$533,324	\$45,050	\$930,313	\$663,457	\$16,600
Buildings.....	\$8,096,950	\$914,042	\$1,705,500	\$411,411	\$2,171,009	\$3,425,831	\$69,148
Machinery, tools, and implements.....	\$15,126,294	\$1,575,831	\$1,731,174	\$431,084	\$4,640,617	\$6,647,465	\$103,123
Cash and stores.....	\$20,801,026	\$1,191,225	\$3,934,643	\$1,207,270	\$12,070,513	\$11,217,324	\$171,051
Proprietors and firm members.....	149		2	3	8	136	
Salaried officials, clerks, etc.:—							
Total number.....	1,023	103	86	47	269	504	14
Total salaries.....	\$1,396,691	\$171,979	\$141,216	\$59,972	\$327,509	\$652,089	\$13,926
Officers of corporations—							
Number.....	78	7	7	13	17	31	3
Salaries.....	\$349,350	\$47,700	\$35,330	\$57,410	\$79,600	\$123,310	\$6,000
General superintendents, managers, clerks, etc.—							
Total number.....	945	96	79	34	252	473	11
Total salaries.....	\$1,047,341	\$124,279	\$105,886	\$32,562	\$247,909	\$528,779	\$7,926
Men—							
Number.....	837	80	70	31	239	408	9
Salaries.....	\$909,419	\$117,365	\$101,399	\$31,263	\$240,681	\$501,145	\$7,596
Women—							
Number.....	108	16	9	3	13	65	2
Salaries.....	\$47,922	\$6,914	\$4,487	\$1,299	\$7,228	\$27,634	\$390
Wage-earners, including pieceworkers, and total wages:							
Greatest number employed at any one time during the year.....	26,472	2,112	5,568	1,442	12,096	14,884	370
Least number employed at any one time during the year.....	28,875	1,066	10,225	1,070	11,225	11,594	265
Average number.....	33,221	1,815	5,179	1,153	11,977	13,716	281
Total wages.....	\$13,724,233	\$657,462	\$2,187,767	\$417,548	\$4,567,481	\$5,829,135	\$64,840
Men 16 years and over—							
Average number.....	16,930	867	2,383	781	5,354	7,410	135
Wages.....	\$8,271,441	\$360,539	\$1,217,320	\$322,272	\$2,649,558	\$3,677,056	\$44,296
Women 16 years and over—							
Average number.....	14,408	846	2,305	357	5,417	5,266	127
Wages.....	\$5,084,201	\$270,845	\$876,442	\$92,846	\$1,857,120	\$1,068,154	\$18,794
Children under 16 years—							
Average number.....	1,883	102	401	15	306	1,040	19
Wages.....	\$368,591	\$26,078	\$94,005	\$2,430	\$60,403	\$183,925	\$1,750
Average number of wage-earners, including pieceworkers, employed during each month:							
Men 16 years and over—							
January.....	17,597	757	2,458	912	5,501	7,795	174
February.....	17,623	757	2,465	900	5,522	7,846	133
March.....	17,478	756	2,387	865	5,543	7,784	143
April.....	17,511	807	2,436	852	5,639	7,634	143
May.....	17,294	856	2,380	876	5,555	7,458	169
June.....	17,100	858	2,376	853	5,418	7,455	142
July.....	16,559	855	2,299	735	5,221	7,388	51
August.....	16,125	907	2,315	726	5,125	7,002	50
September.....	15,909	931	2,388	766	5,128	6,624	132
October.....	16,336	956	2,354	716	5,119	7,043	148
November.....	16,394	950	2,326	541	5,289	7,291	167
December.....	16,984	986	2,412	630	5,188	7,600	168
Women 16 years and over—							
January.....	14,847	727	2,460	411	5,507	5,573	169
February.....	14,904	727	2,471	418	5,578	5,583	132
March.....	14,937	798	2,416	383	5,649	5,540	151
April.....	14,837	798	2,465	387	5,704	5,360	123
May.....	14,779	821	2,400	410	5,724	5,280	144
June.....	14,687	875	2,409	415	5,530	5,315	143
July.....	14,003	867	2,287	332	5,201	5,236	80
August.....	13,918	903	2,336	330	5,205	5,067	77
September.....	13,779	873	2,396	352	5,221	4,833	104
October.....	13,883	913	2,382	342	5,222	4,897	127
November.....	13,914	917	2,321	232	5,253	5,052	139
December.....	14,408	933	2,397	277	5,210	5,456	135
Children under 16 years—							
January.....	2,053	81	410	19	471	1,050	22
February.....	1,987	82	411	19	466	1,050	19
March.....	1,951	95	400	18	370	1,048	20
April.....	1,876	92	410	18	318	1,016	21
May.....	1,885	96	400	18	330	1,019	22
June.....	1,864	100	400	19	269	1,056	20
July.....	1,832	96	402	11	262	1,052	9
August.....	1,813	104	395	11	248	1,046	9
September.....	1,822	103	399	13	252	1,034	21
October.....	1,801	108	392	16	250	1,014	21
November.....	1,827	131	389	8	247	1,031	21
December.....	1,885	136	404	9	249	1,064	23
Skilled operatives, average number:							
Spinners—							
Men 16 years and over.....	531	34	54	4	173	260	6
Women 16 years and over.....	936	99	132	10	224	471	
Children under 16 years.....	154		15		14	125	
Weavers—							
Men 16 years and over.....	7,055	230	532	638	1,137	4,419	99
Women 16 years and over.....	5,050	273	707	138	1,644	2,218	70
Children under 16 years.....	49		3			44	2
Machinery:							
Sets of cards, number.....							
Woolen.....	686	81	197	10	303	95	
Worsted.....	386	48	77	5	180	76	
Shoddy.....	238	33	90	5	91	19	
Cotton.....	3		3				
Combing machines, number.....							
Of American manufacture.....	109	19	47	3	12	28	
Of foreign manufacture.....	46	3	22	3	9		
Spindles, total number.....	255,347	25,221	55,524	2,888	121,380	49,334	
Producing, number.....	211,331	21,559	42,464	3,240	104,450	39,618	
Woolen, number.....	90,695	7,355	12,150	1,224	52,942	17,018	
Worsted.....	120,636	14,204	30,308	2,016	51,508	22,600	
Cotton.....	112,044	14,204	28,436	2,016	44,788	22,600	
Total.....	8,592		1,872		6,720		

¹ Includes establishments distributed as follows: Alabama, 1; Georgia, 1; Indiana, 1; North Carolina, 1.

TABLE 49.—CARPETS AND RUGS, OTHER THAN RAG—DETAILED SUMMARY, BY STATES: 1905—Continued.

	United States.	Connecticut.	Massachu- setts.	New Jersey.	New York.	Pennsylv- ania.	All other states.
Machinery—Continued.							
Spindles—Continued.							
Doubling and twisting, number.....	44,016	3,662	13,060	648	16,930	9,716	
Woolen.....	1,788	132	1,000		540	16	
Worsted.....	38,728	3,520	11,382	648	13,478	9,700	
Cotton.....	3,500		688		2,912		
Looms on woolen and worsted goods, number.....	2,161				1,257	904	
Power—							
Broad, 50 inches or over, reed space—							
On woolen goods.....	678				2	676	
On worsted goods.....	127				52	75	
Narrow, under 50 inches, reed space—							
On woolen goods.....	826				673	153	
On worsted goods.....	530				530		
Looms on carpets and rugs, number.....	11,692	550	1,367	977	2,720	5,837	233
Ingrain—							
Power.....	4,189	200	253	12	150	3,436	138
Hand.....	82			2	55	24	
Broad ingrain—							
Power.....	412	17		50	11	327	7
Hand.....	42					42	
Venetian—							
Power.....	88					88	
Hand.....	3					3	
Tapestry Brussels, power.....	1,207	80	114		570	443	
Tapestry velvet, power.....	1,047	10	64	61	470	453	
Body Brussels, power.....	549		273		65	131	
Wilton, power.....	639	35	374		63	167	
Axminster, power.....	1,306	137	205		910	45	
Moquette, power.....	127				127		
Wilton rug, power.....	71		8	4		59	
Tapestry rug, power.....	236		76		83	77	
Smyrna rug.....							
Power.....	1,131			445	197	490	80
Hand.....	533			403	9	143	8
Pickers, number.....	79				3	23	
Garnet machines, number.....	18	5	23	2	3	2	
Miscellaneous expenses, total.....	\$4,163,146	\$183,048	\$367,452	\$83,825	\$1,004,307	\$1,500,678	\$23,330
Rent of works.....	\$51,026		\$31,446		\$5,793	\$81,787	
Taxes.....	\$334,000	\$17,267	\$106,042	\$5,407	\$147,208	\$56,700	\$620
Rent of offices, interest, insurance, and all other sundry ex- penses not hitherto included.....	\$3,612,046	\$165,781	\$257,364	\$78,358	\$1,751,246	\$1,362,700	\$17,428
Contract work.....	\$124,114					\$118,332	\$5,782
Materials used, aggregating cost.....	\$37,047,054	\$2,169,773	\$6,702,615	\$978,856	\$11,133,063	\$16,706,431	\$257,216
Principal and rials, total cost.....	\$35,871,513	\$2,024,869	\$6,002,061	\$924,129	\$10,584,288	\$16,005,751	\$230,515
Purchased in raw state.....	\$11,275,840	\$1,313,367	\$2,801,303	\$169,465	\$4,954,538	\$1,000,283	
Purchased in partially manufactured form.....	\$24,595,667	\$711,502	\$3,193,568	\$814,664	\$5,629,750	\$14,005,468	\$230,515
Fuel.....	\$714,029	\$72,473	\$171,398	\$23,008	\$224,235	\$210,654	\$9,261
Rent of power and heat.....	\$32,673		\$2,435			\$28,438	\$1,800
Mill supplies.....	\$462,349	\$25,448	\$124,428	\$2,199	\$114,550	\$131,632	\$2,092
All other materials.....	\$825,216	\$46,083	\$235,865	\$27,170	\$169,024	\$281,826	\$4,340
Freight.....	\$101,274		\$15,528	\$1,450	\$40,067	\$40,130	\$3,190
Products, total value.....	\$61,586,433	\$3,221,946	\$9,713,978	\$1,748,831	\$10,404,133	\$27,120,311	\$377,834
Power:							
Number of establishments reporting.....	135	3	10	8	12	98	4
Total horsepower.....	30,239	4,010	8,918	1,448	10,809	12,724	370
Owned—							
Engines—							
Steam—							
Number.....	166	4	29	11	30	87	5
Horsepower.....	29,631	2,410	6,449	663	8,901	10,553	205
Gas and gasoline—							
Number.....	2			1		1	
Horsepower.....	55			5		50	
Water wheels—							
Number.....	25		9	3	10	3	
Horsepower.....	2,088		1,323	300	1,190	175	
Electric motors—							
Number.....	181	58	34	7	20	62	
Horsepower.....	5,204	2,500	1,043	180	718	853	
Other power, horsepower.....	12					12	
Rented—							
Electric motors—							
Number.....	15		7			7	1
Horsepower.....	203		103			115	75
Other kind, horsepower.....	966					966	
Furnished to other establishments, horsepower.....	672		460			212	

TABLE 50.—FELT GOODS—DETAILED SUMMARY, BY STATES: 1905.

	United States.	Massachu- setts.	New York.	Pennsyl- vania.	All other states. ¹
Number of establishments.....	39	10	12	5	12
Capital, total.....	\$9,667,136	\$2,155,527	\$4,021,651	\$348,532	\$3,141,426
Land.....	\$531,682	\$133,190	\$218,775	\$28,900	\$150,717
Buildings.....	\$1,865,762	\$342,242	\$507,557	\$111,397	\$104,236
Machinery, tools, and implements.....	\$2,143,294	\$383,853	\$922,635	\$106,326	\$720,427
Cash and sundries.....	\$5,126,498	\$1,296,212	\$2,072,331	\$101,909	\$1,656,046
Proprietors and firm members.....	18	1	9	4	4
Salaries of officials, clerks, etc.: Total number.....	201	37	\$100,017	\$25,228	\$105,317
Total salaries.....	\$350,594	\$60,032			
Officers of corporations— Number.....	45	3	19	4	19
Salaries.....	\$135,044	\$6,000	\$71,444	\$14,400	\$43,200
General superintendents, managers, clerks, etc.— Total number.....	156	34	61	9	62
Total salaries.....	\$215,550	\$54,032	\$88,573	\$10,828	\$62,117
Men— Number.....	126	28	49	8	41
Salaries.....	\$200,014	\$50,432	\$82,300	\$10,228	\$57,054
Women— Number.....	30	6	12	1	11
Salaries.....	\$15,536	\$3,600	\$6,273	\$600	\$5,063
Wage-earners, including pieceworkers, and total wages: Greatest number employed at any one time during the year.....	3,744	1,097	1,229	146	1,272
Least number employed at any one time during the year.....	2,829	710	1,011	60	1,042
Average number.....	3,254	899	1,117	129	1,109
Total wages.....	\$1,856,754	\$313,836	\$490,755	\$60,277	\$491,586
Men 16 years and over— Average number.....	2,546	800	847	125	774
Wages.....	\$1,135,013	\$283,851	\$402,584	\$59,077	\$389,501
Women 16 years and over— Average number.....	699	95	269	4	331
Wages.....	\$210,147	\$28,550	\$87,941	\$1,200	\$101,456
Children under 16 years— Average number.....	9	4	1		4
Wages.....	\$2,594	\$1,435	\$230		\$929
Average number of wage-earners, including pieceworkers, employed during each month: Men 16 years and over— January.....	2,351	670	846	119	716
February.....	2,369	701	826	124	708
March.....	2,446	738	846	127	735
April.....	2,426	743	836	128	719
May.....	2,445	743	833	125	725
June.....	2,699	944	830	122	753
July.....	2,716	951	846	114	805
August.....	2,723	935	851	123	814
September.....	2,728	932	851	127	818
October.....	2,607	785	842	131	843
November.....	2,559	764	838	132	825
December.....	2,453	695	833	128	822
Women 16 years and over— January.....	688	92	284	4	308
February.....	703	94	287	4	318
March.....	702	97	283	4	318
April.....	711	97	289	4	321
May.....	703	98	284	4	317
June.....	685	96	283	4	317
July.....	693	93	254	4	342
August.....	688	92	255	4	337
September.....	700	96	254	4	345
October.....	700	97	250	4	349
November.....	703	93	259	4	352
December.....	707	95	261	4	347
Children under 16 years— January.....	10	6	1		3
February.....	10	6	1		3
March.....	10	6	1		3
April.....	10	5	1		4
May.....	10	5	1		4
June.....	9	3	1		5
July.....	9	3	1		5
August.....	8	2	1		4
September.....	8	3	1		4
October.....	8	3	1		4
November.....	8	3	1		4
December.....	8	3	1		4
Skilled operatives, average number: Spinners— Men 16 years and over.....	69	14	26	4	25
Women 16 years and over.....	5				5
Weavers— Men 16 years and over.....	91	14	53		24
Women 16 years and over.....	115		31	4	80
Machinery Sets of cards, number.....	466	160	108	20	189
Woolen.....	419	184	102	20	113
Worsted.....	3				3
Shoddy.....	32	15	6		11
Cotton.....	12				12
Spindles, total number.....	17,817		8,091	208	9,518
Producing mule, woolen, number.....	17,457		7,951	208	9,268
Doubling and twisting, woolen, number.....	360		140		220
Looms on woolen and worsted goods, number.....	265		111	6	148
Power— Broad, 50 inches or over, reed space— On woolen goods.....	230		84	4	142
Narrow, under 50 inches, reed space— On woolen goods.....	35		27	2	6
Pickers, number.....	72	24	15	9	24
Garnet machines, number.....	9		4		5
Formers for felt hats, number.....	10		10		

¹Includes establishments distributed as follows: California, 1; Connecticut, 1; Illinois, 1; Indiana, 1; Maine, 2; Michigan, 1; New Jersey, 2; Ohio, 2; Wisconsin, 1.

TABLE 50.—FELT GOODS—DETAILED SUMMARY, BY STATES: 1905—Continued.

	United States.	Massachu- setts.	New York.	Pennsyl- vania.	All other states.
Miscellaneous expenses, total.....	\$612,766	\$110,881	\$287,270	\$22,762	\$182,853
Rent of works.....	\$8,270	\$4,613			\$1,657
Taxes.....	\$35,566	\$11,819	\$11,148	\$2,060	\$10,530
Rent of offices, interest, insurance, and all other sundry expenses not hitherto included..	\$566,501	\$101,020	\$276,122	\$20,702	\$168,657
Contract work.....	\$2,429	\$2,429			
Materials used, aggregate cost.....	\$5,754,029	\$1,075,491	\$1,928,974	\$186,974	\$1,062,587
Principal materials, total cost.....	\$5,352,585	\$1,887,048	\$1,806,305	\$171,803	\$1,487,430
Purchased in raw state.....	\$3,979,585	\$1,327,490	\$1,382,786	\$136,866	\$1,132,443
Purchased in partially manufactured form.....	\$1,373,000	\$559,558	\$423,519	\$34,937	\$354,987
Fuel.....	\$171,066	\$48,110	\$63,143	\$10,791	\$40,652
Rent of power and heat.....	\$2,335	\$22	\$111		\$2,202
Mill supplies.....	\$54,110	\$6,310	\$28,157	\$1,164	\$18,479
All other materials.....	\$97,082	\$5,410	\$7,018	\$2,800	\$81,254
Freight.....	\$76,248	\$28,591	\$23,640	\$446	\$23,571
Products, total value.....	\$8,948,594	\$2,686,011	\$3,178,768	\$370,342	\$2,713,473
Power:					
Number of establishments reporting.....	30	10	12	5	12
Total horsepower.....	10,930	2,830	4,764	520	2,822
Owned.....					
Engines—					
Steam—					
Number.....	61	12	33	6	10
Horsepower.....	6,149	1,455	2,630	490	1,595
Water wheels—					
Number.....	30	11	7	3	9
Horsepower.....	3,171	1,350	1,110	30	681
Electric motors—					
Number.....	13	1	4		8
Horsepower.....	1,180	25	1,000		155
Rented—					
Electric motors—					
Number.....	40		2		38
Horsepower.....	436		15		421
Furnished to other establishments, horsepower.....	51			45	6

TABLE 51.—WOOL HATS—DETAILED SUMMARY, BY STATES: 1905.

	United States.	New York.	Pennsylvania.	All other states. ¹
Number of establishments.....	17	4	9	4
Capital, total.....	\$1,646,064	\$533,066	\$460,653	\$352,345
Land.....	\$70,000	\$27,000	\$30,000	\$13,000
Buildings.....	\$241,280	\$153,780	\$43,500	\$44,000
Machinery, tools, and implements.....	\$247,083	\$142,453	\$50,800	\$53,830
Cash and sundries.....	\$1,087,701	\$569,833	\$336,353	\$241,515
Proprietors and firm members.....	23	4	18	1
Salaried officials, clerks, etc.:.....	68	33	14	21
Total salaries.....	\$94,245	\$52,332	\$13,806	\$28,107
Officers of corporations—				
Number.....	4	2	.....	2
Salaries.....	\$13,000	\$10,000	.....	\$3,000
General superintendents, managers, clerks, etc.—				
Total number.....	64	31	14	19
Total salaries.....	\$80,645	\$42,332	\$13,806	\$24,507
Men—				
Number.....	57	20	12	16
Salaries.....	\$76,445	\$41,064	\$13,026	\$22,355
Women—				
Number.....	7	2	2	3
Salaries.....	\$4,200	\$1,268	\$780	\$2,152
Wage-earners, including pieceworkers, and total wages:				
Greatest number employed at any one time during the year.....	2,253	947	671	635
Least number employed at any one time during the year.....	1,050	455	283	312
Average number.....	1,503	644	419	440
Total wages.....	\$619,194	\$281,939	\$154,982	\$182,273
Men 16 years and over—				
Average number.....	1,030	439	286	305
Wages.....	\$487,013	\$226,424	\$121,985	\$138,604
Women 16 years and over—				
Average number.....	433	196	108	129
Wages.....	\$125,957	\$54,306	\$28,762	\$42,889
Children under 16 years—				
Average number.....	40	9	25	6
Wages.....	\$6,224	\$1,209	\$4,235	\$780
Average number of wage-earners, including pieceworkers, employed during each month:				
Men 16 years and over—				
January.....	759	294	204	261
February.....	802	331	213	253
March.....	860	345	250	265
April.....	935	409	257	269
May.....	1,031	430	314	287
June.....	1,140	489	383	268
July.....	1,279	578	398	303
August.....	1,313	575	420	318
September.....	1,282	550	350	352
October.....	1,240	552	202	426
November.....	1,042	430	205	407
December.....	677	285	140	246
Women 16 years and over—				
January.....	312	133	62	117
February.....	340	158	67	115
March.....	358	157	83	118
April.....	371	160	97	114
May.....	431	182	125	124
June.....	471	203	162	106
July.....	622	300	170	152
August.....	602	296	157	149
September.....	615	277	171	167
October.....	453	202	97	154
November.....	332	154	50	122
December.....	289	130	49	110
Children under 16 years—				
January.....	21	1	14	6
February.....	21	1	14	6
March.....	26	3	17	6
April.....	35	6	23	6
May.....	42	10	26	6
June.....	55	13	30	6
July.....	73	26	41	6
August.....	64	20	38	6
September.....	63	19	38	6
October.....	36	6	24	6
November.....	23	2	15	6
December.....	21	1	14	6
Machinery:				
Sets of woolen cards, number.....	124	62	40	22
Pickers, number.....	20	7	10	3
Formers for felt hats, number.....	4	4	.....	.....
Miscellaneous expenses, total.....	\$293,208	\$157,101	\$26,455	\$109,652
Rent of works.....	\$11,033	\$5,933	\$1,500	\$4,260
Taxes.....	\$8,875	\$3,721	\$1,100	\$4,054
Rent of offices, interest, insurance, and all other sundry expenses not hitherto included.....	\$269,995	\$146,497	\$23,855	\$99,643
Contract work.....	\$2,645	\$950	.....	\$1,695
Materials used, total cost.....	\$1,309,810	\$583,886	\$405,457	\$350,467
Wool—				
Foreign, in condition purchased—				
Pounds.....	106,517	81,517	25,000	.....
Cost.....	\$30,867	\$18,367	\$12,500	.....
Domestic, in condition purchased—				
Pounds.....	1,527,068	731,440	279,614	515,954
Cost.....	\$464,727	\$175,688	\$126,037	\$163,002
Foreign and domestic, scoured, pounds.....	1,231,576	441,345	304,614	455,617
Animal hair and fur—				
Mohair—				
Domestic—				
Pounds.....	72,750	45,649	26,197	904
Cost.....	\$30,683	\$20,148	\$10,180	\$355
Turkish and other foreign—				
Pounds.....	93,897	8,760	85,137	.....
Cost.....	\$41,575	\$3,363	\$38,212	.....
Hatters' fur—				
Pounds.....	43,380	7,880	.....	35,500
Cost.....	\$56,593	\$28,260	.....	\$28,333

¹ Includes establishments distributed as follows: Massachusetts, 2; New Jersey, 2.

TABLE 51.—WOOL HATS—DETAILED SUMMARY, BY STATES: 1905—Continued.

	United States.	New York.	Pennsylvania.	All other states.
Materials used—Continued.				
Materials purchased in partially manufactured form—				
Shoddy—				
Pounds.....	32,667	26,000	6,667	.....
Cost.....	\$3,467	\$1,800	\$1,667	.....
Wool waste and noils—				
Pounds.....	287,363	224,067	36,666	26,630
Cost.....	\$119,407	\$97,025	\$11,333	\$11,049
Mohair noils—				
Pounds.....	200	.....	.....	200
Cost.....	\$105	.....	.....	\$105
Tops—				
Pounds.....	135	.....	.....	135
Cost.....	\$73	.....	.....	\$73
Wool hat bodies and hats in the rough—				
Dozens.....	12,089	500	528	11,061
Cost.....	\$25,997	\$500	\$1,000	\$24,437
All other materials which are components of the product.....	\$304,602	\$133,662	\$133,467	\$97,443
Soap—				
Pounds.....	49,482	10,390	31,600	7,432
Cost.....	\$5,344	\$3,336	\$1,688	\$340
Oil for preparing wool for cards and combs—				
Gallons.....	1,158	808	350	.....
Cost.....	\$429	\$242	\$187	.....
Chemicals and dyestuffs—				
Fuel.....	\$63,905	\$24,950	\$26,793	\$12,162
Cost.....	\$46,997	\$23,815	\$12,604	\$10,458
Rent of power and heat.....	\$120	\$120	.....	.....
Mill supplies.....	\$13,200	\$11,505	\$1,359	\$336
All other materials.....	\$79,049	\$33,357	\$20,505	\$26,087
Freight.....	\$21,800	\$7,748	\$7,765	\$6,287
Shoddy made in mill for use therein, pounds.....	500	.....	500	.....
Products, total value.....	\$2,457,266	\$1,054,541	\$658,428	\$744,297
Felt goods—				
Felt cloths—				
Square yards.....	26,600	26,600	.....	.....
Value.....	\$33,500	\$33,500	.....	.....
All other felts.....				
Value.....	\$5,500	\$5,500	.....	.....
Hats—				
Wool—				
Dozens.....	446,121	136,481	158,585	151,055
Value.....	\$2,200,070	\$956,347	\$647,064	\$686,659
Felt—				
Dozens.....	300	.....	.....	300
Value.....	\$5,400	.....	.....	\$5,400
Partially manufactured products for sale—				
Waste—				
Pounds.....	88,510	56,030	1,000	31,480
Value.....	\$6,641	\$5,603	\$300	\$738
Wool hat bodies and hats in the rough—				
Dozens.....	18,587	9,087	5,000	4,500
Value.....	\$100,401	\$45,401	\$10,000	\$45,000
Felt hat bodies and hats in the rough—				
Dozens.....	500	.....	.....	500
Value.....	\$6,500	.....	.....	\$6,500
All other products.....				
Amount received for contract work.....	\$9,024	\$8,100	\$924	.....
.....	\$140	.....	\$140	.....
Power:				
Owned				
Engines—				
Steam—				
Number.....	18	6	8	4
Horsepower.....	1,415	595	570	250
Water wheels—				
Number.....	5	3	2	.....
Horsepower.....	430	385	45	.....
Electric motors—				
Number.....	2	2	.....	.....
Horsepower.....	65	65	.....	.....
Rented—				
Electric motors—				
Number.....	1	1	.....	.....
Horsepower.....	2	2	.....	.....
Furnished to other establishments, horsepower.....	15	.....	15	.....

TABLE 52.—FELT HATS—DETAILED SUMMARY, BY STATES: 1905.

	United States.	California.	Connecticut.	Illinois.	Massachusetts.	New Jersey.	New York.	Pennsylvania.	All other states. ¹
Number of establishments.....	216	3	56	5	6	63	43	25	15
Capital, total.....	\$23,258,104	\$32,975	\$3,351,884	\$45,050	\$1,845,307	\$4,331,313	\$4,441,470	\$8,777,678	\$432,427
Land.....	\$1,958,611	.....	\$100,345	\$4,000	\$136,570	\$250,792	\$351,044	\$1,111,800	\$4,000
Buildings.....	\$2,887,369	.....	\$393,535	\$6,000	\$446,419	\$676,102	\$464,634	\$607,519	\$3,100
Machinery, tools, and implements.....	\$5,318,675	\$7,575	\$864,028	\$10,160	\$534,397	\$638,610	\$563,392	\$2,312,557	\$89,997
Cash and sundries.....	\$13,093,509	\$27,400	\$2,003,976	\$24,950	\$727,921	\$2,765,800	\$2,762,400	\$4,445,732	\$335,330
Proprietors and firm members.....	252	2	57	4	9	81	52	29	18
Salaries of officials, clerks, etc.:									
Total number.....	1,367	4	449	8	69	292	235	283	27
Total salaries.....	\$1,488,236	\$7,000	\$426,510	\$6,908	\$92,817	\$318,144	\$263,889	\$346,058	\$26,916
Officers of corporations—									
Number.....	85	1	26	1	.....	27	11	14	5
Salaries.....	\$248,531	\$3,000	\$60,254	\$750	.....	\$61,075	\$22,230	\$91,172	\$10,050
General superintendents, managers, clerks, etc.—									
Total number.....	1,282	3	423	7	69	265	224	260	22
Total salaries.....	\$1,239,705	\$4,000	\$366,256	\$6,158	\$92,817	\$257,069	\$241,659	\$254,886	\$16,860
Men—									
Number.....	1,083	3	375	5	56	223	183	222	16
Salaries.....	\$1,136,542	\$4,000	\$341,177	\$5,222	\$86,555	\$234,857	\$216,707	\$233,474	\$14,460
Women—									
Number.....	199	.....	48	2	13	42	41	47	6
Salaries.....	\$103,163	.....	\$25,079	\$936	\$6,262	\$22,212	\$24,862	\$21,412	\$2,400
Wage-earners, including pieceworkers, and total wages:									
Greatest number employed at any one time during the year.....	24,345	28	5,918	43	1,753	5,870	5,180	4,932	621
Least number employed at any one time during the year.....	19,692	14	4,540	30	1,532	5,230	3,701	4,240	405
Average number.....	22,047	23	5,158	37	1,586	5,705	4,297	4,619	522
Total wages.....	\$11,282,237	\$15,280	\$2,696,091	\$24,244	\$626,824	\$3,275,888	\$2,309,061	\$2,122,085	\$212,764
Men 16 years and over—									
Average number.....	15,432	12	3,500	17	937	4,301	2,981	3,192	342
Wages.....	\$9,166,347	\$10,260	\$2,193,256	\$16,760	\$417,315	\$2,798,177	\$1,807,690	\$1,761,146	\$161,743
Women 16 years and over—									
Average number.....	6,166	11	1,584	20	612	1,289	1,377	1,094	179
Wages.....	\$2,035,685	\$5,020	\$499,295	\$7,484	\$202,021	\$472,523	\$493,291	\$305,198	\$50,863
Children under 16 years—									
Average number.....	449	.....	14	.....	37	25	39	333	1
Wages.....	\$80,265	.....	\$3,540	.....	\$7,488	\$5,188	\$8,080	\$55,741	\$168
Average number of wage-earners, including pieceworkers, employed during each month:									
Men 16 years and over—									
January.....	15,495	7	3,573	14	973	4,483	2,979	3,066	370
February.....	15,542	9	3,605	15	977	4,328	3,139	3,120	349
March.....	15,495	14	3,574	16	1,008	4,375	3,066	3,103	339
April.....	14,727	16	3,165	18	984	4,253	2,904	3,077	310
May.....	14,565	15	3,247	18	877	4,155	2,860	3,071	322
June.....	14,793	15	3,307	20	893	4,208	2,917	3,108	325
July.....	15,369	11	3,758	18	905	4,251	2,907	3,196	323
August.....	15,534	9	3,873	19	911	4,310	2,820	3,236	356
September.....	16,054	12	3,997	19	930	4,555	2,879	3,301	352
October.....	15,924	12	3,993	19	930	4,590	3,083	3,332	356
November.....	15,932	12	3,963	14	922	4,598	3,139	3,332	352
December.....	15,754	12	3,465	14	925	4,577	3,079	3,332	350
Women 16 years and over—									
January.....	6,299	9	1,656	19	606	1,297	1,390	1,088	234
February.....	6,586	9	1,688	20	615	1,301	1,421	1,100	232
March.....	6,447	13	1,679	20	629	1,307	1,393	1,102	204
April.....	5,977	13	1,419	21	620	1,283	1,339	1,094	188
May.....	5,890	13	1,449	21	582	1,254	1,339	1,072	160
June.....	5,887	13	1,439	21	581	1,238	1,385	1,069	141
July.....	6,213	11	1,701	19	624	1,228	1,398	1,097	135
August.....	6,256	11	1,750	21	628	1,264	1,328	1,091	163
September.....	6,315	10	1,742	21	634	1,310	1,335	1,098	165
October.....	6,136	10	1,496	21	629	1,321	1,390	1,102	167
November.....	6,059	10	1,491	18	595	1,336	1,377	1,107	165
December.....	6,187	10	1,498	18	601	1,329	1,429	1,108	194
Children under 16 years—									
January.....	423	.....	10	.....	34	25	38	315	1
February.....	427	.....	17	.....	33	25	37	315	1
March.....	436	.....	17	.....	38	27	37	316	1
April.....	416	.....	12	.....	36	23	32	313	1
May.....	424	.....	13	.....	36	22	35	320	1
June.....	444	.....	16	.....	36	22	36	330	1
July.....	462	.....	20	.....	37	27	53	324	1
August.....	470	.....	17	.....	39	27	52	334	1
September.....	471	.....	14	.....	40	27	41	348	1
October.....	464	.....	13	.....	40	25	38	347	1
November.....	479	.....	11	.....	39	25	36	367	1
December.....	472	.....	8	.....	37	25	37	364	1
Machinery:									
Sets of woolen cards, number.....	6	.....	.....	.....	.....	.....	.....	6	.....
Pickers, number.....	35	.....	30	.....	.....	3	.....	2	.....
Formers for felt hats, number.....	579	300	92	.....	2	45	79	46	15
Miscellaneous expenses, total.....	\$2,831,197	\$2,539	\$408,246	\$5,242	\$272,019	\$576,951	\$912,359	\$595,077	\$58,764
Rent of works.....	\$147,563	\$1,780	\$29,745	\$3,230	\$2,205	\$39,945	\$43,178	\$8,220	\$19,200
Taxes.....	\$65,342	\$159	\$13,227	\$187	\$7,693	\$12,774	\$13,701	\$15,751	\$1,850
Rent of offices, interest, insurance, and all other sundry expenses not hitherto included.....	\$2,458,499	\$600	\$325,492	\$1,825	\$262,121	\$445,140	\$827,905	\$557,962	\$37,454
Contract work.....	\$159,793	.....	\$39,782	.....	.....	\$79,092	\$27,575	\$13,144	\$200
Materials used, total cost.....	\$15,975,206	\$30,458	\$3,953,693	\$54,472	\$1,124,957	\$4,227,235	\$3,478,454	\$2,728,895	\$377,042
Wool—									
Domestic, in condition purchased—									
Pounds.....	44,000	.....	.....	.....	.....	.....	.....	44,000	.....
Cost.....	\$15,336	.....	.....	.....	.....	.....	.....	\$15,336	.....
Domestic, scoured, pounds.....	44,000	.....	.....	.....	.....	.....	.....	44,000	.....
Animal hair and fur—									
Mohair—									
Pounds.....	10,000	.....	.....	.....	.....	.....	.....	10,000	.....
Cost.....	\$3,500	.....	.....	.....	.....	.....	.....	\$3,500	.....
Hatters' fur—									
Pounds.....	6,718,359	.....	1,385,325	.....	547,484	1,880,510	1,563,680	1,227,951	113,409
Cost.....	\$6,743,936	.....	\$1,553,579	.....	\$527,510	\$2,022,347	\$1,265,877	\$1,307,816	\$84,807

¹ Includes establishments distributed as follows: Delaware, 1; Indiana, 1; Iowa, 1; Maine, 1; Minnesota, 2; Missouri, 2; Montana, 1; New Hampshire, 1; Ohio, 2; Rhode Island, 1; Texas, 1; West Virginia, 1.

TABLE 52.—FELT HATS—DETAILED SUMMARY, BY STATES: 1905—Continued.

	United States.	California.	Connecticut.	Illinois.	Massachusetts.	New Jersey.	New York.	Pennsylvania.	All other states.
Materials used—Continued.									
Materials purchased in partially manufactured form—									
Tailors' clippings, rags, etc. —									
Pounds.....	10,000								10,000
Cost.....	\$1,200								\$1,200
Shoddy —									
Pounds.....	333					333			
Cost.....	\$30					\$30			
Wool waste and noils —									
Pounds.....	6,000							6,000	
Cost.....	\$1,000							\$1,000	
Wool hat bodies and hats in the rough —									
Dozens.....	179					179			
Cost.....	\$323					\$323			
Felt hat bodies and hats in the rough —									
Dozens.....	211,700	2,320	30,783	6,640	3,289	40,992	92,984	23,512	11,240
Cost.....	\$1,351,372	\$22,850	\$194,207	\$40,068	\$18,250	\$209,289	\$627,040	\$160,420	\$83,248
All other materials which are components of the product.....	\$4,301,749	\$5,750	\$1,104,620	\$12,912	\$415,051	\$1,150,163	\$1,027,897	\$494,405	\$90,951
Soap —									
Pounds.....	2,000							2,000	
Cost.....	\$120							\$120	
Oil for preparing wool for cards or combs —									
Gallons.....	60							60	
Cost.....	\$25							\$25	
Chemicals and dyestuffs.....	\$1,140,281		\$591,640		\$47,379	\$331,723	\$160,305	\$72,931	\$20,303
Fuel.....	\$531,316	\$398	\$159,823	\$310	\$23,901	\$152,782	\$94,329	\$41,380	\$18,423
Rent of power and heat.....	\$23,212		\$2,925	\$682	\$210	\$6,995	\$10,675	\$1,205	\$520
Mill supplies.....	\$48,107	\$10	\$7,866	\$20	\$1,047	\$16,065	\$6,281	\$15,270	\$1,548
All other materials.....	\$1,720,245	\$1,450	\$415,292	\$130	\$74,352	\$321,770	\$276,348	\$565,093	\$94,901
Freight.....	\$93,424		\$31,741	\$350	\$17,257	\$15,739	\$9,702	\$13,404	\$5,141
Products, total value.....	\$30,629,353	\$74,000	\$8,662,709	\$105,918	\$2,315,591	\$9,540,433	\$7,730,774	\$7,350,311	\$840,527
Hats—									
Wool —									
Dozens.....	18,179					179		18,000	
Value.....	\$49,847					\$3,977		\$45,870	
Felt —									
Dozens.....	2,611,875	2,320	600,312		234,702	676,900	631,374	413,506	52,665
Value.....	\$34,314,234	\$71,500	\$8,198,376		\$2,311,091	\$8,905,436	\$6,852,797	\$7,270,007	\$704,967
Partially manufactured products for sale —									
Waste —									
Pounds.....	34,500					9,500	25,000		
Value.....	\$0,000					\$4,000	\$2,000		
Felt hat bodies and hats in the rough —									
Dozens.....	88,986		63,676	6,040		15,825			2,845
Value.....	\$600,959		\$300,050	\$98,138		\$154,816			\$11,949
Wool hat bodies and hats in the rough —									
Dozens.....	2,430							2,430	
Value.....	\$4,690							\$4,690	
All other products.....	\$1,033,824		\$17,755	\$5,000	\$4,500	\$46,967	\$857,559	\$800	\$100,243
Amount received for contract work.....	\$500,709	\$2,500	\$59,612	\$2,780		\$425,237	\$27,418	\$28,884	\$23,368
Power:									
Number of establishments reporting.....	165	1	45	4	6	59	28	19	8
Total horsepower.....	18,695	8	3,829	14	1,295	5,531	3,537	3,913	508
Owned —									
Engines—									
Steam—									
Number.....	203	1	46		7		54	20	7
Horsepower.....	15,871	8	3,017		1,145	4,631	3,326	2,600	445
Gas and gasoline —									
Number.....	5					2		2	1
Horsepower.....	48					27		19	2
Water wheels —									
Number.....	3		1		1			1	
Horsepower.....	95		25		30			10	
Water motors —									
Number.....	2				1		1		
Horsepower.....	3				2		1		
Electric motors —									
Number.....	302		7		13	39	1	234	8
Horsepower.....	2,065		100		115	515	50	1,198	117
Rented —									
Electric motors —									
Number.....	38		4	5	1	16	8	1	3
Horsepower.....	369		52	0	3	177	117	10	4
Other kind, horsepower.....	274		35	8		184	43	7	
Furnished to other establishments, horsepower.....	200		25		175				

TABLE 53.—SHODDY—DETAILED SUMMARY, BY STATES: 1905.

	United States.	Connecticut.	Massachusetts.	New Jersey.	New York.	Ohio.	Pennsylvania.	Rhode Island.	Vermont.	All other states, ¹
Number of establishments.....	97	6	31	4	11	5	23	4	3	10
Capital, total.....	\$5,804,164	\$517,169	\$1,206,351	\$541,103	\$514,149	\$922,447	\$1,216,336	\$67,056	\$435,384	\$384,179
Land.....	\$461,352	\$27,975	\$104,004	\$69,291	\$19,000	\$75,120	\$115,251	\$1,000	\$26,661	\$23,050
Buildings.....	\$971,554	\$73,300	\$241,985	\$110,678	\$67,019	\$135,000	\$222,900	\$7,500	\$52,322	\$60,850
Machinery, tools, and implements.....	\$1,278,004	\$56,972	\$262,551	\$145,760	\$135,340	\$260,885	\$248,001	\$21,000	\$30,896	\$116,599
Cash and sundries.....	\$3,093,254	\$358,912	\$597,811	\$215,374	\$292,790	\$461,442	\$630,184	\$37,556	\$325,505	\$183,680
Proprietors and firm members.....	110	7	29	2	10	3	35	8	5	11
Salaried officials, clerks, etc.:										
Total number.....	172	14	47	16	18	21	34	9	13	13
Total salaries.....	\$245,403	\$16,324	\$68,375	\$26,600	\$20,908	\$37,088	\$42,792	\$9,576	\$23,240	\$23,240
Officers of corporations—										
Number.....	44	3	14	4	4	7	4	—	—	8
Salaries.....	\$102,724	\$3,900	\$28,574	\$11,800	\$5,750	\$19,000	\$15,000	—	—	\$10,200
General superintendents, managers, clerks, etc.—										
Total number.....	128	11	33	12	14	14	30	9	5	5
Total salaries.....	\$142,679	\$12,424	\$40,301	\$15,300	\$15,158	\$18,088	\$27,792	\$9,576	\$4,040	\$4,040
Men—										
Number.....	119	11	30	11	13	12	29	8	5	5
Salaries.....	\$139,145	\$12,424	\$39,155	\$14,900	\$14,658	\$17,200	\$27,492	\$9,276	\$4,040	\$4,040
Women—										
Number.....	9	—	3	1	1	2	1	—	—	—
Salaries.....	\$3,534	—	\$1,146	\$400	\$500	\$888	\$300	—	—	—
Wage-earners, including pieceworkers, and total wages:										
Greatest number employed at any one time during the year.....	2,578	140	584	297	264	515	421	45	146	160
Least number employed at any one time during the year.....	1,758	103	337	178	188	372	309	42	96	133
Average number.....	2,089	124	444	223	195	426	360	43	123	151
Total wages.....	\$834,822	\$55,157	\$189,608	\$87,134	\$79,558	\$158,352	\$142,188	\$10,752	\$49,146	\$53,927
Men 16 years and over—										
Average number.....	1,025	117	379	183	166	268	274	42	86	110
Wages.....	\$723,540	\$53,021	\$173,457	\$70,988	\$72,195	\$121,479	\$120,772	\$10,544	\$38,722	\$47,362
Women 16 years and over—										
Average number.....	458	7	62	40	29	158	83	1	37	41
Wages.....	\$110,242	\$2,136	\$15,683	\$10,146	\$7,363	\$36,873	\$20,844	\$208	\$10,424	\$6,565
Children under 16 years—										
Average number.....	6	—	3	—	—	—	3	—	—	—
Wages.....	\$1,040	—	\$408	—	—	—	\$572	—	—	—
Average number of wage-earners, including pieceworkers, employed during each month:										
Men 16 years and over—										
January.....	1,562	107	367	215	134	265	252	44	75	103
February.....	1,648	115	383	222	145	294	248	43	84	109
March.....	1,673	115	427	202	151	290	231	42	93	113
April.....	1,651	115	424	193	148	272	250	42	95	112
May.....	1,590	125	400	179	150	248	257	42	86	112
June.....	1,568	119	379	168	147	251	252	41	91	110
July.....	1,620	132	371	162	166	283	287	42	94	108
August.....	1,601	121	359	162	179	240	288	41	95	110
September.....	1,622	122	368	159	184	246	295	41	96	111
October.....	1,605	113	360	168	181	238	312	42	81	110
November.....	1,646	109	360	176	196	274	304	42	74	111
December.....	1,705	111	345	190	211	325	302	42	68	111
Women 16 years and over—										
January.....	480	7	69	50	25	160	81	1	36	42
February.....	480	8	73	50	26	160	82	1	38	42
March.....	488	8	75	47	27	167	82	1	39	42
April.....	480	8	74	40	27	166	80	1	42	42
May.....	453	9	66	35	27	162	80	1	34	39
June.....	433	9	59	29	26	154	78	1	38	39
July.....	432	7	55	27	30	154	79	1	40	39
August.....	442	4	61	33	31	143	82	1	48	39
September.....	445	5	55	39	30	142	85	1	50	42
October.....	430	6	47	37	31	151	87	1	28	42
November.....	464	6	54	45	31	165	90	1	30	42
December.....	469	7	56	48	31	163	90	1	31	42
Children under 16 years—										
January.....	3	—	—	—	—	—	3	—	—	—
February.....	4	—	1	—	—	—	3	—	—	—
March.....	2	—	2	—	—	—	—	—	—	—
April.....	2	—	2	—	—	—	—	—	—	—
May.....	2	—	2	—	—	—	—	—	—	—
June.....	6	—	6	—	—	—	—	—	—	—
July.....	9	—	6	—	—	—	3	—	—	—
August.....	9	—	6	—	—	—	3	—	—	—
September.....	8	—	5	—	—	—	3	—	—	—
October.....	10	—	3	—	—	—	7	—	—	—
November.....	9	—	2	—	—	—	7	—	—	—
December.....	8	—	1	—	—	—	7	—	—	—
Skilled operatives, average number:										
Spinners—										
Men 16 years and over.....	2	—	—	—	—	—	—	—	—	2
Machinery:										
Sets of cards, number.....	517	57	176	65	31	64	77	5	9	33
Woolen.....	4	—	—	—	—	—	3	—	—	1
Worsted.....	5	—	—	—	—	—	—	—	—	—
Shoddy.....	508	57	176	65	26	64	74	5	9	32
Combing machines of American manufacture, number.....	5	—	—	—	—	—	5	—	—	—
Spindles, producing, mule, woolen, number.....	312	—	—	—	—	—	—	—	—	312
Pickers, number.....	317	19	107	25	30	23	64	2	21	26
Garnet machines, number.....	116	—	16	14	26	3	44	10	—	3
Miscellaneous expenses, total.....	\$461,527	\$26,753	\$123,506	\$38,043	\$47,007	\$90,124	\$74,880	\$9,155	\$32,445	\$19,014
Rent of works.....	\$23,955	—	\$6,225	—	\$4,900	—	\$5,470	\$2,260	—	\$5,010
Taxes.....	\$29,625	\$1,808	\$8,483	\$2,023	\$701	\$8,221	\$4,266	\$282	\$1,844	\$1,997
Rent of offices, interest, insurance, and all other sundry expenses not hitherto included.....	\$401,702	\$24,945	\$107,548	\$36,020	\$41,916	\$81,903	\$62,644	\$4,118	\$30,601	\$12,007
Contract work.....	\$6,245	—	\$1,260	—	—	—	\$2,800	—	—	—

¹Includes establishments distributed as follows: California, 2; Georgia, 1; Illinois, 1; Maine, 2; Michigan, 1; New Hampshire, 1; Tennessee, 1; Wisconsin, 1.

TABLE 53.—SHODDY—DETAILED SUMMARY, BY STATES: 1905—Continued.

	United States.	Connecticut.	Massachusetts.	New Jersey.	New York.	Ohio.	Pennsylvania.	Rhode Island.	Vermont.	All other states.
Materials used, total cost.....	\$6,055,731	\$362,497	\$1,249,985	\$563,380	\$496,680	\$948,165	\$1,713,379	\$60,007	\$463,567	\$197,976
Wool—										
Foreign, in condition purchased—										
Pounds.....	267,500				250,500		17,000			
Cost.....	\$43,504				\$40,504		\$3,000			
Domestic, in condition purchased—										
Pounds.....	329,992		40,921	3,675	55,250	187,540	40,000			2,000
Cost.....	\$84,423		\$17,378	\$2,071	\$13,652	\$35,392	\$14,500			\$1,430
Foreign and domestic, secured, pounds.....	421,492		40,921	3,675	205,750	117,546	51,000			2,000
Animal hair—										
Camel, alpaca, and vicuña hair—										
Pounds.....	5,000						5,000			
Cost.....	\$1,500						\$1,500			
Buffalo, cow, and other animal hair—										
Pounds.....	500,000				500,000					
Cost.....	\$12,654				\$12,654					
Cotton, other domestic—										
Pounds.....	44,400			3,000	6,000	35,400				
Cost.....	\$5,331			\$443	\$720	\$4,168				
Materials purchased in partially manufactured form—										
Tailors' clippings, rags, etc.—										
Pounds.....	68,921,097	3,893,409	14,412,022	3,615,202	4,603,993	11,180,230	20,365,808	1,114,000	4,899,719	4,925,814
Cost.....	\$4,295,641	\$281,083	\$983,115	\$180,121	\$308,730	\$513,314	\$1,109,961	\$23,074	\$423,840	\$171,893
Shoddy—										
Pounds.....	187,100		151,100				6,000			30,000
Cost.....	\$12,883		\$11,800				\$160			\$225
Wool waste and noils—										
Pounds.....	8,141,220	705,158	707,408	523,400	204,500		4,702,130	1,299,564		
Cost.....	\$895,321	\$32,387	\$68,880	\$222,358	\$25,035		\$519,604	\$25,001		
Camel, alpaca, and vicuña noils—										
Pounds.....	36,626			36,626						
Cost.....	\$14,433			\$14,433						
Tops—										
Pounds.....	150				150					
Cost.....	\$113				\$113					
All other materials which are components of the product.....	\$97,139		\$8,500	\$53,200	\$30,430		\$5,000			
Scour—										
Pounds.....	123,511		4,200	10,231	50,000	64,000				
Cost.....	\$3,897		\$208	\$459	\$2,000	\$3,200				
Oil for preparing wool for cards and combs—										
Gallons.....	329,107	42,192	129,725	46,154	15,256	40,200	47,448		6,802	4,330
Cost.....	\$84,034	\$9,681	\$31,354	\$8,107	\$3,669	\$12,495	\$13,925		\$1,897	\$906
Chemicals and dyestuffs.....	\$142,456	\$14,455	\$37,370	\$15,302	\$14,281	\$23,495	\$5,370		\$15,071	\$11,511
Fuel.....	\$149,144	\$10,366	\$30,823	\$13,484	\$13,163	\$28,160	\$24,114	\$568	\$12,315	\$7,155
Rent of power and heat.....	\$26,893		\$7,024		\$1,600		\$5,350	\$3,000	\$8,049	\$900
Mill supplies.....	\$23,798	\$1,421	\$11,745	\$807	\$2,929	\$2,049	\$9,778	\$1,584	\$745	\$840
All other materials.....	\$93,449	\$280	\$12,389	\$49,088	\$19,800	\$4,200	\$1,921	\$2,570		\$3,105
Freight.....	\$61,647	\$12,824	\$18,320	\$1,513	\$6,311	\$15,776	\$1,030	\$2,711	\$150	\$100
Products, total value.....	\$8,496,425	\$468,445	\$1,814,944	\$860,498	\$701,954	\$1,230,207	\$2,294,270	\$113,433	\$680,805	\$367,970
Woolen yarn, all wool.....										
Pounds.....	2,637				2,637					
Value.....	\$234				\$234					
Waste—										
Pounds.....	42,504				27,504		15,000			
Value.....	\$1,544				\$44		\$1,500			
Shoddy and mungo—										
Pounds.....	54,401,205	1,005,053	10,919,170	3,709,788	3,423,845	7,104,188	22,494,410		(1)	\$4,404,805
Value.....	\$9,831,680	\$160,758	\$1,408,674	\$651,762	\$376,238	\$1,230,207	\$2,136,797		(1)	\$874,293
Wool extract—										
Pounds.....	6,376,768	2,442,293	2,214,285		1,000,000				(1)	\$719,100
Value.....	\$727,012	\$288,370	\$272,318		\$116,100				(1)	\$102,115
Flocks—										
Pounds.....	2,008,293	651,881		165,200	40,000			2,121,122		
Value.....	\$163,639	\$44,756		\$9,250	\$12,500			\$80,000		
All other products.....	\$195,671	\$1,215	\$10,080	\$208,260	\$133,628		\$1,015			\$1,597
Amount received for contract work.....	\$335,330	\$33,337	\$118,972		\$65,310		\$65,982	\$32,388	(1)	\$10,950
Power:										
Number of establishments reporting.....	08	0	30	4	11	5	23	3	3	10
Total horsepower.....	12,445	891	4,108	1,070	1,080	1,175	1,960	133	895	1,124
Owned—										
Engines—										
Steam.....										
Number.....	80	11	10	13	7	5	25		3	6
Horsepower.....	7,825	570	2,000	980	495	1,100	1,770		115	735
Water wheels.....										
Number.....	66	11	54	1	0			2	3	6
Horsepower.....	3,601	321	1,895	75	507			88	400	345
Electric motors—										
Number.....	8		1	1	2	2			1	1
Horsepower.....	291		25	15	62	76			30	4
Rented—										
Electric motors—										
Number.....	8				1		2		5	
Horsepower.....	417				27		40		350	
Other kind, horsepower.....	401		158		8		150		45	
Furnished to other establishments, horsepower.....	355						75			280

¹Included in "all other states."

²Includes products for Vermont.

MANUFACTURES.

TABLE 54.—WOOL SCOURING—DETAILED SUMMARY, BY STATES: 1905.

	United States.	California.	Massachusetts.	New Mexico.	All other states. ¹
Number of establishments.....	27	4	6	3	14
Capital, total.....	\$1,187,716	\$83,683	\$208,120	\$146,000	\$559,913
Land.....	\$183,969	.....	\$94,419	\$3,500	\$36,050
Buildings.....	\$192,626	.....	\$67,326	\$29,000	\$96,300
Machinery, tools, and implements.....	\$406,390	\$40,809	\$179,981	\$62,500	\$183,100
Cash and sundries.....	\$394,731	\$42,874	\$56,394	\$51,000	\$244,463
Proprietors and firm members.....	18	0	2	.....	10
Salaried officials, clerks, etc.:					
Total number.....	55	8	20	5	22
Total salaries.....	\$77,604	\$8,354	\$28,340	\$11,400	\$29,600
Officers of corporations—					
Number.....	15	.....	2	2	11
Salaries.....	\$28,700	.....	\$2,200	\$7,800	\$13,760
General superintendents, managers, clerks, etc.—					
Total number.....	40	8	18	3	11
Total salaries.....	\$48,934	\$8,354	\$26,140	\$3,600	\$10,840
Men—					
Number.....	37	7	16	3	11
Salaries.....	\$47,414	\$7,834	\$25,140	\$3,000	\$10,840
Women—					
Number.....	3	1	2	.....	.....
Salaries.....	\$1,520	\$520	\$1,000	.....	.....
Wage-earners, including pieceworkers, and total wages:					
Greatest number employed at any one time during the year.....	1,067	172	417	114	364
Least number employed at any one time during the year.....	649	23	302	41	283
Average number.....	779	92	357	64	266
Total wages.....	\$397,811	\$51,676	\$179,170	\$24,482	\$142,483
Men 16 years and over—					
Average number.....	702	65	351	30	256
Wages.....	\$375,578	\$42,886	\$177,672	\$15,257	\$139,763
Women 16 years and over—					
Average number.....	67	27	.....	34	6
Wages.....	\$10,610	\$8,790	.....	\$0,225	\$1,695
Children under 16 years—					
Average number.....	10	.....	6	.....	4
Wages.....	\$2,628	.....	\$1,498	.....	\$1,125
Miscellaneous expenses:					
Total.....	\$149,155	\$22,160	\$78,698	\$12,235	\$36,092
Rent of works.....	\$17,460	\$9,910	\$900	.....	\$6,650
Taxes.....	\$8,001	\$189	\$4,515	\$772	\$2,525
Rent of offices, interest, insurance, and all other sundry expenses not hitherto included.....	\$123,694	\$12,061	\$73,283	\$11,463	\$26,887
Materials used:					
Total cost.....	\$214,624	\$29,552	\$71,778	\$18,287	\$95,007
Principal materials.....	\$61,480	\$5,817	.....	\$9,863	\$45,800
Fuel.....	\$58,781	\$6,570	\$19,432	\$3,942	\$28,828
Rent of power and heat.....	\$15,789	\$429	\$12,778	\$2,582	.....
Mill supplies.....	\$11,111	\$2,335	\$1,686	\$200	\$6,890
All other materials.....	\$64,072	\$14,392	\$35,391	\$1,700	\$12,580
Freight.....	\$3,391	.....	\$2,491	.....	\$900
Products, amount received for work done.....	\$1,052,900	\$120,277	\$432,201	\$90,898	\$409,533
Power:					
Number of establishments reporting.....	26	4	6	3	13
Total horsepower.....	3,488	253	1,500	241	1,494
Owned—					
Engines—					
Steam—					
Number.....	24	4	4	2	14
Horsepower.....	2,532	180	785	200	1,367
Gas and gasoline—					
Number.....	3	.....	2	1	.....
Horsepower.....	71	.....	65	6	.....
Water wheels—					
Number.....	8	.....	5	.....	3
Horsepower.....	747	.....	630	.....	117
Electric motors—					
Number.....	1	.....	.....	.....	1
Horsepower.....	10	.....	.....	.....	10
Rented—					
Electric motors—					
Number.....	8	5	.....	3	.....
Horsepower.....	108	73	.....	35	.....
Other kind, horsepower.....	20	.....	20	.....	.....
Furnished to other establishments, horsepower.....	50	.....	.....	.....	50

¹ Includes establishments distributed as follows: Arkansas, 1; Colorado, 2; Connecticut, 1; Illinois, 2; Minnesota, 1; Missouri, 1; New Jersey, 2; Oregon, 2; Pennsylvania, 1; Rhode Island, 1.

TABLE 55.—WOOL PULLING—DETAILED SUMMARY, BY STATES: 1905.

	United States.	Illinois.	Massachu- setts.	Missouri.	New York.	Pennsyl- vania.	All other states. ¹
Number of establishments.....	34	3	3	3	4	8	13
Capital, total.....	\$2,534,029	\$33,200	\$371,530	\$30,300	\$259,872	\$1,370,208	\$468,910
Land.....	\$220,258	\$3,500	\$51,200	\$6,500	\$9,000	\$127,250	\$31,808
Buildings.....	\$283,986	\$6,000	\$82,800	\$10,200	\$17,000	\$110,000	\$57,980
Machinery, tools, and implements.....	\$193,556	\$1,700	\$27,009	\$1,100	\$24,365	\$70,200	\$60,182
Cash and sundries.....	\$1,827,229	\$22,000	\$210,530	\$12,500	\$209,507	\$1,053,758	\$318,934
Proprietors and firm members.....	40	4	5	3	5	9	14
Salaries of officials, clerks, etc.:							
Total number.....	65	1	6	1	7	13	37
Total salaries.....	\$74,415	\$600	\$6,820	\$1,000	\$11,339	\$18,500	\$30,150
Officers of corporations.....							
Number.....	16				1	3	12
Salaries.....	\$20,739				\$880	\$0,600	\$16,250
General superintendents, managers, clerks, etc.:							
Total number.....	49	1	6	1	6	10	25
Total salaries.....	\$47,676	\$600	\$6,820	\$1,000	\$10,450	\$8,900	\$10,900
Men.....							
Number.....	43	1	6		6	9	21
Salaries.....	\$43,876	\$600	\$6,820		\$10,450	\$8,500	\$17,500
Women.....							
Number.....	6			1		1	4
Salaries.....	\$3,800			\$1,000		\$400	\$2,400
Wage-earners, including pieceworkers, and total wages:							
Greatest number employed at any one time during the year.....	944	44	91	33	115	286	375
Least number employed at any one time during the year.....	462	18	29	7	55	185	198
Average number.....	681	28	53	12	93	232	263
Total wages.....	\$364,754	\$13,007	\$24,735	\$5,200	\$51,230	\$112,401	\$168,121
Men 16 years and over.....							
Average number.....	680	28	53	12	92	232	263
Wages.....	\$364,754	\$13,007	\$24,735	\$5,200	\$50,870	\$112,401	\$168,121
Children under 16 years.....							
Average number.....	1				1		
Wages.....	\$100				\$300		
Miscellaneous expenses, total.....	\$128,300	\$3,610	\$18,324	\$4,718	\$23,504	\$31,683	\$46,467
Rent of works.....	\$15,462	\$1,037	\$600		\$1,000	\$1,000	\$6,425
Taxes.....	\$6,723	\$452	\$2,044	\$308	\$637	\$1,980	\$1,203
Rent of offices, interest, insurance, and all other sundry expenses not hitherto included.....	\$106,211	\$1,221	\$15,680	\$4,410	\$18,357	\$27,704	\$38,740
Materials used, total cost.....	\$103,984	\$2,412	\$4,754	\$875	\$5,363	\$24,887	\$65,693
Principal materials.....	\$53,688	\$773		\$200			\$52,715
Fuel.....	\$20,434	\$452	\$2,520	\$665	\$2,404	\$7,344	\$7,040
Rent of power and heat.....	\$408				\$187		\$221
Mill supplies.....	\$3,168	\$26	\$148	\$10	\$849	\$758	\$1,177
All other materials.....	\$19,132	\$1,161	\$50		\$1,756	\$12,185	\$3,980
Freight.....	\$7,154		\$1,827		\$167	\$4,000	\$560
Products, amount received for work done.....	\$881,706	\$34,424	\$66,615	\$13,440	\$105,897	\$201,080	\$370,250
Power:							
Number of establishments reporting.....	25		3	1	3	8	10
Total horsepower.....	1,350		245	35	210	300	500
Owned.....							
Engines—							
Steam—							
Number.....	26		3	1	2	8	12
Horsepower.....	1,125		245	35	60	275	510
Gas and gasoline—							
Number.....	3					1	1
Horsepower.....	20					15	5
Water wheels—							
Number.....	5				3	2	
Horsepower.....	150				150	0	
Electric motors—							
Number.....	2					1	1
Horsepower.....	20					1	25
Rented.....							
Electric motors—							
Number.....	2						2
Horsepower.....	20						20

¹ Includes establishments distributed as follows: California, 2; Connecticut, 1; Kentucky, 1; Maine, 1; Michigan, 1; New Jersey, 1; Ohio, 1; Utah, 2; Washington, 2; Wisconsin, 1.