
WOOL.

WOOL MANUFACTURES, ALSO HOSIERY AND KNIT GOODS, SHODDY, AND FUR HATS.

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The Eleventh Census completed the statistical record of the wool manufacture in the United States for its first hundred years under the factory system. The Twelfth Census closed the record for the Nineteenth century and established the point of departure for the Twentieth.

At the census of 1890 the statistics of the industry were presented more in detail than ever before. The schedules prepared for the census of 1900 were in most respects identical with those used ten years earlier. The returns received were generally prepared with care, and with a fair understanding of the purport of the inquiries.

The expert special agent desires to express his appreciation of the uniform courtesy shown by manufacturers in the preparation of their reports, and in response to his requests for information needed to complete reports lacking in some details, or where through misunderstanding the questions were not properly answered.

Care was taken at the Eleventh Census to properly group, so far as possible, the statistics of the various branches of the industry according to the general character of the production of mills, and the tables then prepared were made the basis of improved tables in 1900.

The industry is divided into groups, as in 1890, under the general heads of woolen goods, including carding mills; worsteds; carpets, other than rag; felt goods; and wool hats; and, separately given, is a report on wool scouring and wool pulling, which has not hitherto been attempted. The statistics of the hosiery and knit goods manufacture are presented in connection with those of the wool manufacture in certain tables for comparative purposes. Formerly the larger proportion of the raw material consumed in this industry was wool, so that it was proper to combine the reports of this industry with those of the wool manufacture. At the present time the cotton fiber predominates so greatly that the industry can hardly be considered as a branch of the wool industry, but should be treated as an independent or cognate industry. The manufacture of shoddy and the recovery of the waste products of the wool manufacture, which are currently known under the general term "shoddy," was reported upon the

special schedule with the wool manufacture. The statistics are contained in this report, but are separately given. The fur hat manufacture is also reported herewith, not as a part of the wool manufacture, but because the two are closely related in raw material and products, and because the fur hat manufacture has largely superseded the wool hat manufacture. Heretofore the reports for fur hats have been so combined with those for straw and silk hats that it has been impossible to obtain satisfactory statistics of the industry.

Table 1 shows the comparative statistics of the wool manufacture, including hosiery and knit goods, 1880 to 1900, with percentages of increase.

TABLE 1.—WOOL MANUFACTURE, INCLUDING HOSIERY AND KNIT GOODS, COMPARATIVE SUMMARY, 1880 to 1900, WITH PERCENTAGES OF INCREASE FOR EACH DECADE.

	DATE OF CENSUS.			PER CENT OF INCREASE.	
	1900	1890	1880	1890 to 1900	1880 to 1890
Number of establishments	2,335	2,489	2,689	16.2	17.4
Capital	\$392,040,353	\$296,494,481	\$159,091,869	32.2	86.4
Salaried officials, clerks, etc., number..	7,304	25,273	(³)	38.5	.....
Salaries	\$9,580,293	\$5,742,848	(³)	66.8	.....
Wage-earners, average number	242,495	213,859	161,557	13.4	32.4
Total wages	\$82,292,444	\$70,917,894	\$47,889,037	16.0	49.6
Men, 16 years and over	104,525	93,396	75,459	11.9	28.8
Wages	\$45,303,600	\$39,743,431	(³)	14.0	.....
Women, 16 years and over	117,706	105,770	66,814	11.3	58.3
Wages	\$33,793,231	\$28,889,244	(³)	17.0	.....
Children, under 16 years	20,264	14,693	19,234	37.9	123.8
Wages	\$3,195,613	\$2,235,219	(³)	39.8	.....
Miscellaneous expenses	\$23,929,797	\$19,249,508	(⁴)	24.3	.....
Cost of materials used.	\$232,230,986	\$203,095,572	\$164,371,551	14.3	23.6
Value of products	\$392,473,050	\$337,768,524	\$267,252,913	16.2	26.4

¹ Decrease.

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

³ Not reported separately.

⁴ Not reported.

The whole number of establishments reporting on the special schedules for wool manufactures and hosiery and knit goods was 2,653, viz, 1,035 woolen mills, including carding mills; 186 worsted mills; 133 carpet manufactories; 36 felt goods factories; 24 wool hat mills; 921 hosiery and knit goods factories; 171 fur hat facto-

ries; 105 shoddy mills; and 25 wool-scouring plants; also the 17 educational, eleemosynary, and penal institutions shown in the following table. One hundred and fifty-three establishments were idle during the census year, 117 of which were wool manufactories and 36 were hosiery and knit goods mills. The fur hat factories, shoddy mills, and wool-scouring establishments, given above, are not included in the general tabulation for the wool manufacture (Table 29), because such mills were not so reported in 1890. Deducting these, and the 17 educational, eleemosynary, and penal institutions, and the whole number reported for the wool and hosiery and knit goods manufactures was 2,335. At the census of 1890 a total of 2,489 similar mills was reported. The decrease in number was 154, equal to 6.2 per cent. That this does not indicate any curtailment of the industry is shown by Table 5, giving the machinery of the wool manufacture, 1880 to 1900.

Table 2 is a summary for wool manufactories, including hosiery and knit goods, in educational, eleemosynary, and penal institutions, 1890 and 1900.

The work carried on in educational, eleemosynary, and penal institutions that employed the wool or cotton fiber was confined largely to the hosiery and knit goods manufacture. Only 4 of these institutions manufactured woolen goods in 1900. These were located in Iowa, Massachusetts, New York, and Texas. The 17 institutions reporting had an aggregate capital of \$588,305, of which \$169,765 was invested in machinery, tools, and implements. They employed 71 superintendents, managers, and clerks, and operated 17 sets of woolen cards, 7,472 woolen spindles, and 2,936 cotton spindles (of which 64 were doubling spindles), 79 broad looms, 22 narrow looms, and 96 hand looms on woolen

or mixed goods. They consumed 379,319 pounds of wool, 123,747 pounds of cotton, 400 pounds of woolen yarn, 470 pounds of merino yarn, and 890,450 pounds of cotton yarn, and other materials, costing in all \$450,905, and produced goods to the value of \$644,607, of which \$269,764 were woolen goods, consisting principally of flannels, blankets, and satinetts, and \$374,843 of hosiery and knit goods.

TABLE 2.—WOOL MANUFACTURES, COMPARATIVE SUMMARY, INCLUDING HOSEIERY AND KNIT GOODS; EDUCATIONAL, ELEEMOSYNARY, AND PENAL INSTITUTIONS: 1890 AND 1900.

STATES.	Year.	Number of institutions.	EMPLOYEES.		Miscellaneous expenses.	Cost of materials used.	Value of products.
			Total number.	Total amount paid.			
United States ..	1900	17	584	\$113,778	\$24,191 (1)	\$450,905 279,800	\$644,607 462,585
	1890	14	1,419	88,279			
Illinois ²	1900	3	481	61,982	9,805	84,283	196,990
	1890	.....	.....	.....
New York ³	1900	3	27	26,123	(1)	143,696 53,708	173,924 97,995
	1890	3	604	24,697			
Pennsylvania ⁴	1900	3	8	10,708	7,281 (1)	82,658 132,181	55,978 196,306
	1890	3	432	36,060			
All other states ⁵ ..	1900	8	68	14,965	7,605 (1)	190,873 93,911	212,715 163,284
	1890	8	383	27,522			

¹ Not reported.

² Institutions in Illinois: 1900, hosiery and knit goods, 3.

³ Institutions in New York: 1900, hosiery and knit goods, 2; woolen goods, 1. 1890, hosiery and knit goods, 3.

⁴ Institutions in Pennsylvania: 1900, hosiery and knit goods, 3. 1890, hosiery and knit goods, 1; carpets and rugs, other than rag, 2.

⁵ Includes institutions distributed as follows: 1900, Iowa, 1 (woolen goods); Massachusetts, 1 (woolen goods); Missouri, 1 (hosiery and knit goods); New Jersey, 1 (hosiery and knit goods); Ohio, 1 (hosiery and knit goods); Tennessee, 1 (hosiery and knit goods); Texas, 1 (woolen goods); Wisconsin, 1 (hosiery and knit goods). 1890, Maryland, 1 (hosiery and knit goods); Minnesota, 1 (hosiery and knit goods); New Hampshire, 1 (hosiery and knit goods); Ohio, 2 (hosiery and knit goods); Texas, 1 (woolen goods); Virginia, 1 (hosiery and knit goods); Wisconsin, 1 (hosiery and knit goods).

THE WOOL MANUFACTURE.

Table 3 presents a comparative summary of the wool manufacture as returned at each census from 1850 to 1900, inclusive, with the percentages of increase for each decade.

TABLE 3.—WOOL MANUFACTURES, COMPARATIVE SUMMARY, 1850 TO 1900, WITH PER CENT OF INCREASE FOR EACH DECADE.

	DATE OF CENSUS.						PER CENT OF INCREASE.				
	1900	1890	1880	1870	1860 ¹	1850	1890 to 1900	1880 to 1890	1870 to 1880	1860 to 1870	1850 to 1860
	Number of establishments.....	1,414	1,693	2,330	3,208	1,476	1,675	216.5	227.8	227.4	117.8	211.9
Capital.....	\$310,179,749	\$245,886,748	\$148,512,278	\$121,451,059	\$98,814,422	\$31,971,631	26.1	71.8	18.2	212.9	21.4
Salariad officials, clerks, etc., number.....	4,495	38,652	(4)	(4)	(4)	(4)	23.1	.....	.....	.....	.....
Salaries.....	\$6,455,495	\$4,057,695	(4)	(4)	(4)	(4)	59.1	.....	.....	.....	.....
Wage-earners, average number.....	159,108	154,271	132,672	105,071	50,419	45,438	8.1	16.3	28.3	108.4	11.0
Total wages.....	\$57,933,817	\$54,339,775	\$40,687,612	\$35,928,150	\$11,699,630	.....	6.6	83.6	13.2	207.1	.....
Men, 16 years and over.....	88,371	78,550	67,942	53,400	29,852	26,559	6.1	15.6	27.2	78.9	12.4
Wages.....	\$36,412,872	\$33,702,231	(4)	(4)	(4)	(4)	8.0	.....	.....	.....	.....
Women, 16 years and over.....	64,141	64,944	49,107	39,150	20,567	18,879	21.2	82.3	25.4	90.4	8.9
Wages.....	\$19,549,423	\$18,883,174	(4)	(4)	(4)	(4)	8.5	.....	.....	.....	.....
Children, under 16 years.....	11,596	10,777	15,628	12,521	(4)	(4)	7.6	281.0	24.8	.....	.....
Wages.....	\$1,971,522	\$1,754,870	(4)	(4)	(4)	(4)	12.4	.....	.....	.....	.....
Miscellaneous expenses.....	\$17,329,932	\$15,622,263	(6)	(6)	(6)	(6)	10.9	.....	.....	.....	.....
Cost of materials used.....	\$181,159,127	\$167,233,987	\$149,160,600	\$124,318,792	\$43,447,048	\$28,851,583	8.8	12.1	20.0	136.1	50.7
Value of products.....	\$296,990,484	\$270,527,511	\$258,085,686	\$199,257,262	\$78,454,000	\$48,608,779	9.8	13.6	19.5	171.3	51.1

¹ Carding mills were not included in 1860.

² Decrease.

³ Includes proprietors and firm members, with their salaries; number only reported in 1900, but not included in this table. (See Table 30.)

⁴ Not reported separately.

⁵ Not fully reported.

⁶ Not reported.

The table shows that there has been a satisfactory increase in the industry in capital, wage-earners, wages, cost of materials used, and value of products during the half century. The greatest increase in value of products, \$125,803,262, and the greatest percentage of increase, 171.3, were during the decade ending with 1870. This was also the period of greatest increase in establishments, wage-earners, wages, and cost of materials used. The extraordinary growth during this decade was due largely to the demand for woollens for army purposes and to the cotton famine.

CONDITIONS IN 1900.

The year 1900 was an unfortunate one for an official investigation of the wool manufacture. It was a year of unusual fluctuations in prices, and of severe losses in the wool market. The machinery in many mills was only in partial operation, or run on part time, and production was on a scale less than normal. Like the preceding year, it was marked by unusual conditions, both as to the chief raw material and manufactured products.

A remarkable speculative rise in the price of wool occurred in 1899. Ohio XX wool, which was quoted in April in Boston at 26½ cents a pound, at the close of the year had advanced to 35 and 36 cents, or over 36 per cent. During the same period Port Phillip (Australia) average greasy wool advanced in London from 20 cents to 35 cents, an advance of 75 per cent. These advances were followed by a sudden collapse in the market abroad, which was reflected here by a fall in Ohio XX wool to 29 and 30 cents in June, 1900. The Bradford (England) Observer, in its review of the wool market in December, 1900, says of this period:

If a vote were taken on 'Change to-day, the answer would be almost unanimous that 1900 has been the worst year we ever had. To understand this year we must go back at least two years. About the middle of 1898 it began to be clear that the commerce of the world had entered upon a period of expansion. Toward the end of 1898 business began to look up, especially in those goods which are made from merino, and prices began slowly to harden, and at the London sales it looked as if, after all, there might be a shortage of merino. Men said that we were entering upon an era of higher prices. They lost their timidity, and toward the end of the year became absolutely reckless. The value of 60's Botany tops, which had been 20½d. before the rise began at the end of 1898, had in twelve months risen to 34½d. per pound. The high price killed the trade, and there was collapse. In ten months, during which there was very little selling, the price fell to 18d. At the end of last year the trade of the whole world was in a prosperous condition, and the tremendous collapse which occurred took everybody by surprise. The plain lesson is that wool is wool, whether it be merino or crossbred and that no class of raw material can for long maintain a price which is out of all proportion higher than another.

These sudden changes in wool prices, and the strenuous competition for business, led to the failure or liquidation of many large and until then prosperous concerns, and was largely instrumental in bringing about consolidations of establishments under one management.

Two important changes in the tariff laws occurred

during the decade. Under the first—the law of 1894—wool, which had been dutiable at nearly the same rates for twenty-seven years, was put upon the free list, and imports of manufactures of wool which had been for the same period subjected to a duty, partly specific and partly ad valorem, were placed on an ad valorem basis. The second change came with the tariff of 1897, when wool was replaced on the dutiable list at nearly the same rates as formerly, and the compound system of duties again applied to woollen goods.

IMPORTS OF WOOL.

The effect of these laws on the imports of wool was very marked, as is shown in the following tables.

The imports of wool for the seven years ending June 30, 1890, under the tariff law of 1883, were:

	Total, pounds.	Yearly average, pounds.
Class 1.....	160,497,817	22,928,188
Class 2.....	45,285,291	6,469,327
Class 3.....	581,764,968	75,966,424
All classes.....	737,547,576	105,963,939

The tariff law of 1890 became operative October 6 in that year, and continued in force until August 28, 1894. It did not greatly change the duties previously existing on wool and woollens. The total imports of wool under this law were:

	Total, pounds.	Yearly average, pounds.
Class 1.....	184,408,715	34,817,120
Class 2.....	18,587,121	4,745,648
Class 3.....	342,430,885	87,429,162
All classes.....	495,426,725	120,401,930

From September 1, 1894, to August 1, 1897, the period of the operation of the law of 1894, the imports of wool were:

	Total, pounds.	Yearly average, pounds.
Class 1.....	418,784,829	141,809,094
Class 2.....	70,127,994	24,043,894
Class 3.....	310,654,503	106,510,115
All classes.....	799,567,326	272,423,083

In the fiscal year 1896-97 occurred the largest importation of foreign wool ever known in the history of the United States for any one year, amounting to 350,852,026 pounds.

Between August 1, 1897, and June 30, 1900, under the present law the imports of wool were:

	Total, pounds.	Yearly average, pounds.
Class 1.....	31,947,914	28,096,423
Class 2.....	15,894,619	5,449,585
Class 3.....	245,339,749	84,116,482
All classes.....	343,182,282	117,662,490

The total importations from October, 1890, to June 30, 1900, were:

	Total, pounds.	Yearly average, pounds.
Class 1.....	630,141,458	64,029,898
Class 2.....	104,609,737	10,729,204
Class 3.....	898,425,188	92,146,168
All classes.....	1,633,176,383	167,505,265

The average annual imports for the first period of the decade were 126,491,930 pounds; in the second, 272,423,083 pounds; and in the third, 117,662,498 pounds. The average for the decade was 167,505,265 pounds, a quantity more than 60,000,000 pounds in excess of the average importations under the law of 1883. By far the greater part of the increased importations was of class 1 wools.

IMPORTS OF WOOL GOODS.

The imports of wool goods show a similar increase. The annual average for the first period was \$31,102,288 in value; for the second, \$47,342,664. The very large imports of this period were followed by much smaller imports than usual, and in the third period the annual average amounted to only \$14,186,264.

The imports of wool goods for these periods by

years were as follows, values only being given, as quantities of certain kinds of goods are not obtainable:

Nine months ending June 30, 1891.....	\$24,204,780
Year ending June 30, 1892.....	35,565,879
Year ending June 30, 1893.....	38,048,515
Year ending June 30, 1894.....	19,439,372
July and August 1894.....	4,558,747
Total.....	121,817,293
Annual average.....	31,102,288
Ten months ending June 30, 1895.....	31,981,143
Year ending June 30, 1896.....	53,494,400
Year ending June 30, 1897.....	49,162,992
July, 1897.....	3,444,234
Total.....	138,082,769
Annual average.....	47,342,664
Eleven months ending June 30, 1898.....	11,379,537
Year ending June 30, 1899.....	13,832,621
Year ending June 30, 1900.....	16,164,446
Total.....	41,376,604
Annual average.....	14,186,264

RANK OF STATES IN WOOL MANUFACTURE ACCORDING TO VALUE OF PRODUCT.

Table 4 shows the rank of the 10 states having the greatest value of product in the wool manufacture, and their relative rank in each of the various branches, 1890 and 1900.

TABLE 4.—WOOL MANUFACTURE—RANK OF STATES, BY VALUE OF PRODUCTS: 1890 AND 1900.¹

TOTAL, ALL BRANCHES.					WOOLEN GOODS.					WORSTED GOODS.				
States.	Rank.	1900	Rank.	1890	States.	Rank.	1900	Rank.	1890	States.	Rank.	1900	Rank.	1890
Massachusetts..	1	\$81,041,537	2	\$67,599,321	Massachusetts..	1	\$30,888,104	1	\$35,771,161	Massachusetts..	1	\$40,557,363	2	\$21,933,775
Pennsylvania..	2	71,878,503	1	72,393,182	Pennsylvania..	2	25,389,344	2	29,878,010	Rhode Island..	2	33,341,329	1	22,319,684
Rhode Island..	3	58,671,879	3	32,204,629	Maine.....	3	11,633,232	6	7,521,317	Pennsylvania..	3	22,109,392	3	17,861,776
New York.....	4	80,813,389	4	28,563,569	Connecticut..	4	8,097,218	4	9,082,493	New Jersey....	4	6,823,721	7	2,058,662
New Jersey....	5	13,793,144	7	8,628,070	N. Hampshire..	5	7,624,062	5	8,004,264	New York.....	5	5,958,259	4	5,763,102
Maine.....	6	13,412,784	8	7,521,317	New York.....	6	6,715,005	8	5,188,020	Connecticut..	6	4,589,814	5	4,651,402
Connecticut..	7	12,687,082	5	13,733,895	Rhode Island..	7	5,330,550	3	9,884,945	Maine.....	7	1,779,552	.....	(²)
N. Hampshire..	8	7,624,062	6	10,769,240	New Jersey....	8	4,765,393	7	5,652,166	N. Hampshire..	8	(³)	6	2,764,976
Vermont.....	9	2,572,646	10	2,723,683	Vermont.....	9	2,572,646	10	2,723,683					
Tennessee....	10	1,517,194	16	1,216,419	Tennessee....	10	1,517,194	16	1,216,419					
CARPETS AND RUGS, OTHER THAN RAG.					FELT GOODS.					WOOL HATS.				
States.	Rank.	1900	Rank.	1890	States.	Rank.	1900	Rank.	1890	States.	Rank.	1900	Rank.	1890
Pennsylvania..	1	\$23,113,058	1	\$22,886,416	New York.....	1	\$1,734,136	1	\$1,517,199	New York.....	1	\$1,376,721	2	\$1,489,182
New York.....	2	15,029,218	2	14,606,116	Massachusetts	2	1,526,830	2	918,830	Pennsylvania..	2	1,106,076	3	1,444,180
Massachusetts	3	6,956,237	3	7,275,009	New Jersey....	3	691,203	.....	(²)	Massachusetts	3	1,103,003	1	1,700,486
New Jersey....	4	1,522,827	4	817,242	Pennsylvania..	4	160,633	4	322,800					
					Ohio.....	.....	(³)	3	406,700					

¹ This table does not include statistics of establishments under 3 in the various subdivisions, and the totals, therefore, are less than in the detailed statements at the end of this report.

² Included in "all other states" in 1890.

³ Included in "all other states" in 1900.

In total value of products Massachusetts led in 1900, with a product valued at \$81,041,537; it was second in 1890. Pennsylvania, first in 1890, was second in 1900, with \$71,878,503. No other state approached these two. Rhode Island was third in rank—the same position it held in 1890—with a product somewhat less than half that of Massachusetts, followed by New York, with a product

not quite half that of Pennsylvania. New Jersey, Maine, and Connecticut were very close together, with but little over \$1,000,000 difference in the value of their products. New Hampshire was eighth, with products of \$7,624,062. Vermont had \$2,572,646, and Tennessee \$1,517,194. These 10 states were the producers of nearly 70 per cent of the total wool manufac-

tures of the United States. Their relative standing in the various branches differs from their standing in the combined industry. In the manufacture of woolen goods Massachusetts was first as in 1890 and Pennsylvania second. Maine, Connecticut, and New Hampshire, which ranked sixth, seventh, and eighth in total value, were third, fourth, and fifth, respectively, in woolen goods. New York was sixth and Rhode Island seventh.

In worsted manufactures Massachusetts remained in the lead, with products valued at \$40,557,363, followed by Rhode Island, Pennsylvania, New Jersey, New York, Connecticut, and Maine, in the order named. In the carpet manufacture Pennsylvania ranked first, as in 1890, with products valued at \$23,113,058, followed by New York with \$15,029,218. Massachusetts was third with \$6,966,237, and New Jersey fourth. The manufacture of felts was carried on in 36 establishments, all but 11 of which were in the states of New York, Massachusetts, New Jersey, and Pennsylvania. New York held first rank, closely followed by Massachusetts. The wool hat manufacture was carried on principally in New York, Pennsylvania, and Massachusetts; New York leading in production, with a value of \$1,376,721, and Massachusetts coming last, with products valued at \$1,103,003. The three states were almost on a level in this branch.

The following is the rank of the three leading cities in the wool manufacture, 1890 and 1900:

RANK OF THREE LEADING CITIES ACCORDING TO VALUE OF PRODUCTS: 1880 TO 1900.

	1900		1890		1880
	Rank.	Value of products.	Rank.	Value of products.	Rank.
Philadelphia, Pa.....	1	\$56,672,007	1	\$73,713,856	1
Lawrence, Mass.....	2	25,584,744	3	10,431,192	2
Providence, R. I.....	3	18,375,776	2	18,237,531	3

TABLE 5.—MACHINERY OF WOOL MANUFACTURE: 1880 TO 1900.

CLASSES.	1900	1890	1880	PER CENT OF INCREASE.	
				1890 to 1900	1880 to 1890
Cards.....	6,605	7,015	6,989	15.8	0.4
Combing machines.....	1,451	830	515	72.9	62.9
Spindles.....	3,511,099	2,793,147	2,111,973	25.7	32.3
Looms.....	74,190	69,658	57,297	6.5	21.6

¹Decrease.

While the number of cards reported in 1900 was 6,605, against 7,015 in 1890—a decrease of 410, or 5.8 per cent—the number of combing machines in 1900 was 1,415, against 839 in 1890, or an increase of 72.9 per cent. Assuming that a combing machine is equal in productive capacity to 2½ sets of cards, and stating the elementary productive machinery on the card basis, the year 1900 shows the equivalent of 10,143 sets of cards, against 9,113 in 1890, an increase of 11.3 per cent in productive capacity. The increase in machinery capacity has been accompanied with a corresponding increase in the quantity of raw material consumed and of goods produced. The cost of materials used has increased 8.3 per cent and the value of products 9.8 per cent.

In the decade 1880-1890, the number of cards increased 0.4 per cent, and of combs 62.9 per cent. A similar calculation to that above shows the increase in productive capacity in that decade to have been 16.4 per cent, a ratio of increase somewhat greater than that of the last decade. An examination of the increase by spindles and looms exhibits a much greater difference. The percentage of increase in spindles was 25.7 from 1890 to 1900, and 32.3 from 1880 to 1890. In looms the increase was 6.5 and 21.6 per cent, respectively.

None of these percentages of increase, however, correctly measure the increase of manufacturing capacity. Improvements in machinery and appliances, and increased size of machines, added very considerably to the increased capacity of the latter period. It is safe to say, in a general way, that as a result of the various improvements, up-to-date machinery will, on the same class of work, produce 10 per cent more than was possible ten years ago.¹

CARDING MILLS.

Table 6 presents the statistics of the custom carding mills.

¹The improvements in woolen and worsted looms have been many and varied during the past ten years, facilitating not only an increased production by reason of the higher speed at which it is possible and profitable to operate the loom, but owing also to the various devices embodied in their construction, which aid materially in the ease with which they handle the warp and filling. While ten years ago broad woolen looms were operated in a few instances up to 100 picks per minute, to-day looms of a similar type can be run at from 115 to 120 picks, and in some special cases where the loom has been especially designed for producing a particular class of work, a speed of 140 to 150 picks per minute has been found to give very satisfactory results.

CROMPTON & KNOWLES LOOM WORKS.
CHARLES F. HUTCHINS, *President*.

WORCESTER, Mass., December 23, 1901.

MANUFACTURES.

TABLE 6.—WOOL CARDING—COMPARATIVE SUMMARY, BY STATES: 1890 AND 1900.

STATES.	Year.	Number of establishments.	Capital.	WAGE-EARNERS.		Miscellaneous expenses.	Cost of materials used.	Value of products.
				Average number.	Total wages.			
United States	1900	231	\$453,286	140	\$33,106	\$10,480	\$395,116	\$534,512
	1890	193	385,411	1416	161,618	18,802	382,650	476,273
Alabama	1900	9	8,175	5	843	225	14,604	20,163
	1890	5	6,825	7	1,465	123	3,489	5,180
Arkansas	1900	11	15,025	6	930	258	16,148	21,930
	1890	3	11,635	4	1,237	202	7,085	9,250
Georgia	1900	9	7,111	6	335	103	7,761	11,547
	1890	3	3,025	5	600	129	5,178	7,300
Indiana	¹ 1900							
	1890	7	36,765	32	3,451	912	17,280	23,733
Iowa	² 1900							
	1890	3	4,700	7	2,000	106	11,052	14,500
Kentucky	1900	23	17,067	15	2,406	500	34,827	42,401
	1890	15	23,156	39	5,075	932	46,894	62,924
Maine	1900	20	56,483	13	4,478	1,174	48,126	65,153
	1890	16	55,050	32	3,164	2,132	41,819	64,633
Michigan	³ 1900							
	1890	10	18,295	26	4,186	838	19,931	20,169
Minnesota	1900	5	13,650	2	600	433	13,666	18,350
	1890	6	11,475	23	3,950	1,166	14,422	20,951
Mississippi	⁴ 1900							
	1890	3	3,200	5	1,150	65	4,575	6,250
Missouri	1900	17	33,455	13	2,639	510	35,923	46,927
	1890	12	21,799	23	2,003	1,007	14,819	21,630
New Hampshire	² 1900							
	1890	4	5,925	9	1,240	315	8,443	12,200
New York	1900	16	22,016	2	450	729	19,967	27,869
	1890	21	54,475	33	4,371	1,142	23,126	33,822
North Carolina	1900	9	7,943	2	242	51	5,313	6,824
	1890	13	10,810	23	2,071	397	12,240	17,911
Ohio	1900	3	11,700	3	640	232	4,293	5,984
	1890	7	14,020	25	3,125	705	7,397	11,703
Pennsylvania	1900	26	96,556	11	3,208	1,369	39,843	56,260
	1890	14	25,233	21	2,343	877	16,782	24,600
Tennessee	1900	33	65,919	34	6,361	2,219	60,747	85,300
	1890	19	17,953	33	4,366	467	27,882	33,135
Vermont	1900	8	12,990			122	6,722	8,470
	1890	7	8,535	9	1,650	795	9,133	12,733
Virginia	1900	4	10,740	2	617	165	9,935	12,359
	1890	5	16,010	9	1,477	263	5,316	9,300
West Virginia	1900	12	8,337	3	725	236	15,258	17,946
	1890	7	10,190	15	1,450	38	9,943	13,770
Wisconsin	1900	15	53,194	21	7,313	1,740	49,313	60,511
	1890	5	9,555	15	2,169	615	6,035	9,305
All other states ⁴	1900	11	17,925	2	255	314	12,605	16,920
	1890	8	16,780	21	3,075	351	19,364	27,623

¹ Includes for 1890 proprietors and firm members, salaried officials, clerks, etc., with their salaries, it being impossible to segregate these classes from wage-earners for that census.

² Included in "all other states."

³ No establishments reported.

⁴ Includes establishments distributed as follows: 1900—Connecticut, 1; Illinois, 1; Indiana, 1; Iowa, 1; Mississippi, 1; New Hampshire, 2; Oregon, 2; South Carolina, 1; Texas, 1. 1890—Illinois, 2; Maryland, 1; Massachusetts, 1; Oregon, 1; South Carolina, 1; Texas, 1; Utah, 1.

These carding mills are small concerns, generally operating the simplest kind of a carding machine, usually 24 inches in width. On this machine are made wool rolls for use in the household spinning industry from wool brought to the card by farmers in the neighborhood. This wool is frequently carded on shares; often the trade is by barter, payment being made in yarn or cloth, if the mill possesses also spinning and weaving apparatus. The carding mill is a branch of the wool manufacture which is passing away, notwithstanding the fact that the census of 1900 revealed a larger number of establishments than in 1890, with an increased capital and value of products. This result was due to a closer

canvass, and possibly to the classification of some small establishments as carding mills, which were not so reported in 1890. Great difficulty was experienced in obtaining satisfactory statements from these mills. They are usually conducted by the proprietor, aided by members of his family, no accounts being kept, the mill being in operation only at such times as meet the requirements of customers. The quantity of wool used by carding mills was very considerable in 1900, amounting to 1,540,025 pounds, costing \$375,469. The products consisted mostly of rolls and bats, valued at \$534,512.

For the benefit of the historian of a vanishing indus-

try, two trade circulars received with the reports of the mills—one from North Carolina, the other from West Virginia—are here reproduced.¹ The information they furnish relative to the quantity of wool required for the production of the goods made in carding mills, which are such as were made by the mills everywhere in the early days of the country, is interesting. So also is the list of prices charged for work, and the suggestions as to the methods of receiving stock, delivering goods, and credits.

¹ WOOL.

The undersigned wishes to inform the public that he still has control of the

MARKWOOD WOOLEN MILL,
at

MARTIN, GRANT COUNTY, W. VA.

And will manufacture Wool on the halves, or will work for cash at the following prices:

Blankets, \$2.50 to \$3.50 per pair; Cassinet, Cloth and Full Linsey, 30c. per yard; Flannel and Linsey, 25c. per yard; Stocking Yarn, 20c. to 25c. per pound; Single Yarn, 12½c. to 20c. per pound; Fulling, 10c. to 12½c. per yard; Carding Rolls, 5½c. per pound, if greased; if not greased, 6c. per pound; Bating, 5c. per pound.

Persons living at a distance from the mill may leave their wool at either of the wool stands named below, and I will haul the wool to the mill and return the rolls or goods free of charge.

Thanking our many customers for past patronage, and soliciting a continuance of the same, I wish to state that I am prepared to do good work and will guarantee satisfaction.

Respectfully,

JAS. C. BILLMYRE.

Wool may be left at

Martin, W. Va., April 10, 1901.

Alpine Woolen Mills, Mount Airy, N. C., Manufacture Cassimers, Jeans, Linseys, Flannels, Blankets, and Yarns. Custom work a specialty.

Carding and spinning	10 cents per pound
Carding and spinning and doubling and twisting	15 cents per pound
Coloring wool—black, gray, or brown	5 cents per pound
Coloring yarns or wool—red, blue, or green	10 cents per pound
Making rough jeans	25 cents per yard
Making fulled and finished jeans	30 cents per yard
Making all-wool cassimer	40 cents per yard
Making all-wool flannel	20 cents per yard
Making linseys, cotton warp	18 cents per yard
Making flannel, cotton warp	15 cents per yard
Making bed blankets	\$2.50 per pair

COMPARISON OF MILLS BY SETS OF CARDS.

A well-developed trend away from the card wool manufacture has long been recognized, but it remained for the census of 1900 to present, in a succinct form, the facts that should give some indication of the extent of this change. The report on wool manufactures for the Eleventh Census called attention to the tendency toward larger establishments, and presented a table showing the number of mills reporting cards, arranged according to the number of cards operated. Table 7 is a comparative summary of these statistics for 1890 and 1900.

Making bed blankets, red, etc	\$3.00 per pair
Making striped buggy blankets	\$1.25 per pair

Ten pounds clean, washed wool will make 9 pounds custom single yarn.

One pound clean, washed wool will make 1 yard all-wool cassimer. One pound clean, washed wool will make 1½ yards any kind of jeans. One pound clean, washed wool will make 2½ yards any kind of linsey.

One pound clean, washed wool will make 1½ yards all-wool flannel. Eight pounds clean, washed wool will make 1 pair blankets.

Unwashed wool will lose one-third to one-half in washing, and sometimes, if burry, it will lose more than this. We would prefer people sending altogether washed wool, as it would save the freight on so much dirt, burrs, etc., though this is optional with them. We will pay freight on all wool shipped to us in lots over fifty pounds; less than fifty pounds the customer must prepay freight, or we will pay it and charge it up in bill of work. Don't ship wool by express, as we will not pay express rates, and you can not afford to pay them. Always be very careful to put your own name and post-office on every package of your wool, both inside and outside of the package, and you can not be too careful in writing your orders to us for what you want made of it. Order always by the number of the goods on the sample sheet. Don't order goods not on sample sheet, as we send samples of all we make every year, except blankets and yarns; then it is quite enough to say spin or make blankets, and name the kind or color. It would be best for customers ordering goods made to give a second choice, as we may sometimes be out of one kind of goods, and then we could send another much sooner.

We carry insurance for the benefit of our customers, but when we put their goods in the station our responsibility ends. We have not the pleasure of an acquaintance with all our customers, and we ship small bills of work collect on delivery to their nearest express office, unless otherwise ordered. We have greatly improved our mill this year, and we shall from time to time add new machinery to keep up with our work. Thanking our many friends and customers for their liberal patronage in the past, we hope to have many new ones this year.

Yours, very truly,

ALPINE WOOLEN MILLS,
M. J. HAWKINS,

Proprietor.

MOUNT AIRY, N. C., March 1, 1900.

TABLE 7.—WOOL MANUFACTURES: NUMBER OF MILLS ACCORDING TO SETS OF CARDS: 1890 AND 1900.

GEOGRAPHICAL DIVISIONS.	Year.	Number reporting sets of cards.	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.	Carding mills.
United States.....	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.....	1900	344	13	25	25	46	25	24	19	30	15	46	25	20	31
	1890	504	47	49	44	53	34	39	26	33	16	72	26	37	28
Middle states.....	1900	233	36	27	20	19	14	19	9	6	4	17	5	15	42
	1890	466	120	78	53	34	22	34	6	17	6	25	17	18	36
Southern states.....	1900	206	37	25	15	8	2	.....	2	.....	1	1	.....	2	113
	1890	197	57	38	10	8	2	.....	.....	1	.....	5	.....	1	76
Western states.....	1900	193	53	42	16	8	5	8	4	4	2	5	1	.....	45
	1890	301	123	56	24	12	8	7	4	7	.....	4	1	1	54

The comparison thus established brings to light some noteworthy facts. At the census of 1890, 1,468 mills reported sets of cards, of which 193 were carding mills. There were 568 mills with only 1 or 2 sets of cards; 238, with 3 and 4 sets; 146, with 5 and 6 sets; 222, with from 7 to 15 sets, 106 of these reporting 10 to 15 sets (the majority of this number, however, operated only 10 to 12 sets); and 101 mills with over 15 sets, of which 57 establishments had 20 sets of cards and over. At the census of 1900 only 976 establishments reported cards, of which 231 were carding mills; 258 were 1 and 2 set mills; 157, 3 and 4 set; 97, 5 and 6 set; 165, 7 to 15 set; and 68, 15 sets and over, 37 of these having 20 sets and over. From these statements it appears that the local 1 and 2 set mill is passing out of existence, following in the wake of the custom carding mill of earlier days. The 3 and 4 set mills were also largely reduced in number, the larger numerical loss being in the smaller mills. In the 5 and 6 set mills the reverse was the case, the greater loss both in number and percentage being in the 6 set establishments, which is perhaps accounted for by the fact that the 5 set mill presents better opportunities for economy in management.

The group of mills operating from 7 to 15 sets of cards is the one where the least change would naturally be expected, for it is well understood by woolen manu-

facturers that a 10 set mill, or one nearly approaching it, is in certain lines of manufacture the most economical of operation, as it requires no larger number of high-priced men, superintendents, second hands, etc., than a mill with only 5 or 6 sets. In the mills running from 7 to 9 sets there appears a reduction of only 20. In the remainder of this group, the mills having from 10 to 15 sets, and in the mills with 15 sets and over, the decrease has been very great—37 in the former and 33 in the latter. The principal causes of decrease are found in the failure of old and important establishments and the breaking up of their plants and the transfer of many large mills to the worsted branch. The substitution of knit garments for flannels has also been a factor of no small importance.

These changes have not been confined to any one section, but, as will be seen by the table, have occurred in much the same ratio throughout the country.

THE CARD WOOL MANUFACTURE.

The following statement shows the number of sets of cards in the woolen mills in the United States and in each state, arranged according to the width of main cylinder or swift. A similar statement showing the data for the hosiery and knit goods manufacture will be found under the proper head.

NUMBER AND WIDTH OF CARDS IN WOOL MANUFACTURES, BY STATES: 1900.

STATES.	Number of sets, width reported.	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.	Miscellaneous.
United States.....	6,498	290	126	56	1,176	23	133	67	3,372	22	1,136	29	27	41
Alabama.....	8	7			1									
Arkansas.....	17	9	7											
California.....	30													1
Connecticut.....	450		1		94	6	23		30					
Delaware.....	13								291		27	4		4
Georgia.....	32	3	1						2		11			
Idaho.....	1					1			18		9			
Illinois.....	52								1					
Indiana.....	92	1	1	1	17				30		2			
Iowa.....	27	5	1		15		2		54		15			
Kansas.....	2								11					
Kentucky.....	58		3		2				2					
Maine.....	437	25	3	1	2				9		17			1
Maryland.....	47	18	5	6	129		14		225		35			6
Massachusetts.....	1,058	47	6						7		34			
Michigan.....	52	29	2	8	410	5	75	66	870		157	22	2	12
Minnesota.....	88													
Mississippi.....	26		3	2	10				36		1			
Missouri.....	37	5	5		19				8					1
New Hampshire.....	341	3	4	2	3				18		3			
New Jersey.....	208	13	2		177	4	5	1	12		3			
New York.....	748	2			4				141	8	3			
North Carolina.....	32			1	2									
North Dakota.....	2	39	21	6	2				115	11	54		25	
Ohio.....	77	14	2	2	124	2	4		511		34	3		4
Oregon.....	35				4				6		4			
Pennsylvania.....	1,149	77	7	5	17		2				2			
Rhode Island.....	402	35	1	1	5				31		15			
South Carolina.....	1	62	12		26	2	1		441		593			7
Tennessee.....	99				53				301	3	45			
Texas.....	4	1												
Utah.....	17	4	28	5	6	3			18		33			2
Vermont.....	124				1									
Virginia.....	58	8							16					
West Virginia.....	57	1	10	7	15		7		78		16			
Wisconsin.....	72	13	7	8	10				13		9			8
		11	7		12				12		4			1
					12				36		6			

Table 8 shows carding machinery, by states, 1870 to 1900.

The percentage of cards in the principal states remains but little changed in the ten years. The New England states, except Vermont and Maine, have each lost slightly, as compared with the total number of cards, but in no case does this loss exceed 1.3 per cent. New York, Pennsylvania, and New Jersey have each gained a trifle, but all the others show a relative loss. New England has maintained its superiority, having 3,427 sets, and of these Massachusetts had 1,594; the relative importance of this state in number of cards varies but very little from either 1880 or 1890. The same is true of the other leading states. New York, Pennsylvania, and New Jersey together had 2,217 sets. In the nine states mentioned were located most of

the mills of 4 sets and over, and together they had 5,644 sets, leaving only 961 for the rest of the United States. Indiana, which in 1890 had 135 sets, in 1900 had 92. In Ohio the number was reduced from 104 to 78 and in Illinois from 57 to 46. Exclusive of the states named the number was practically unchanged. The general tables show gains in some of the remaining states and losses in others, which counterbalance each other, and were governed by local causes. As the wool-growing interest becomes relatively of less importance in the farming sections of the East and Middle West, and transportation facilities increase, the neighborhood mills established originally because of their contiguity to the source of supply gradually fall into disuse, overshadowed by the establishments of greater capacity, capital, and credit in the more eastern sections.

TABLE 8.—CARDING MACHINERY, BY STATES: 1870 TO 1900.

STATES.	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.
United States.....	6,605	100.0	7,015	100.0	6,989	100.0	8,705	100.0
Massachusetts.....	1,594	24.1	1,785	25.4	1,622	23.2	1,488	16.5
Pennsylvania.....	1,262	19.1	1,254	17.9	1,120	16.0	1,429	16.4
New York.....	748	11.3	702	10.0	830	11.9	940	10.8
Rhode Island.....	478	7.2	558	8.0	495	7.1	484	5.6
Connecticut.....	450	7.0	532	7.6	543	7.8	682	7.8
Maine.....	437	6.6	387	5.5	274	3.9	335	3.9
New Hampshire.....	335	5.1	380	5.4	317	4.5	360	4.1
New Jersey.....	207	3.1	202	2.9	161	2.3	98	1.1
Vermont.....	124	1.9	120	1.7	145	2.1	177	2.0
Ohio.....	78	1.2	104	1.5	182	2.6	334	3.8
Indiana.....	92	1.4	135	1.9	160	2.3	346	4.0
Illinois.....	46	0.7	57	0.8	106	1.5	250	2.9
In above 12 states.....	5,860	88.7	6,216	88.6	5,955	85.2	6,868	78.9
All other states.....	745	11.3	799	11.4	1,034	14.8	1,837	21.1

THE WORSTED MANUFACTURE.

Reference has been made to the rapid transition from the carded to the combed wool manufacture. Previous to 1865 the products of the worsted industry were confined mainly to furniture stuffs and light goods for women's wear. Between that date and 1870 several

establishments began the manufacture of cloths for men's wear,¹ and from that time dates the great worsted industry in the United States. Table 9 shows the number of combing machines, by states, 1870 to 1900, with the proportion each state had of the total.

¹ Eleventh Census of the United States, Manufactures, Vol. III, page 57.

TABLE 9.—NUMBER OF COMBING MACHINES, BY STATES: 1870 TO 1900.

STATES.	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.
Total.....	1,451	100.0	839	100.0	515	100.0	261	100.0
Massachusetts.....	424	29.2	265	31.5	190	36.9	172	65.9
Pennsylvania.....	357	24.6	188	22.4	121	23.5	20	11.1
Rhode Island.....	287	19.8	198	23.6	70	13.6	7	2.7
New Jersey.....	128	8.8	29	3.5	9	1.7	0	2.3
New York.....	116	8.0	84	10.0	80	15.5	1	0.4
Connecticut.....	57	3.9	27	3.2	21	4.1	34	13.0
New Hampshire.....	34	2.4	29	3.5	21	4.1	12	4.6
Maine.....	19	1.3	5	0.6				
In above 8 states.....	1,422	98.0	820	97.7	512	99.4	261	100.0
All other states.....	29	2.0	19	2.3	3	0.6		

From a total of 261 combs reported in 1870 the industry has grown till, in 1900, 1,451 were employed, the increase being 97.3 per cent between 1870 and 1880,

62.9 per cent between 1880 and 1890, and 72.9 per cent between 1890 and 1900. Astonishing as the percentage statements are they do not furnish so clear an idea of

this phenomenal growth as do the actual figures. In 1870, 261 combs were employed; by 1880, 254 had been added, and by 1890, 324 more, making a total of 839. At the census of 1900 this number had increased by 612 combs during the decade, making the total 1,451, nearly 5½ times the whole number employed in 1870. The substitution of the worsted cassimere and coating for the woolen cassimere, doeskin, broadcloth, and similar fabrics has been the prime cause of the decrease in the card-wool manufacture. In 1900 Massachusetts led in the worsted manufacture as at previous censuses, its gain in number of machines during the decade being 159. Pennsylvania, which ranked third in 1890, increased from 188 to 357, and held the second place. Rhode Island, which was second in 1890 with 193 machines, ranked third in 1900, although its total increased to 287. New Jersey was next with 128, having added 99 since 1890. New York added 32 machines and ranked fifth, with 116 combs. No other state approaches these 5 in magnitude in this industry. Connecticut, New Hampshire, and Maine together had 110 combs, an increase of 49 since 1890, when they reported 61. In all the other states the additions were only 10.

The preceding statements make it apparent that the states possessing the greatest amount of wool carding machinery also possessed the bulk of the combing machines. The following tabular statement shows the capacity of the principal manufacturing states in 1900 and 1890, on the assumption of the equality of 2½ sets of cards to 1 comb in productive power:

PRODUCTIVE MACHINERY (CARDS AND COMBS) REDUCED TO THE CARD BASIS.

STATES.	DATE OF CENSUS.			
	1900		1890	
	Number of cards (sets).	Per cent of total.	Number of cards (sets).	Per cent of total.
United States.....	10,232	100.0	9,112	100.0
Massachusetts.....	2,654	25.9	2,448	26.9
Pennsylvania.....	2,154	21.1	1,724	18.9
Rhode Island.....	1,195	11.7	1,040	11.4
New York.....	1,038	10.1	912	10.0
Connecticut.....	602	5.9	599	6.6
New Jersey.....	527	5.2	274	3.0
Maine.....	484	4.7	399	4.4
New Hampshire.....	420	4.1	453	4.9
All other states.....	1,158	11.3	1,263	13.9

The table demonstrates the continued superiority of the 4 states, Massachusetts, Pennsylvania, Rhode Island, and New York, in the order named, in the wool manufacture. These 4 states together operated 67.2 per cent of the total productive machinery in 1890, and in 1900 operated 68.8 per cent.

SPINDLES.

According to the fiber employed or the yarn to be produced, the spindles employed in wool manufactures

are divided into 3 groups—woolen, worsted, and cotton. The total number of spindles reported was 3,511,099, an increase of 717,952, or 25.7 per cent over 1890. Of the whole number, 2,081,028 were woolen spindles, 1,325,255 worsted spindles, and 154,816 cotton spindles. The following statement shows the distribution of the spindles in the mills in 1900 and 1890:

COMPARATIVE STATEMENT OF SPINDLES, 1890 AND 1900.

	WOOLEN.		WORSTED.		COTTON.	
	1900	1890	1900	1890	1900	1890
Woolen mills.....	1,739,688	1,742,288	65,762	19,750	51,186	53,342
Worsted mills.....	150,026	207,180	1,125,644	479,675	95,856	68,225
Carpet mills.....	67,033	53,046	133,849	151,132	8,324	4,680
Felt mills.....	24,286	13,829	.....	.....	.....	.....
Total.....	2,081,028	2,016,343	1,325,255	650,557	154,816	129,247

The statement shows a reduction in the number of woolen spindles in worsted mills, occasioned by the removal of many of them and the substitution of worsted spindles. In the woolen, the carpet, and the felt mills, the gain in number was more than sufficient to offset the losses in the worsted mills. The net gain in woolen spindles was 14,685. The average number of woolen spindles to the card in 1890 was 287. In 1900 the average number to the card was 307. In worsted spindles the number more than doubled. This increase was not confined to the worsted mills, for the woolen mills also added materially to their capacity for the manufacture of worsted yarns. In the worsted mills the increase has been 645,969 spindles, or 134.7 per cent, and the total increase of worsted spindles is 674,698, or 103.7 per cent. Improvements in quality of goods, requiring higher counts of yarn, have made necessary a proportionately larger number of spindles.

In 1890 the average number of worsted spindles to a comb was 775; in 1900 it was 913. The difference may be, in some measure, accounted for by the increased efficiency of the comb, the result of improvements. In cotton spindles there has also been an increase over the number in 1890 of 28,569 spindles, or 22.6 per cent. The increase was mostly in the worsted mills, where a large quantity of cotton yarn was produced for use in cotton-warp dress goods.

DOUBLING SPINDLES.

For the first time in the census reports the separation of spindles into spinning and doubling spindles has been attempted. In 1890 an estimate of the number of doubling spindles, based upon the proportion existing in Great Britain, was made. It was supposed that the relative proportion would be about the same here as there. No later statistics of spindles in Great Britain are available than those of 1889, when the woolen mills had 3,107,209 spinning spindles and 299,793 doubling spindles, and the worsted mills, 2,402,922 spinning and 669,328 doubling spindles. The spindle capacity of the

United States ten years ago was less than one-half that of Great Britain.

In woolen spindles the United States has made some advance during the decade, but is at least as far behind Great Britain now as in 1890. It also appears that a much larger proportion of single yarns is used here, for while the spindles of British manufacturers were then in the ratio of 1 doubling to 10.36 spinning; the number in the United States now averages 1 to 22.46, which is less than one-half of the proportion in the British mills.

In worsted spindles the proportion in Great Britain in 1889 accords fairly well with the present census returns. The ratio then was 1 doubling to 3.59 spinning spindles, while the mills of the United States now report 351,550 doubling spindles, and 994,889 spinning spindles, a ratio of 1 to 2.83.

PRODUCTIVE CAPACITY.

It had been hoped that it would be possible to fix upon some standard of capacity in the wool manufacture that would compare favorably with the spindle, which is used as the measure in the cotton manufacture. The card has been used as the standard heretofore, but owing to variations in size and in productive power dependent on the quality of stock and the number or size of the yarn, it is very unsatisfactory. Cards range from 24 inches to 72 inches in width, with occasionally one of even greater width, and vary almost as greatly in diameter. The spindle, both woolen and worsted, mule or ring, is unsatisfactory also, for its product is dependent on the number of yarn and quality of stock and whether it is for warp or weft, warp requiring a much harder twist than weft. The letter below indicates the difficulty involved, as well as the apparent

impossibility of arriving at a suitable standard of measurement of productive capacity.¹

IDLE CAPITAL AND MACHINERY.

Until the Eleventh Census no attempt was made to separate the idle from the active machinery in the wool manufacture. Previously, idle establishments were reported with those in active operation. In 1890, 267 factories, with 612 sets of cards and 35 combs, were not in operation during the census year. The number of idle sets of cards was equal to 6.9 per cent of the total number of cards reported both in operation and idle. The number of idle combs equaled 3.9 per cent of the total number. Table 10 shows the idle capital and machinery for 1900.

¹ There has been a considerable increase in the productive capacity of carding machines aside from that obtained by the increased surface of the more modern cards. Among the various factors which contribute to this, we mention the substitution of tempered steel wire clothing for iron, the use of double apron condensers in place of roll rubs, the improvements in automatic feeds, and also to a certain degree in the larger number of ends, thereby keeping the carding machines up to the full amount of stock which the wire will carry without overloading, and keeping the speed of the ring doffers within reasonable limits.

The improved methods of construction of modern cards also admit of uniform setting, and also very considerably reduce the stoppage of the machines for repairs, etc.

There has been a very considerable increase in the size of carding machines within the last twenty years. Where formerly many of them were built 40 inches wide, 42 inches diameter, now it is a very rare thing to build a card smaller than 48 inches wide by 48 inches diameter, and a large percentage of them are built with the main cylinders 60 inches in diameter and 48 inches wide, while quite a few are built 60 inches wide by 48 inches diameter, and some few of them 60 inches wide by 60 inches diameter.

We are unable to give you the information you desire in regard to basis upon which to estimate the production of mills from the number of spindles. We should like very much to obtain this information ourselves, but it seems very difficult, if not impossible, to get an accurate basis upon which to estimate.

DAVIS & FURBER MACHINE COMPANY.

NORTH ANDOVER, Mass., January 28, 1902.

TABLE 10.—IDLE CAPITAL AND MACHINERY, BY STATES: 1900.

STATES.	Number of establishments.	CAPITAL.					MACHINERY.			
		Total.	Land.	Buildings.	Machinery, tools, and implements.	Cash and sundries.	Sets of cards.	Comb-ing machines.	Spindles.	Looms.
Total	117	\$4,632,666	\$668,542	\$1,347,098	\$1,791,207	\$825,219	338	28	111,889	3,129
Connecticut	4	49,800	6,300	23,000	20,500	.....	12	.....	1,400	81
Illinois	4	44,850	6,350	12,800	25,700	.....	15	.....	6,520	241
Indiana	6	123,650	19,150	44,800	54,000	5,700	17	.....	6,198	83
Iowa	3	16,500	900	4,700	9,000	1,900	6	3	1,804	20
Kentucky	6	1,095,060	119,140	230,100	362,462	883,368	39	11	20,568	838
Maine	5	245,600	20,600	69,000	126,000	30,000	9	5	2,500	161
Massachusetts	18	1,474,800	229,532	494,633	552,121	198,464	90	.....	28,734	909
Michigan	3	8,400	1,450	2,100	2,000	2,850	4	.....	1,340	8
New Hampshire	4	303,350	67,000	88,000	100,734	52,616	38	.....	11,080	209
New Jersey	3	87,539	10,000	23,246	43,887	10,406	.....	.....	.....	72
New York	8	166,775	19,200	38,800	74,300	34,475	22	.....	4,410	47
Ohio	6	33,800	9,500	8,500	13,000	2,300	7	.....	1,010	29
Pennsylvania	20	255,100	19,480	67,580	91,400	76,640	6	.....	2,044	21
Rhode Island	6	524,600	116,500	130,000	223,100	.....	46	9	18,012	256
Tennessee	3	8,725	210	1,115	2,300	100	4	.....	560	13
Vermont	3	13,370	3,500	4,000	4,000	1,870	3	.....	680	9
All other states ¹	15	186,247	19,730	60,274	81,703	24,540	20	.....	4,999	132

¹ Includes establishments distributed as follows: Arkansas, 2; Kansas, 1; Maryland, 1; Missouri, 1; Nebraska, 1; South Carolina, 1; Texas, 1; Utah, 1; Virginia, 1; Washington, 1; West Virginia, 2; Wisconsin, 2.

The returns for 1900 show 338 sets of cards and 28 combs idle, equal to 5.1 per cent of the total number of cards and 1.9 per cent of the total number of combs. The idle spindles equaled in 1890, 5.1 per cent, and in 1900, 3.2 per cent of the total number. The idle looms were 4.1 per cent of the total looms in 1890 and 4.2 per cent in 1900. While these percentages indicate that the machinery in the wool manufacture was more fully employed in 1900 than in 1890, it must not be overlooked that they relate only to mills that were idle during the whole of the census year. The reports of the active mills indicate a large amount of lost time.

The capital of the idle mills was reported as \$4,632,666, of which \$825,219 was in cash, unsettled accounts, etc., designated as live capital. The value of the plants was \$3,807,447. The average fixed capital per establishment was \$32,542.

The idle mills were located as follows: 40 in New England, 32 in the Middle states, 16 in the South, and 29 in the Western and Pacific states. Of the 40 in New England, 18 were in Massachusetts, with 90 sets of cards and a total capital of \$1,095,060; 6 were in Rhode Island and had 46 sets of cards and 9 combs, with a capital of \$524,600; 4 were in Connecticut; 4 were in New Hampshire; and 3 in Vermont. The 11 mills last named reported a total capital of \$366,520, with 53 sets of cards. In the Middle states, Pennsylvania had the greatest number of idle plants, 20, with only 6 sets of cards, and a capital of \$255,100. New York was next with 8 establishments, having 20 sets of cards, and a capital of \$166,775. New Jersey had 3, with capital amounting to \$87,539, but no preparatory machinery. In the Southern and Western groups, Kentucky had the largest amount of capital in idle mills. The states named possessed the greater part of the idle machinery, having 256 sets of cards and 20 combs, leaving only 82 sets of cards and 8 combs for all the others.

POWER.

The power, both steam and water, employed in the wool manufacture, increased 71,898 horsepower, or 35.5 per cent, during the decade ending in 1900. In the preceding decade the actual increase was 62,306 horsepower, about seven-eighths as much, although the percentage was 44.5. The carded wool manufacture shows an increase of 17,421 horsepower, or 14.3 per cent. The worsted manufacture in this, as in other particulars, shows the greatest increase, 48,266 horsepower, or 98.3 per cent. In 1890 this branch of the industry increased 32,680 horsepower, or 198.8 per cent over 1880. The horsepower in the carpet manufacture increased 18.8 per cent in 1900, and in the felt mills 57.8

per cent, while in the wool hat manufacture there was a decrease of 966 horsepower, or 29.3 per cent.

A more significant fact than the increase of the total horsepower employed is the increased efficiency of machinery which is indicated in the column of "Horsepower per wage-earner" in Table 11. In 1890, 131.2 horsepower, and in 1900, 172.4 horsepower per 100 operatives were required. The improvements in cards, combs, looms, and other machinery were such that less superintendence was needed and the operative could give his attention to more machines. The table following presents a statement of horsepower, wage-earners, and horsepower per wage-earner for the censuses of 1880, 1890, and 1900 for the wool industry in its various branches.

TABLE 11.—POWER AND LABOR: 1880 TO 1900.

INDUSTRIES.	Year.	Total horsepower.	Average number of wage-earners.	Horsepower per wage-earner.
Total	1900	274,262	159,108	1.72
	1890	202,364	154,271	1.31
	1880	140,058	131,059	1.07
Woolen goods	1900	139,645	68,898	2.03
	1890	122,224	76,915	1.59
	1880	106,507	85,202	1.25
Worsted goods.....	1900	97,388	57,008	1.71
	1890	49,117	42,978	1.14
	1880	16,437	18,639	0.88
Carpets and rugs, other than rag...	1900	26,932	28,411	0.95
	1890	22,677	28,736	0.79
	1880	10,491	20,299	0.52
Felt goods.....	1900	7,978	2,688	2.97
	1890	5,051	2,142	2.36
	1880	2,631	1,488	1.77
Wool hats	1900	2,329	2,108	1.11
	1890	3,295	3,500	0.94
	1880	3,992	5,431	0.74

DEPRECIATION OF PLANT.

No attempt was made at the census of 1900 to ascertain what allowances were made for depreciation of plant. In the thoroughly up-to-date establishment every improvement in machinery is adopted as soon as its value is demonstrated. Existing machinery, even though comparatively new, is at once discarded if increased production can be secured without a proportionate increase of cost by the substitution of the latest improved machines. The question with the manufacturer is not so much the cost, as whether the change will bring an increase of income sufficient to pay the interest on the cost, with an added margin for profit, and put the establishment in better condition to meet business competition. It is commonly agreed that an allowance of 10 per cent of the first cost of machinery is a fair annual allowance for wear and tear and supersession by im-

provements, and that at least this amount should be set aside for depreciation. A smaller allowance is sufficient for buildings, but, nevertheless, improved processes of manufacture frequently compel the tearing down of old buildings and the erection of new ones in their place, so that an allowance of 5 per cent is not too much for depreciation of buildings. It is true that in many establishments but little has been laid out for years on alteration or repairs, only a sufficient amount to keep the mill going being expended, and in many mills there are cards and looms that have been in operation for so long that they are almost relics of a by-gone age. Although such machines may answer the purpose of their owners fairly well, they fall far behind more modern machines in their productive capacity and economy of operation.

CAPITAL.

The increase in capital employed during the decade 1890-1900, as shown by the reports, was \$64,293,006, or 26.1 per cent. The total capital is divided into fixed and live capital, the land, buildings, and machinery, etc., being regarded as "fixed" and the items of cash, unsettled ledger accounts, etc., as "live" capital. The following statement shows the statistics of capital for 1890 and 1900:

	CAPITAL.		Per cent of increase.
	1900	1890	
Aggregate.....	\$310,179,749	\$245,886,743	26.1
Total fixed capital.....	125,226,619	106,146,810	18.0
Land.....	17,936,483	12,682,857	41.4
Buildings.....	38,074,295	33,950,456	12.1
Machinery, tools, and implements.....	69,215,841	59,513,497	16.3
Cash on hand, unsettled ledger accounts, stock on hand, etc.....	184,953,130	139,739,933	32.4

The live capital reported shows an increase of 32.4 per cent and bears no fixed relation to the value or quantity of product. In 1890 it was a little more than half, and in 1900 it represented a sum equal to over 62 per cent of the total value of products. It has been generally understood in the wool manufacture that the active capital should be turned twice in the year, but in this case the tables show a falling off from this standard.

WAGE-EARNERS AND WAGES.

The total number of wage-earners employed in the wool manufacture has increased 4,837 over 1890. Of this increase 4,821 were men and 819 were children. The number of women employed decreased 803. The relative proportion of each at the last three censuses is shown in the following statement:

AVERAGE NUMBER OF WAGE-EARNERS, AND PROPORTION OF MEN, WOMEN, AND CHILDREN: 1880 TO 1900.

	Year.	Average number.	Per cent of total.
Total.....	1900	159,108	100.0
	1890	154,271	100.0
	1880	131,059	100.0
Men, 16 years and over.....	1900	83,371	52.4
	1890	78,550	50.9
	1880	66,347	50.6
Women, 16 years and over.....	1900	64,141	40.3
	1890	64,944	42.1
	1880	49,104	37.5
Children, under 16 years.....	1900	11,596	7.3
	1890	10,777	7.0
	1880	15,608	11.9

The proportions have changed very slightly in the decade, the percentage of men being 50.9 in 1890 and 52.4 in 1900; of women, 42.1 and 40.3; and of children, 7 and 7.3.

The total amount paid in wages in 1900 was \$57,933,817, divided as follows: To men, \$36,412,872; to women, \$19,549,423; to children, \$1,971,522. In 1890 the total amount was \$54,339,775, of which \$33,702,231 was paid to men, \$18,883,174 to women, and \$1,754,370 to children. No attempt is made to analyze these wages or to ascertain the average earnings, because of the different methods of reporting the average number of employees pursued at the two censuses. The full details of wages and earnings in the wool manufacture will be shown in the special report on wages to be published by the Census Office at a later date.

CONDITIONS OF WAGE-EARNERS.

Within the memory of many men now living the conditions under which the work of the operatives is carried on have undergone a great change. In the early fifties it was the custom to work from sun to sun, and oftentimes for even longer hours. When daylight failed, the only light available was that furnished by little whale-oil lamps. The buildings were generally small, low-studded, ill ventilated, and poorly lighted. The operatives lived in factory boarding houses or in tenements owned by the mill proprietors, taking a part of their pay in board or rent. The evolution from these conditions has been slow but continuous. Mills of recent construction contain every modern appliance for facilitating production, such as cards, combs, mules, spinning frames, looms, and other machinery of the highest type, with their various stop motions and other automatic devices for the prevention of imperfections.

The rooms are large, lofty, well ventilated and lighted, and heated by steam. Electric lights make good the absence of daylight when required. The hours of labor have been reduced to 60 per week, and in several instances to a smaller number. Wages are generally paid in cash, usually either every week or once in two weeks, and factory inspection laws prevent, to a great extent, the employment of children under 14 years of age, and insure the best sanitary conditions.

MATERIALS USED IN THE WOOL MANUFACTURE.

Table 12 is a summary of the kind, quantity, and cost of materials used in the various branches of the wool manufacture in 1900.

TABLE 12.—KIND, QUANTITY, AND COST OF MATERIALS USED: 1900.

CLASSES.	Total.	Woolen mills.	Worsted goods mills.	Carpet and rug mills, other than rag.	Felt goods mills.	Wool hat mills.
Total cost	\$181,159,127	\$71,011,956	\$77,075,222	\$27,228,719	\$3,801,028	\$2,042,202
Wool, foreign and domestic, in condition purchased:						
Pounds	394,369,523	150,200,616	179,977,936	51,871,334	9,605,263	2,713,374
Cost	\$89,893,850	\$34,497,689	\$44,306,141	\$8,104,107	\$2,196,440	\$788,978
Raw cotton:						
Pounds	43,414,502	34,967,959	5,276,751	1,943,942	1,225,850	
Cost	\$3,487,132	\$2,765,485	\$524,515	\$129,449	\$77,683	
Mohair:						
Pounds	3,048,146	1,117,179	1,905,967	25,000		
Cost	\$1,439,288	\$469,831	\$972,207	\$7,250		
Cotton yarn, not made in mill:						
Pounds	55,217,994	21,922,136	13,420,590	19,823,561	51,707	
Cost	\$9,568,864	\$3,782,240	\$5,032,039	\$2,744,928	\$9,657	
Linen yarn, not made in mill:						
Pounds	8,415,275	7,845	1,314	8,388,211	17,905	
Cost	\$1,178,414	\$6,998	\$1,052	\$1,164,826	\$5,538	
Silk yarn, not made in mill:						
Pounds	70,073	34,007	26,418	9,634	14	
Cost	\$334,001	\$145,514	\$144,971	\$43,465	\$61	
Yarn of jute, ramie, or other vegetable fiber, not made in mill:						
Pounds	39,965,180	1,118,767		38,846,413		
Cost	\$2,533,413	\$37,384		\$2,476,029		
Shoddy, purchased and made:						
Pounds	71,496,508	66,855,105	1,807,827	869,233	1,961,208	3,135
Cost	\$7,069,630	\$6,584,855	\$303,644	\$49,680	\$130,835	\$616
All other materials, cost	\$65,655,035	\$22,721,960	\$27,790,653	\$12,508,995	\$1,380,814	\$1,282,613
Total pounds, wool, cotton, and shoddy	564,498,527	273,945,816	200,483,104	74,508,070	12,845,028	2,716,509
Per cent of total	100.0	100.0	100.0	100.0	100.0	100.0
Total pounds of wool used	394,369,523	150,200,616	179,977,936	51,871,334	9,605,263	2,713,374
Per cent of total	69.8	54.8	89.8	69.6	74.8	99.9
Total pounds of cotton and cotton yarn used	98,632,496	56,890,095	18,697,341	21,767,508	1,277,557	
Per cent of total	17.5	20.8	9.3	29.2	9.9	
Total pounds of shoddy used	71,496,508	66,855,105	1,807,827	869,233	1,961,208	3,135
Per cent of total	12.7	24.4	0.9	1.2	15.3	0.1

The consumption of wool in 1900 in the wool manufacture was 394,369,523 pounds, of which 257,934,562 pounds was of domestic production, and 136,434,961 pounds of foreign growth.

The quantity of new wool used in the wool manufacture has increased 12.3 per cent since 1890; the quantity of shoddy used has increased 25.8 per cent. The increase in the consumption of wool wastes and noils is 18.2 per cent, and of all other hair and animal fiber, including camel's hair and mohair, 33.7 per cent. The quantity of raw cotton used has increased 25.5 per cent. The total quantity of raw fiber consumed has increased 15.5 per cent, while the value of products has increased only 9.8 per cent.

NET WOOL SUPPLY, FOREIGN AND DOMESTIC.

The following statement shows the net supply of wool for the twenty years beginning with 1881, with the percentage of supply to imports. These figures are compiled from the reports of the Bureau of Statistics of the Treasury Department.

WOOL PRODUCED AND IMPORTED, DOMESTIC EXPORTS AND ANNUAL SUPPLY OF THE UNITED STATES, 1881 TO 1900 INCLUSIVE.

Years.	Domestic production (Department of Agriculture), pounds.	Imports entered for consumption year ending June 30, pounds.	Total production and imports, pounds.	Domestic exports year ending June 30, pounds.	Net supply, pounds.	Per cent of imports to supply.
1881.....	240,000,000	67,416,967	307,416,967	71,455	307,345,512	21.9
1882.....	272,000,000	63,016,769	335,016,769	116,179	334,900,590	18.8
1883.....	290,000,000	53,049,967	343,049,967	64,474	342,985,493	16.6
1884.....	300,000,000	37,703,931	337,703,931	10,393	337,693,538	22.6
1885.....	309,000,000	68,146,652	377,146,652	88,006	376,058,646	18.1
1886.....	302,000,000	107,910,549	409,910,549	147,023	409,763,526	26.8
1887.....	285,000,000	114,404,173	399,404,173	257,940	399,146,233	28.7
1888.....	269,000,000	97,231,267	366,231,267	22,164	366,209,103	26.0
1889.....	265,000,000	126,181,273	391,181,273	141,576	391,039,697	32.3
1890.....	276,000,000	109,902,105	385,902,105	231,042	385,671,063	28.5
1891.....	285,000,000	119,390,280	404,390,280	291,922	404,098,358	29.5
1892.....	294,000,000	134,622,366	428,622,366	202,456	428,419,910	31.4
1893.....	303,153,000	175,636,042	478,789,042	91,858	478,697,184	36.7
1894.....	298,057,834	45,726,056	343,783,890	520,247	343,263,643	13.3
1895.....	308,748,000	265,726,348	574,474,348	4,279,109	571,195,239	46.6
1896.....	272,474,708	228,647,543	501,122,251	6,945,981	494,176,270	46.3
1897.....	259,158,251	350,250,023	609,408,274	5,271,536	604,136,738	58.0
1898.....	266,720,684	70,334,897	337,055,581	1,211,189	335,844,392	20.0
1899.....	272,191,330	77,388,192	349,579,522	1,638,419	347,941,103	22.2
1900.....	309,991,812	128,250,945	438,242,757	2,200,309	436,042,448	29.4

¹ Estimate of the National Association of Wool Manufacturers.
² Census of 1900.

The total quantity of imported wool entered for consumption during the ten years 1881-1890 was 894,963,653 pounds. The quantity of wool grown in the United States in the same period was 2,807,000,000 pounds, and deducting the exports of domestic wool, the total net supply was 3,700,813,401 pounds. The annual average net supply was 370,081,340 pounds. The quantity of foreign wool reported at the Eleventh Census as consumed was 114,116,612 pounds, and the total of domestic wool so reported was 258,680,801 pounds, making the total quantity consumed 372,797,413 pounds, which is 2,716,012 pounds in excess of the annual net supply. The total amount used in the year 1890 coincided closely with the average of the ten years, as above given, but the quantity of foreign wool used was greater than the average importation, and the quantity of domestic less than the average production.

In the ten years 1891-1900 the foreign wool entered for consumption amounted to 1,595,972,697 pounds, and the domestic growth for the same time was 2,870,490,169. The total net supply was 4,444,854,891 pounds, one-tenth of which was 444,485,489 pounds, the annual average net supply, which consisted of 159,597,270 pounds of foreign and 284,888,219 pounds of domestic wool.

The home production of wool in 1900 was 71.1 per cent of the net supply, but as 98,970,344 pounds of the foreign imports were of wools used mostly in the carpet manufacture, the domestic wool growers furnished a much larger proportion of the wool needed for clothing the people of the United States than the percentage indicates.

The growth of any year or the imports entered for consumption are not necessarily consumed in the same year. But in a series of years the supply and consumption will nearly balance each other. There are no means of ascertaining the quantity of wool consumed in the years between the census years. It may or may not equal the consumption of the year of the census

but the close correspondence in both periods between the average net supply and the consumption reported corroborate both the census figures and the clip estimates.

DOMESTIC WOOL.

The records show great variations in the annual production of domestic wool. In 1890 the quantity reported by the Department of Agriculture was 276,000,000 pounds. This quantity increased yearly, until in 1895 the product was 309,748,000 pounds. The next three years showed a steady decline, until in 1897 the bottom was reached with a production reduced to 259,153,251 pounds. This is the smallest amount in any one year since 1881, when the United States Department of Agriculture reported the product at 240,000,000 pounds. The census reports for 1900 show a product for the census year of 276,991,812 pounds of fleece wool, to which must be added 33,000,000 pounds, estimated as the quantity of pulled wool produced, making a total of 309,991,812 pounds of wool. No previous census has taken account of the Angora goats in the United States. It appears from the returns of the census for 1900, as tabulated under the direction of Mr. L. G. Powers, Chief Statistician for Agriculture, that in 1900 there were 454,932 fleece-bearing goats, which furnished 961,328 pounds of hair, valued at \$267,864, an average of nearly 28 cents per pound. Adding this hair to the wool product, the domestic product of wool and hair for the census year, as ascertained at the census of 1900, was 310,953,140 pounds.

IMPORTS OF FOREIGN WOOL, 1822 TO 1900.

The following table shows the quantity and value of imported wool entered for consumption from 1822 to 1900, inclusive, by periods of five and ten years. It shows also the increase in quantity for each of these periods and the percentage of the increase:

MANUFACTURES.

IMPORTS OF FOREIGN WOOL: 1822 TO 1900.¹

YEARS.	Quantity (fiscal year) (pounds).	Value.	Quantity (5- year periods) (pounds).	Value.	Quantity (10- year periods) (pounds).	Value.	INCREASE IN QUANTITY AND IN PER CENT (POUNDS).	
							5 years.	10 years.
1822.....	1,715,690	\$387,812	6,736,205	\$1,638,704	16,936,307	\$8,245,964	3,463,897 51.42 per cent.	
1823.....	1,673,348	340,956						
1824.....	1,291,400	353,367						
1825.....	2,055,767	552,069						
1826.....	2,622,909	446,768						
1827.....	3,180,767	379,841	10,200,102	1,612,260	16,936,307	\$8,245,964	3,463,897 51.42 per cent.	
1828.....	2,437,018	488,881						
1829.....	1,295,767	204,648						
1830.....	663,641	92,172						
1831.....	5,619,353	1,287,540						
1832.....	2,814,879	501,502	15,904,169	2,955,115		5,704,067 55.92 per cent.		
1833.....	273,631	93,957						
1834 ²								
1835.....	7,196,306	1,072,116						
1836.....	12,296,249	1,203,987						
1837.....	10,259,687	806,544	46,901,106	4,001,900	62,865,275	6,957,015	31,056,987 195.23 per cent.	45,928,968 271.19 per cent.
1838.....	6,785,704	509,233						
1839.....	7,806,254	662,306						
1840.....	9,813,212	819,830						
1841.....	14,862,984	1,047,507						
1842 ³	10,649,778	716,768	67,113,232	4,548,590		20,152,126 42.91 per cent.		
1843.....	3,497,447	228,106						
1844.....	14,077,956	872,143						
1845.....	23,825,072	1,634,066						
1846.....	16,604,879	1,112,978						
1847.....	8,249,207	524,874	72,651,860	5,361,468	139,764,592	9,910,058	5,538,128 8.25 per cent.	76,399,317 122.32 per cent.
1848.....	11,379,453	862,675						
1849.....	17,822,497	1,170,561						
1850.....	18,695,294	1,090,380						
1851.....	32,578,193	3,836,613						
1852.....	17,992,646	1,376,536	110,198,202	13,165,013		37,546,842 51.68 per cent.		
1853.....	21,403,925	2,625,761						
1854.....	20,033,492	2,792,558						
1855.....	18,189,946	2,033,545						
1856.....	16,729,377	2,172,477						
1857.....	18,460,227	2,612,704	119,908,085	18,690,041	230,106,287	31,855,054	9,709,833 8.31 per cent.	90,341,695 64.64 per cent.
1858.....	25,562,478	3,523,536						
1859.....	33,030,112	5,054,532						
1860.....	26,125,891	5,236,732						
1861.....	31,633,533	5,015,002						
1862.....	43,693,138	7,140,114	284,517,282	48,466,353		164,609,197 137.23 per cent.		
1863.....	74,412,878	12,528,606						
1864.....	91,026,639	16,128,209						
1865.....	43,741,094	7,654,422						
1866.....	70,435,943	10,682,257						
1867.....	37,683,675	5,779,511	206,032,175	31,093,856	490,549,457	70,565,209	78,485,107 47.59 per cent.	260,443,170 113.18 per cent.
1868.....	24,582,551	3,955,671						
1869.....	31,095,939	5,251,094						
1870.....	38,634,067	5,430,323						
1871.....	50,174,056	7,704,674						
1872.....	94,315,933	19,571,559	337,182,602	60,582,888		131,150,427 63.66 per cent.		
1873.....	84,212,582	20,466,166						
1874.....	56,793,737	11,611,887						
1875.....	51,686,294	10,228,622						
1876.....	40,275,678	7,887,616						
1877.....	40,114,394	7,012,972	259,666,315	45,826,434	596,848,917	114,009,322	77,516,287 122.99 per cent.	106,299,460 21.67 per cent.
1878.....	39,801,161	6,995,367						
1879.....	40,102,642	5,516,813						
1880.....	99,372,440	17,913,666						
1881.....	67,416,967	12,060,827						
1882.....	63,016,789	10,333,359	339,334,286	53,953,737		79,667,971 30.63 per cent.		
1883.....	53,049,967	8,491,988						
1884.....	87,703,931	13,593,299						
1885.....	68,146,652	9,474,264						
1886.....	107,910,549	13,794,213						
1887.....	114,404,173	16,351,370	555,629,367	77,805,485	894,963,653	131,759,222	216,295,031 63.74 per cent.	293,114,736 49.95 per cent.
1888.....	97,231,267	14,062,100						
1889.....	126,181,273	17,432,759						
1890.....	109,902,105	16,165,043						
1891.....	119,330,280	17,070,183						
1892.....	134,622,306	17,697,068	741,101,092	90,986,877		185,471,725 33.33 per cent.		
1893.....	175,636,042	18,403,689						
1894.....	45,726,056	5,191,806						
1895.....	265,726,348	32,624,131						
1896.....	228,647,543	32,144,454						
1897.....	350,250,028	53,219,397	854,871,605	117,477,336	1,595,972,697	208,464,713	113,770,513 15.35 per cent.	701,009,044 78.34 per cent.
1898.....	70,334,897	8,714,526						
1899.....	77,383,192	8,363,239						
1900.....	128,250,945	15,036,220						

¹ The quantities and values given are for net imports, 1822 to 1866, inclusive, and imports entered for consumption from 1867 to 1900, inclusive.

² In 1834 the exports of foreign wool exceeded the imports.

³ To and including the year 1842, the fiscal year ended September 30; after that date June 30.

⁴ Decrease.

The greatest percentage of increase occurred in the five-year period ending in 1840, 195.28 per cent, the next was that ending in 1865. That ending in 1870 showed a decrease of 27.59 per cent. The greatest actual increase was in the period ending in 1890, the increase being 216,295,081 pounds, although the percentage of increase was only 63.74. The next largest periods were those ending in 1875 and 1895. In the decades the greatest percentage of increase was in that ending in 1840, 271.19 per cent, and was followed by those ending in 1850, 1870, 1900, 1860, 1890, 1880, in the order named. The actual increase varies very greatly from the above order. The greatest increase in the decades was in the last, 1891-1900, 700,009,044 pounds, 78.34 per cent. Then come the decades ending in 1890, 1870, 1880, 1860, 1850, in the order named, and last 1840, with an increase of 271.19 per cent, but an actual increase of only 45,928,968 pounds.

THE FOREIGN SOURCES OF WOOL SUPPLIES.

The three following tables show the countries of origin of the wools imported into the United States during the years ending June 30, 1890, and June 30, 1900. They are divided according to the tariff division of imported wool into classes, and indicate in a striking manner the changes which have occurred during the decade in the sources from which wool imports are drawn. As the bulk of imported wools are of Class III, they are placed first. These wools were used principally in carpet manufacture.

IMPORTS OF CLASS III WOOLS, BY COUNTRIES OF PRODUCTION: 1890-1900.

	1890	1900
Total	Pounds. 80,152,484	Pounds. 105,742,030
Australasia	21,237	311,337
Europe	30,858,372	30,206,506
Austria-Hungary	11,977	920,562
Belgium		37,257
Denmark		137,144
England	5,193,817	2,234,475
Ireland		35,860
Scotland	5,144,822	10,025,197
France	2,193,996	330,254
Germany	718,572	1,986,837
Greece		21,722
Greenland, Iceland, etc	64,104	502,736
Italy	444	57,892
Portugal	339,956	183,891
Russia—Baltic and White seas	3,397,982	6,013,756
Russia—Black Sea	10,594,837	5,725,764
Russia—all other	1,362,293	1,038,193
Servia	28,381	383,473
Spain	32,837	54,935
Sweden		146
Switzerland	35,685	61,315
Turkey in Europe	1,733,619	455,092
All other countries		
South America	15,427,402	10,615,231
Argentina	13,581,096	8,951,184
Brazil	175,097	254,705
Chile	1,634,953	864,047
Ecuador	1,087	
Uruguay	84,569	522,087
Venezuela		23,208
Asia	33,378,502	64,257,659
Aden		7,092
China	8,704,983	30,984,902
India	7,981,474	9,895,249
Japan		27,100
Russia—Asiatic	204,339	6,041,846
Turkey in Asia	12,568,375	7,853,411
All other countries	3,969,331	9,947,649

IMPORTS OF CLASS III WOOLS, BY COUNTRIES OF PRODUCTION: 1890-1900—Continued.

	1890	1900
Africa	Pounds. 154,826	Pounds. 386,048
British Africa		62,925
Turkey in Africa	154,826	95,027
All other countries		178,096
West Indies	43,134	14,877
British	32,793	60
Danish	367	
Dutch	14,984	14,817
All other countries not specified	264,011	372

The total imports of these wools were 80,152,484 pounds in 1890, and 105,742,030 pounds in 1900, an increase of 25,589,546 pounds. Argentina, which for a long time has been one of the chief sources of supply, sent 4,579,912 pounds less in 1900 than in 1890; England and Scotland sent about the same quantity in both years, as also did Russia in Europe; but Asiatic Russia increased its shipments 5,837,007 pounds. Turkey in Europe sent 1,278,527 pounds less than before, Turkey in Asia 4,714,964 pounds less, and India 1,464,775 pounds more. The quota of France was reduced by 1,868,742 pounds, and Germany increased its quota by 1,268,265 pounds. The great difference, however, appears in the importations from China. In 1890 there were received from that empire 8,704,983 pounds; in 1900, 30,984,902 pounds; the increase being 22,279,919 pounds, a quantity nearly equal to the total increase as shown by the table. The China wools have been steadily growing in favor with carpet manufacturers.

CLASS I WOOLS.

The wools of Class I come most directly into competition with the wools of domestic production. For many years American importations of such wools have been mostly of Australian growth. In recent years, however, large quantities have come from the Argentine Republic. The Argentine sheep farmers, to meet the demand for mutton sheep for food purposes, crossed their Merinos with sheep of English blood and incidentally produced a cross-bred wool comparing favorably with the admirable cross-bred territorial wools of the United States. In 1890, 168,355 pounds of these wools were brought into the United States, but in 1900 the quantity had increased to 11,113,095 pounds.

During the decade the sheep of Australasia have suffered severely from frequent and long-continued droughts, resulting in a reduction of the flocks from 124,983,100 in 1892 to 93,196,483 in 1901, with a corresponding reduction in the product. The imports of these wools into the United States increased from 11,928,921 pounds in 1890 to 22,684,590 pounds in 1900. The importations of Class I wools for 1890 were 15,492,107 pounds, and in 1900, 37,036,621 pounds.

IMPORTS OF CLASS I WOOLS, BY COUNTRIES OF PRODUCTION: 1890-1900.

	1890	1900
	Pounds.	Pounds.
Total	15,492,107	37,036,621
Australasia	11,928,921	22,684,590
Europe	1,271,510	420,790
England	884,807	224,010
Ireland		68,251
Scotland	509	
France	262,833	68,027
Germany	7,199	18,627
Iceland		157
Italy		100
Netherlands		34,788
Russia—Baltic and White seas	334	10,514
Spain	91,460	816
Turkey in Europe	24,868	500
All other countries		500
South America	1,166,890	18,182,040
Argentina	168,955	11,113,095
Brazil	67,981	851,190
Chile	783,675	1,867,410
Peru	2,740	5,126
Uruguay	144,239	345,219
Asia	18,056	61,961
China	10,456	
Turkey in Asia	3,800	61,933
All other countries	3,800	28
Africa	1,105,730	660,680
British Africa	1,102,793	626,141
All other countries	2,937	84,539
All other countries	1,000	26,560

CLASS II WOOLS.

In the imports of these wools there has been but little change, the total quantity being 9,885,173, which was only 2,226,367 pounds more than the importations in 1890. The United Kingdom was the great source of supply, furnishing 7,805,222 pounds of the total, which

is 907,818 pounds in excess of the quantity imported thence in 1890.

IMPORTS OF CLASS II WOOLS, BY COUNTRIES OF PRODUCTION: 1890-1900.

	1890	1900
	Pounds.	Pounds.
Total	7,658,806	9,885,173
Australasia		125,467
Europe	7,312,278	8,885,173
Austria-Hungary		55
England	6,897,404	5,698,724
Ireland		1,660,971
Scotland		450,627
France	11,526	
Germany	110	296
Netherlands		78,240
Turkey in Europe	403,238	180,788
South America	19	748,867
Colombia	19	
Peru		543,866
Uruguay		205,001
Asia	157,482	930,705
China	110,647	13,387
India		743
Russia in Asia		39,674
Turkey in Asia	46,785	841,993
All other countries		34,908
Africa	3,412	15,538
British Africa	3,412	11,091
All other countries		3,847
North America	185,665	
Quebec, Ontario, Manitoba, and Northwest Territory	159,861	
British Columbia	25,804	

WOOLS ENTERED FOR CONSUMPTION.

The following table shows the imports of wool entered for consumption, giving quantities and values, divided into classes according to the tariff classification:

TABLE 13.—WOOLS ENTERED FOR CONSUMPTION IN THE UNITED STATES, 1867 TO 1900, BY CLASS, QUANTITY, AND VALUE.

YEARS.	Total pounds.	NO. 1.—CLOTHING.		NO. 2.—COMBING.		NO. 3.—CARPET WOOLS.	
		Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
1867	37,683,675	1,270,350	\$415,609	150,302	\$31,827	36,268,017	\$5,382,074
1868	24,582,551	4,051,679	918,588	1,804,272	332,815	18,096,600	2,704,768
1869	34,695,940	2,512,202	505,715	4,538,367	1,092,297	27,650,371	3,653,082
1870	38,694,067	6,530,493	1,249,152	2,752,559	765,147	29,861,005	3,416,024
1871	50,174,056	5,957,461	1,201,201	17,665,600	3,167,585	26,560,995	3,335,638
1872	94,315,933	16,871,332	4,183,960	41,155,460	8,952,131	36,289,141	6,436,468
1873	84,212,582	6,029,438	1,744,200	49,540,231	12,723,501	28,642,863	5,593,465
1874	56,793,737	2,398,210	815,307	27,087,437	6,193,150	27,808,090	4,603,410
1875	51,686,294	13,117,679	3,602,585	7,769,157	2,153,261	30,799,458	4,472,826
1876	40,275,678	8,643,366	2,187,713	3,167,307	1,153,504	28,465,005	4,546,398
1877	40,114,394	9,294,029	2,202,639	2,509,954	830,715	28,310,411	3,979,617
1878	39,801,161	9,916,012	2,431,043	3,028,869	969,683	26,856,280	3,594,640
1879	40,102,642	5,229,937	1,114,301	1,709,601	413,761	35,103,054	3,983,752
1880	99,372,440	26,785,172	6,412,273	13,266,856	3,801,780	59,320,412	7,899,663
1881	67,416,967	20,609,707	4,751,454	4,421,491	1,271,332	42,385,769	6,038,041
1882	63,016,760	13,489,923	3,042,407	2,318,671	648,252	47,208,175	6,642,699
1883	53,049,967	11,546,830	2,567,443	1,373,114	343,987	40,130,323	5,580,553
1884	87,708,931	20,703,343	4,700,605	4,474,396	1,053,768	62,525,692	7,833,936
1885	68,146,652	13,472,432	2,994,538	3,591,914	921,252	50,732,306	5,568,479
1886	107,910,549	23,321,759	4,344,189	4,372,739	1,106,116	79,716,051	8,343,908
1887	114,404,173	23,195,734	4,339,498	9,703,962	2,270,058	81,504,477	9,741,814
1888	97,231,267	16,952,512	3,648,730	5,568,068	1,322,862	74,710,636	9,090,459
1889	126,181,273	22,973,083	4,764,015	6,651,719	1,556,309	96,556,466	11,112,435
1890	109,902,105	21,837,867	4,856,640	7,662,973	1,895,535	80,851,230	9,412,866
1891	119,390,280	26,520,670	6,025,452	6,373,921	1,640,262	85,865,693	9,404,468
1892	134,622,366	33,641,130	7,731,730	5,421,081	1,222,884	90,560,125	8,742,454
1893	175,636,042	85,403,022	9,555,640	4,035,439	1,535,812	133,197,581	10,312,237
1894	45,726,056	1,449,254	1,634,631	337,679		36,530,584	3,404,373
1895	265,726,348	106,516,023	16,595,637	14,722,090	2,692,542	144,438,335	13,155,902
1896	223,647,543	117,633,750	19,512,199	12,992,576	3,121,030	98,121,217	9,511,225
1897	350,250,028	200,485,006	34,307,110	37,949,945	7,182,664	110,814,987	11,729,623
1898	70,333,668	18,122,002	3,320,651	3,865,662	776,583	48,345,894	4,608,455
1899	77,388,192	9,583,053	1,665,954	2,160,370	572,205	65,644,769	6,225,080
1900	128,250,945	19,369,622	3,760,636	9,310,379	2,094,373	98,970,344	9,181,151

The Class I and II wools are those used by the general wool manufacture. The Class III wools are coarse wools, used principally in the manufacture of carpets. The importations for consumption of the latter wools amounted to 656,371,205 pounds for the decade ending 1890 and 912,569,525 pounds for the succeeding decade, which gives an average annual supply of the Class III wools for the first of these decades of 65,637,120 pounds, and for the second decade 91,256,952 pounds, which was in each instance a smaller quantity than the imports for the corresponding census year.

For the purpose of comparison the Class I and II wools may be considered together, for these are the wools which enter into competition with wools of domestic production. The total of these wools imported for the decade ending 1890 is 238,592,448 pounds, the annual average 23,859,245 pounds. For the decade ending with 1900, these importations amounted to 679,402,018 pounds, the annual average being 67,940,201 pounds.

The very large importations of wool of all classes in the years 1895, 1896, and 1897 were preceded in 1894 and followed in 1898 and 1899 by the smallest importations for many years. From the close approximation in 1900 of the imports (128,250,945 pounds) to the quantity reported as used, it may be assumed that the oversupply of wool imported in the years 1895-1897 had been disposed of in the manufacture. It may be explained that the large imports of the years mentioned above (1895-1897) were not technically "entered for consumption," but, coming in during the free-wool period, they were not "entered in bond," but taken directly out of the Government's custody and held in public and private storehouses until the market called for them.

It appears also that the importations of Class I and II wools in 1898, 1899, and 1900 were below the average quantity and that the increased importations during the last three years of the decade were principally of Class III wools.

WOOL CONSUMPTION.

The consumption of foreign wool in 1900, in condition purchased, amounted to 139,881,799 pounds, of which 51,761,523 pounds used were the coarse wools of Class III consumed in the carpet manufacture. In addition to the raw wool consumed, these mills used 9,218,267 pounds of worsted yarn made in other mills, which was manufactured from imported wool, and required, on the basis of 2 pounds of wool to the pound of yarn, 18,436,534 pounds. This, added to the wool consumed in the mills, makes a total of 70,198,057 pounds of Class III wool accounted for in this manufacture. How much more imported Class III wool was used in the manufacture of the woollen yarn purchased for use in the carpet manufacture, amounting to 32,996,316 pounds, must be a matter of conjecture, but as the estimated total used falls short of the average quantity entered for consump-

tion for the decade by about 21,000,000 pounds, it is probable that not less than 10,000,000 pounds of foreign wool entered into the composition of these yarns. If, then, the sum of these items, or 80,198,057 pounds represents the consumption of foreign wools in the carpet industry, there remains of the average importations 11,068,868 pounds for use in the manufacture of the low-grade blankets and other coarse goods to which these wools are adapted. Assuming that the consumption of Class III wools equals the average importations, the remainder of the foreign wool used, 57,683,742 pounds, would be of Class I and II, of which the annual average importation for the decade was, as already stated, 67,940,201 pounds. The total imports of Class I and II wools entered for consumption for the last three years of the decade amounted to only 63,011,798 pounds, or about 5,000,000 pounds less than the average annual importations. This was much less than a normal supply, and the deficiency was made good from the excessive importations of preceding years.

In addition to the sheep's wool used, a considerable quantity of mohair, which is the hair of the Angora goat, camel's hair, and alpaca hair are consumed in the wool manufacture. The mohair and alpaca, for the most part imported, are included with the Class II wools, being suitable only for combing purposes. The camel's hair was formerly all considered a Class III wool, but under the present tariff it is divided between Classes II and III, that coming from China being of Class II and that from Russia of Class III. The importations of mohair and alpaca and similar hairs entered for consumption during the decade amounted to 12,577,814 pounds, the annual average being 1,257,781 pounds. The importations in 1900 were 1,329,892 pounds. Of camel's hair the imports for the ten years were 23,284,492 pounds, an annual average of 2,328,449 pounds. The importations of 1900 amounted to 1,446,338 pounds, of which 126,762 pounds were of Class II, the remainder being of Class III. The consumption of camel's hair and noils, which amounted to 7,684,804 pounds in 1890, has so decreased that the census of 1900 accounted for the use of only 2,994,427 pounds. In 1890 the consumption of mohair and mohair noils was reported at 2,136,244 pounds. In 1900 the quantity of alpaca, mohair, and mohair noils consumed was reported as 3,794,207 pounds. The consumption of buffalo, cow, and all other hair, which is used principally in the carpet manufacture and in the making of horse blankets and similar goods, amounted to 29,416,283 pounds, an increase of 12,550,519 pounds over 1890, when the quantity of such hair consumed was 16,865,764 pounds.

The total quantity of wool consumed "in condition purchased" in all branches of wool manufacture, and in hosiery and knit-goods factories, was 412,323,430 pounds, to which must be added the camel's hair, mohair, and alpaca used, and all other hair (36,204,917

pounds), and 25,000,000 pounds estimated as the proper addition on account of wool purchased in the scoured state, making a total of 473,528,347 pounds of wool and hair as the raw material of animal origin used in the manufacture. Besides the above, about 1,000,000 pounds of wool was consumed in the shoddy mills, in institutions, and in small establishments having a product of less than \$500 value. To ascertain the approximate quantity of animal fiber consumed there should be added a quantity equivalent to the amount of woolen and worsted yarns imported. In the fiscal year 1890, the importations of these yarns amounted to 3,229,778 pounds, but was very much less

in 1900, amounting to only 172,988 pounds, which may be reckoned as equivalent to 500,000 pounds of greasy wool, and makes the approximate consumption of wool in the grease 475,000,000 pounds. A similar calculation showed the consumption of 1890 to have been 434,000,000 pounds. The increase in consumption of animal fiber over 1890 is therefore 41,000,000 pounds, or 9.4 per cent.

The following statement, prepared from the census reports and the United States Treasury statements of imports, shows the per capita consumption of wool in the United States for each census year from 1840 to 1900, inclusive:

COMPARATIVE CONSUMPTION OF WOOL IN THE UNITED STATES: 1840 TO 1900.

[Imports and exports for year ending June 30.]

YEAR.	Imports of wool entered for consumption.	Home production of wool.	Domestic exports.	Net supply.	Imports of wool manufactures, allowing 3 pounds of wool to the \$1 in value.	Total consumption.	Per capita consumption of wool.
	Pounds. ¹	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.
1840.....	29,813,212	35,802,114	.....	45,615,326	31,095,276	76,710,602	4.49
1850.....	18,695,294	52,516,969	35,898	71,176,365	58,178,618	129,354,978	5.53
1860.....	26,125,891	60,264,913	1,055,928	85,384,876	128,497,923	213,832,799	6.80
1870.....	38,634,067	162,000,000	152,892	200,481,175	105,289,422	305,770,597	7.93
1880.....	99,372,440	232,500,000	191,551	331,680,889	95,503,641	427,184,530	8.52
1890.....	109,902,105	276,000,000	231,042	385,671,063	162,496,269	548,167,332	8.75
1900.....	128,250,945	310,958,140	2,200,309	437,003,776	46,861,460	483,865,286	5.97

¹Quantities for 1840, 1850, and 1860 are imports, less reexports.

²Year ending September 30.

³Census report includes wool and mohair, and pulled wool estimated at 33,000,000 pounds.

This statement is misleading, because the estimate of the quantity of wool in imported goods for the year ending June 30, 1900, is based upon an importation much less than the average amount. A fairer estimate would be one based on the average of such imports for a series of years. The imports of manufactures of wool averaged annually \$31,623,265 for the ten years 1891-1900, and for the last five years of the decade the annual average was \$28,837,019, which though smaller than the average for the decade is more than double the value of imports for the year under consideration. Making use of the latter statement as the more conservative, the wool required for the imported goods would be 86,511,057 pounds, or 39,649,597 pounds more than is given in the table. If, therefore, to the net supply as reported in the table this quantity is added, the total consumption would amount to 523,514,833 pounds. On the basis of the population as ascertained at the census of 1900 the per capita consumption of wool would equal 6.93 pounds, or about 1 pound more than the table shows. This is a reduction of 1.82 pounds in the per capita consumption as shown by the table for 1890, and can be accounted for by the increasing use of cotton in piece goods, and especially in hosiery and knitted garments for underwear. The consumption of cotton and cotton yarns in the hosiery and knit goods factories, which was 64,681,466 pounds in 1890, increased to 181,271,369 pounds in 1900, an increase of 116,569,903

pounds, thus supplanting an enormous quantity of wool flannels and undergarments.

COTTON AND COTTON YARNS.

The quantity of cotton used in the wool manufacture, exclusive of hosiery and knit goods, was 27,869,706 pounds in 1880, 42,996,248 pounds in 1890, and 43,414,502 pounds in 1900. A part of this cotton was used on the cards with wool, for the production of merino or mixed yarns, and part was spun into yarns for warp, for cotton-warp dress goods, linings, flannels, satinets, etc. At the census of 1900 the inquiry was made as to the number of pounds of cotton yarn made in the mills for use therein, and while the reports were not entirely satisfactory, the tabulations show 7,733,291 pounds of cotton yarn thus made. Besides the raw cotton used, the various branches of the wool manufacture consumed 55,217,994 pounds of cotton yarn, which required for its production about 65,000,000 pounds of raw cotton, so that the approximate consumption of this fiber in the manufacture was 108,000,000 pounds. In 1890 the same class of mills consumed 42,996,248 pounds of raw cotton and 51,376,019 pounds of cotton yarn, requiring for its production about 60,000,000 pounds of raw cotton, so that the total quantity of cotton used in the production of these mills at that time was approximately 103,000,000 pounds. The total quantity of cotton required for the

wool manufacture in 1900 appears to be 108,000,000 pounds, against 394,369,523 pounds of wool used. The cost of the cotton used in the wool manufacture was \$3,487,132, which, added to the cost of the cotton yarn consumed, \$9,568,864, makes \$13,055,996 as the cost of the cotton consumed. The value of foreign and domestic wool consumed was \$89,893,350.

SHODDY.

The following statement shows the comparative quantities of scoured wool and shoddy used in the wool manufacture in all its branches in 1890 and 1900:

COMPARATIVE STATEMENT OF WOOL AND SHODDY CONSUMED IN THE WOOL MANUFACTURE: 1890 AND 1900.

[Exclusive of hosiery and knit goods.]

	1900 (Pounds.)	Per cent of total.	1890 (Pounds.)	Per cent of total.
Scoured wool.....	238,632,452	76.9	19,174,021	77.7
Shoddy purchased.....	34,496,508	23.1	56,826,475	22.8
Shoddy made.....	37,000,000			
Total.....	310,128,960		255,000,496	

In addition to the shoddy purchased, it is estimated that 37,000,000 pounds were produced and used in the mills. This amount added to the 34,496,508 pounds purchased makes a total of 71,496,508 pounds of shoddy used in the wool manufacture in 1900, an increase of 14,670,033 pounds over the consumption in similar mills in 1890, although, because of the larger quantity of wool used, the percentage of wool and shoddy is about the same in each census. The increased production of worsted goods in which little shoddy is used makes the quantity of shoddy used in the carded wool manufacture much larger in proportion than it was ten years before.

SCOURED WOOL, ANIMAL HAIR, SHODDY, AND COTTON USED: 1880-1900.

[Exclusive of the hosiery and knit-goods manufacture.]

	DATE OF CENSUS.			PER CENT OF TOTAL.		
	1900 (Pounds.)	1890 (Pounds.)	1880 (Pounds.)	1900	1890	1880
Total.....	443,431,261	375,635,079	283,086,551	100.0	100.0	100.0
Scoured wool, including camel's hair and mohair.....	244,216,894	207,584,746	167,684,157	55.1	55.3	59.2
Cotton and cotton yarn.....	98,632,496	94,372,267	68,481,712	22.2	25.1	20.7
Shoddy and animal hair, not specified.....	100,581,871	73,678,066	56,970,682	22.7	19.6	20.1

The percentage of scoured wool to other fibers used in all branches of the wool manufacture was 59.2, 55.3, and 55.1 per cent, respectively, in 1880, 1890, and 1900. Cotton, which includes the cotton yarn consumed, the two being combined, comprised 20.7 per cent in 1880, 25.1 per cent in 1890, and 22.2 per cent in 1900 of the consumption. The actual quantity of raw cotton used

was greater than the amounts shown by an amount equal to the difference between the quantity of yarn used and the number of pounds of raw cotton required for its manufacture.

The proportion of shoddy and animal hair used was 20.1 per cent in 1880, 19.6 in 1890, and 22.7 in 1900. The use of shoddy has made possible a greater supply of warm clothing than could have been obtained without it, while the mixture of cotton and cotton yarn with wool has made possible the production of soft, light-weight fabrics, well adapted for use where lightness, moderate warmth, and low cost are desired, and consequently the people are better clad than before these combinations were devised.

In the general tables there appears a large quantity of waste and noils of which no account is taken in the table above. These materials are products of the card and comb and spindle, thrown out in the earlier manufacturing processes in some mills, and purchased by others, being adapted to their use. They are wool that has never been made up into fabrics, and having been once reported as wool purchased can not again be properly counted in the material actually consumed. The so-called wastes are of various kinds, such as card waste, spinning waste, yarn waste, etc. The best of these materials is the noil, which is composed of short fibers of clean wool discarded in the combing process. It is very useful for many purposes, particularly in the manufacture of blankets and hosiery and knit goods.

AVERAGE COST OF SCOURED WOOL.

The following statement shows the quantity and average cost of scoured wool consumed in the wool manufacture and in each branch of the industry in each of the last three census years.

AVERAGE COST OF SCOURED WOOL CONSUMED IN THE WOOL MANUFACTURE AND IN EACH BRANCH: 1880 to 1900.

MILLS.	Year.	Quantity, pounds, scoured.	Cost.	Average cost per pound, cents.	Per cent of de- crease.
Total.....	1900	238,632,452	\$89,893,350	37.71	17.2
	1890	193,174,021	90,286,066	45.56	19.5
	1880	165,953,189	93,860,421	56.56	.....
Woolen mills.....	1900	89,366,903	34,497,689	38.60	20.8
	1890	100,220,094	48,859,811	48.75	20.6
	1880	109,724,213	67,880,250	61.41	.....
Worsted mills.....	1900	103,338,616	44,306,141	42.88	16.6
	1890	54,989,746	28,280,287	51.43	11.1
	1880	26,334,635	15,235,878	57.85	.....
Felt mills.....	1900	6,468,097	2,196,440	33.96	22.3
	1890	4,213,230	1,841,382	43.70	26.5
	1880	2,733,796	1,624,871	59.44	.....
Wool-hat mills.....	1900	1,898,605	788,973	41.55	13.4
	1890	3,018,114	1,448,799	48.00	34.7
	1880	3,597,279	2,644,293	73.50	.....
Carpet mills.....	1900	37,560,231	8,104,107	21.57	21.8
	1890	35,726,387	9,255,787	27.59	6.8
	1880	28,663,216	6,975,129	29.60	.....
Quantity of wool "in condition purchased".....	1900	394,369,523	\$9,893,350	22.79	11.4
	1890	351,158,020	90,286,066	25.71	21.2
	1880	287,597,334	93,860,421	32.64	.....

The consumption has increased 43.8 per cent over 1880 and 20.4 per cent, equal to 40,458,431 pounds, over 1890. The decrease in average cost per pound has been 33½ per cent since 1880, and 17.2 per cent since 1890. The relative quantity used varied in the different branches of the industry, there being a reduced quantity used in the card wool mills and in the wool-hat factories; a comparatively small increase in the carpet mills; an increase of over 2,000,000 pounds, or more than 50 per cent, in the felt mills; and an increase of over 48,000,000 pounds, or 88 per cent, in the worsted manufactories. The decrease in average cost per pound varied in the several branches, the least reduction being in the wool-hat mills, 13.4 per cent, and the worsted factories, 16.6 per cent. The greatest reduction in average cost appears for the felt mills, 22.8 per cent. In the woolen mills it was 20.8 and in the carpet mills 21.8 per cent. Although the wool used in the last three differs greatly in quality, the average reduction in cost per pound shows only a slight difference. The reduction in the average cost of the wool used in all the mills was 17.2 per cent.

The average cost per pound seems low when compared with the weekly trade reports. These reports, however, include a few standard lines only, while the census reports combine the wool of all kinds and qualities. The variation in the cost of the wool used in the several branches is noticeable. The highest average of cost is found in the worsted mills, as would be expected, and the lowest in the carpet mills, which use the cheapest foreign wools. The cost of these scoured wools agrees very closely with the duty-paid value of the importations when reduced to the scoured basis.

DYESTUFFS AND CHEMICALS.

Under this head come expenditures for soap and potash for scouring wool, soap used in fulling and cleansing cloths, oil used in lubricating wool for carding and spinning, the various chemicals necessary in the manufacture, and dyestuffs for dyeing. The comparative cost of these items in the wool manufacture in 1900 and 1890 is as follows. The similar costs in the hosiery and knit-goods industry will be given elsewhere.

YEARS.	Dyestuffs and chemicals, value.	OIL.		SOAP.	
		Gallons.	Value.	Pounds.	Value.
1900	\$7,988,684	3,501,582	\$1,039,879	36,136,598	\$1,379,886
1890	5,889,612	3,715,114	1,239,012	32,643,591	1,106,359

This statement shows the cost of these materials used in the wool manufacture, but takes no cognizance of the large cost incurred for dyeing and printing yarns and cloths in outside establishments. A table on page 27 shows that the value added to woolen goods by these processes in the dyeing and printing establishments was \$4,240,456, which represents the cost to the woolen manufacture of finishing processes carried on away from the mills.

There is no available data indicating the extent to which artificial dyes have supplanted natural dyestuffs and coloring matter in the textile manufacture, although some idea of the magnitude of the change can be gathered by a comparison of the imports of natural and artificial dyeing materials in 1890 and 1900. The statement following shows the foreign value of these imports for each of the years, and where possible quantities are also stated. The production of synthetic indigo, which has by recent inventions been made commercially successful is perhaps the greatest recent step in advance in the production of artificial colors.

IMPORTS OF NATURAL AND ARTIFICIAL DYES AND DYESTUFFS ENTERED FOR CONSUMPTION, FISCAL YEARS 1890 AND 1900.

ARTICLES.	Unit.	1900		1890	
		Quantity.	Value.	Quantity.	Value.
NATURAL.					
Total			\$3,643,879		\$5,584,774
Logwood	Tons...	48,190	628,464	66,768	1,501,566
Logwood, extracts of, etc.	Pounds.	3,420,276	227,527	2,928,600	222,029
Camwood	Tons...	1	161		
Fustic	Tons...	4,440	60,886	10,922	157,187
Other dyewoods	Tons...	20,967	205,351	2,184	64,482
Cudbear	Pounds.	61,305	8,944	401,886	39,806
Gambler	Pounds.	38,857,515	906,282	25,617,977	1,398,218
Indigo:					
Crude	Pounds.	2,747,048	1,446,490	2,824,058	1,827,937
Carmined	Pounds.	13,204	15,767	24,968	31,301
Extracts, etc.	Pounds.	251,538	20,094	913,813	57,250
Madder	Pounds.	120,786	5,869	912,866	52,000
Orchil or orchil liquid.			47,134		37,848
Safflower and extracts, and saffron and saffron cake			44,502		49,736
Cochineal		158,911	31,408	218,218	45,734
ARTIFICIAL.					
Total			6,101,251		2,547,371
Oil of aniline	Pounds.		587,812	610,875	97,601
Salts of aniline			771,336		276,917
Alizarin, etc.	Pounds.	6,009,652	4,792,103	2,153,020	858,882
Coal-tar colors, n. e. s.					1,813,771

YARNS PURCHASED.

Although the value of the woolen and worsted yarns consumed is an important item in the wool manufacture, other yarns are also used to a large amount. The first of the statements following shows the quantity and value of yarns purchased in the years 1880, 1890, and 1900, and the second the quantity and value of each kind of yarn purchased in each branch of the woolen industry in 1900. Comparisons with the reports of the census of 1890 show that the total quantity of yarn purchased has increased 45,449,515 pounds, of which 13,903,884 pounds were woolen, 9,710,054 pounds worsted, 3,841,975 pounds cotton, and 16,169,736 pounds jute. The quantity of linen yarn used has decreased 1,406,846 pounds and of silk yarns 96,636, while mohair yarns have disappeared from the list.

YARNS PURCHASED, 1880 TO 1900.

YEAR.	Pounds.	Cost.
1900	181,104,221	\$45,588,908
1890	186,654,706	42,142,403
1880	55,535,390	20,314,334

YARNS PURCHASED IN 1900.

	TOTAL.		WOOLEN MILLS.		WORSTED MILLS.		CARPET MILLS.		FELT MILLS.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Total.....	181,104,221	\$46,588,908	35,595,804	\$10,645,487	35,679,243	\$19,598,986	109,699,152	\$15,293,979	150,022	\$50,506
Woolen.....	88,903,178	7,705,797	3,059,771	1,272,954	2,847,091	1,402,189	32,996,316	5,030,654	.....	.....
Worsted.....	84,877,736	23,068,988	6,214,076	4,791,079	18,896,866	14,704,172	9,218,267	3,544,860	43,530	28,877
Merino.....	8,904,515	709,894	3,215,245	516,636	419,484	147,831	237,970	38,994	31,866	6,373
Cotton.....	55,217,994	9,568,864	21,922,136	3,782,240	13,420,590	3,032,039	19,823,561	2,744,928	51,707	9,637
Silk.....	70,078	334,001	34,007	145,514	26,418	144,971	9,634	48,465	14	61
Spun silk.....	250,270	489,587	23,987	72,632	47,533	166,672	178,780	250,233	.....	.....
Linen.....	8,415,275	1,178,414	7,845	6,998	1,314	1,052	8,388,211	1,164,826	17,905	5,538
Jute, ramie, or other yarns of vegetable fiber.....	39,965,180	2,533,413	1,118,767	57,384	.....	.....	38,846,418	2,476,029	.....	.....

DYEING AND FINISHING.

The products of the wool manufacture are of three classes, goods dyed in the wool, in the yarn, and piece dyed goods, the names of which are sufficiently descriptive. Most manufacturers have their own dyeing and finishing plants, but in many cases the goods are sent to some outside dyeing establishment to be dyed and finished. The cost of this work is an important item to the manufacturer. The following statement shows the quantity of goods operated on in dyeing and finishing mills, and the value added by the process:

MATERIALS	Quantity dyed (pounds).	Added value.
Total.....	.....	\$4,240,466
Wool.....	2,408,511	83,071
Woolen yarn.....	20,755,984	557,001
Worsted yarns.....	8,474,562	491,291
Woolen piece goods.....	11,245,394	451,884
Worsted piece goods.....	19,413,337	476,951
Mixed goods.....	.....	2,180,278

¹ Square yards.

PRODUCTS.

The value of products as given in the tables is the gross value as ascertained from the various schedules. This value includes much duplication, for not infrequently the finished product of one establishment enters as a material into another, and after going through certain manipulations appears again as a product, to again enter another establishment as material. In a wool-combing establishment, for instance, the top is produced and sold to the worsted spinning mill, where it is made into yarn, which is sold to the worsted cloth or dress goods weaver, in whose hands it becomes the finished product, ready for the clothing manufacturer or the market, as the case may be. Thus, the value of the top and the value of the yarn, as well as the value of the finished cloth, all appear in the total value of products, while it is clear that the true value is the value of the finished cloth. If, as was formerly the custom in all and is now the practice in many establishments, all these processes were carried on under one management, these duplications of value would not arise. At the Eleventh Census it was found impossible to eliminate these duplications, but at the census of 1900 the schedules were so prepared as to permit of the separation of the materials used into raw materials upon which no manufacturing processes have been employed and materials purchased in partly manufactured form.

GROSS AND NET VALUES.

The value of the products of the wool manufacture was \$296,990,484 in 1900, compared with \$270,527,511

in 1890, an increase of 9.8 per cent. These values are in each case the gross value, ascertained by the addition of the sums representing the production of the various establishments, many of which make only yarn, or other partially manufactured products, which enter into other factories for further manipulation.

In 1890 the true value was ascertained as nearly as possible by deducting the value of woolen and worsted yarns purchased, less the duty paid value of foreign yarns purchased. The sum thus ascertained was assumed to be the true value of the production of all woolen mills. To this sum was added the true value of the product of the shoddy mills, similarly ascertained, to obtain the total net value.

In the reports for the Twelfth Census the items duplicated are as follows:

All wastes and noils, tops, woolen, worsted, and merino yarns, hat bodies, and hats in the rough. These being made in woolen mills, enter twice into the value of product, being reported first by the mills making them and afterwards by the mills using them. Their value and also the sum paid for contract work should be taken from the total value ascertained for goods produced.

The result obtained by the elimination of these items will not be strictly comparable with the amount obtained as the net value in 1890, but will be as nearly as possible the net value of the product of the industry.

The cost of all duplicated items in the wool manufacture in all its branches is \$41,391,681. This sum does not include \$21,982 for fur hat bodies and hats in the

rough reported under wool hats. From it the duty paid value of foreign yarns, \$228,872, imported during the census year, should be subtracted, which leaves \$41,162,809 as the cost of material twice reported in the value of product. The difference between this sum and the gross value, or \$255,827,675, is the net or true value of products in these mills in 1900.

The following is a statement of woven goods produced in 1900 and 1890, arranged according to their classification as all wool, mixed, and cotton-warp fabrics:

WOVEN GOODS PRODUCED IN WOOLEN AND WORSTED MILLS, 1890 AND 1900, WITH PER CENT OF INCREASE.

CLASSES.	Year.	Square yards.	Per cent of increase.	Value.	Per cent of increase.
Total.....	1900 1890	426,572,866 381,004,461	12.0	\$188,806,664 169,409,239	8.2
All wool, whether woolen or worsted.....	1900 1890	216,359,702 130,115,152	66.3	117,757,169 81,742,586	44.1
Union or cotton mixed.....	1900 1890	57,334,570 56,322,882	1.8	23,111,696 24,304,966	14.9
Cotton warp, with weft partly or wholly of wool, worsted, or hair (or cotton weft with warp of wool).....	1900 1890	152,878,584 194,566,427	121.4	42,437,799 63,361,687	133.0

¹ Decrease.

The following table shows the products of the wool manufacture, of all classes, in 1890 and 1900:

TABLE 14.—WOOL MANUFACTURES: KIND, QUANTITY, AND VALUE OF PRODUCTS, 1890 AND 1900, WITH PER CENT OF INCREASE

CLASSES.	1900	1890	Per cent of increase.
Total.....	\$206,990,484	\$270,527,511	9.8
Woolen, worsted, union, and cotton warp cloths, coatings, cassimeres, jeans, etc., for men's wear, square yards.....	169,177,028	122,064,528	38.6
Value.....	\$97,852,209	\$88,261,748	10.9
Woolen, worsted, union, and cotton warp overcoatings, cloakings, etc., for men's and women's wear, square yards.....	29,647,495	14,883,893	99.2
Value.....	\$21,666,019	\$13,082,801	65.6
Woolen, worsted, union, and cotton warp dress goods, sackings, tricots, opera flannels, cassimeres, bunting, ladies' cloth, alpaca, etc., for women's wear, square yards.....	155,767,439	127,259,709	22.4
Value.....	\$46,278,216	\$32,285,906	40.2
All wool, union, and cotton warp flannels, square yards.....	20,117,663	61,195,501	167.1
Value.....	\$4,613,129	\$18,582,549	175.2
Satinets, square yards.....	18,051,729	18,630,656	129.9
Value.....	\$2,878,181	\$4,296,082	133.1
Linings, Italian cloth, and lastings, square yards.....	10,157,039	4,585,080	121.5
Value.....	\$2,228,484	\$1,255,520	77.5
Jersey cloth, square yards.....	2,784	7,476	162.8
Value.....	\$1,010	\$13,686	192.6
Carriage cloths, square yards.....	1,220,408	1,282,921	14.9
Value.....	\$996,999	\$626,791	11.2
Total piecegoods—			
Square yards.....	399,141,585	349,909,764	14.1
Value.....	\$176,209,197	\$158,405,033	10.6
Woven shawls of wool or worsted, square yards.....	600,104	4,758,652	187.4
Value.....	\$500,623	\$2,098,523	176.1
All wool, union, and cotton warp blankets, square yards.....	18,155,505	20,793,644	112.7
Value.....	\$5,200,959	\$7,153,900	127.8

¹ Decrease.

TABLE 14.—WOOL MANUFACTURES: KIND, QUANTITY AND VALUE OF PRODUCTS, 1890 AND 1900, WITH PER CENT OF INCREASE—Continued.

CLASSES.	1900	1890	Per cent of increase.
All wool, union, and cotton warp horse blankets, square yards.....	7,315,304	5,507,074	32.8
Value.....	\$1,740,988	\$1,721,516	1.1
Carriage robes, square yards.....	1,740,089	775,968	124.2
Value.....	\$987,109	\$646,904	52.6
Total—			
Square yards.....	27,811,002	31,835,333	112.6
Value.....	\$8,429,579	\$11,620,843	127.6
Woolen, worsted, and union upholstery goods, square yards.....	541,909	4,131,288	186.9
Value.....	\$736,461	\$2,305,881	166.8
Braids and picture cards, etc., running yards.....	(²)	133,859,751	.....
Value.....	\$2,922,850	\$1,268,252	130.5
Total value.....	\$3,709,311	\$9,634,133	2.1
Ingrain carpets, 2 and 3 ply and ingrain art carpets, square yards.....	42,352,500	36,726,370	15.3
Value.....	\$15,405,081	\$15,924,452	13.8
Tapestry and body Brussels, tapestry velvet, Wilton, Axminster, and Moquette carpets, running yards.....	32,423,833	36,586,565	111.3
Value.....	\$21,036,996	\$27,125,980	122.4
Smyrna carpets, square yards.....	858,189	127,177	574.8
Value.....	\$1,188,707	\$332,718	257.3
All other carpets, square yards.....	(³)	1,394,153	.....
Value.....	(⁴)	\$451,486	.....
Smyrna rugs, square yards.....	2,793,472	41,480,036	(⁴)
Value.....	\$2,491,911	\$2,368,000	5.2
All other rugs, square yards.....	6,195,054	133,767	(⁴)
Value.....	\$3,460,077	\$261,781	1,221.7
Total value of carpets and rugs.....	\$43,582,772	\$46,464,417	16.2
Felt cloths, endless belts, trimmings, linings, etc., square yards.....	6,933,524	6,662,759	4.1
Value.....	\$3,078,949	\$2,930,199	5.1
All other felts, value.....	\$2,285,340	\$1,284,825	77.9
Total value of felt goods.....	\$5,364,289	\$4,214,624	27.3
Wool hats, dozens.....	823,425	1,046,481	121.8
Value.....	\$3,166,761	\$5,229,176	139.4
Wool-hat bodies, dozens.....	56,006	(⁵)	.....
Value.....	\$120,262	(⁶)	.....
Woolen and union or merino yarns, pounds.....	49,796,632	41,362,993	20.4
Value.....	\$11,748,895	\$12,590,267	16.7
Worsted and mohair yarns, pounds.....	46,784,385	20,359,182	59.4
Value.....	\$32,095,805	\$22,397,721	43.3
Cotton yarns, pounds.....	3,531,992	3,192,936	10.6
Value.....	\$527,046	\$682,849	116.7
Wool rolls, noils, waste, and all other partly manufactured products, pounds.....	23,283,240	12,850,039	81.2
Value.....	\$5,231,377	\$3,176,653	64.7
Total yarns and partly manufactured products:			
Value.....	\$49,723,385	\$38,797,490	28.2
Woolen, merino, and cotton half hose, dozens.....	4,290	2,488	76.0
Value.....	\$13,520	\$7,721	75.1
Woolen, merino, and cotton hose, dozens.....	908	9,147	190.1
Value.....	\$3,302	\$21,363	184.5
Gloves and mittens, dozens.....	1,238	1,931	135.9
Value.....	\$4,641	\$6,950	133.2
Total value of hosiery and knit goods.....	\$21,463	\$36,034	140.4
All other products, ⁵ value.....	\$6,170,673	\$1,971,524	213.0
Contract work, value.....	\$1,613,054	\$154,337	945.2

¹ Decrease.

² Not reported.

³ Nothing reported under this heading.

⁴ Number of rugs reported in 1890; square yards reported in 1900.

⁵ All other products include, in addition to the usual miscellany, some small amounts of hosiery and knit goods that were not reported in both censuses; hence they could not be compared.

The first group, woolen cloths, etc., the piece-goods production, as shown in Table 30, shows an increase in 1900 over 1890 of 49,231,821 square yards in quantity, and \$16,804,164 in value. In the second group, shawls, blankets, and carriage robes, there is a decrease both in quantity and value. The quantity is 4,024,331 square yards and the value \$3,191,264 less than in 1890. The third group likewise shows a reduction which evidently

arises from a change in classification which makes it appear that only 541,909 square yards of upholstery goods were made in 1900, against 4,131,288 square yards in 1890. That no such falling off in the manufacture occurred is certain, and the products have been reported under the head of all other products, or with other piece goods. In the carpet manufacture the yardage exceeds the yardage reported in 1890, but the value is reduced \$2,881,645, which is accounted for by the lower cost of materials, and the larger production of the lower grades of carpets. The products of the felt manufacture have increased both in quantity and value. The wool-hat manufacture shows a decrease.

The production of partially manufactured products for sale shows a large increase, of which the greater part is in yarns. In 1890 the production of yarns equalled 73,915,111 pounds, valued at \$35,620,837. At the census of 1900 the production was 100,113,009 pounds, worth \$44,371,746, an increase of 35.4 per cent in quantity and of 24.6 per cent in value. The value reported for all other products has increased nearly one-half. An item not previously reported, appears here, namely, "Contract work," being the amount received in certain mills for work done for other establishments. It is properly added to the gross product, but is offset by the sums reported as paid for contract work under the head of miscellaneous expenses.

CLASS I—WOOLEN GOODS.

The card-wool branch of the wool manufacture has always been preeminent in the variety of its products and their adaptability to the needs of the consumer. It is also numerically the most important. It is in the woolen mills that the great mass of goods required for clothing the people has been made. The products consist of broadcloths, doeskins, cassimeres, satinets, jeans, flannels, blankets, woolen and cotton mixed dress goods, linings, etc. At the census of 1900 the industry seems to be in danger of yielding its relative importance. The introduction of the worsted cloth for men's wear and the wonderful development of the knit-goods manufacture have made great inroads on the consumption of carded wool goods which formerly were necessities, substituting combed wool fabrics for men's wear and knitted underwear in place of flannels. Principally for these reasons the returns show a falling off in every particular, and it is only in woolen goods and in the wool hat manufacture that the wool industry shows loss. The reduction in the number of establishments may be attributed mainly to the gradual disappearance of small country mills and to some extent to the transfer of mills from the carded to the combed wool manufacture.

The following table is a summary of the statistics of the woolen-goods manufacture from 1840 to 1900, with per cent of increase for each decade:

TABLE 15.—WOOLEN GOODS: COMPARATIVE SUMMARY, 1840 TO 1900, WITH PER CENT OF INCREASE FOR EACH DECADE.

	DATE OF CENSUS.							PER CENT OF INCREASE.					
	1900	1890	1880	1870	1860	1850	1840	1890 to 1900	1880 to 1890	1870 to 1880	1860 to 1870	1850 to 1860	1840 to 1850
Number of establishments.....	1,085	1,311	1,990	2,891	1,260	1,559	1,420	121.1	134.1	131.2	129.4	119.2	9.8
Capital ²	\$124,386,262	\$130,989,940	\$96,095,564	\$98,824,531	\$30,862,654	\$28,118,650	\$15,765,124	15.0	36.3	12.8	220.2	9.8	78.4
Salaries officials, clerks, etc., number.....	2,246	2,436	(4)	(4)	(4)	(4)	(4)	17.8	.....	.....	.....	.....	.....
Salaries.....	\$2,984,048	\$2,339,737	(4)	(4)	(4)	(4)	(4)	25.4	.....	.....	.....	.....	.....
Wage-earners, average number.....	68,893	76,915	86,504	80,053	41,360	39,252	21,842	110.4	111.1	8.1	93.6	5.4	88.9
Total wages.....	\$24,757,006	\$26,139,194	\$25,836,392	\$26,877,575	\$9,610,254	(4)	(5)	15.3	1.2	13.9	179.7	.....	.....
Men, 16 years and over.....	40,601	42,130	46,978	42,728	24,841	22,678	(4)	13.6	110.3	9.9	72.0	9.6	.....
Wages.....	\$16,913,781	\$17,059,323	(4)	(4)	(4)	(4)	(4)	10.9	.....	.....	.....	.....	.....
Women, 16 years and over.....	24,586	30,159	29,372	27,682	16,519	16,574	(4)	118.6	2.7	6.1	67.6	10.8	.....
Wages.....	\$7,218,087	\$8,371,274	(4)	(4)	(4)	(4)	(4)	113.8	.....	.....	.....	.....	.....
Children, under 16 years.....	8,757	4,626	10,154	9,643	(4)	(4)	(4)	118.8	164.4	5.3	.....	.....	.....
Wages.....	\$625,188	\$708,597	(4)	(4)	(4)	(4)	(4)	111.8	.....	.....	.....	.....	.....
Miscellaneous expenses.....	\$7,268,684	\$8,402,623	(5)	(5)	(5)	(5)	(5)	113.5	.....	.....	.....	.....	.....
Cost of materials used.....	\$71,011,956	\$82,270,335	\$100,845,611	\$96,432,601	\$36,536,287	\$25,755,991	(5)	113.7	118.4	4.6	168.6	42.0	.....
Value of products.....	\$118,430,158	\$133,577,977	\$160,606,721	\$155,405,358	\$61,894,986	\$48,207,545	\$20,096,999	111.3	116.8	3.3	151.1	43.8	108.8
Number of spindles.....	1,906,581	1,515,380	1,756,746	1,845,496	(5)	(5)	(5)	5.0	3.3	14.8	.....	.....	.....
Number of looms.....	84,881	39,118	35,634	34,183	(5)	(5)	(5)	110.8	9.8	4.2	.....	.....	.....

¹ Decrease.

² Does not include the value of rented property.

³ Includes proprietors and firm members, with their salaries; number only reported in 1900, but not included in this table. (See Table 81.)

⁴ Not reported separately.

⁵ Not reported.

The high-water mark of production in the woolen goods branch of the wool manufacture was reached in 1880 before the worsted cloth had become the popular fabric. Since that time there has been a continual decrease. From 1880 to 1890 the decrease was 16.8 per cent, and amounted to \$27,028,744 in value. In the last

decade the decrease was 11.3 per cent, and the actual decrease \$15,147,819. These totals do not, however, indicate the relative production of goods, for both decades were periods of falling values, and, therefore, the production measured by the square yard or pound would not show at either census so large a decrease.

The quantity of wool consumed in woolen mills in 1900 was only nine-tenths of the quantity consumed in 1890, and was about 20,000,000 pounds less than was used in 1880, the wool used in each case being measured by the scoured pound. The quantity of cotton used, while 10,000,000 pounds less in 1900 than in 1880, is 2,000,000 pounds more than was used in 1890. The quantity of shoddy used embraces the quantity purchased—31,228,940 pounds—and the quantity made in the woolen mills—35,626,165 pounds—and shows an increased consumption of about 15,000,000 pounds.

The quantity of shoddy used in these mills was 66,855,105 pounds. The proportions of clean shoddy and clean wool used were respectively 31.5 and 43.1 per cent of the raw material consumed in the card wool manufactures. A considerable portion of the fibers other than raw wool used in these mills was consumed in the manufacture of horse blankets and carriage robes, the production of which increased from 6,283,037 square yards in 1890 to 9,055,393 in 1900, or nearly 50 per cent. The manufacture of carpet yarns also required a large amount.

Cloths, Cassimeres, etc.—The most important department of the carded-wool manufacture is the manufacture of men's-wear goods, known as broadcloths, cassimeres, fancy cassimeres, satinets, and jeans. Of the first named but a comparatively small quantity is now made, the worsted cloth having taken its place. The all-wool cassimere has also given place to a great extent to the worsted cassimere, which has won popular favor by its more dressy appearance. The greater part of the goods for men's wear made in the woolen mills in 1900 were of the union and cotton warp classes, although the proportion, measured in square yards, was not so great as in 1890. This change is to be accounted for by the popularity of light flannels, slightly fulled, finished with a smooth face and used for summer suitings. The production of all-wool cloths—cassimeres, flannels, etc.—for men's wear in 1890 was 25,637,998 square yards, valued at \$24,076,808, an average of 93.9 cents per square yard. In 1900 the production of similar goods amounted to 34,551,266 square yards, with a value of \$22,860,783, averaging 66.2 cents. The increase in yardage has been nearly sufficient to overcome the decrease in the average value per yard, and this particular group of goods shows a total decrease in value in consequence of only \$1,216,025. The reduction in average cost of the wool consumed, which is 11.5 per cent in woolen mills, accounts to some extent for the reduced value of the production.

The popularity of light woolen suitings for men's summer use without doubt accounts for the increased quantity of goods manufactured and also for the greater part of the reduction in the average value per yard.

Union or Mixed Goods for Men's Wear.—This class of goods shows an increase both in quantity and value. The production in 1890 was 21,042,283 square yards,

valued at \$12,720,597. The production in 1900 was 30,767,915 square yards, worth \$13,695,830. The average value per square yard was 60.5 cents in 1890 and 44.5 cents in 1900.

Cotton-warp Goods.—The goods made on a cotton warp with a weft of wool or mixed wool and cotton, of which the satinet is the type, are the next in importance. They are known under various names, such as cassimeres, doeskins, tweeds, jeans, satinets, etc., but all have the cotton warp for their foundation. They are of low cost, but of comparatively durable quality and furnish clothing at low price and of slightly appearance. At the census of 1890 the production of these goods was reported to be 65,545,016 square yards, valued at \$23,460,847, an average of 35.8 cents per yard. The present census shows quite a reduction, both in quantity and value, the figures being 50,212,178 square yards, the value \$13,897,719, and the average per yard 27.7 cents.

The manufacture of satinets has decreased from 18,630,656 square yards, valued at \$4,296,082, in 1890, to 13,051,729 square yards, valued at \$2,873,181, in 1900. The average value per square yard has also been reduced from 23.1 to 22 cents. The manufacture of jeans, linseys, etc., of which, at the census of 1890, 17,126,217 square yards were reported, has become greatly reduced. They are not reported separately at this time, but combined with cotton-warp cassimeres, etc., which accounts in some measure for the increase of 8,589,231 yards in the goods reported under that head.

Of these two groups, union and cotton warp fabrics, the total production in 1890 was 86,587,299 square yards, and in 1900 it amounted to 80,980,093 square yards. The consumption of cotton yarn and of cotton in the woolen mills, in which nearly all these goods were made, in the last two census years was as follows:

	1900	1890
Cotton.....	<i>Pounds.</i> 34,967,959	<i>Pounds.</i> 36,993,712
Cotton yarn.....	21,922,136	23,990,406

Flannels.—The production of cloths for men's wear owes much of its apparent increase to the fact that many light-weight goods are really flannels, although, from the use for which they are made, they are classed as cloths. Many more of similar character, but different finish, and classified as dress goods, and have thus been taken from the flannel tabulation. There still remains, however, a large quantity of flannels made for underwear, including all grades from the finest silk-mixed to the coarsest white flannel and the heavy substantial scarlet or blue twilled flannel so popular for shirtings for many years. All of these flannels have encountered serious competition from the knitted underwear, which, from its low price and satisfactory charac-

ter, has made serious inroads on the consumption, and therefore the production, of underwear flannels. The census of 1890 showed the production of 61,195,501 square yards, valued at \$18,582,549, which were classified as flannels proper. The returns for 1900 account for only 20,117,663 square yards, valued at \$4,613,129. There is no doubt that a portion of this decrease is owing to changed classification on schedules, but many of the most important mills formerly engaged in the general flannel manufacture have devoted a large part of their energies to the production of light cloths for dress goods and suitings.

Blankets.—An important department of the wool manufacture is the production of blankets, including horse blankets and carriage robes. These are of all grades, from the bed blanket made of the finest wool, of firm texture, of heavy weight, highly giggered and soft as down, to the coarsest horse blanket made with a cotton warp and of animal hair. The production of blankets proper shows a decrease. In 1890 the quantity reported was 20,793,644 square yards, valued at \$7,153,900; in 1900 it was 18,155,505 square yards, valued at \$5,200,959. The quantity of horse blankets manufactured has increased from 5,507,074 square yards in 1890 to 7,315,304 square yards in 1900. The value, however, has increased but very little. In 1890 it was \$1,721,516, and in 1900, \$1,740,988.

The manufacture of carriage robes shows a decided increase, both in volume and value, the figures being, for 1890, 775,963 square yards, valued at \$646,904, and, in 1900, 1,740,089 square yards, valued at \$987,109.

Shawls.—The shawl manufacture, which showed a great decrease in 1890 shows a still further reduction in 1900. The prevailing fashion for cloth and fur garments for ladies' use and for knitted shawls and similar wraps, has so reduced the demand for woven shawls that the reports show the production of only 600,104 square yards, valued at \$500,523, which is only one-seventh of the quantity and one-fourth of the value of the shawls produced in 1890.

Woolen Dress Goods.—The production of all-wool dress goods has increased largely since 1890, while at the same time the cotton-warp product shows a reduction. The statistics are given under the head of dress goods in connection with the worsted manufacture.

CLASS II—WORSTED GOODS.

The next great division of the wool manufacture is the combed-wool branch, in which are manufactured worsted cloths and suitings, worsted dress goods, upholstery goods and braids, and large quantities of worsted yarns for use in the carpet manufacture. The worsted mills are distinguished from the woolen mills by the initial processes to which the fiber is subjected. In the early days of the wool manufacture in this country carded-wool products only were produced, partly because of the more simple character of the operations, and partly from the fact that the wool of Merino sheep raised here was not well adapted to the combing process as carried on by hand, or by early combing machines, for a long-staple wool was required to produce the best results. The improvements in the combing machine, which enables it to comb wool of short staple, and the adaptation of our wools to the combing process consequent upon the crossing of the Merino sheep with those of English blood, have resulted in the phenomenal growth of this industry.

It is claimed that John Marland, at a mill in Ballardvale, Mass., made, in 1843, the first attempt to manufacture worsted goods in the United States. He undertook the manufacture of delaines, both printed and piece dyed, but was not very successful. Other attempts were made by the Amoskeag Mills and the Manchester Mills, at Manchester, N. H., the latter company introducing their first combing machine in 1855. The Pacific Mills at Lawrence imported from England six Lister combs in 1854, and these are believed to have been the first combing machines of this pattern set up in the United States. The Hamilton Woolen Company, at Southbridge, Mass., commenced the manufacture of dress goods at about this time. The Washington Mills, of Lawrence, Mass., soon followed, manufacturing all-wool worsted dress goods. It was not until about 1869 or 1870, that the manufacture of worsted cloths for men's wear was commenced in the United States.

The following table shows the development of the industry since 1860, at which time only three worsted mills, the Manchester, Pacific, and Hamilton, were found in this country:

TABLE 16.—WORSTED GOODS: COMPARATIVE SUMMARY, 1860 TO 1900, WITH PER CENT OF INCREASE FOR EACH DECADE.

	DATE OF CENSUS.					PER CENT OF INCREASE.			
	1900	1890	1880	1870	1860	1890 to 1900	1880 to 1890	1870 to 1880	1860 to 1870
Number of establishments.....	186	143	76	102	3	30.1	88.2	125.5	3,300.0
Capital.....	\$132,168,110	\$68,085,116	\$20,374,043	\$10,085,778	\$3,230,000	94.1	234.2	102.0	212.3
Salaried officials, clerks, etc., number.....	1,309	615	(3)	(3)	(3)	122.6	.....	.....	.....
Salaries.....	\$2,342,218	\$935,217	(3)	(3)	(3)	150.4	.....	.....	.....
Wage-earners, average number.....	57,008	42,978	18,808	12,920	2,378	32.6	128.6	45.5	443.3
Total wages.....	\$20,082,738	\$14,944,906	\$5,083,027	\$4,368,857	\$643,684	34.4	163.0	80.1	703.6
Men, 16 years and over.....	25,595	19,071	6,435	3,864	1,101	34.2	196.4	66.5	251.0
Wages.....	\$11,300,071	\$8,430,625	(3)	(3)	(3)	34.0	.....	.....	.....
Women, 16 years and over.....	25,829	20,082	9,473	7,152	1,277	28.6	112.0	32.5	460.1
Wages.....	\$7,881,109	\$5,877,717	(3)	(3)	(3)	38.2	.....	.....	.....
Children, under 16 years.....	5,584	3,825	2,895	1,904	(4)	46.0	32.1	52.0	.....
Wages.....	\$961,558	\$630,624	(3)	(3)	(3)	51.0	.....	.....	.....
Miscellaneous expenses.....	\$6,767,611	\$4,917,700	(3)	(3)	(3)	37.6	.....	.....	.....
Cost of materials used.....	\$77,075,222	\$50,706,769	\$22,013,628	\$14,303,198	\$2,442,775	52.0	130.3	53.9	485.7
Value of products.....	\$120,314,344	\$79,194,652	\$33,549,942	\$22,090,331	\$3,701,378	51.9	136.1	51.9	496.8
Number of spindles.....	1,371,026	755,080	240,115	200,617	(4)	61.6	214.5	19.7	.....
Number of looms.....	26,372	19,095	14,411	6,128	(4)	38.1	32.5	135.2	.....
Number of combing machines.....	1,194	673	283	161	(4)	77.4	133.7	78.9	.....

¹ Decrease.

² Includes proprietors and firm members, with their salaries; number only reported in 1900, but not included in this table. (See Table 32).

³ Not reported separately.

⁴ Not reported.

The table reveals a continuous growth of the industry since 1870, notwithstanding the reduction in number of factories between 1870 and 1880. On the basis of the averages per establishment the comparison of growth from decade to decade is still more striking. In 1860 only the three large establishments previously referred to existed. Their capital as reported averaged over \$1,000,000, with a consumption of materials exceeding \$800,000, and a product averaging nearly \$1,234,000. These same factories are carrying on the business to-day, and have had their influence in maintaining the average ratios in each of the other decades. The tabular statement following exhibits the averages in capital, cost of materials consumed, and value of product for each decade, but, because of the different methods of reporting the number of wage-earners, a similar statement of wages is not possible.

	1900	1890	1880	1870	1860
Establishments.....	186	143	76	102	3
Average capital employed.....	\$710,581	\$476,120	\$267,080	\$98,880	\$1,076,666
Average cost of materials.....	\$414,383	\$254,593	\$239,653	\$140,276	\$314,253
Average value of products.....	\$646,851	\$553,309	\$441,447	\$216,672	\$1,233,793

The statement shows a steady increase per establishment in each of the items, and, in connection with the table preceding, emphasizes not only the growth of the industry as a whole, but the progressive growth of the individual establishments. In 1870 the capital employed was only \$98,880 per establishment. In 1880 it had increased \$168,200. In 1890 there had been a still further increase of \$209,040, and in 1900 an additional increase of \$234,461, so that in that year the average capital employed per establishment was \$710,581. Similar gains, although not in so large a ratio, were made, both in materials used and in products, the first showing an increase from \$140,276 in 1870 to \$414,383 in 1900, and the other increasing from \$216,672 to \$646,851.

A very interesting feature, which is more apparent in this statement than in the preceding table, is the fact that the relation of cost of materials to value of products varies but very slightly in the four census reports, being in each case very nearly in the ratio of 2 to 3.

Worsted Cloths.—The most important division in value, if not in quantity, of the worsted industry is the production of cloths for men's wear. As has been stated, this manufacture was not begun in the United States until about 1870. Several mills claim the distinction of being the first to produce such goods in this country, the Washington, at Lawrence, Mass., the Hockanum, at Rockville, Conn., and the Wanskuck, at Providence, R. I. The cost of the necessary machinery; the unsuitable character of domestic wools; the heavy duty on suitable foreign wools, preventing to some extent their importation; all tended to hamper the introduction and growth of this manufacture in the United States. In spite of adverse conditions, the industry took root and grew so rapidly that the quantity of all-wool worsted coatings, cassimeres, etc., for men's wear, manufactured in 1890, amounted to 17,591,087 square yards, valued at \$22,386,452.

The result is seen in the splendid growth of the industry in the last decade from 143 establishments, with \$68,085,116 capital and products valued at \$79,194,652, in 1890, to an industry represented in 1900 by 186 establishments, with a capital of \$132,168,110 and a production valued at \$120,314,344.

The quantity of all-wool worsted coatings, suitings, overcoatings, etc., manufactured in 1900 was 54,910,812 square yards, valued at \$43,570,940, which is three times the quantity of such goods made in 1890 and nearly twice the value. There were also manufactured 12,663,719 square yards of cotton-warp worsteds, valued at \$7,267,508. The production of these goods in 1900 was about the same as in 1890. The importation of all

cloths for men's wear entered for consumption in the fiscal year ending June 30, 1900, was 4,860,777 pounds, having a duty-paid value of \$9,743,384. They were high-class goods, averaging to cost, landed, about \$2 per pound. As the Treasury reports of importations give the quantity of these goods in pounds, it is impossible to tell the yardage which these imports represent. Assuming, however, 12 ounces per square yard as a fair average, the importations for the year would represent 6,500,000 square yards, valued at about \$1.50 per yard. These importations are nearly all worsted cloths, as very few woolen cloths are imported. How nearly the manufacturers of the United States come to supplying the home market is seen in the fact that the production of worsted suitings and overcoatings amounted to 67,574,531 yards, valued at \$50,838,448, or more than 91 per cent of the total supply, as ascertained by combining the imports with the home production.

Dress Goods.—Men's wear goods are divided into the two general classes of woolens and worsteds, which are further subdivided into all-wool, cotton-warp, and cotton-mixed goods. The same divisions and subdivisions exist in the dress fabrics for women's wear. The quantities and values of each class are shown herewith:

DRESS GOODS MANUFACTURED IN 1900.

	WORSTED.		WOOLEN.	
	Square yards.	Value.	Square yards.	Value.
All wool	57,712,086	\$16,316,392	38,597,692	\$12,978,546
Cotton warp and cotton mixed	45,784,011	10,423,206	7,496,898	1,890,488
Total.....	103,496,097	26,739,598	41,094,590	14,869,034
			Square yards.	Value.
Total worsted dress goods.....			103,496,097	\$26,739,598
Total woolen dress goods.....			41,094,590	14,869,034
Total dress goods.....			144,590,687	41,608,632

In addition to the above there were manufactured 11,176,752 square yards of sackings, tricots, opera flannels, etc., all of which are practically dress goods or used for the same purpose, valued at \$3,669,584, making the total of fabrics for women's wear 155,767,439 square yards, with a value of \$45,278,216.

Worsted Dress Goods.—The production of worsted dress goods is much the most important part of the dress goods manufacture. In 1860 the 3 mills engaged in the business produced goods to the value of \$3,701,378, for which no quantity was reported. At the census of 1900 the production of worsted dress goods was reported at 103,496,097 square yards, having a total value of \$26,739,598. Of these 57,712,086 square yards were made entirely of wool, and 45,784,011 square yards of wool weft with a warp of cotton, or vice versa. The value of all wool fabrics was \$16,316,392, and of the cotton warps \$10,423,206. In 1890 the production of

worsted dress goods was 73,907,259 square yards, valued at \$16,328,836, divided as follows: All wool, 11,349,319 square yards, \$3,905,398; cotton warp, 62,557,940 square yards, \$12,423,438. The increase in production of the worsted goods in the decade has therefore been 40 per cent in quantity and 63.8 per cent in value.

Woolen Dress Goods.—The quantity of fabrics tabulated as all-wool dress goods is 33,597,692 square yards, valued at \$12,978,546. Of cotton warp, wool-weft dress goods the manufacture amounted to 7,496,898 square yards; to this should be added the sackings, tricots, and opera flannels named above, which make the production of cotton-warp dress goods for women's wear 18,673,650 square yards, valued at \$5,560,072, and the total production of woolen dress fabrics 52,271,342 square yards, with a value of \$18,538,618. The production of all-wool dress goods in 1890 was 25,237,390 square yards, valued at \$9,014,477; of cotton warps, 17,655,803 square yards, \$4,274,012; and of union or cotton mixed sackings, etc., 9,892,377 square yards, \$2,532,598; making the total production of woolen goods for women's wear in 1890, 52,785,570 square yards, valued at \$15,821,087.

In these fabrics, therefore, the quantity produced varies but little, being 514,228 square yards less than ten years earlier, but the value has increased \$2,717,531, or 17.2 per cent.

The total production of dress fabrics in 1890 amounted to 127,259,709 square yards, and in 1900 to 155,767,439 square yards, the value being \$32,285,906 in 1890, and \$45,278,216 in 1900.

The gain in production was therefore 22.4 per cent in quantity and 40.2 per cent in value. The greater percentage of increase in value over the increase in quantity indicates the production of a higher grade of goods. The manufacturers of the United States are competing successfully with those of England and France in meeting the demands of the American market for these fabrics. The various changes in the tariff during the decade, and the resulting different methods of reporting the quantities of importations of dress goods, make it impossible to present a satisfactory table showing these imports, for during the existence of the tariff of 1894 all dress goods were reported in pounds, and a reduction to the square yard is made on a purely arbitrary basis. In the following table the standard used in the census of 1890—4.5 ounces to the square yard—is adopted for all such goods imported by weight under the tariffs of 1890 and 1897. Under the law of 1894 the lightweight dress goods, as well as the heavier goods, were assessed for duty on the pound basis. The standard of 4.5 ounces is therefore not suitable for these importations. A standard of 4 ounces to the square yard will not be greatly out of the way for an estimate of the quantity of dress fabrics imported under that law. The table thus prepared shows the foreign values, and the estimated quantities of dress goods imported in the last two decades.

IMPORTS OF DRESS GOODS ENTERED FOR CONSUMPTION, 1881 TO 1900, INCLUSIVE.

YEARS.	Square yards.	Value.
1881.....	61,990,172	\$15,961,066
1882.....	93,772,856	19,070,817
1883.....	93,920,152	22,619,106
1884.....	68,831,494	15,349,097
1885.....	41,491,520	14,197,987
1886.....	67,346,150	14,971,277
1887.....	76,871,189	17,199,141
1888.....	85,504,490	18,742,493
1889.....	93,261,526	19,793,253
1890.....	107,915,299	22,668,293
Total.....	785,904,838	180,572,530
1891.....	91,874,084	19,559,983
1892.....	76,575,126	16,030,371
1893.....	86,757,856	17,821,574
1894.....	40,556,207	8,647,258
1895.....	67,719,063	14,505,778
1896.....	96,458,868	19,494,268
1897.....	95,120,674	18,187,846
1898.....	28,213,947	5,798,213
1899.....	27,808,376	6,038,850
1900.....	25,908,693	5,395,520
Total.....	637,089,453	132,580,061
Annual average 1881-1890.....	78,590,483	18,057,253
Annual average 1891-1900.....	63,708,945	13,258,006

Assuming that the annual average importation for the decade is a fair representation of the imports, and adding the domestic production, the total annual consumption of these goods amounts to 219,476,384 square yards. By a similar calculation it appears that the quantity consumed in 1890 was 205,850,192 square yards, and the increase of 1900 over 1890, 6.6 per cent. The domestic manufacturers were able to supply in 1890, 62 per cent of the requirements of the people of the United States, while in 1900 they supplied over 71 per cent of the fabrics needed. The average value per square yard of all dress goods of domestic production is 29.07 cents, and the foreign value of the imported dress goods for the year last shown averages 22.76 cents per square yard and the duty-paid value 41.47 cents. These facts indicate that at the present time the mills here supply the demands of the American public for the great mass of dress goods, and that the so-called "novelties," goods with fancy effects produced in the weave or coloring, furnish the most of these imports.

BRAIDS.

Braids, as known to the wool manufacture, are made both from woolen and worsted yarns, but mostly from the latter. They are used for bindings and for trimmings, for which many fancy braids are made. The braid manufacture was established in this country by Darius Goff, at Pawtucket, R. I., in 1861, where the business is still carried on by his successors. During the decade the business has grown from 11 establishments, with a production of \$1,264,622, to 17 establishments, producing \$2,264,661. In 1900 they were located as follows: 9 in New York, 4 in Pennsylvania, 2 in Massachusetts, and 2 in Rhode Island. Of the number of braiders reported, which number has increased from

10,750 to 15,086, New York has 9,628, Pennsylvania 2,258, and Massachusetts and Rhode Island 3,200. New York manufactures nearly one-half of the braids, her product amounting to \$1,092,713. No attempt is made to present the quantity of braids manufactured, because there is no standard width. As they range from one-fourth inch to 3 or more inches wide, a statement by running yards would convey but little meaning.

PLUSHES AND PILE FABRICS.

The manufacture of plushes and pile fabrics has become a very important part of the worsted industry, and is conducted chiefly in Maine, Rhode Island, Connecticut, and Pennsylvania; but the statistics are not so segregated that a separate statement can be made.

CLASS III.—CARPETS AND CARPETING.

The carpet manufacture is one of the most important branches of the wool manufacturing industry. It dates back in this country to the last years of the Eighteenth century. The earliest record of it is that W. P. Sprague opened a carpet manufactory in 1791 in Philadelphia. In 1820 carpets woven by hand are reported as being made in Rhode Island, New York, and Maryland; these were probably rag carpets. Alexander Wright, a Scotchman, started a small mill in Medway, Mass., in 1825, with hand looms which he brought from Scotland. This mill passed into the hands of the Lowell Manufacturing Company, then recently organized, and on the completion of their mill at Lowell, Mass., the machinery was moved there. These are the beginnings of a manufacture which, in a little more than a century, has become one of the leading industries of the country. It now finds employment for millions of capital, gives remunerative occupation to thousands of operatives, and produces millions of dollars worth of fabrics which add to the comfort and cater to the tastes of the American people.

It is to the inventive genius and the business ability of Erastus B. Bigelow, of Boston, Mass., more than to any other man, that the carpet industry of the world owes its great prominence. He first, in 1844, adapted the power loom to the weaving of ingrain carpets. A few years later he invented and patented the power loom for weaving Jacquard Brussels and Wilton carpets. To him also are due the inventions for weaving tapestry Brussels and tapestry velvet carpets. Alexander Smith and Halcyon Skinner, of Yonkers, N. Y., obtained in 1856 a patent for a power loom for weaving Axminster carpets, which, however, was not utilized till 1867. These inventions are the foundation of the modern carpet manufacture. It is only a little more than ten years since the power loom was applied to the manufacture of Smyrna carpets and rugs, and a largely increased output has been the result. Table 17 presents the principal statistics of the carpet manufacture since 1850, when it first appeared in the census records.

TABLE 17.—CARPETS AND RUGS, OTHER THAN RAG: COMPARATIVE SUMMARY, 1850 TO 1890, WITH PER CENT OF INCREASE FOR EACH DECADE.

	DATE OF CENSUS.						PER CENT OF INCREASE.				
	1900	1890	1880	1870	1860	1850	1890 to 1900	1880 to 1890	1870 to 1880	1860 to 1870	1850 to 1860
Number of establishments.....	133	173	195	215	213	116	123.1	111.3	19.8	0.9	88.6
Capital.....	\$44,449,299	\$38,208,842	\$21,468,587	\$12,540,750	\$4,721,768	\$3,852,981	16.3	78.0	71.2	165.6	22.5
Salaries officials, clerks, etc., number.....	687	885	(3)	(3)	(3)	(3)	78.4	(3)	(3)	(3)	(3)
Salaries.....	\$881,398	\$510,857	(3)	(3)	(3)	(3)	72.5	(3)	(3)	(3)	(3)
Wage-earners, average number.....	28,411	28,736	20,371	12,098	6,681	6,186	11.1	41.1	68.4	81.1	8.0
Total wages.....	\$11,121,383	\$11,122,269	\$6,335,218	\$4,681,718	\$1,546,692	\$1,246,560	(6)	62.7	46.0	202.9	24.0
Men, 16 years and over.....	13,860	13,655	10,104	6,808	3,910	3,881	1.5	35.1	48.4	74.1	0.7
Wages.....	\$6,651,180	\$6,510,457	(3)	(3)	(3)	(3)	2.2	(3)	(3)	(3)	(3)
Women, 16 years and over.....	12,468	13,076	3,570	4,316	2,771	2,305	14.6	52.6	98.6	55.8	20.2
Wages.....	\$4,113,142	\$4,218,249	(3)	(3)	(3)	(3)	18.2	(3)	(3)	(3)	(3)
Children, under 16 years.....	2,083	2,005	1,697	974	(3)	(3)	3.9	18.2	74.2	(3)	(3)
Wages.....	\$367,061	\$363,553	(3)	(3)	(3)	(3)	1.8	(3)	(3)	(3)	(3)
Miscellaneous expenses.....	\$2,751,879	\$1,819,441	(4)	(4)	(4)	(4)	51.3	(4)	(4)	(4)	(4)
Cost of materials used.....	\$27,228,719	\$28,644,905	\$18,984,877	\$18,577,998	\$4,417,986	\$3,075,592	14.9	50.9	39.8	207.3	43.6
Value of products.....	\$48,192,351	\$47,770,193	\$31,792,802	\$21,761,573	\$7,857,636	\$5,401,234	0.9	50.3	46.1	177.0	45.5
Number of looms.....	12,511	11,235	7,252	5,426	(4)	(4)	11.4	54.9	83.7	(3)	(3)

1 Decrease.
 2 Includes proprietors and firm members, with their salaries; number only reported in 1900, but not included in this table. (See Table 83.)
 3 Not reported separately.
 4 Not reported.
 5 Less than one-tenth of 1 per cent.

The table shows not only the growth of the industry, but also the tendency toward combination of capital and centralization of industries; beginning in 1850 with 116 establishments and \$3,852,981 capital, it increased in twenty years to 215 establishments with a capital of \$12,540,750. Since then each census report has shown a decreased number of factories¹ and an increased capital. At this time the number has been reduced to nearly the original number of 1850, but the capital is nearly twelve times the amount employed in that year. The number of wage-earners and the amount paid in wages vary but little in the reports of the census of 1900 from the corresponding statements of the one preceding. The number of sets of cards employed has increased from 392 to 468 and the number of combs from 118 to 134, but the number of spinning spindles employed in the carpet mills shows a decrease of 41,735, which is wholly in worsted spindles. The woolen and cotton spindles each show an increased number. In 1890 there were 151,132 worsted spindles, but in 1900 only 97,191 were reported as in operation. The following tabular statement shows the number of looms, both hand and power, employed on each variety of car-

pets in 1900 and 1890, and also the transfer of manufacturing forces from hand to power looms in the decade, and from one kind of carpet to another. The total number of looms employed in the carpet mills was 12,511, an increase of 1,276 over 1890. Of these looms 1,757 were engaged in the production of woolen or worsted cloth, leaving 10,754 looms for the carpet manufacture, which is 144 less than was shown in 1890. The ingrain carpet manufacture employed 4,693 looms; 1,835 were engaged on tapestry Brussels, velvets, and rugs; 544 on Brussels; 507 on Wiltons; 761 on Axminster and Moquettes; and 80 on Venetian carpets. The 955 hand looms and 1,358 power looms engaged in the rug manufacture were included in the total number of carpet looms.

The number of hand looms was about two-fifths of the number employed in 1890, and the decrease was almost the same numerically as the increase in power looms. The changes from Brussels to tapestry velvet looms, and from body Brussels to Wilton and Axminster, do not necessarily indicate a throwing out of looms of either class and their replacement by others, but simply the change of product of the looms, only slight alterations being necessary to adapt a tapestry Brussels loom for making tapestry velvet, or a body Brussels for making Wiltons.

¹ 1870 showed 2 more establishments than 1860.

LOOMS IN CARPET MANUFACTORIES, 1890 AND 1900.

YEAR.	Total all looms.	Total all looms on carpets.	CARPET LOOMS.		INGRAINS.				VENETIAN.	
			Hand.	Power.	Hand.	Power.	Broad.		Hand.	Power.
							Hand.	Power.		
1900.....	12,511	10,754	1,043	9,706	92	4,354	1	246	.....	80
1890.....	11,235	10,898	2,598	8,300	631	4,214	.....	.....	157	109

YEAR.	TAPESTRY.		Body Brussels, power.	Wilton, power.	Axminster, power.	Moquette, power.	RUG.		LOOMS ON WOOLEN GOODS.		
	Brussels, power.	Velvet, power.					Hand.	Power.	Broad.	Narrow.	Hand.
1900.....	1,094	737	544	507	611	150	955	1,383	814	897	46
1890.....	1,498	58	1,224	62	95	462	1,810	578	194	44	99

Materials Consumed.—The cost of materials used, which amounted in 1900 to \$27,228,719, against \$28,644,905 in 1890, shows a small reduction, 4.9 per cent, but this arises from reduced prices and changes in character of materials used, and not from lessened quantity, as shown in the following table:

QUANTITIES OF MATERIALS USED IN THE CARPET MANUFACTURE: 1900 AND 1890.

	1900	1890
Foreign wool used:		
Pounds.....	51,761,523	54,742,284
Cost.....	\$8,077,420	\$9,422,081
Domestic wool used:		
Pounds.....	109,811	2,139,832
Cost.....	\$26,687	\$483,756
Scoured wool, pounds.....	87,560,231	35,726,837
Hair, all kinds, pounds.....	6,189,757	4,647,025
Cotton, pounds.....	1,943,942	1,725,761
Shoddy, etc., pounds.....	741,233	593,512
Waste, noils, etc., pounds.....	2,525,054	892,548
Woolen yarn, pounds.....	32,906,316	13,763,201
Worsted yarn, pounds.....	9,218,267	10,555,799
Mixed yarn, pounds.....	237,970	.....
Cotton yarn, pounds.....	19,823,561	17,920,408
Linen yarn, pounds.....	8,388,211	9,719,242
Jute and other yarns, pounds.....	39,034,827	23,852,517

The total quantity of materials used, including wool "in condition purchased," was 172,973,472 pounds, as compared with 145,556,669 pounds in 1890, an increase of 27,416,803 pounds in all, equal to 18.8 per cent. The quantity of wool in condition purchased was 5,010,232 pounds less than was used in 1890, but this wool

when scoured shows a smaller amount of shrinkage than appeared in 1890, so that the quantity of clean wool used exceeded the quantity used in 1890 by 1,833,394 pounds. In addition to the scoured wool, 1,750,913 pounds of other fibers in the raw state were used in 1900 in excess of the quantity used in 1890, and 12,895,583 pounds more of woolen and worsted yarns and 15,992,312 pounds more of other yarns, manufactured in other mills, were used than were used ten years previously. The total quantity of purchased yarns used in 1900 was 109,699,152 pounds. In 1890, 80,811,257 pounds of yarns were used.

Production.—The production has likewise experienced a continuous growth. In 1850 the mills produced goods to the value of \$5,401,234, using materials costing \$3,075,592. Each decade has seen an increase in value of product; at the census of 1900 the production had increased to \$48,192,351, and the cost of materials used to \$27,228,719. It is true that the value of products is but slightly more than the similar amount in 1890, but the production of carpets, measured in running yards, the yard-wide and the three-quarter goods being all counted together, was 760,917 yards in excess of the production of that year. The following statement, in which the figures for 1880 are also included, furnishes the data for a more correct estimate of the actual relative production of the two periods:

QUANTITY AND KIND OF CARPETS PRODUCED, 1880 TO 1900.

DATE OF CENSUS.	Total carpets, running yards.	Ingrain, 2-ply, square yards.	Ingrain, 3-ply, square yards.	Ingrain, art, square yards.	Venetian, running yards.	Body Brussels, running yards.	Tapestry Brussels, running yards.	Tapestry velvet, running yards.
1900.....	75,531,827	36,698,292	3,222,557	2,328,906	.....	3,581,991	11,649,932	5,706,754
1890.....	74,770,910	32,918,659	3,251,368	558,513	.....	9,442,348	20,008,961	2,482,128
1880.....	39,282,684	21,986,484	862,394	.....	1,984,201	4,077,190	9,441,195	60,000

DATE OF CENSUS.	Wilton and Wilton velvet, running yards.	Axminster, running yards.	Moquette, running yards.	Smyrna, square yards.	Cottage, square yards.	Dutch, square yards.	Rag, square yards.	All other, square yards.
1900.....	4,782,885	5,074,961	1,627,410	853,189	.....	.....	.....	.....
1890.....	1,030,101	379,341	3,193,186	127,177	.....	.....	71,310	1,312,318
1880.....	157,629	303,966	.....	.....	241,220	12,000	157,005	.....

The comparative production of each of the two great divisions of the manufacture is as follows: The number of yards of ingrain carpets, which includes all the 2 and 3 ply carpets and ingrain art squares, which amounted to 36,723,540 square yards in 1890, in 1900 amounted to 42,249,755 square yards, an increase of 5,526,215 square yards; the number of running yards of all three-quarter carpets, that is, the tapestries, Brussels, Wiltons, etc., which in 1890 was 36,536,065 yards, in 1900 showed a reduction to 32,423,883 yards, a falling off of 4,112,182 running yards. By reducing the three-quarter goods to the square-yard measurement, a uniform standard is reached, by which a comparison of the total yardage of the manufacture can be obtained, except that in 1890 the report of the manufacture of rugs was made in number of individual rugs, while at the census of 1900 the report was made in

square yards. If rugs are reported in square yards hereafter, there will be no difficulty in making comparisons of the total production of these mills by quantity.

The production of three-quarter wide carpet in 1890 was 36,536,065 running yards, equal to 27,402,049 square yards. In 1900 the production of similar carpets was 32,423,883 running yards, equal to 24,317,912 square yards. The total production of carpets, therefore, aside from the quantities of rugs manufactured and Smyrna carpets reported as rugs, was equal to 64,125,589 square yards in 1890 and 66,567,667 square yards in 1900, an increase of 2,442,078 square yards.

In addition to the carpets produced, there were 8,984,194 square yards of rugs made, which makes the total carpets and rugs manufactured, as reported at the Twelfth Census, 75,551,861 square yards. There has

been a very great increase in the production of rugs. In 1890 the value of all rugs, not including the Smyrna carpets, was \$2,628,781; in 1900 it had increased to \$5,948,898, a gain of \$3,320,117. The total value was nearly one-eighth of the total value of the products of the carpet mills, and indicates the greatly increased use of rugs for floor coverings. In 1890 the value of rugs manufactured was less than one-fourteenth part of the total value of the carpet-mill productions.

The following are the statistics of the rug manufacture, the value being given for both 1890 and 1900. In 1890 rugs were reported in number of pieces, but in 1900 the report was made in square yards.

COMPARATIVE STATEMENT OF RUGS MANUFACTURED, 1900 AND 1890.

	1900	1890
Total:		
Square yards	8,984,194	11,565,808
Value	\$5,948,898	\$2,628,781
Tapestry:		
Square yards	18,750	
Value	\$9,000	
Wilton:		
Square yards	339,784	140,644
Value	\$545,967	\$87,702
Moquette and Axminster:		
Square yards	327,598	160,000
Value	\$342,262	\$66,000
Ingrain:		
Square yards	398,417	16,278
Value	\$168,324	\$34,262
Smyrna rugs:		
Square yards	2,798,472	11,429,586
Value	\$2,491,911	\$2,367,000
Other rugs:		
Square yards	5,111,178	128,845
Value	\$2,391,434	\$78,817

¹ Quantities in 1890 are all by numbers of pieces instead of square yards.

The change in fashion for floor coverings is well illustrated by the change in the character of the carpets manufactured. In the tapestry Brussels the production has fallen off 8,359,029 yards, but in the tapestry velvets it has increased 3,224,626 yards. The production of body Brussels carpets has been reduced 5,860,357 yards, but the Wiltons, Axminster, and Moquette have increased 6,882,578 yards. In the cut pile carpets there also is a change, the Moquette, which in 1890 was an exceedingly popular carpet, has fallen off 50 per cent in quantity of product while the Axminsters have increased from 379,341 to 5,074,961 yards. The Wiltons also have become popular, and the manufacture has grown from a small beginning in 1880 to 1,030,101 yards in 1890, to 4,782,835 yards in 1900. The favor in which the various velvet or cut pile carpets are held and the fashion for hard-wood floors, for which ingrain carpets and art squares form a suitable covering, accounts to a great extent for the reduction in the quantity of tapestry and body Brussels carpets, as compared with the previous census.

The location of the industry was the same in 1900 as in 1890, principally in the states of Pennsylvania, New York, Massachusetts, and New Jersey, which ranked in amount of capital employed and value of products in the order named. There were important factories in other states, especially in Connecticut; but as these states

have only one or two establishments each, their statistics are not separately stated. Pennsylvania was the chief seat of the industry, centered in Philadelphia and its suburbs, employing about three-eighths of the capital invested and producing nearly one-half of the total value of carpets and rugs manufactured. Out of 4,693 ingrain looms engaged, 3,737 were in this state, which also possessed 537 of the 1,831 tapestry Brussels and tapestry velvet looms in the country, and 1,220, or more than half, of the Smyrna looms. New York had 1,057 of the tapestry looms and Massachusetts 217. Of the 1,812 Brussels, Wilton, and similar looms for the manufacture of the highest grades of carpets, Massachusetts possessed 752, New York 542, and Pennsylvania 267. In the manufacture of Smyrna carpets and rugs New Jersey was next to Pennsylvania, having 794 looms, and was followed by New York with 295 looms. New York and Massachusetts, therefore, were the great producers of the higher grades of carpets, while Pennsylvania and New Jersey were the homes of the more common ingrain carpet and the art squares as well as the Smyrna rug.

The imports of carpets and rugs for the fiscal year 1900 amounted to only 820,731 square yards, having a foreign value of \$2,555,620. Of these importations, 640,111 square yards were rugs of high quality, either Aubusson, Axminster, or rugs of similar character, or the oriental rugs, all articles of luxury, and were valued at \$2,329,106 abroad. The American carpet manufacturers, it is evident, have complete control of the home market, and are able to supply all the needs of the American people.

CLASS IV.—FELT GOODS.

The following table presents a summary of the felt-goods industry for the census years 1880, 1890, and 1900, with per cent of increase for each decade:

TABLE 18.—FELT GOODS: COMPARATIVE SUMMARY, 1880 TO 1900, WITH PER CENT OF INCREASE FOR EACH DECADE.

	DATE OF CENSUS.			PER CENT OF INCREASE.	
	1900	1890	1880	1890 to 1900	1880 to 1900
Number of establishments ..	36	34	26	5.9	30.8
Capital	\$7,125,276	\$4,460,621	\$1,958,254	59.7	127.8
Salaried officials, clerks, etc., number	186	124	(²)	9.7	.....
Salaries	\$231,065	\$167,916	(²)	46.3	.....
Wage-earners, average number	2,688	2,142	1,524	25.5	40.6
Total wages	\$1,024,885	\$888,380	\$499,760	16.0	100.9
Men, 16 years and over ..	1,957	1,474	1,203	32.8	22.5
Wages	\$820,637	\$721,796	(²)	18.7	.....
Women, 16 years and over ..	658	506	238	30.0	117.2
Wages	\$191,080	\$184,278	(²)	42.3	.....
Children, under 16 years ..	73	162	83	54.9	84.1
Wages	\$18,108	\$27,311	(²)	52.0	.....
Miscellaneous expenses	\$356,164	\$232,871	(⁴)	52.9	.....
Cost of materials used	\$3,801,028	\$2,809,937	\$2,530,710	35.3	11.0
Value of products	\$6,461,691	\$4,654,768	\$3,619,652	38.8	28.6
Number of spindles	24,286	18,829	(⁴)	75.6	.....
Number of looms	284	210	(⁴)	35.3	.....

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

² Not reported separately.

³ Decrease.

⁴ Not reported.

In number of establishments its growth in the last decade has been small, but in other respects its development has been large. The capital increased 59.7 per cent, the cost of materials used 35.3 per cent, and the value of products 38.8 per cent. The principal products were felt cloths, boot and shoe linings, upholstery felts, trimmings and lining felts, felt skirts, and endless belts for paper-making machines. Many of the productions of the felt manufacture can not be measured in yards, but can be reported only in pieces or pounds. One-third in value of the products of these mills in 1900 was of this class, comprising slippers and shoes, polishing felts and wheels, piano keys, and an endless variety of other goods. The quantity of felt cloths manufactured in 1900 was about the same as in 1890, but in boot and shoe linings the quantity was only 1,052,538 square yards, about half of the product of 1890. Endless belts for printing machines increased from 216,982 to 1,114,357 square yards, while trimmings and lining felts increased from 1,176,114 square yards in 1890 to 2,469,830 in 1900.

CLASS V.—WOOL HATS.

The wool-hat manufacture is properly a part of the felt industry, the hats being made by a process of felting, and are thus distinguished from the ordinary products of the loom. The process of wool-hat making is very simple and yet very ingenious. The wool, as it comes from the card in a continuous lap, is wound upon a machine consisting of two cones placed base to base and revolving upon an axis placed parallel to the end of the card. The double cone is so rotated that the continuous lap of wool is wound in a zigzag manner, crossing and recrossing from end to end. When a sufficient quantity of wool has been received, the machine is stopped, the double cone of wool is divided in the center, the two resulting hat bodies removed for felting, and the process repeated. From the time the hat leaves the cone until it is ready for the market each hat is the subject of individual treatment, and it is only by the subdivision of the various processes of felting, dyeing, stiffening, blocking, finishing, and trimming, and the distribution of the work among many hands, that it is possible for the comparatively few hat factories to supply the demand. As is stated elsewhere in this report, the fur-hat manufacture has interfered very seriously with the manufacture of wool hats.

The following table shows the statistics of the wool-

hat manufacture at the censuses of 1880, 1890, and 1900, with per cent of increase for each decade:

TABLE 19.—WOOL HATS: COMPARATIVE SUMMARY, 1880 TO 1900, WITH PER CENT OF INCREASE FOR EACH DECADE.

	DATE OF CENSUS.			PER CENT OF INCREASE.	
	1900	1890	1880	1890 to 1900	1880 to 1900
Number of establishments ..	24	32	43	125.0	125.6
Capital	\$2,050,802	\$4,142,224	\$3,615,830	150.5	14.6
Salaries of officials, clerks, etc., number	57	292	(3)	138.0	.....
Salaries	\$66,766	\$113,968	(3)	141.4	.....
Wage-earners, average number	2,108	3,500	5,470	139.8	136.0
Total wages	\$987,855	\$1,240,976	\$1,893,215	125.0	134.0
Men, 16 years and over ..	1,358	2,220	3,222	138.8	131.1
Wages	\$727,253	\$980,030	(3)	125.8	.....
Women, 16 years and over ..	651	1,121	1,459	141.9	123.2
Wages	\$195,395	\$251,061	(8)	122.1	.....
Children, under 16 years ..	99	159	789	137.7	179.8
Wages	\$14,607	\$18,285	(3)	120.1	.....
Miscellaneous expenses	\$185,644	\$249,568	(4)	125.6	.....
Cost of materials used	\$2,042,202	\$2,802,041	\$4,735,774	127.1	141.4
Value of products	\$3,591,940	\$5,329,921	\$8,516,569	132.6	137.4

¹ Decrease.

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

³ Not reported separately.

⁴ Not reported.

Making no reference to the condition of the industry in 1880, it will be seen that since 1890 the number of establishments has fallen off 25 per cent, the capital 50.5 per cent, the cost of materials used 27.1 per cent, and the value of products 32.6 per cent. In all the various items of expense there has been a similar reduction. There has not, however, been so large a decrease in the wool-hat industry as the items named would seem to indicate. In 1890, 972,375 dozen wool hats were manufactured, valued at \$4,611,851; in 1900 the number of dozens is 811,425, valued at \$3,161,361, so that a very considerable part of the loss is attributable to reduced value per unit of quantity.

The wool-hat manufacture is so closely allied to the manufacture of fur hats that it was thought best to secure the returns of the latter industry in connection with those of the wool manufacture. The reports, however, are tabulated separately, and are not included in any of the tables pertaining to that industry. The detailed statistics for the fur-hat manufacture will be found in Table 40, which follows the general tables belonging to the other industry. A brief history, with a general statement of the process of manufacture and the progress of the industry, is presented in connection with the report on wool hats.

THE FUR HAT MANUFACTURE.

Until the census of 1900 no attempt was made to obtain a separate statement of the statistics for the fur-hat manufacture. They had been included with those of hats and caps, not including wool hats. In 1890 the value of all hats and caps reported, except wool hats, was \$37,311,599, the production of which gave employ-

ment to 25,931 wage-earners, receiving \$12,650,917 in wages. Capital amounting to \$13,724,002 was invested in the business, and the material consumed was valued at \$16,160,802. The capital employed in the manufacture of all these classes of head coverings was \$3,000,000 less in 1890 than was invested in the fur-hat

manufacture alone in 1900. The cost of materials used in 1900 was within \$3,000,000 of the cost shown for the hat and cap industry in 1890, and the value of products was not quite \$10,000,000 less than the total for hats and caps, except wool hats, for 1890. The following is a summary of the statistics of the fur-hat industry for 1900:

TABLE 20.—FUR HATS: SUMMARY FOR 1900.

Number of establishments	171
Capital	\$16,701,308
Salaried officials, clerks, etc., number.....	726
Salaries.....	\$943,998
Wage-earners, average number	18,880
Total wages	\$9,119,264
Men, 16 years and over	13,187
Wages	\$7,231,777
Women, 16 years and over	5,436
Wages	\$1,840,454
Children, under 16 years.....	257
Wages	\$47,033
Miscellaneous expenses	\$1,416,737
Cost of materials used	\$13,513,668
Value of products	\$27,811,187

The total number of establishments engaged in the industry was 171, located 59 in New Jersey, 58 in Connecticut, 20 in Pennsylvania, 15 in New York, 11 in Massachusetts, and 8 in other states. The capital employed was distributed in the various states as follows: Pennsylvania, \$5,726,259; Connecticut, \$3,197,551; New York, \$3,050,381; New Jersey, \$2,932,311; Massachusetts, \$1,467,700; all others, \$327,106. In number of wage-earners the order was: Connecticut, New Jersey, New York, Pennsylvania, Massachusetts. In amount of wages New Jersey led, and Connecticut, New York, Pennsylvania, and Massachusetts followed in the order named. New Jersey reported the manufacture of 590,939 dozen fur hats, valued at \$6,773,402; Connecticut, 497,683 dozens, valued at \$6,543,736; New York, 226,061 dozens, valued at \$5,052,570; Pennsylvania, 280,880 dozens, valued at \$4,203,169; Massachusetts, 227,032 dozens, valued at \$2,244,941; and all other states, 59,777 dozens, valued at \$567,688. The total number of dozens made was 1,882,372, and the value \$25,385,506. The average value per dozen was within a fraction of \$13.50, but, as the preceding statements show, there is a wide range in value. The New York manufacture shows the highest average value, \$22.35, and Massachusetts the lowest, \$9.88.

The material from which fur hats are made is the fur of the rabbit, coney, and nutria, and is mostly imported, sometimes on the skin, but more often cut. There are some large fur-cutting establishments in the United States, and some of the most important fur-hat factories cut their own fur. The finest fur comes from Germany, where it is cut from skins brought thither from various places. After the skins have been properly opened and stretched, and the

hairs removed by pulling, they are subjected to a process called "carroting," an application of mercury and nitric acid, which causes the fur fibers to hold together. The separation of the fur from the skin is accomplished by cutting the skin into shreds, by means of rapidly revolving shear blades, fixed just below a table, but so adjusted that as the skin passes under a roller or guide fixed above the shear blade, the skin is cut into shreds and drops beneath the machine. The fur, without the apparent displacement of a fiber, passes on to the other side of the roller, whence it is removed and packed away until required.

Until 1846 the making of fur hats was carried on entirely by hand. In 1835 a machine for stiffening hat bodies by immersing them in solutions of different strength and afterwards pressing them between rollers was patented by Henry Blynn, of Newark, N. J. In 1837 Thomas Blanchard patented a process of forming bats for fur hats by means of a rapidly rotating picker brush, which disintegrated the materials and threw them upon an endless apron or band of fine wire cloth by means of a current of air, produced by an exhausting fan beneath the apron. The thin, narrow ribbon or web thus formed was wound upon a double cone of a size to form two hat bodies. The machine was not successful in practice.

The first process in manufacturing hats is the mixing of various kinds or qualities of fur to produce the quality of hat wanted, which is done by a machine called a "devil," in which the fibers are pulled apart and thoroughly mingled. It is then taken to the blowing machine, where it is kept constantly agitated in a light current of air. The matted pieces, if any, and such pieces of skin as there may be with fur attached, together with the hair and dirt thrown out from the fine fur, drop through a set of sieves which separate the valuable pieces of fur for further treatment. The blowing process continues until the fur is perfectly free from all extraneous matter, when it leaves the machine in a lap, fine and soft, but so light and filmy that it hardly bears the touch.

The hat-forming process comes next in order. The fur as it comes from the blower is weighed out into boxes, each containing a sufficient quantity for one hat, according to the weight and quality of hat to be made, the usual range being from two to six ounces per hat. These boxes of fur are conveyed to a machine, called a "former," which consists of a revolving cone, made of brass or copper of suitable size for the hat body. This cone is pierced with innumerable small holes, through which a current of air is drawn by means of an exhausting fan.

There is also an arrangement by which minute jets of hot water are thrown upon the newly formed hat body to give it a sufficient consistency to permit its removal from the cone.

The process is as follows: The fur is fed through a tube to a revolving cylinder which thoroughly opens and distributes the fur; at the same time the former is set in motion and the current of air produced by the fan draws the fur into the machine and spreads it evenly over the surface of the cone, which during the operation is inclosed in a tight box. When the fur is properly distributed the box is opened and the jets of water are thrown upon the fur, and the embryo hat, upon which a cloth has been spread for its protection, is removed by hand. The whole operation takes but two or three minutes. It is then rolled and pressed, first by hand, when in its more delicate condition, and afterwards by machinery, to felt it and reduce it to its proper proportions. In the meantime it has been sized to add to its strength and durability. The hat now receives an application of shellac dissolved in alcohol to stiffen it. A much stronger solution is required for a "derby" than for a soft hat. Thus far the hat has retained its conical form. The next process gives it a shape in which it is recognizable as a hat. It consists of pressing it in a mold, composed of a block and a matrix, which shapes both the crown and the brim. The next step is that of dyeing, in which the rough hat receives its final color. Blocking comes next, which fixes the hat in the form desired, the previous pressing having only shaped it. Pouncing, which is a process of sand-papering to remove inequalities, follows, and is accomplished by placing the hat on a rapidly revolving block, a device of Mr. John T. Waring, in 1853, and rubbing the surface with fine emery paper; at the same time any hairs that may have been left in the fur are removed or cut off and a slight nap is raised, which is ironed so that it all lies in one direction. The trimmings—that is, the sweat band, the lining and the ribbon and binding—are now attached, and the hat is again blocked and the rim given its shape. Formerly all of this work was done by hand, beginning with the process of "blowing," by which the same result was obtained that is now reached by the blower. The inventions of Thomas Blanchard, H. A. Wells, and John T. Waring, with minor modifications and improvements, are the foundation of the machine manufacture of fur hats.

The history of the fur hat manufacture has never been adequately presented. Special effort has been made at this time to prepare such a statement as the importance of the subject demands, but the only sources of information which have been found are Bishop's "History of American Manufactures," and the "Report on Manufactures for the Eighth Census." The industry in the United States dates back to the very early days of the colonies. In 1662 the assembly of Virginia enacted a number of laws for the encouragement of manufactures. Among other premiums offered was one of 10 pounds of tobacco for every good wool or fur hat made within the colony. In 1675 laws were passed prohibiting the exportation of raccoon furs from

the provinces. In 1731 Jeremiah Dunbar, surveyor-general of His Majesty's woods, reported respecting the manufacture of hats; that it was with the greatest difficulty they were able to procure true information of the trade and manufactures of New England. The company of felt makers in London petitioned Parliament in 1731 to prohibit the importation of hats from the American colonies. A special committee, to which the petition was referred, reported that in New York and New England beaver hats were manufactured to the estimated number of 10,000 yearly. There were 16 hatters in Boston, one of whom furnished 40 hats weekly.

The British Board of Trade, in their report in 1732, made in pursuance of an inquiry "with respect to laws made, manufactures set up, or trade carried on detrimental to the trade, navigation, or manufactures of Great Britain," found that "great quantities of hats are made in New England," and that "great quantities of these hats are exported to Spain, Portugal, and our West India Islands." In consequence of this evidence, an act was passed that "no hats or felts, dyed or undyed, finished or unfinished, should be put on board any vessel for any place within any of the British plantations, nor be laden upon any horse, or other carriage, to the intent to be exported from thence to any other plantation, or to any other place whatever." By the same law no person was allowed to make hats unless he had served an apprenticeship of seven years, and no negro was permitted to work at the business. In 1753, a prize of 40 shillings was offered in Delaware for the neatest and best hat manufactured in the lower counties. In 1767 there was a very considerable hat manufacture in Carolina, and a profitable export trade was carried on with the Spanish Islands. In Danbury, Conn., Zadoc Benedict began hat making in 1780 with one journeyman and two apprentices. He made three hats a day. In 1786 the hat manufacture had become an extensive industry in Pennsylvania, where it was estimated that upward of 160,000 wool hats and over 54,000 fur hats were made annually. There were 68 hatters in Philadelphia and vicinity who made 31,627 fur hats and 7,000 wool hats yearly. There were in addition 247 hatters in other parts of the state. In 1791, 10,000 fur and wool hats were made yearly by 17 hatters in New London county, Conn. In 1810 the whole number of fur hats reported from 13 states and territories was 457,666; of these 45,369 were made in Pennsylvania. Massachusetts produced 142,645 fur hats, valued at \$415,167. Maryland reported a production in 106 hat establishments, chiefly fur, to the value of \$304,472, and New Jersey made, chiefly at Newark and vicinity, 31,524 fur hats, valued at \$94,052.

The Secretary of the Treasury reported to Congress in April, 1810, that hats were annually imported to the value of \$350,000, and American made hats to the value of \$100,000 were exported. In 1831 a convention of

manufacturers estimated the production at \$15,000,000 annually, giving employment to 15,000 men and boys and 3,000 women. The census of 1840 shows the value of hats and caps manufactured in the United States to have been \$8,704,342. Both of these last statements include hats and caps of all kinds.

At the census of 1850, 1,048 establishments were reported, with a capital of \$4,427,798, engaged in the

manufacture of hats and caps. In 1860 there were only 622 establishments, with a capital of \$4,126,572. They consumed, with other materials, 3,039,700 pounds of wool and 1,658,520 pounds of fur, and manufactured, among other things, 2,449,672 fur hats, 2,462,974 felt or soft hats, and 6,191,482 wool hats. In the three following census reports the number of hats produced in the hat and cap factories was not given.

WOOL SCOURING AND WOOL PULLING.

The tendency of manufacturing industries to locate near the sources of supply, which led to the building up of the little mills of a century ago in the heart of the wool-growing districts, together with the tendency to the specialization and subdivision of industries, is nowhere more noticeable in the wool manufacture than in the establishment of wool-scouring establishments. In 1890 they were so few in number that the textile directories did not report them, nor did the census reports on the wool manufacture of that year take cognizance of them. At the present time 25 wool-scouring establishments, employing a capital of \$1,061,123, are in operation. Their location is determined by proximity to either the producer or the consumer. Wool as it comes from the sheep is in an exceedingly dirty condition and full of grease or suint. The processes of cleansing preparatory to working consist of opening, burring, washing, scouring and dusting, and in these operations the wool, according to its condition, loses from 20 to 85 per cent in weight. The average loss in weight in domestic wools resulting from cleansing is about 60 per cent. The cost of freight on this extraneous matter is an important consideration to the manufacturers, as on the above basis of shrinkage it adds one and one-half times to the cost of transportation. The advantage, therefore, of scouring plants at a shipping center in a wool-growing district is apparent. Six such establishments are now located in New Mexico, Colorado, and Missouri.

On the other hand a vast amount of wool must always come to market in its original condition, and as all transactions in wool are based upon the scoured pound, it is of advantage to the manufacturer and dealer to have scouring plants at hand where sample bags may be sent to be tested by an independent authority, who can, when required, handle large quantities expeditiously, and at the same time cleanse the wool more uniformly than might be done by a mill on its own premises. In Massachusetts, Connecticut, and New Jersey 9 scouring plants have been established.

There are 10 other plants, located 6 in California, 2 in Illinois, 1 in Oregon, and 1 in Pennsylvania. The California and Oregon plants might perhaps be classed with the first group, but in both of these states there is a well-established and growing manufacturing industry to which these plants may well be useful. The 2 in Illinois

might perhaps be assigned to the second group, as Illinois has an important manufacturing interest. It has also a large wool-growing interest, and has, like California and Oregon, been placed in the third group, where both growth and manufacture of wool are influential.

The report of the scouring mills, Table 21, shows that they operated upon 70,878,519 pounds of wool. The establishments which report their business for both the census year and the one preceding show a satisfactory growth of 9.8 per cent in value of products, which in this case represents the amount received for work done.

TABLE 21.—WOOL SCOURING: SUMMARY FOR 1900.

Number of establishments	25
Capital	\$1,061,123
Salaried officials, clerks, etc., number.....	45
Salaries.....	\$72,011
Wage-earners, average number	720
Total wages.....	\$338,006
Men, 16 years and over.....	646
Wages.....	\$310,924
Women, 16 years and over.....	74
Wages.....	\$21,682
Miscellaneous expenses.....	\$102,039
Cost of materials used	\$193,826
Amount received for work done.....	\$889,809
Number of pounds of wool scoured	70,878,519

The industry of wool pulling is closely connected with wool production and also with the wool manufacture. An attempt was made at the census of 1900 in connection with the wool manufacturing inquiry to obtain these statistics.

The result, however, has not been satisfactory, but the figures received are given in Table 22, not as a complete statement, but as a foundation for future comparison.

TABLE 22.—WOOL PULLING: SUMMARY FOR 1900.

Number of establishments	34
Capital	\$944,715
Salaried officials, clerks, etc., number.....	35
Salaries.....	\$35,422
Wage-earners, average number.....	475
Total wages.....	\$247,950
Men, 16 years and over.....	475
Wages.....	\$247,950
Miscellaneous expenses.....	\$47,395
Cost of materials used	\$53,975
Amount received for work done.....	\$531,287
Number of pounds of wool pulled	6,111,298

The total quantity of pulled wool reported was 6,111,298 pounds produced in 34 establishments, to which should be added 13,182,146 pounds, reported in connection with several slaughterhouses. This makes a product of 19,293,444, but it is evidently much less than the actual product. The value reported is the amount received for, or the cost of pulling, rather than the value of the wool pulled. The accepted commer-

cial estimate of the pulled-wool production of the year 1900 was 28,663,806 pounds¹ as pulled, equal to 17,198,283 pounds of clean wool. The chief statistician for agriculture estimates the production of pulled wool in the census year at 33,000,000 pounds on the skin.

¹ Bulletin of the National Association of Wool Manufacturers, Vol. XXX, page 350.

SHODDY MANUFACTURE.

Shoddy is the fiber recovered from woolen, worsted, or mixed rags known under the generic name of "shoddy," and is subdivided into shoddy, mungo, flocks, and wool extract. The first two of these are recovered by powerful machines known as "pickers" and "garnets." The picker tears or picks the rags to pieces and gradually reduces the material to its original fiber, while the garnet opens and prepares it for carding. Flocks are produced generally from bits or pieces of all-wool rags which are cut very short into a sort of powder by passing between the blades of a machine called a flock cutter. They are also resultants of the gigging and shearing processes of the cloth manufacture. Flocks are used mostly to add weight and substance to woolen cloths, on the surface of which they are spread during the process of fulling, which incorporates them into the fiber by felting. They are also used to produce a woolly face on waterproof garments and for saddlery, etc.

Wool extract is produced from rags of mixed fiber by a process of carbonization which destroys all vege-

table material and leaves only the wool, which is then reduced to fiber by mechanical operations. Besides the shoddy made by the shoddy mills, a large amount is made in woolen mills from rags and clippings for use in the same establishments.

Shoddy is used principally in the wool manufacture in the production of low-grade satinets and other heavy cotton-warp goods; the poorer qualities are used in backings for overcoatings and cloakings and to give weight and substance to various kinds of woolen goods. It is also used to some extent in the production of merino yarns for the hosiery manufacture. The duty on foreign rags and other shoddy materials has generally been placed so high as to practically prevent their importation, and the American manufacturer of shoddy is confined to the home supply.

The following table contains a comparative statement of the principal statistics of the shoddy manufacture, by decades, since 1860:

TABLE 23.—SHODDY: COMPARATIVE SUMMARY, 1860 TO 1900, WITH PER CENT OF INCREASE FOR EACH DECADE.

	DATE OF CENSUS.					PER CENT OF INCREASE.			
	1900	1890	1880	1870	1860	1890 to 1900	1880 to 1890	1870 to 1880	1860 to 1870
Number of establishments.....	105	94	78	56	30	11.7	28.8	30.4	86.7
Capital.....	\$5,272,929	\$3,754,063	\$1,165,100	\$315,950	\$123,500	40.5	222.2	42.8	500.7
Salaries of officials, clerks, etc., number.....	139	144	(³)	(³)	(³)	23.5	.....	.....	.....
Salaries.....	\$166,704	\$149,488	(³)	(³)	(³)	11.5	.....	.....	.....
Wage-earners, average number.....	1,926	2,155	1,282	632	290	210.6	68.1	102.8	117.9
Total wages.....	\$748,948	\$707,099	\$400,326	\$198,372	\$54,124	5.9	76.6	101.8	266.5
Men, 16 years and over.....	1,425	1,252	695	419	141	13.8	80.1	05.9	197.2
Wages.....	\$620,444	\$584,250	(³)	(³)	(³)	16.1	.....	.....	.....
Women, 16 years and over.....	480	865	496	171	149	244.5	74.4	190.1	14.8
Wages.....	\$124,004	\$163,549	(³)	(³)	(³)	226.4	.....	.....	.....
Children, under 16 years.....	21	88	91	42	(³)	244.7	268.2	116.7	.....
Wages.....	\$4,500	\$4,300	(³)	(³)	(³)	4.7	.....	.....	.....
Miscellaneous expenses.....	\$208,149	\$238,094	(⁴)	(⁴)	(⁴)	28.1	.....	.....	.....
Cost of materials used.....	\$4,875,192	\$6,008,035	\$3,366,650	\$1,098,603	\$227,925	218.8	78.3	206.4	382.0
Value of products.....	\$6,730,974	\$7,887,000	\$4,989,615	\$1,768,592	\$402,590	214.7	58.1	182.1	339.3

¹ Includes proprietors and firm members, with their salaries; number only reported in 1900, but not included in this table. (See Table 39.)

² Decrease.

³ Not reported separately.

⁴ Not reported.

It appears that the number of mills has increased 11.7 per cent during the decade, the capital 40.5 per cent, and miscellaneous expenses 23.1 per cent. The value of products has decreased 14.7 per cent, and the cost of materials used, 18.8 per cent. The number of wage-earners decreased 10.6 per cent, but the amount paid in wages increased 5.9 per cent. There was an increase in the number of men employed, and a larger

relative increase in their earnings. The numbers of women and children employed have been reduced in about equal ratio, 44.5 and 44.7 per cent. The industry was carried on in 105 establishments, employing \$5,272,929 capital and producing goods to the value of \$6,730,974.

While the industry was carried on in 19 states, it was located principally as shown in the following state-

ment, the states being arranged in order of value of products:

	Number.	Capital.	Value of products.
United States	77	\$3,862,174	\$4,969,163
Ohio	6	1,397,746	1,478,712
Pennsylvania	26	972,070	1,448,886
Massachusetts	29	769,294	988,189
Connecticut	7	494,074	587,783
Rhode Island	9	228,930	515,643

These 5 states embraced 73.3 per cent of the number of establishments, employed 73.2 per cent of the capital, and produced 73.8 per cent of the total value of products. Of these states, Ohio reports the greatest value

of products and of capital, and the smallest number of establishments. This is accounted for by the fact that the largest shoddy manufactory in the United States was located there. The products of Pennsylvania were nearly equal to those of Ohio, but the capital was only two-thirds as great and the number of establishments more than four times the number reported in Ohio. Massachusetts had 3 more establishments than Pennsylvania, with products of less than two-thirds the value. Connecticut and Rhode Island together were not quite equal in capital employed to Massachusetts, which they slightly exceeded in value of products.

Table 24 is a comparative summary for the shoddy manufacture, by states, 1880, 1890 and 1900.

TABLE 24.—SHODDY: COMPARATIVE SUMMARY BY STATES, 1880 TO 1900.

STATES.	Year.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		AVERAGE NUMBER OF WAGE-EARNERS AND TOTAL WAGES.								Miscellaneous expenses.	Cost of materials used.	Value of products.
						Total.		Men, 16 years and over.		Women, 16 years and over.		Children, under 16 years.				
						Number.	Salaries.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.				Average number.	Wages.
United States ..	1900	105	\$5,272,929	139	\$166,704	1,926	\$748,948	1,425	\$620,444	480	\$124,004	21	\$4,500	\$293,149	\$4,875,192	\$6,730,974
	1890	94	3,754,063	1144	149,433	2,155	707,039	1,252	534,250	865	168,549	38	4,300	283,094	6,009,035	7,887,000
	1880	73	1,165,100	(2)	(2)	1,282	400,326	695	(2)	496	(2)	91	(2)	(2)	3,366,650	4,939,615
California	1900	3	10,225			8	3,940	8	3,940					586	9,156	17,678
	1890															
	1880															
Connecticut	1900	7	494,074	8	8,191	118	44,163	101	40,461	7	1,402	10	2,300	33,601	362,438	537,783
	1890	7	895,336	14	18,271	166	72,645	142	66,185	16	4,600	8	1,760	26,099	442,852	648,060
	1880	8	86,000			139	85,345	93		38		8			261,200	347,500
Illinois	1900	3	110,037	4	6,500	110	29,754	37	19,228	73	10,526			11,610	103,722	182,110
	1890	2	22,000			31	12,300	16		12		3		74,500	100,000	
	1880															
Massachusetts	1900	29	769,294	30	34,336	807	127,715	260	114,492	44	12,794	8	429	50,627	685,123	988,189
	1890	29	902,850	29	28,135	406	152,613	300	121,984	106	30,629			62,637	1,170,363	1,614,459
	1880	30	460,500			471	173,439	334		105		32			1,308,715	2,305,985
New Hampshire ..	1900	3	23,000	1	1,033	24	10,650	24	10,650					1,795	86,816	111,848
	1890	3	17,300			23	5,700	13		8		2			33,900	49,600
	1880															
New Jersey	1900	4	538,936	15	30,100	156	56,027	123	49,445	28	6,582			25,798	526,492	685,048
	1890	4	193,225	10	8,150	117	35,605	64	26,430	49	8,225	4	900	20,150	301,113	389,040
	1880	1	85,000			30	25,000	10		5		15			80,734	137,500
Ohio	1900	6	1,397,746	35	55,225	474	164,579	229	102,736	245	61,843			69,259	1,077,529	1,478,712
	1890	3	744,530	12	20,100	684	162,600	179	80,260	435	81,340	20	1,000	23,266	1,100,480	1,377,500
	1880	1	250,000			246	40,000	30		216					575,000	700,000
Pennsylvania	1900	26	972,070	34	24,746	368	143,240	285	126,604	80	21,064	3	572	57,723	1,069,944	1,448,886
	1890	18	640,332	37	34,716	302	116,459	211	92,133	91	24,276			60,305	1,205,258	1,633,770
	1880	11	136,000			143	47,441	90		40		13			510,977	655,895
Rhode Island	1900	9	228,930	3	3,400	131	56,397	127	55,096	4	1,801			23,828	399,126	515,643
	1890	10	194,250	14	16,498	132	51,516	129	50,580	3	936			23,278	1,165,235	1,350,792
	1880	6	49,600			83	18,590	51		26		6			137,054	195,045
Vermont	1900	3	245,932	1	1,000	93	45,345	67	38,142	26	7,203			7,609	268,712	382,352
	1890															
	1880	2	15,000			15	3,896	6		9					37,000	56,000
New York	1900	9	329,861	7	6,130	167	65,739	137	58,695	28	6,781	2	263	13,122	316,733	443,529
	1890	12	432,520	19	17,300	173	60,061	140	54,654	27	4,767	6	640	11,640	343,012	471,478
	1880	7	32,700			78	33,610	43		32		3			321,220	407,590
All other states ⁶ ..	1900	9	285,811	6	3,576	104	36,303	33	30,833	18	5,034	3	936	6,591	165,839	232,704
	1890	5	67,933	4	3,780	41	15,296	26	12,046	15	3,250			3,264	33,679	107,343
	1880	2	11,000			23	5,005	9		5		9			21,350	34,500

¹ Includes proprietors and firm members, with their salaries; number only reported in 1900, but not included in this table. (See Table 39.)

² Not reported separately.

³ Not reported.

⁴ Included in "all other states."

⁵ No establishments reported.

⁶ Includes establishments distributed as follows: 1900—Georgia, 1; Illinois, 2; Indiana, 1; Maine, 2; New Hampshire, 2; Wisconsin, 1. 1890—California, 1; Maine, 2; Vermont, 1; Wisconsin, 1. 1880—Maine, 1; Maryland, 1.

The production of the shoddy mills in 1900 includes the wool extract, noils, and various wastes with the quantity of shoddy, and together amount to 48,018,427 pounds, valued at \$6,329,626. In 1890 the similar products of the shoddy mills aggregated 45,055,452 pounds, with a value of \$7,333,465. The quantity in

1900 had increased 6.6 per cent, but the value showed a decrease of 13.7 per cent. The decrease in the industry, therefore, is apparent rather than real, being not in the quantity produced, but in its value, owing to reduced prices.

HOSIERY AND KNIT GOODS.

In preceding census reports the statistics of the manufacture of hosiery and knit goods were included with those of the wool manufacture. At the census of 1890 these statistics were also made the subject of a separate tabulation, because it was found that while in its early history wool was almost the only material used, in later years other fibers were becoming continually more prominent in the manufacture, and that the time was

at hand when the predominance of these would cause it to be more closely allied to some other branch of the textile industry. The statistics for 1900 are presented separately in the general tables.

The progress of the industry is shown in the following comparative summary of its principal statistics for each census, beginning with that of 1850:

TABLE 25.—HOSIERY AND KNIT GOODS: COMPARATIVE SUMMARY, 1850 TO 1900, WITH PER CENT OF INCREASE FOR EACH DECADE.

	DATE OF CENSUS.						PER CENT OF INCREASE.				
	1900	1890	1880	1870	1860	1850	1890 to 1900	1880 to 1890	1870 to 1880	1860 to 1870	1850 to 1860
Number of establishments.....	921	796	859	248	197	85	15.7	121.7	44.8	25.9	131.8
Capital.....	\$81,860,604	\$50,607,738	\$15,579,591	\$10,931,260	\$4,035,510	\$544,735	61.8	224.8	42.5	170.9	640.8
Salaried officials, clerks, etc., number.....	2,809	1,621	(²)	(²)	(²)	(²)	73.3	.....	.....	.....	.....
Salaries.....	\$3,124,798	\$1,685,158	(²)	(²)	(²)	(²)	85.4	.....	.....	.....	.....
Wage-earners, average number.....	83,387	59,588	28,885	14,788	9,103	2,825	39.0	106.3	95.3	62.5	291.5
Total wages.....	\$24,358,627	\$16,578,119	\$6,701,475	\$4,429,085	\$1,661,972	\$360,336	46.9	147.4	51.3	166.5	361.2
Men, 16 years and over.....	21,154	14,846	7,517	4,252	2,780	835	42.5	97.5	76.8	52.9	232.0
Wages.....	\$8,890,728	\$6,041,200	(²)	(²)	(²)	(²)	47.2	.....	.....	.....	.....
Women, 16 years and over.....	53,565	40,828	17,707	7,991	6,323	1,490	31.2	130.6	121.6	26.4	324.4
Wages.....	\$14,243,808	\$10,006,070	(²)	(²)	(²)	(²)	42.4	.....	.....	.....	.....
Children, under 16 years.....	8,668	3,916	3,661	2,545	(²)	(²)	121.3	7.0	43.9	.....	.....
Wages.....	\$1,224,091	\$530,849	(²)	(²)	(²)	(²)	130.6	.....	.....	.....	.....
Miscellaneous expenses.....	\$6,599,865	\$3,027,245	(²)	(²)	(²)	(²)	32.0	.....	.....	.....	.....
Cost of materials used.....	\$51,071,859	\$35,861,585	\$15,210,951	\$9,835,823	\$3,202,817	\$415,113	42.4	135.3	54.6	207.1	671.4
Value of products.....	\$95,482,566	\$67,241,018	\$29,167,227	\$18,411,564	\$7,280,606	\$1,028,102	42.0	130.5	58.4	152.9	608.2

¹ Includes proprietors and firm members, with their salaries; number only reported in 1900, but not included in this table. [See Table 41.]

² Not reported separately.

³ Not reported.

In 1850 there were only 85 establishments reported. They had a capital of \$554,735, and produced goods to the value of \$1,028,102. They employed 2,325 wage-earners, of whom 835 were men and 1,490 women; the children were not separately reported. The wage-earners received \$360,336 in wages, and the cost of materials used was \$415,113. These are all the statistics that were given in the census report for that year. The growth of the industry from these small beginnings to its condition in 1900 is almost marvelous. In fifty years the 85 establishments have increased to 921. The \$1,028,102 shown as the value of products in 1850, increased to \$95,482,566 in 1900; the capital had increased 150 times, amounting to \$81,860,604. The wage-earners numbered 83,387, 21,154 of whom were men, 53,565 women, and 8,668 children. Their wages amounted to \$24,358,627, 24 times the total value of the product in

1850. The cost of materials used has not increased in the same proportion as has the capital, but in 1900 it was \$51,071,859, which is over 120 times the value of the materials used in 1850. The growth in value of product during the fifty years has been in the following proportions:

From 1850 to 1860, 7 times.

From 1860 to 1870, 2½ times.

From 1870 to 1880, 1½ times.

From 1880 to 1890, 2½ times.

From 1890 to 1900, 1½ times the product of the earlier year.

ESTABLISHMENTS.

Of the 921 establishments reported, 588 were in the Middle states and 133 in the New England states. In point of numbers Pennsylvania was first, with 319;

New York second, with 242; Massachusetts had only 54; Connecticut, 25; New Hampshire, 22; New Jersey, 16; Rhode Island, 15; Vermont, 14; Delaware, 7; Maryland, 4; and Maine, 3.

CAPITAL.

The capital employed in 1850 amounted to only \$544,735. It 1860 it had increased to \$4,035,510. In 1900 it was more than 20 times the amount employed in 1860, being \$81,860,604, and 150 times the amount employed in 1850. The Middle states naturally showed the largest amount of capital, the total being \$48,531,122, of which New York had \$30,203,640 and Pennsylvania \$15,743,981. In New England the total capital employed was \$19,014,126, or only about \$3,300,000 more than in the state of Pennsylvania.

The capital employed in Massachusetts was \$6,288,672. Connecticut had \$6,149,338; New Hampshire, \$2,525,286; Rhode Island, \$2,452,044. Neither of the other states in these groups employed a capital amounting to \$2,000,000.

The following statement shows the statistics of capital for 1890 and 1900:

	CAPITAL.		Per cent of increase.
	1900	1890	
Aggregate.....	\$81,860,604	\$50,607,738	61.8
Total fixed capital.....	36,960,919	23,574,761	56.8
Land.....	3,367,762	2,271,466	48.3
Buildings.....	9,556,726	6,194,088	54.3
Machinery, tools, and implements.....	24,036,431	15,109,207	59.1
Cash on hand, unsettled ledger accounts, stock on hand, etc.....	44,899,685	27,082,977	66.1

MACHINERY.

The first report of machinery of this industry was made at the census of 1870, at which time there were 519 sets of cards, 5,625 knitting machines, 1,668 sewing machines, 438 looms, and 148,385 spindles. In 1900 the industry employed 1,161 sets of woolen cards, distributed according to the following statement, which shows not only the number of sets of cards in each state but also the width of the cards reported. The horsepower increased in the decade 20,149, or 58.6 per cent. The actual increase was next in rank to that of the worsted manufacture.

TABLE 26.—NUMBER AND WIDTH OF CARDS, BY STATES: 1900.

STATES.	Actual number of sets in each state.	Number reporting width.	NUMBER OF CARDS OF EACH WIDTH REPORTED.							
			30 inches.	32 inches.	40 inches.	42 inches.	44 inches.	48 inches.	60 inches.	64 inches.
United States.....	1,161	1,161	3	4	432	15	7	569	110	21
Connecticut.....	134	134		4	47			81	2	
Illinois.....	7	7						1	6	
Indiana.....	27	27			5			21	1	
Idaho.....	1	1			1					
Massachusetts.....	39	39			6			30	3	
Minnesota.....	3	3						3		
Michigan.....	28	28			5			18	5	
New Hampshire.....	74	74			46			28		
New Jersey.....	26	26						26		
New York.....	674	674	3		308	14	7	264	57	21
North Carolina.....	5	5						5		
Ohio.....	10	10			1			9		
Pennsylvania.....	31	31						12	19	
Rhode Island.....	10	10						10		
Vermont.....	40	40			11			26	3	
Virginia.....	34	34						30	4	
West Virginia.....	2	2							2	
Wisconsin.....	16	16			2	1		5	8	

The industry employed also 15¹ combing machines and 521,871 spindles—of which 290,366 were woolen, 14,064 worsted, and 205,742 cotton spinning spindles and 3,613 woolen, 7,130 worsted, and 956 cotton doubling spindles—133 looms, 89,047 knitting machines of all kinds, and 24,535 sewing machines. The 15 combing machines were in New England, 9 being in Connecticut, 3 in Rhode Island, and 3 in Massachusetts. Of the cards, 297 were in New England, 678 in the Mid-

¹ See Table 42.

dle states, 44 in the Southern, and 91 in the Western states. New York reported the largest number of cards, 674; Connecticut was next with 134; New Hampshire had 74; Vermont, 40; Massachusetts, 39; Virginia, 34; Pennsylvania, 31; Michigan, 28; Indiana, 27; New Jersey, 26; and Wisconsin 16. None of the other states reported more than 12 sets, and some did not report any.

The following table shows the number of mills employing sets of woolen cards according to number of sets in 1890 and 1900:

TABLE 27.—HOSIERY AND KNIT GOODS: NUMBER OF MILLS ACCORDING TO SETS OF CARDS: 1890 AND 1900.

GEOGRAPHICAL DIVISIONS.	Year.	Number reporting sets of cards.	SETS OF CARDS												
			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	1900	182	9	22	14	23	17	24	11	17	11	28	4	2	
	1890	188	17	25	26	13	20	19	8	7	21	3	3		
New England states	1900	42	2	4	2	4	3	5	4	7	3	7	1		
	1890	50	8	9	7	6	5	6	5	5	1	6	1		
Middle states	1900	105	1	11	8	14	12	12	7	8	8	19	4		
	1890	108	3	11	15	16	7	13	14	8	6	15	3		
Southern states	1900	10	1	2	.....	1	1	5	.....	.....	.....	.....	.....
	1890	2	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....
Western states	1900	25	5	5	4	4	1	2	.....	2	.....	2	.....	
	1890	19	6	4	4	4	1	.....	.....	.....	.....	.....	.....

SPINDLES.

Of the total number of spindles in the United States in 1900, 233,253 were in New England, 108,938 in Massachusetts, 79,536 in Connecticut, 26,867 in New Hampshire, 11,076 in Vermont, and 6,836 in Rhode Island. In the Middle states there were 231,594 spindles. New York had 191,532; Pennsylvania, 31,604; New Jersey, 8,408; none were reported in Delaware and Maryland. In the Southern group 24,126 spindles were reported, half of which, 12,036, were in Virginia; South Carolina had 5,620, North Carolina 2,860, and the remaining 3,610 were distributed in various states. The Western group reported 32,898 spindles, of which 8,694 were in Wisconsin, 8,500 in Indiana, 6,686 in Michigan, 3,920 in Ohio, 3,480 in Illinois, and 1,418 in Minnesota. The other Western states reported only 200 spindles in all.

The total number of spindles in the United States engaged in this industry is as follows:

COMPARATIVE STATEMENT OF SPINDLES, 1890 AND 1900.

	WOOLEN.		WORSTED.		COTTON.	
	1900	1890	1900	1890	1900	1890
Hosiery and knit goods mills	293,979	312,756	21,194	6,767	206,698	69,830

The knitting machines were distributed as follows: 32,860 in New England, 40,407 in the Middle states, 5,519

in the Southern states, and 10,261 in the Western states. Of those in New England, New Hampshire had 23,174; Massachusetts, 5,003; Connecticut, 2,662; Rhode Island, 1,262; Vermont, 633; Maine, 126. In the Middle states they were distributed thus: Pennsylvania, 26,120; New York, 11,666; New Jersey, 1,335; Delaware, 674; and Maryland, 612. The Southern states had a total of 5,519 machines, of which 1,354 were in North Carolina, 1,078 in Georgia, 993 in Virginia, 785 in South Carolina, 581 in Tennessee, 81 in Louisiana, and the rest were distributed in various states. In the Western group of states there were 10,261, of which Wisconsin had 2,832; Michigan, 2,828; Illinois, 1,975; Ohio, 1,147; Indiana, 633, and Minnesota, 476. The remaining number were distributed in various states.

A comparison of the number of knitting machines with the product produces some surprising results. Some of the states, for instance, possessing the larger number of machines, produced a comparatively small amount of goods, and other states, with a smaller number of machines, were the great producers of hosiery and knit goods. This condition of affairs is accounted for by the fact that in the states possessing the greater number of machines there were a large number of small hand machines, capable of only a limited production, but in other states the machines were the large circular machines or cylinders, operated by power, and capable of an immense production.

The following statement shows the idle capital and machinery of the industry:

STATEMENT.—IDLE CAPITAL AND MACHINERY, BY STATES: 1900.

STATES.	Number of establishments.	CAPITAL.					MACHINERY.		
		Total.	Land.	Buildings.	Machinery, tools, and implements.	Cash and sundries.	Sets of cards.	Spindles.	Knitting machines.
United States	36	\$1,173,803	\$102,450	\$236,900	\$544,426	\$290,027	55	11,464	1,173
New York	10	784,050	81,500	160,000	368,300	179,250	48	7,880	412
North Carolina	3	84,900	1,600	13,700	45,000	24,600	.....	.....	149
Ohio	3	68,091	1,300	16,500	30,000	20,291	.....	.....	104
Pennsylvania	9	61,843	3,050	18,700	38,500	11,593	1	304	147
All other states ¹	11	174,919	15,000	83,000	72,626	54,238	6	3,280	361

¹Includes establishments distributed as follows: Connecticut, 1; Georgia, 1; Illinois, 1; Massachusetts, 2; Mississippi, 1; New Jersey, 2; South Carolina, 1; Wisconsin, 2.

THE INDUSTRY BY GEOGRAPHICAL DIVISIONS.

Tables No. 41 and 42 show the condition and growth of the industry from the beginning of its statistical record in 1850 to the present time, not only in the whole country, but in each state and territory, and also in the several states grouped according to their geographical location.

At the census of 1850 the products were reported without any indication of the localities in which the mills were situated. It was not until 1860 that the reports were so segregated as to show the location of the industry. At that time the total value of products was \$7,280,606, of which \$4,847,984 was produced in the Middle states and \$2,374,242 in New England, leaving only \$58,380 for the rest of the country. The value of products in these two groups of states was \$7,222,226. The product of the various states in these geographical divisions was as follows, in order of value of production:

Pennsylvania	\$2, 114, 315
New York	1, 944, 090
Connecticut.....	1, 383, 528
New Jersey	783, 456
New Hampshire.....	573, 794
Massachusetts.....	314, 120
Vermont	102, 800
Maryland ¹	6, 123

In 1900 the value of the products in the Middle states was \$60,473,407, and in New England \$17,834,673, a total of \$78,308,080, or more than ten times the production of 1860, and equal to more than 82 per cent of the total value of these goods produced in the United States. The standing of these states by value of products was as follows:

New York	\$35, 886, 048
Pennsylvania	21, 896, 063
Massachusetts.....	6, 620, 257
Connecticut.....	4, 043, 977
Rhode Island	2, 713, 850
New Hampshire	2, 592, 829
Vermont	1, 834, 685
New Jersey	1, 784, 148
Maryland.....	514, 093
Delaware.....	429, 055
Maine.....	29, 075

WESTERN STATES.

The states grouped together as Western states, which include Ohio, Michigan, Indiana, Wisconsin, Illinois, and all the remaining states west of the Mississippi River, excepting Arkansas, Louisiana, and Texas, possessed 129 establishments, with a capital of \$10,792,485. They employed 11,061 wage-earners, who received \$2,885,045 in wages. Of these wage-earners, 2,535 are men, 7,400 women, and 1,126 children. The materials used cost \$6,248,504, and the goods produced

¹ Maryland is in the tabulation grouped with the Middle states.

were valued at \$12,143,150. It is only in Ohio and Missouri that any of these establishments existed prior to 1860. At the census of 1860 Ohio reported 11 establishments, with a capital of \$10,900, and Missouri 2 establishments, with a capital of \$11,000. The number in Ohio has since grown to 24, with a capital of \$1,067,937. In 1890 Missouri had 7 factories, with a capital of \$33,247. These have since been reduced to 2 in number, and their statistics are not separately reported. Michigan, the knit-goods industry of which first appears in the census of 1880 with 11 establishments, was in 1900 the most important of the Western group, having 32 factories, with a capital of \$2,135,916, employing 2,509 wage-earners, consuming material to the value of \$1,459,378, and producing goods valued at \$2,791,257. Wisconsin was second, with 27 establishments, a capital of \$2,558,299, and 2,722 wage-earners, earning \$600,495. The cost of materials used was \$1,176,146 and the value of products \$2,486,813. Indiana, which stood sixth in number of establishments and first in capital, was third in value of products. This state had 7 factories, with a capital of \$2,728,306, and employed 2,016 wage-earners, with wages amounting to \$703,129. The materials used cost \$1,200,483, from which goods to the value of \$2,424,304 were produced. Illinois was next in rank, with 14 establishments, \$1,530,990 capital, 1,805 wage-earners, \$494,285 in wages paid, \$1,261,242 expended for materials, and products valued at \$2,145,429. Ohio had 24 establishments, with a capital of \$1,067,937, wage-earners numbering 1,413, and wages paid amounting to \$354,369. The cost of materials was \$807,673, and the products were valued at \$1,576,285. None of the other states in this group reported products valued at over \$500,000.

SOUTHERN STATES.

In this group of states the industry is of very recent origin. The census of 1860 showed 3 establishments in Kentucky, but none was reported after that until 1880, when 1 establishment was returned, with no statement as to its location. At the census of 1900 71 establishments were reported, located as follows: Twenty-four in North Carolina, 16 in Georgia, 15 in Virginia, 6 in South Carolina, 4 in Tennessee, 2 in West Virginia, and 1 each in Alabama, Louisiana, Mississippi, and Texas. The capital employed in these states was \$3,522,871, the number of wage-earners 6,137, the wages paid \$1,115,356, the cost of materials \$2,798,219, and the value of products \$5,031,336.

MATERIALS USED.

The following comparative statement shows the quantity of materials used, both in 1890 and 1900, and indicates the growth in favor of knitted cotton garments:

COMPARATIVE STATEMENT OF QUANTITY AND COST OF MATERIALS USED, 1900-1890.

CLASSES.	1900	1890
Total cost	\$51,071,859	\$35,861,585
Wool, foreign and domestic, in condition purchased:		
Pounds	17,953,907	21,639,393
Cost	\$5,262,135	\$8,254,418
Raw cotton:		
Pounds	49,451,301	32,432,617
Cost	\$3,561,592	\$3,712,215
Mohair:		
Pounds	631,199	139
Cost	\$44,953	\$87
Woolen yarn not made in mill:		
Pounds	2,621,893	6,386,370
Cost	\$1,257,587	\$3,791,497
Worsted yarn not made in mill:		
Pounds	5,828,215	4,146,035
Cost	\$4,865,304	\$4,279,105
Merino yarn not made in mill:		
Pounds	1,981,484	(¹)
Cost	\$642,535	(¹)
Cotton yarn not made in mill:		
Pounds	131,820,068	32,248,849
Cost	\$22,204,918	\$7,588,973
Linen yarn not made in mill:		
Pounds	71,478	301,695
Cost	\$53,588	\$85,385
Silk and spun-silk yarn not made in mill:		
Pounds	268,247	120,341
Cost	\$946,801	\$600,315
Yarn of jute, ramie, or other vegetable fiber not made in mill:		
Pounds	44,682	.....
Cost	\$57,677	.....
Shoddy, purchased and made:		
Pounds	3,770,626	4,735,144
Cost	\$488,792	\$878,948
Waste and wool noils:		
Pounds	5,276,454	5,503,286
Cost	\$1,487,907	\$2,021,492
All other materials, cost	\$10,198,070	\$4,669,200

¹ None reported.

The quantity of wool used has decreased 3,685,486 pounds. The quantity of woolen yarn also has been reduced, but the quantity of worsted yarn has increased. In 1890 no separate report of merino yarns used was made. In 1900 the use of 1,981,484 pounds was reported. The consumption of woolen, worsted, and merino yarns was nearly the same in quantity as the consumption of woolen and worsted yarns in 1890. The quantity of linen yarn has been reduced from 301,695 pounds to 71,478 pounds, and the quantity of raw-silk and spun-silk yarns has increased from 120,341 pounds in 1890 to 268,247 pounds. The use of shoddy has fallen off about 1,000,000 pounds, while the quantity of wool waste and noils used has remained about the same. The use of cotton and cotton yarns has increased greatly, and in consequence the whole character of the industry has altered. In 1890, 32,432,617 pounds of cotton and 32,248,849 pounds of cotton yarn were used in this industry. In 1900 the demand for cotton goods had so increased that 44,451,301 pounds of raw cotton and 131,820,068 pounds of cotton yarn were necessary, which would require approximately 160,000,000 pounds of cotton for its production, making the total quantity of cotton used in this manufacture 209,000,000 pounds, costing \$25,766,510, compared with 17,953,907 pounds of wool used, which cost \$5,262,135.

DYE STUFFS, CHEMICALS, ETC.

The cost of dyestuffs, chemicals, etc., used in 1900 and 1890 was as follows:

YEARS.	Dyestuffs and chemicals, value.	OIL.		SOAP.	
		Gallons.	Value.	Pounds.	Value.
1900	\$1,023,161	396,278	\$61,315	5,903,557	\$204,485
1890	564,053	528,504	135,037	6,647,236	212,844

PRODUCTS.

The gross value of products was \$95,482,566, an increase of 42 per cent over 1890, when the value amounted to \$67,241,013. The most important in value of these manufactures were the underwear, shirts and drawers of all kinds, valued at \$45,157,549, or 37 per cent more than the value of similar goods made in 1890. In addition to these was the value of union or combination suits used for the same purposes, amounting to \$3,691,847, which might properly be included with the total of shirts and drawers. The next in importance were the hose and half hose, the value of which was \$27,672,013. The above items cover all but \$19,000,000 of the total value of products. The balance was divided among the less important items of manufacture, the largest in value being gloves and mittens, with a value of \$4,244,046, closely followed by cardigan jackets, etc., with a value of \$3,498,837. The gross value of products of the hosiery and knit goods manufacture was \$95,482,566. The value of products twice reported¹ was \$9,527,121, which being subtracted leaves \$85,955,445, as the net value of the hosiery and knit goods productions. The following table contains a comparative summary of the quantity and value of products at the censuses of 1890 and 1900:

TABLE 28.—HOSIERY AND KNIT GOODS: KIND, QUANTITY AND VALUE OF PRODUCTS, 1890 AND 1900, WITH PER CENT OF INCREASE.

CLASSES.	1900	1890	Per cent of increase.
Total	\$95,482,566	\$67,241,013	42.0
Woolen, merino and cotton half hose:			
Dozens	13,249,558	7,078,505	87.2
Value	\$11,080,244	\$7,434,131	48.4
Woolen, merino and cotton hose:			
Dozens	16,641,769	10,062,886	65.4
Value	\$16,203,372	\$11,728,075	38.2
Merino, all-wool and cotton shirts and drawers:			
Dozens	15,818,898	6,862,157	130.5
Value	\$45,157,549	\$32,961,997	37.0
Leggings and gaiters:			
Dozens	71,038	25,072	183.3
Value	\$248,523	\$85,401	191.0
Gloves and mittens:			
Dozens	1,898,587	896,150	111.8
Value	\$4,244,046	\$1,935,080	119.3

¹ See page 27.

TABLE 28.—HOSIERY AND KNIT GOODS: KIND, QUANTITY AND VALUE OF PRODUCTS, 1890 AND 1900, WITH PER CENT OF INCREASE—Continued.

CLASSES.	1900	1890	Per cent of increase.
Hoods, scarfs, nubias, etc.:			
Dozens	848,429	842,497	0.3
Value	\$1,002,392	\$1,476,480	182.1
Cardigan jackets, etc.:			
Dozens	594,090	861,478	64.4
Value	\$8,498,887	\$8,576,248	12.2
Knit shawls:			
Dozens	157,622	22,990	585.6
Value	\$928,720	\$115,467	184.7
Fancy goods, wrists, etc.:			
Dozens	284,685	270,533	5.2
Value	\$951,052	\$759,648	25.2
Boof and shoe linings:			
Yards	10,406,440	7,596,711	37.0
Value	\$2,205,008	\$1,088,568	102.6
Total value.....	\$84,869,738	\$61,161,035	38.8
Jersey cloth:			
Yards	4,488,911	3,065,057	46.5
Value	\$1,805,876	\$2,167,692	139.5
All-wool and union or merino yarns:			
Pounds	88,827	852,180	190.2
Value	\$40,887	\$472,703	191.5
Worsted yarns:			
Pounds	51,202	17,000	201.2
Value	\$36,303	\$13,642	166.1
Cotton yarn:			
Pounds	2,419,282	500,000	383.9
Value	\$422,100	\$150,000	181.4
Wool rolls, nolls, waste and all other partly manufactured products:			
Pounds	385,863	(²)	.....
Value	\$31,267	\$58,866	119.5
Total value of all partly manufactured products	\$580,057	\$675,211	121.5
All other products, ³ value	\$8,503,464	\$3,184,950	167.0
Contract work, value	\$278,981	\$68,125	340.9

¹ Decrease.

² Not reported.

³ "All other products" for 1900 includes combination suits valued at \$3,691,847. No combination suits were exported in 1890.

In addition to the above, knit goods, valued at \$31,919 in 1900 and \$84,134 in 1890, were made in woolen mills and reported with the products of the wool manufacture. This table, although it presents a comparison of the products of the two census years, does not show the trend toward increased production of cotton fabrics. Examination of the general tables for the hosiery and knit-goods industry in these two reports develops that

the manufacture of woolen hosiery has fallen off in quantity over 41.3 per cent, and that woolen underwear, including combination suits, has not varied materially. The manufacture of merino hosiery has increased 72.3 per cent and merino underwear about 5.9 per cent. The manufacture of cotton hosiery and underwear has greatly increased. In 1890, 5,341,628 dozens half hose were made, 7,387,259 dozens of cotton hose, and 3,246,590 dozens shirts and drawers. At the census of 1900, reports were received of the production of 11,352,081 dozens cotton half hose, 15,028,173 dozens cotton hose, 12,058,431 dozens cotton shirts and drawers, and 824,632 dozens cotton combination suits.

The relative value of the production of the wool, merino, and cotton goods of these kinds at the two censuses is as follows:

	1900	1890
Woolen.....	\$9,188,701	\$16,497,895
Merino.....	16,471,880	16,451,999
Cotton.....	50,306,145	19,174,809

The table emphasizes the increased use of cotton in these fabrics, especially when the lower price of the fiber is considered in connection with the remarkable increase in the value of the product.

In addition to the goods made of cotton or wool, a very considerable quantity of silk fabrics were made on knitting machines. The statistics for 1900 show the production of 12,572 dozens of silk or silk-mixed hosiery, valued at \$186,413; 54,807 dozens shirts and drawers, valued at \$518,045, and 12,728 dozens of combination suits, valued at \$116,286. There were also manufactured a large quantity of silk gloves and mitts, but the census schedules did not provide for their being reported separately from similar goods made of other fibers. The expert special agent in charge of silk manufactures estimates the value of these goods to have been equal to \$1,000,000. The total quantity of silk and spun-silk yarns used was 266,247 pounds, costing \$946,801.

CONCLUSION.

The progress of the American wool manufacture and connected industries during the decade is shown by this investigation to have been very satisfactory.

The manufacture shows an increase in value of products of 9.88 per cent in 1900 as compared with 1890. The increase in value of products in the hosiery and knit goods manufacture was 42 per cent.

It is to be regretted that there are no data with which a comparison of the wool manufacture of the United States and foreign countries can be made, either by value of products or materials consumed. The principal information available is that contained in the annual wool reports of Messrs. Helmuth Schwartz & Co., of London, England, which contain very full statistics of the wool production of the United Kingdom, and its

imports and exports of wool compiled from the Board of Trade returns. They also contain statements of the movement of wools from the British colonial possessions to the continent of Europe and to the United States; but so far as Europe is concerned, these statements are not sufficient for the desired purpose. It is only possible, therefore, to compare the consumption of wool in the United States with that in the United Kingdom. From the Helmuth Schwartz & Co. reports it appears that the quantity of wool retained for consumption in Great Britain in 1890 was 428,000,000 pounds, and in 1900, 502,000,000 pounds. The quantity left for consumption can not, however, be safely assumed to represent the quantity actually consumed. The statements, as made, simply give the difference

between the sum of the home production plus the imports and the exports. The quantity on hand at the beginning of any period under consideration should be added, and what remains at the close deducted from the quantity "retained for consumption;" this will give what may be called the "takings" of wool for the period.

But, as it is impossible to know what quantities are in the hands of manufacturers or dealers at any time, to ascertain as nearly as possible the actual consumption, an average of the takings for two periods of three years each in the United Kingdom, has been obtained. For the years 1898, 1899, and 1900 the average takings were 506,000,000 pounds; in 1888, 1889, and 1890 they were 426,000,000 pounds; these quantities may be considered as representing the quantity of wool, in condition purchased, consumed in the English wool manufactories in 1900 and in 1890. The increased consumption in 1900 over 1890 was 80,000,000 pounds, or 18.8 per cent. The consumption in the United States in 1890 was 351,158,020 pounds; in 1900, 412,323,410 pounds, an increase of 61,165,410 pounds, or 17.4 per cent. The ratio of increase in quantity of wool consumed was, therefore, very nearly the same in both countries. Together in 1900 they consumed nearly one-third of the world's annual wool product. Of this consumption the United States used 45 per cent and the United Kingdom 55 per cent. There is this important difference, however, between the two: the wool manufactures of the United States are consumed almost entirely within its own borders, but many of those of the United Kingdom are exported. The manufactures of wool exported from the United Kingdom, in excess of the imports in 1900, amounted to £11,119,000, equal to \$54,110,614. This sum includes the value of tops, yarns, and all other products of the wool manufacture and of hosiery and small wares.

In addition to the wool consumed in the United Kingdom, a large quantity of shoddy of all kinds is used for which no statistics are available. This is made from rags and pieces of home production supplemented by shoddy produced from imported rags. The imports of woollen rags into the United Kingdom for the three years 1898, 1899, and 1900 averaged 69,617,000 pounds. The annual consumption of shoddy in the United Kingdom is estimated to be not less than 130,000,000 pounds.

The productions of the American looms in general compare favorably with imported fabrics. The importations consist principally of novelties and goods of high grade, requiring more time and labor for their fabrication than the conditions of manufacturing in the United States permit at present.

The machinery of the American wool manufacture is equal to any in the world and in some respects superior. American manufacturers are quick to adopt any mechanical device which will increase production or add to the perfection of their fabrics, and American ingenuity is

always at work devising improvements to existing machinery or inventing new and better machines. Some of the most important inventions in wool manufacturing machinery were made by Americans, of which a full statement is to be found in the report of wool manufactures for 1890.¹ Since that date numerous improvements have been made, but nothing of so marked a character as to require special notice.

The facilities for textile education in the United States are much greater now than in 1890. Then only one school existed, devoted exclusively to that purpose, the Philadelphia Textile School connected with the Pennsylvania Museum of Fine Arts. The School of Design connected with the Massachusetts Institute of Technology supplied in some degree a training similar to that obtained in foreign schools. Much attention has been directed during the decade to the subject of textile education, especially in Massachusetts, and in addition to the school named, that state now has large and well established textile schools at Lowell and New Bedford, supported partly by the state and municipalities and partly from private sources. In South Carolina there is a textile department in the South Carolina Agricultural College at Clemson, and in North Carolina one in the Agricultural and Mechanical Institute at Raleigh. A school known as the French Textile School is connected with the Georgia Institute of Technology at Atlanta, and there is a textile department in the Mississippi Mechanical College at Starkville. Besides these there are evening schools for loom fixers and weavers at Lawrence and Fall River, Mass., and correspondence schools at various places in the United States. All are doing good work in training the textile workers for the higher branches of their profession. The results of this technical training are already manifest in the more artistic styles produced and in the economies of manufacture introduced by the graduates of these schools.

In the text and annexed to it are numerous tabular statements together with tables numbered 1 to 28, inclusive, illustrative of the text. In addition to those in the text, the following tables are presented containing the statistics for all branches and subdivisions of the wool industry, and also for the shoddy, fur hat, and hosiery and knit goods manufactures. In the consideration of these tables reference should be made to the text of this report and to the other tables and statements included in it.

Particular attention is invited to the fact that these comparative tables include the results of widely varying methods of inquiry, so that a careful consideration of the explanatory footnotes is essential in order to avoid erroneous deductions.

Table 29 comprises all the items of the inquiry common to a number of periods, and the statistics are given

¹Eleventh Census of the United States, 1890, Manufacturing Industries, Part III, page 68.

for each decennial year from 1840 to 1900, both inclusive.

Table 30 exhibits a total for the United States, under each item of the schedule of inquiry for 1900, for each branch of the industry, viz, woolen mills, worsted mills, carpet mills, felt mills, and wool hat mills.

The six tables following Table 30 correspond thereto in form and scope, but contain statistics for each of the different branches of the industry segregated in these tables and shown by totals for each state and for the United States. Their titles are as follows:

Table 31—Woolen mills.

Table 32—Worsted mills.

Table 33—Carpet mills.

Table 34—Felt mills.

Table 35—Wool hat mills.

Table 36 contains statistics of custom carding mills.

Table 37 contains the statistics for wool scouring in 1900.

Table 38 contains the statistics for wool pulling in 1900.

Table 39 is a detailed presentation by totals for states and for the United States, showing the results of the inquiry relating to the shoddy manufacture.

Table 40 is a detailed statement of the fur hat manufacture in 1900, with the totals by states and for the United States.

Table 41 is a comparative summary for hosiery and knit goods for each census year, beginning with 1850, and contains all the items of inquiry common to the decades.

Table 42 exhibits a total for the United States under each item of the schedule of inquiry for 1900, for the hosiery and knit goods manufacture.

TABLE 29.—WOOL MANUFACTURE (EXCLUDING HOSIERY AND KNIT GOODS): COMPARATIVE

STATES AND TERRITORIES.	Year.	Number of establishments. ¹	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		AVERAGE NUMBER OF WAGE-EARNERS AND TOTAL WAGES.				
				Number.	Salaries.	Total.		Men, 16 years and over.	Women, 16 years and over.	Children, under 16 years.
						Average number.	Wages.			
United States.....	1900	1,414	\$310,179,749	4,495	\$6,455,495	159,108	\$57,933,817	83,371	64,141	11,596
	1890	1,693	245,886,743	² 3,652	² 4,057,695	154,271	54,339,775	78,550	64,944	10,777
	1880	2,330	143,512,278	(³)	(³)	132,672	40,687,612	67,942	49,107	15,623
	1870	3,208	121,451,059	(³)	(³)	105,071	35,928,150	53,400	39,150	12,521
	⁴ 1860	1,476	38,814,422	(³)	(³)	50,419	11,699,680	29,852	20,567	(³)
	⁴ 1850	1,675	31,971,631	(³)	(³)	45,438	(⁷)	26,559	18,379	(³)
	1840	1,420	15,765,124	(³)	(⁴)	21,342	(⁴)	21,342	(³)	(³)
New England states.....	1900	488	177,844,108	2,086	3,350,088	82,472	31,230,772	46,540	31,424	4,508
	1890	518	184,627,725	1,316	1,837,649	77,747	28,190,048	42,323	31,183	4,286
	1880	564	75,522,666	.....	.....	67,582	21,390,036	34,939	25,712	6,031
	1870	676	63,856,145	.....	.....	54,851	19,588,994	26,462	22,605	5,784
	1860	420	24,700,353	.....	.....	30,130	7,082,555	16,993	13,137	.....
	1850	482	17,667,892	.....	.....	22,520	.....	11,980	10,540	.....
	1840	489	9,259,985	.....	.....	11,268	.....	11,268	.....	.....
Maine.....	1900	81	14,512,120	225	281,761	7,324	2,782,564	4,699	2,425	200
	1890	78	9,456,830	126	136,841	5,067	1,824,670	3,162	1,755	150
	1880	96	4,016,328	.....	.....	3,244	1,090,528	1,810	1,140	294
	1870	108	4,187,745	.....	.....	3,104	1,065,161	1,592	1,287	225
	1860	28	940,400	.....	.....	1,064	278,596	565	499	.....
	1850	36	467,600	.....	.....	624	.....	310	314	.....
	1840	24	316,105	.....	.....	582	.....	532	.....	.....
New Hampshire.....	1900	45	11,280,295	131	166,074	5,461	2,045,316	3,130	2,201	130
	1890	52	12,015,721	120	161,908	6,102	2,190,657	3,160	2,768	184
	1880	61	7,150,855	.....	.....	5,599	1,701,619	2,811	2,284	504
	1870	82	5,626,100	.....	.....	5,081	1,788,894	2,259	2,328	494
	1860	54	2,647,300	.....	.....	2,655	687,746	1,291	1,364	.....
	1850	61	2,437,700	.....	.....	2,127	.....	926	1,201	.....
	1840	66	740,345	.....	.....	893	.....	893	.....	.....
Vermont.....	1900	24	3,202,151	57	78,525	1,557	603,968	1,060	470	27
	1890	29	3,304,382	44	42,475	1,541	582,965	903	601	37
	1880	44	2,320,161	.....	.....	2,084	544,138	1,171	783	130
	1870	66	2,330,900	.....	.....	1,895	649,628	935	769	201
	1860	46	1,746,300	.....	.....	2,073	214,572	895	1,178	.....
	1850	72	886,300	.....	.....	1,393	.....	683	710	.....
	1840	95	1,406,950	.....	.....	1,450	.....	1,450	.....	.....
Massachusetts.....	1900	195	90,128,754	1,048	1,710,094	42,069	16,057,849	23,363	16,420	2,286
	1890	219	66,568,586	624	926,458	37,789	13,732,316	20,636	15,391	1,712
	1880	214	36,764,000	.....	.....	34,717	11,027,822	17,588	14,060	3,069
	1870	226	26,722,900	.....	.....	28,025	9,809,718	13,228	11,961	2,336
	1860	147	18,005,853	.....	.....	15,638	8,668,589	8,964	6,674	.....
	1850	119	9,089,342	.....	.....	11,130	.....	6,167	4,963	.....
	1840	144	4,179,850	.....	.....	5,076	.....	5,076	.....	.....
Rhode Island.....	1900	78	41,307,942	407	750,494	17,854	6,721,040	9,141	7,230	1,489
	1890	69	24,310,743	246	333,073	17,541	6,228,686	8,703	7,111	1,727
	1880	61	13,016,116	.....	.....	12,125	3,703,257	5,371	4,387	1,867
	1870	76	10,467,500	.....	.....	7,894	2,862,492	3,644	3,184	1,060
	1860	58	3,169,000	.....	.....	4,232	1,069,728	2,594	1,638	.....
	1850	45	1,013,000	.....	.....	1,768	.....	987	771	.....
	1840	41	685,350	.....	.....	961	.....	961	.....	.....
Connecticut.....	1900	65	17,412,846	218	363,140	8,207	3,040,040	5,147	2,678	332
	1890	71	18,971,463	156	236,894	9,757	3,630,754	5,759	3,522	476
	1880	88	12,255,206	.....	.....	9,813	3,322,672	5,688	3,058	1,067
	1870	117	14,521,000	.....	.....	8,852	3,418,101	4,804	3,036	962
	1860	37	3,191,500	.....	.....	4,468	1,128,324	2,684	1,784	.....
	1850	149	3,773,950	.....	.....	5,488	.....	2,907	2,581	.....
	1840	119	1,931,335	.....	.....	2,356	.....	2,356	.....	.....
Middle states.....	¹ 1900	502	110,361,026	1,747	2,361,813	64,973	23,567,092	31,558	27,456	5,959
	1890	652	86,140,259	1,412	1,527,627	62,345	22,401,695	29,582	27,416	5,847
	1880	794	53,534,368	.....	.....	54,138	16,682,073	26,797	20,144	7,197
	¹ 1870	1,024	37,194,990	.....	.....	36,322	12,619,039	18,182	18,028	5,112
	1860	659	10,472,728	.....	.....	16,121	3,717,095	9,928	6,193	.....
	¹ 1850	717	8,351,908	.....	.....	13,802	.....	8,549	5,253	.....
	1840	620	5,519,175	.....	.....	8,464	.....	8,464	.....	.....
New York.....	1900	100	32,098,305	597	864,361	18,027	6,610,259	8,553	8,330	1,444
	1890	138	25,853,583	357	462,984	17,336	6,133,609	7,314	6,213	1,309
	1880	189	18,248,698	.....	.....	16,428	5,189,180	7,406	6,931	2,092
	1870	272	14,461,232	.....	.....	12,487	4,315,710	6,199	4,533	1,705
	1860	168	4,133,568	.....	.....	6,123	1,851,955	3,475	2,643	.....
	1850	249	4,459,370	.....	.....	6,674	.....	4,202	2,412	.....
	1840	323	3,469,349	.....	.....	4,636	.....	4,636	.....	.....
New Jersey.....	1900	43	18,924,677	210	376,450	8,232	2,574,566	3,877	3,626	720
	1890	35	6,441,571	99	133,517	5,872	1,940,254	2,867	2,786	219
	1880	37	2,991,125	.....	.....	4,072	1,162,754	2,287	1,118	667

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 in all censuses of the industry (except that of 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 ought not, therefore, to be included with the statistics of factory manufacture. The present census and that of 1890 have made such an elimination possible hereafter by a distinct statement of the statistics of custom carding mills.

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

³ Not reported separately.

⁴ Not reported.

SUMMARY, BY STATES AND TERRITORIES ARRANGED GEOGRAPHICALLY, 1840 TO 1900.

MACHINERY.				PRINCIPAL MATERIALS—QUANTITIES CONSUMED.									
Cards.	Combing machines.	Looms.	Spindles.	Miscellaneous expenses.	Cost of materials used.	Wool in condition purchased.			Raw cotton, and cotton warp, and yarn, not made in mill (pounds).	Animal hair and fur, not made in mill (pounds).	Shoddy, not made in mill (pounds).	Value of products.	
						Total (pounds).	Foreign (pounds).	Domestic (pounds).					
6,605	1,451	74,190	3,511,099	\$17,329,982	\$181,159,127	394,369,523	136,484,961	257,984,562	98,632,496	35,111,063	34,496,508	\$296,990,484	1
7,015	869	69,658	2,798,147	15,622,263	167,233,987	351,158,020	111,882,308	239,775,712	94,372,267	26,262,816	56,826,475	270,527,611	2
6,989	515	57,297	2,111,973	(4)	149,160,600	287,597,334	72,751,940	214,645,394	63,880,664	8,011,037	50,640,663	238,086,686	3
8,705	261	45,737	2,046,113	(4)	124,318,792	214,373,219	46,288,805	168,084,414	26,420,626	(8)	19,384,404	199,257,262	4
3,471	(4)	16,075	639,700	(4)	43,447,048	95,452,159	(8)	(8)	17,248,061	(8)	(8)	73,454,000	5
(4)	(4)	(4)	(4)	(4)	28,831,583	70,862,829	(4)	(4)	(8)	(8)	(8)	48,608,779	6
(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(8)	(8)	(4)	20,696,999	7
8,427	821	40,238	2,071,546	8,475,253	99,783,297	224,826,710	62,874,861	161,951,859	39,135,944	8,580,697	24,485,828	161,566,277	8
3,762	519	33,848	1,570,097	9,143,764	86,887,689	195,867,786	58,429,807	137,437,929	30,833,876	9,866,220	35,721,895	139,302,134	9
8,396	302	30,692	1,246,100		80,152,160	163,763,773	43,475,554	120,288,219	26,775,273	2,441,485	28,653,694	180,014,752	10
3,471	225	21,865	1,206,717		68,819,733	123,791,815	30,295,579	93,496,236	11,479,564		10,917,494	108,295,425	11
1,774		8,920	393,333		29,570,028	67,702,407			11,833,078			47,722,812	12
					16,055,233	43,118,059						26,077,814	13
												12,959,486	14
487	19	2,802	181,621	860,447	8,142,820	20,240,598	3,154,524	17,086,074	3,287,412	2,280,801	3,094,185	13,744,126	15
387	6	2,020	126,418	598,305	5,675,347	13,782,749	1,744,381	12,038,368	2,639,862	1,346,818	1,516,085	8,737,658	16
274		1,103	68,192		4,443,190	9,074,011	1,085,606	7,988,405	1,576,462	402,707	1,302,789	6,959,003	17
385		1,161	66,649		4,013,759	7,721,228	882,727	7,838,501	769,363			6,483,881	18
80		185	11,765		1,035,876	2,454,300			82,500			1,759,007	19
					495,940	1,488,384						758,300	20
												412,366	21
335	34	5,312	146,292	455,398	6,636,567	16,213,609	1,581,498	14,637,111	6,760,375	179,362	4,181,862	10,381,056	22
380	29	4,049	136,648	617,052	7,024,461	18,696,016	4,854,212	13,841,804	4,308,465	150,056	3,424,970	10,965,250	23
317	21	2,884	133,223		6,605,355	15,172,837	2,379,575	12,793,262	2,871,944	50,362	3,115,390	10,358,071	24
800	12	1,695	125,079		6,569,028	11,832,666	1,968,869	9,863,797	1,670,994		1,380,000	10,518,226	25
204		696	36,320		2,775,026	5,505,106			861,000			4,358,713	26
					1,267,329	3,604,103						2,127,745	27
												795,784	28
124		775	39,208	181,575	1,732,372	3,170,502		341,902	2,828,600	570,799	90,058	2,822,646	29
120		682	41,839	178,385	1,485,163	3,940,070		1,279,250	2,660,820	1,659,601	8,050	2,723,638	30
146		746	46,264		2,012,490	3,603,191		161,404	3,441,787	640,470	7,598	3,217,807	31
177		670	49,255		1,955,972	4,611,347		1,120,680	3,490,667	77,800		3,644,459	32
99		463	23,371		1,662,650	4,047,010			279,500			2,988,026	33
					830,684	2,328,100						1,579,161	34
												1,381,953	35
1,594	424	19,746	952,854	4,019,232	49,120,181	118,082,087	42,586,492	76,095,595	17,382,063	3,767,134	9,308,403	81,041,537	36
1,785	265	16,349	739,952	4,584,917	42,273,379	97,657,379	34,930,030	62,827,349	15,160,584	6,770,990	21,608,371	67,599,321	37
1,622	190	11,863	588,941		40,283,171	84,929,798	28,011,595	56,918,203	13,704,566	1,751,208	13,017,085	64,968,209	38
1,433	172	11,662	567,611		33,795,994	63,499,762	20,189,746	43,310,006	5,056,357		5,994,110	52,270,603	39
873		4,237	159,651		15,367,378	39,731,072			5,871,370			24,015,443	40
					8,671,671	22,229,952						12,770,566	41
												7,082,898	42
478	287	8,007	529,219	2,153,422	25,087,370	51,727,800	10,710,322	41,017,478	7,709,524	1,147,471	2,103,887	39,042,660	43
558	193	6,608	340,326	1,868,032	19,976,086	39,973,992	8,929,242	31,044,750	4,095,989	317,184	2,168,503	82,205,829	44
495	70	6,957	228,262		13,079,812	27,141,974	4,469,088	22,672,886	4,783,289	166,893	2,027,782	21,588,204	45
484	7	3,383	215,973		9,826,158	14,421,967		13,649,720	1,697,189		919,000	15,394,067	46
253		1,586	86,048		4,071,464	6,335,100			3,056,200			6,917,705	47
					1,463,900	4,103,370						2,381,825	48
												842,172	49
459	57	3,596	222,352	855,179	9,063,987	14,787,114	4,500,113	10,287,001	3,425,371	1,065,811	4,475,922	14,584,252	50
532	27	3,640	184,914	1,302,073	10,503,253	21,717,530	6,692,692	15,024,838	3,969,375	772,522	5,442,795	17,072,398	51
543	21	3,139	176,218		13,728,142	23,841,962	7,368,286	16,473,676	3,198,542	62,717	6,903,998	22,428,468	52
632	34	3,294	182,150		12,658,822	21,704,855	5,861,310	15,843,545	2,207,911		2,398,417	19,939,184	53
265		1,733	76,178		4,657,634	9,129,819			1,782,508			7,733,320	54
					3,825,709	9,414,100						6,405,216	55
												2,494,318	56
2,277	601	27,581	1,116,158	7,681,003	71,116,948	188,554,768	71,646,991	66,907,777	49,940,939	26,492,962	7,877,940	118,258,243	57
2,203	301	29,002	914,990	5,046,720	68,103,765	118,634,796	50,706,098	67,928,098	54,972,659	16,823,593	18,913,964	110,911,526	58
2,154	210	22,206	638,484		57,908,066	95,389,023	28,976,386	66,412,637	33,857,475	5,463,552	20,951,133	91,136,451	59
2,558	86	18,291	554,247		41,941,018	61,166,252	15,834,201	45,332,051	13,321,576		8,457,123	68,467,540	60
920		6,432	210,054		10,938,446	18,910,319			4,943,183			20,386,330	61
					8,040,747	22,437,754						14,065,456	62
												6,637,708	63
748	116	6,269	274,009	1,728,288	16,364,607	44,230,280	25,546,837	18,692,443	8,356,734	2,259,538	643,362	30,813,339	64
702	84	5,025	344,847	1,235,146	16,759,138	35,305,969	21,845,999	13,959,970	7,781,739	2,074,631	1,617,481	28,563,569	65
830	80	3,870	198,420		14,478,785	29,987,847	13,495,159	16,492,688	4,434,013	1,394,947	2,166,471	25,078,747	66
940	1	3,860	166,260		11,676,379	25,518,652	9,305,779	16,212,873	1,186,659		452,990	19,609,021	67
324		1,686	87,887		4,311,116	8,585,498			193,633			7,498,077	68
					3,838,292	12,538,786						7,030,604	69
												8,587,337	70
207	128	3,576	176,340	1,052,701	8,495,338	48,669,055	5,646,754	13,022,301	2,919,438	91,185	195,333	13,799,284	71
202	29	1,533	77,069	547,886	5,460,490	12,524,210	1,348,047	11,176,163	2,625,882	490,110	2,927,640	8,398,237	72
161	9	1,235	35,791		3,858,992	6,990,378	655,001	6,335,377	1,559,502	1,107,749	2,676,856	5,967,898	73

* Carding mills were not included in the report of the woolen industry of 1880, and are therefore not included in the figures for that year in the above table. There were 712 of these establishments, with a total capital of \$1,080,985, employing 1,276 hands, who received \$286,287. They used 5,230,651 pounds of wool, and produced 5,091,196 pounds of wool rolls, valued at \$2,403,513.

* The details of the carpet industry were not given by states in 1850. The totals, however, have been added to the "total for the United States" in this table, the figures being as follows: Establishments, 116; capital, \$3,352,931; number of employees, 6,136; cost of materials used, \$3,075,592, and value of products, \$5,401,234.

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

* Includes reports from establishments distributed as follows: 1900—Delaware, 2. 1870—District of Columbia, 1. 1850—District of Columbia, 1.

MANUFACTURES.

TABLE 29.—WOOL MANUFACTURE (EXCLUDING HOSIERY AND KNIT GOODS): COMPARATIVE

STATES AND TERRITORIES.	Year.	Number of establishments. ¹	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		AVERAGE NUMBER OF WAGE-EARNERS AND TOTAL WAGES.					
				Number.	Salaries.	Total.		Men, 16 years and over.	Women, 16 years and over.	Children under 16 years.	
						Average number.	Wages.				
Middle states—Continued:											
New Jersey.....	1870	36	\$1,524,200			1,522	\$493,054	709	552	261	
	1880	45	646,200			986	226,788	608	378		
	1890	41	494,274			898		411	487		
	1840	31	314,050			427		427			
Pennsylvania.....	1900	358	57,696,913	900	\$1,067,315	37,550	\$14,045,869	18,412	15,220	3,918	
	1890	467	52,021,256	940	914,378	83,473	14,117,254	18,572	16,189	3,712	
	1880	548	81,898,226			32,989	10,102,244	16,658	11,936	4,365	
	1870	672	20,615,413			21,578	7,607,489	10,831	7,714	3,028	
	1860	407	5,211,510			8,484	2,016,381	5,488	2,996		
	1850	380	3,005,064			5,726		3,490	2,286		
	1840	235	1,510,546			2,980		2,930			
Delaware.....	¹ 1900										
	1890	3	450,974	9	12,298	288	91,097	189	110	39	
	1880	5	352,559			261	105,504	171	59	31	
	1870	11	384,500			399	115,137	186	110	103	
	1860	4	117,000			114	27,564	76	38		
	1850	8	148,500			140		122	18		
	1840	2	107,000			88		83			
Maryland.....	¹ 1900	4	1,390,549	25	85,025	877	221,215	576	204	97	
	1890	9	373,875	7	4,450	376	119,481	190	118	68	
	1880	15	343,760			388	69,391	246	100	42	
	1870	32	215,245			339	87,099	255	89	15	
	1860	35	304,450			414	94,404	281	133		
	1850	38	244,000			362		262	100		
	1840	29	117,630			388		388			
Southern states.....	¹ 1900	214	7,591,498	214	234,875	4,700	979,188	1,902	2,037	761	
	1890	222	7,394,776	325	226,117	5,392	1,338,729	2,303	2,421	608	
	1880	447	2,994,517			2,645	493,634	1,498	745	402	
	1870	589	3,827,952			2,888	575,529	1,831	669	388	
	1860	115	1,744,100			2,205	418,368	1,429	776		
	1850	155	747,360			1,119		808	311		
	1840	116	304,650			488		488			
Virginia.....	1900	28	789,527	39	37,667	362	103,773	214	127	21	
	1890	35	845,221	45	22,995	399	94,028	249	119	31	
	1880	48	456,750			365	71,720	261	95	19	
	1870	68	435,375			278	58,765	190	56	92	
	1860	45	468,600			494	106,692	381	113		
	1850	121	392,640			668		478	190		
	1840	41	112,350			222		222			
West Virginia.....	1900	84	721,218	16	17,440	414	113,960	249	145	20	
	1890	80	336,281	34	11,512	253	50,407	138	104	11	
	1880	55	293,170			353	44,161	226	96	31	
	1870	74	236,100			316	59,823	207	79	30	
	¹ 1860										
	¹ 1850										
	¹ 1840										
North Carolina.....	1900	16	347,830	17	9,065	206	39,094	106	91	9	
	1890	27	339,088	25	10,411	299	54,918	145	125	29	
	1880	49	208,100			185	23,195	120	50	16	
	1870	52	237,800			249	39,101	161	81	17	
	1860	7	238,000			253	60,036	113	140		
	1850	1	18,000			30		15	15		
	1840	3	9,800			4		4			
South Carolina.....	¹ 1900										
	¹ 1890										
	1880	11	7,900			13	1,173	18			
	1870	15	25,900			58	3,815	32	13	8	
	1860	1	50,000			92	11,400	37	55		
	¹ 1850										
	1840	3	4,300			6		6			
Georgia.....	1900	14	455,114	18	16,936	561	97,159	284	189	88	
	1890	14	298,539	17	9,367	162	25,034	64	71	27	
	1880	32	180,733			142	25,070	72	45	25	
	1870	46	936,585			568	122,188	251	191	121	
	1860	11	242,500			383	63,348	167	216		
	1850	3	68,000			78		40	38		
	1840	1	2,000			10		10			
Kentucky.....	1900	37	1,922,574	25	41,472	868	190,143	184	454	230	
	1890	42	2,705,683	30	89,478	1,904	503,327	304	922	178	
	1880	98	890,750			828	166,189	353	253	217	
	1870	125	700,449			683	159,373	464	137	92	
	1860	37	408,500			437	108,284	360	87		
	1850	25	243,820			318		256	62		
	1840	40	188,000			200		200			
Tennessee.....	1900	51	2,399,518	64	67,673	1,632	294,116	557	759	316	
	1890	49	1,393,679	71	48,620	927	191,037	359	444	124	
	1880	106	418,664			402	67,063	249	111	42	
	1870	148	373,868			428	62,780	342	61	25	
	1860	1	6,000			10		8	2		
	1850	4	10,900			17		15	2		
	1840	26	25,600			45		45			

¹The number of establishments affords no clew to the growth or condition of the industry of wool manufacturing. This is due to the fact that in all censuses of the industry (except that of 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 ought not, therefore, to be included with the statistics of factory manufacture. The present census and that of 1890 have made such an elimination possible hereafter by a distinct statement of the statistics of custom carding mills.

²Includes reports from establishments distributed as follows: 1900—Delaware, 2. 1870—District of Columbia, 1. 1850—District of Columbia, 1.

SUMMARY, BY STATES AND TERRITORIES ARRANGED GEOGRAPHICALLY, 1840 TO 1900—Continued.

MACHINERY.				Miscellaneous ex-penses.	Cost of ma-terials used.	PRINCIPAL MATERIALS—QUANTITIES CONSUMED.					Value of products.			
Cards.	Combing ma-chines.	Looms.	Spindles.			Wool in condition purchased.			Raw cot-ton and cotton warp, and yarn, not made in mill (pounds).	Animal hair and fur and noils, not made in mill (pounds).		Shoddy not made in mill (pounds).		
						Total (pounds).	Foreign (pounds).	Domestic (pounds).						
98 61		776 270	26,769 10,361		\$1,618,753 596,895 548,367	2,856,525 1,448,800 1,510,289	480,347	2,376,178	407,398 239,500		27,000	\$2,616,461 1,197,694 1,164,446 440,710	74 75 76 77	
1,262 1,254 1,120 1,423 483	357 188 121 29 483	17,265 22,101 16,789 13,265 4,334	641,657 474,618 393,337 340,114 108,326	\$4,833,061 3,221,842	45,137,649 45,178,677 38,740,330 28,010,301 5,674,197 3,282,718	73,162,801 69,387,219 56,781,365 31,723,147 7,703,249 7,560,379	40,453,005 27,877,283 14,623,020 6,014,170	32,709,796 41,509,336 42,128,345 25,708,977	37,640,684 44,218,488 27,771,271 11,504,684 4,337,000	24,142,239 14,258,862 2,940,522	6,874,350 14,232,953 15,463,878 7,879,203	71,878,503 72,893,132 53,880,250 45,221,795 10,901,797 5,321,366 2,319,061	78 79 80 81 82 83 84	
15 13 30 8		229 126 227 76	7,306 4,306 8,756 1,000	27,404	295,605 448,295 392,614 75,807 204,172	531,198 836,883 546,137 140,000 393,000	35,369 203,206 12,455	495,829 633,677 533,732	314,500 65,100 185,000 100,000		20,084	95,890 346,778 96,930	482,022 665,233 576,067 153,035 251,000 104,700	85 86 87 88 89 90 91
47 30 30 61 44		179 114 136 160 66	15,828 11,150 6,580 12,348 2,480	54,181 14,442	667,036 424,855 381,724 241,224 280,431 165,568	1,938,908 886,200 822,550 521,741 1,087,772 480,300		1,938,908 786,200 822,550 500,291	637,730 32,050 37,539 37,885 73,000		58,326 40,000 297,200 1,000	1,218,878 579,516 538,303 441,596 635,757 255,140 255,900	92 93 94 95 96 97 98	
373 335 549 908 232	15 4	3,291 3,738 1,315 1,322 296	123,869 106,541 47,939 50,311 16,544	299,046 362,477	3,493,870 4,000,966 2,736,023 2,715,827 1,034,730 760,203	7,948,193 8,730,576 6,021,980 5,912,539 5,042,682 2,448,026	512,883 357,790 85,000 1,200	7,435,310 8,372,786 5,936,980 6,911,339	7,235,610 5,395,513 1,465,403 616,459 421,800	1,550 61,741 500	1,060,468 1,188,847 279,647 2,762	5,588,416 6,700,545 3,958,571 4,278,311 2,840,550 1,293,642 321,357	99 100 101 102 103 104 105	
52 54 54 116 50	2	221 212 154 137 121	14,322 12,882 8,486 6,236 7,574	22,780 43,972	391,659 375,175 388,080 317,800 389,204 488,899	1,184,281 975,745 862,812 742,200 1,181,000 1,554,110	9,000 25,367 5,000 1,200	1,175,281 950,378 857,812 741,000	101,434 105,112 104,170 27,260 10,000		1,500 500	124,851 88,585 60,500	627,581 609,809 577,938 488,352 717,827 841,013 147,792	106 107 108 109 110 111 112
53 41 72 182	1	258 153 179 120	14,180 7,164 8,081 6,387	32,649 15,418	350,753 202,801 245,843 307,051	843,959 600,823 602,399 673,003	3,000 5,001	840,959 595,822 602,399 673,003	262,417 31,209 4,000		135,912 9,632 33,319	567,300 323,800 850,936 475,763	113 114 115 116 117 118 119	
25 35 57 78 23		161 169 30 97 20	5,334 10,990 2,374 2,806 1,000	14,527 14,768	204,961 198,358 255,707 166,497 151,005 18,950	577,750 449,200 576,145 355,693 504,500 30,000		577,750 393,500 496,145 355,693	96,763 282,860 118,464 10,000		40,374	38,365 308,946 303,160 298,633 291,000 23,750 3,900	120 121 122 123 124 125 126	
11 25 10		9	350		19,455 22,238 60,000	48,950 55,696 250,000		48,950 55,696	1,300		700	24,075 34,459 80,000	127 128 129 130 131 132 133	
81 20 42 72 80	3	503 119 88 395 20	11,008 3,532 2,224 14,465 1,480	22,480 10,887	280,295 95,999 165,065 238,176 260,475 30,392	272,678 208,992 366,274 620,337 1,008,600 153,316	5,200 32,000	267,478 176,992 366,274 620,337	1,718,472 87,815 134,418 165,000 142,600		1,550 19,867	111,857 10,000	491,001 173,245 239,390 471,523 464,420 88,750 3,000	134 135 136 137 138 139 140
58 100 154 208 83	9 4	533 1,661 513 322 94	27,695 40,346 14,110 10,509 3,990	59,894 184,343	974,417 1,631,860 852,405 1,639,367 510,902 205,287	2,747,742 2,828,377 1,688,663 1,639,367 1,452,500 678,900	393,917 57,037	2,353,825 2,771,340 1,688,663 1,639,367	1,437,569 2,892,500 667,444 275,250 170,700		144,124 785,940 117,151	1,431,634 2,721,968 1,264,988 1,312,458 845,223 313,819 151,246	141 142 143 144 145 146 147	
99 30 98 177 1		1,239 925 167 30	38,654 19,933 6,860 3,614 500	86,141 56,263	874,359 760,036 423,054 503,737 5,225 1,675	1,523,442 1,448,486 833,338 1,030,153 10,000 6,200	101,766 137,625	1,421,676 1,260,861 833,338 1,030,153	8,189,821 1,462,967 180,416 101,449		487,089 197,690 55,433 2,062	1,517,194 1,215,419 620,724 696,844 8,100 6,310 14,290	148 149 150 151 152 153 154	

³Maryland and the District of Columbia are classed in this table as Middle states for purposes of comparison.

⁴Includes reports from two establishments in South Carolina.

⁵No establishments reported.

⁶Included in "all other Southern states."

TABLE 29.—WOOL MANUFACTURE (EXCLUDING HOSIERY AND KNIT GOODS): COMPARATIVE

STATES AND TERRITORIES.	Year.	Number of establishments. ¹	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		AVERAGE NUMBER OF WAGE-EARNERS AND TOTAL WAGES.				
				Number.	Salaries.	Total.		Men, 16 years and over.	Women, 16 years and over.	Children, under 16 years.
						Average number.	Wages.			
Southern states—Continued.										
155 Alabama.....	1900	12	\$158,308	4	\$3,640	118	\$17,695	26	90	3
156	1890	6	18,325	3	1,025	13	2,100	8	5	.....
157	1880	14	28,900	.....	.....	18	3,037	18	5	.....
158	1870	14	22,375	.....	.....	41	4,881	38	1	2
159	1860	6	140,000	.....	.....	198	34,116	95	103	.....
160	¹ 1850	.....	.....	.....	.....	.....	.....	.....	.....	.....
161	² 1840	.....	.....	.....	.....	.....	.....	.....	.....	.....
162 Mississippi.....	1900	4	315,700	5	10,166	302	55,192	146	111	45
163	1890	7	1,553,455	13	11,280	1,069	294,990	402	443	221
164	1880	8	381,500	.....	.....	218	53,100	111	61	46
165	1870	11	195,250	.....	.....	116	28,800	34	31	51
166	1860	4	75,500	.....	.....	235	22,620	202	83	.....
167	¹ 1850	.....	.....	.....	.....	.....	.....	.....	.....	.....
168	² 1840	.....	.....	.....	.....	.....	.....	.....	.....	.....
169 Arkansas.....	1900	13	43,525	3	908	27	5,158	14	11	2
170	1890	6	27,435	9	2,950	22	3,281	7	12	3
171	1880	25	85,550	.....	.....	90	13,226	62	21	7
172	1870	13	32,500	.....	.....	31	6,370	29	22	2
173	¹ 1860	.....	.....	.....	.....	.....	.....	.....	.....	.....
174	² 1850	.....	.....	.....	.....	.....	.....	.....	.....	.....
175	1840	1	12,600	.....	.....	1	.....	1	.....	.....
176 Texas.....	1900	3	285,063	10	15,763	134	40,674	76	34	24
177	1890	4	371,270	17	18,115	342	120,680	125	176	41
178	1880	1	97,500	.....	.....	36	25,700	28	8	.....
179	1870	20	97,250	.....	.....	100	20,278	80	16	4
180	1860	2	60,000	.....	.....	43	7,680	36	7	.....
181	1850	1	8,000	.....	.....	8	.....	4	4	.....
182	¹ 1840	.....	.....	.....	.....	.....	.....	.....	.....	.....
183 All other Southern states ^a	1900	.....	.....	.....	.....	.....	.....	.....	.....	.....
184	1890	2	5,800	1	364	2	427	2	.....	.....
185	1880	.....	.....	.....	.....	.....	.....	.....	.....	.....
186	1870	3	34,500	.....	.....	30	8,900	23	3	4
187	1860	1	75,000	.....	.....	60	6,720	40	20	.....
188	¹ 1850	.....	.....	.....	.....	.....	.....	.....	.....	.....
189	² 1840	.....	.....	.....	.....	.....	.....	.....	.....	.....
190 Western states.....	1900	194	12,156,823	401	450,939	5,861	1,788,245	2,684	2,861	316
191	1890	287	18,254,918	513	391,937	7,207	2,020,697	3,261	3,517	429
192	1880	565	8,377,427	.....	.....	7,227	1,697,463	8,816	2,357	1,054
193	1870	906	14,897,772	.....	.....	10,172	2,302,135	6,212	2,309	1,151
194	1860	280	1,727,241	.....	.....	1,373	481,312	1,435	438	.....
195	1850	205	1,351,490	.....	.....	1,311	.....	1,341	470	.....
196	1840	196	631,364	.....	.....	1,122	.....	1,122	.....	.....
197 Ohio.....	1900	38	2,709,936	34	94,805	1,234	388,348	408	797	29
198	1890	69	2,479,372	106	35,224	1,325	363,302	531	590	154
199	1880	123	1,333,340	.....	.....	1,432	279,614	773	445	214
200	1870	225	3,006,969	.....	.....	2,329	574,164	1,351	710	268
201	1860	122	662,000	.....	.....	753	185,268	567	186	.....
202	1850	130	370,220	.....	.....	1,201	.....	903	298	.....
203	1840	120	537,985	.....	.....	985	.....	935	.....	.....
204 Michigan.....	1900	17	920,609	29	27,769	512	170,568	323	189	.....
205	1890	33	993,037	44	25,033	536	156,740	234	221	31
206	1880	39	558,300	.....	.....	347	76,240	203	114	30
207	1870	54	1,011,050	.....	.....	667	202,313	408	208	61
208	1860	16	103,350	.....	.....	126	30,672	77	49	.....
209	1850	15	94,000	.....	.....	129	.....	78	51	.....
210	1840	4	34,120	.....	.....	37	.....	37	.....	.....
211 Indiana.....	1900	22	2,069,232	72	77,443	1,165	341,472	495	624	46
212	1890	46	2,969,356	103	37,329	2,039	522,039	810	1,117	112
213	1880	31	2,273,705	.....	.....	1,741	462,631	346	537	308
214	1870	175	3,821,913	.....	.....	2,469	726,113	1,450	711	308
215	1860	79	464,341	.....	.....	533	150,276	436	97	.....
216	1850	33	171,545	.....	.....	246	.....	139	57	.....
217	1840	37	77,954	.....	.....	103	.....	103	.....	.....
218 Wisconsin.....	1900	36	2,414,652	67	33,330	1,066	317,554	477	463	126
219	1890	33	2,496,377	69	63,570	1,018	297,169	454	553	11
220	1880	48	1,349,954	.....	.....	347	214,993	426	373	43
221	1870	67	1,247,389	.....	.....	302	230,706	519	211	72
222	1860	15	100,600	.....	.....	105	27,036	74	31	.....
223	1850	9	31,225	.....	.....	25	.....	25	.....	.....
224	¹ 1840	.....	.....	.....	.....	.....	.....	.....	.....	.....
225 Illinois.....	1900	14	1,610,425	57	77,623	727	222,457	393	294	85
226	1890	23	1,649,918	49	40,733	865	272,997	433	405	27
227	1880	53	1,327,533	.....	.....	1,042	296,225	527	365	150
228	1870	109	2,962,443	.....	.....	1,736	535,135	1,040	463	228
229	1860	25	210,100	.....	.....	166	46,130	132	34	.....
230	1850	16	154,500	.....	.....	178	.....	124	54	.....
231	1840	16	26,205	.....	.....	34	.....	34	.....	.....
232 Minnesota.....	1900	19	762,325	20	23,450	300	90,662	160	119	21
233	1890	21	563,771	25	19,025	316	101,942	169	146	1
234	1880	13	190,500	.....	.....	229	46,103	106	73	50
235	1870	10	246,000	.....	.....	146	46,692	77	60	9
236	¹ 1860	.....	.....	.....	.....	.....	.....	.....	.....	.....
237	² 1850	.....	.....	.....	.....	.....	.....	.....	.....	.....
238	³ 1840	.....	.....	.....	.....	.....	.....	.....	.....	.....

¹The number of establishments affords no clew to the growth or condition of the industry of wool manufacturing. This is due to the fact that in all censuses of the industry (except that of 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 ought not, therefore, to be included with the statistics of factory manufacture. The present census and that of 1890 have made such an elimination possible hereafter by a distinct statement of the statistics of custom carding mills.

SUMMARY BY STATES AND TERRITORIES ARRANGED GEOGRAPHICALLY, 1840 TO 1900—Continued.

MACHINERY.				Miscellaneous expenses.	Cost of materials used.	PRINCIPAL MATERIALS—QUANTITIES CONSUMED.					Value of products.		
Cards.	Combing machines.	Looms.	Spindles.			Wool in condition purchased.			Raw cotton, and cotton warp, and yarn, not made in mill (pounds).	Animal hair and fur and noils, not made in mill (pounds).		Shoddy, not made in mill (pounds).	
						Total (pounds).	Foreign (pounds).	Domestic (pounds).					
8		72	160	\$15,193	\$58,197	129,041		129,041	176,562		\$94,571	155	
6		12	288	419	10,997	10,569		10,569	7,500	20,000	17,150	156	
15		10	160		49,361	135,366		135,366	10,000		63,745	157	
24		2	530		57,338	196,500		196,500	2,000		89,998	158	
14		20	1,000		80,790	264,435			5,000		191,474	159	
26		130	8,916	17,817	108,308	244,434		244,434	83,060		172,908	162	
31		376	9,196	18,054	508,039	1,565,824		1,565,824	416,000	36,000	924,185	163	
15		121	3,734		211,646	494,033		494,033	205,896		299,605	164	
17		30	844		79,566	154,790		154,790	32,700		147,323	165	
13		21	1,000		119,849	270,597			75,600		158,507	166	
16		40	1,000	398	28,598	129,637		129,637	14,000		42,401	169	
7		24	735	752	28,080	67,500		67,500	5,550		38,393	170	
29		41	1,360		85,972	189,000		189,000	30,600	300	127,430	171	
17					55,782	115,330		115,330			78,690	172	
4		94	2,600	17,428	117,327	291,979		291,979	86,700	19,260	196,340	176	
9		135	1,900	17,933	188,607	572,400		572,400	103,000	1,000	359,280	177	
2		12	600		44,435	175,000		175,000			80,500	178	
29		30	1,070		86,817	278,045		278,045			152,968	179	
4					25,980	81,900			18,000		88,796	180	
					10,000	30,000					15,000	181	
2		2	50	278	1,064	2,600		2,600	1,000		2,433	183	
18		100	4,000		19,197	50,875		50,875	1,500		31,295	186	
4					31,300	69,150					45,200	187	
468	14	2,813	176,407	722,046	5,889,712	18,996,587	1,400,286	17,596,351	2,145,184	85,854	958,484	9,992,370	190
574	15	3,183	176,869	814,072	7,125,149	22,859,293	1,743,013	21,116,280	2,966,355	10,762	943,658	11,678,341	191
807	8	2,786	156,012		7,087,326	17,702,458	195,000	17,507,458	1,508,482	80,500	660,989	10,722,024	192
1,701		3,984	226,638		10,006,478	20,681,163	157,825	20,473,338	903,027	5,225	16,607,375	16,607,375	193
888		882	18,989		1,226,844	8,246,751					2,289,806	194	
					909,808	2,858,990					1,770,635	195	
											778,448	196	
78	5	674	30,400	242,007	1,681,166	3,262,140	24,825	3,237,315	647,847	6,660	217,940	2,826,321	197
104	5	712	32,263	136,050	1,398,392	3,500,244	474,764	3,025,480	357,152	8,900	199,630	2,280,002	198
182		638	35,200		1,156,929	2,695,424	165,000	2,530,424	310,824	80,000	134,063	1,779,439	199
334	2	1,062	52,789		2,119,869	3,972,234	62,200	3,910,034	176,464			3,487,699	200
173		96	5,827		482,994	1,190,751						843,516	201
					678,423	1,657,726						1,111,027	202
												685,757	203
52		159	14,707	49,676	641,138	2,360,454	958,981	1,406,473	58,650	119,261	996,836	204	
54		168	13,559	60,280	605,374	2,032,321	408,026	1,624,295	2,440	269,148	988,652	205	
51		137	10,638		356,614	869,025		869,025	5,310	37,163	481,510	206	
116		232	15,650		659,700	1,391,889		1,391,889	3,550		1,204,868	207	
14		20	1,000		69,010	163,100					139,246	208	
					43,402	102,250					90,242	209	
											9,784	210	
92		919	46,864	112,428	970,562	3,552,301	400,000	3,152,301	848,443	1,194	88,235	1,658,905	211
135	4	1,006	46,690	235,503	1,880,515	6,324,684	632,833	5,692,051	1,961,374	600	154,303	8,036,682	212
160	1	814	36,886		1,323,300	4,360,456	10,000	4,350,456	831,776		345,656	2,729,847	213
346		1,180	57,033		2,684,315	5,029,613	80,157	4,949,461	513,595			4,329,711	214
112		177	8,266		352,362	940,000						649,771	215
					120,436	413,350						205,802	216
												58,867	217
72	9	296	31,744	128,005	1,168,397	4,523,001	18,006	4,504,905	163,754		308,033	1,864,420	218
63	6	258	24,802	124,124	1,117,013	3,125,372	164,000	2,961,482	111,323	6,282	196,274	1,844,364	219
75		220	16,689		893,798	2,066,138		2,066,138	50,955	500	85,235	1,480,069	220
135		226	16,445		638,193	1,642,637	15,468	1,627,169	500			1,258,417	221
19		20	1,000		85,743	265,000						172,720	222
					32,630	134,200						87,992	223
46		184	16,156	80,086	550,320	1,439,452		1,439,452	66,717	78,000	128,244	1,039,087	225
57		323	18,745	110,159	789,310	2,566,621	59,000	2,507,621	319,179		67,258	1,299,506	226
106		374	20,932		1,332,798	3,003,740		3,003,740	114,531		33,007	1,896,460	227
250		633	36,888		1,701,323	3,560,829		3,560,829	151,650			2,849,249	228
37		20	1,000		112,697	327,300						193,388	229
					115,367	396,964						206,572	230
												9,540	231
38		143	9,524	36,178	272,483	1,285,311	3,334	1,281,977	3,525		8,475	496,812	232
87		125	7,510	46,211	309,378	1,358,290		1,358,290			4,000	539,995	233
21		59	3,852		153,367	557,580	20,000	537,580	6,365		18,000	253,378	234
19		39	2,664		108,540	254,857		254,857				219,862	235
													236
													237
													238

^aNo establishments reported.

^bIncludes establishments distributed as follows: 1900-1890—Louisiana, 1; South Carolina, 1. 1870—Louisiana, 2; Florida, 1. 1860—Louisiana, 1.

TABLE 29.—WOOL MANUFACTURE (EXCLUDING HOSIERY AND KNIT GOODS): COMPARATIVE

STATES AND TERRITORIES.	Year.	Number of establishments. ¹	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		AVERAGE NUMBER OF WAGE-EARNERS AND TOTAL WAGES.				
				Number.	Salaries.	Total.		Men, 16 years and over.	Women, 16 years and over.	Children, under 16 years.
						Average number.	Wages.			
Western states—Continued.										
239 Iowa.....	1900	12	\$494,074	26	\$16,611	256	\$64,596	126	128	2
240	1890	14	694,600	88	28,850	340	104,390	150	174	16
241	1880	24	553,500	.....	.....	499	117,792	807	182	60
242	1870	85	1,440,484	.....	.....	1,088	269,432	685	298	110
243	1860	12	82,500	.....	.....	120	23,652	96	24	.....
244	1850	1	10,000	.....	.....	7	.....	7	.....	.....
245	² 1840	.....	.....	.....	.....	.....	.....	.....	.....	.....
246 Missouri.....	1900	25	490,747	18	20,928	237	63,814	139	79	19
247	1890	85	720,616	64	25,288	456	97,122	209	188	69
248	1880	93	726,150	.....	.....	689	109,877	412	144	133
249	1870	156	716,524	.....	.....	718	137,408	548	85	89
250	1860	11	103,750	.....	.....	70	19,728	53	17	.....
251	1850	1	20,000	.....	.....	25	.....	15	10	.....
252	1840	9	6,100	.....	.....	13	.....	18	.....	.....
253 Kansas.....	³ 1900	.....	.....	.....	.....	.....	.....	.....	.....	.....
254	³ 1890	.....	.....	.....	.....	.....	.....	.....	.....	.....
255	1880	5	181,925	.....	.....	124	25,825	66	40	18
256	1870	9	96,000	.....	.....	91	30,682	56	24	11
257	² 1860	.....	.....	.....	.....	.....	.....	.....	.....	.....
258	² 1850	.....	.....	.....	.....	.....	.....	.....	.....	.....
259	² 1840	.....	.....	.....	.....	.....	.....	.....	.....	.....
260 Utah.....	1900	6	454,981	14	10,050	194	69,681	100	65	29
261	1890	9	579,203	15	13,505	259	90,651	150	95	14
262	1880	11	382,000	.....	.....	277	68,108	150	79	48
263	1870	15	223,400	.....	.....	106	48,040	58	39	9
264	² 1860	.....	.....	.....	.....	.....	.....	.....	.....	.....
265	² 1850	.....	.....	.....	.....	.....	.....	.....	.....	.....
266	² 1840	.....	.....	.....	.....	.....	.....	.....	.....	.....
267 All other Western states ⁴	1900	5	229,292	14	13,370	170	64,093	58	108	9
268	1890	4	103,112	5	2,800	53	13,345	21	28	4
269	1880	.....	.....	.....	.....	.....	.....	.....	.....	.....
270	1870	1	65,000	.....	.....	20	2,000	20	.....	.....
271	² 1860	.....	.....	.....	.....	.....	.....	.....	.....	.....
272	² 1850	.....	.....	.....	.....	.....	.....	.....	.....	.....
273	² 1840	.....	.....	.....	.....	.....	.....	.....	.....	.....
274 Pacific states.....	1900	16	2,226,294	47	58,280	1,102	368,520	687	363	52
275	1890	14	3,969,065	86	74,365	1,580	388,606	1,081	452	47
276	⁶ 1880	20	2,283,300	.....	.....	1,080	424,406	892	149	39
277	1870	14	2,174,200	.....	.....	838	342,413	713	89	86
278	1860	2	170,000	.....	.....	90	40,800	67	23	.....
279	² 1850	.....	.....	.....	.....	.....	.....	.....	.....	.....
280	² 1840	.....	.....	.....	.....	.....	.....	.....	.....	.....
281 Oregon.....	1900	11	1,176,820	29	32,820	672	208,695	423	216	33
282	1890	6	1,950,585	44	32,775	353	142,538	201	134	23
283	1880	10	566,800	.....	.....	216	86,088	166	33	17
284	1870	9	389,200	.....	.....	179	112,213	129	8	42
285	1860	1	70,000	.....	.....	30	16,200	27	3	.....
286	² 1850	.....	.....	.....	.....	.....	.....	.....	.....	.....
287	² 1840	.....	.....	.....	.....	.....	.....	.....	.....	.....
288 California.....	1900	5	1,050,474	18	25,460	430	159,825	264	147	19
289	1890	8	2,613,480	42	41,590	1,222	246,068	830	318	24
290	1880	9	1,676,500	.....	.....	335	334,318	708	103	19
291	1870	5	1,785,000	.....	.....	659	230,200	534	31	44
292	1860	1	100,000	.....	.....	60	33,600	40	20	.....
293	² 1850	.....	.....	.....	.....	.....	.....	.....	.....	.....
294	² 1840	.....	.....	.....	.....	.....	.....	.....	.....	.....

¹The number of establishments affords no clew to the growth or condition of the industry of wool manufacturing. This is due to the fact that in all censuses of the industry (except that of 1880) 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 ought not, therefore, to be included with the statistics of factory manufacture. The present census and that of 1890 have made such an elimination possible hereafter by a distinct statement of the statistics of custom carding mills.

²No establishments reported.

SUMMARY, BY STATES AND TERRITORIES ARRANGED GEOGRAPHICALLY, 1840 TO 1900—Continued.

MACHINERY.				Miscellaneous expenses.	Cost of materials used.	PRINCIPAL MATERIALS—QUANTITIES CONSUMED.					Value of products.		
Cards.	Combing machines.	Looms.	Spindles.			Wool in condition purchased.			Raw cotton, and cotton warp, and yarn not made in mill (pounds).	Animal hair and fur and noils, not made in mill (pounds).		Shoddy, not made in mill (pounds).	
						Total (pounds).	Foreign (pounds).	Domestic (pounds).					
26		112	9,552	\$16,881	\$175,426	778,053		778,053	4,608		2,756	\$296,500	239
36		158	10,828	40,060	505,503	1,880,532		1,880,532	10,610		46,000	695,218	240
56		166	11,025		435,747	1,407,510	300	1,407,510	18,507		865	679,004	241
199		374	31,462		998,073	2,273,428		2,273,428	23,148		1,225	1,647,606	242
13		20	1,000		67,298	168,700		168,700				127,640	243
					3,500	14,500		14,500				18,000	244
												800	245
36		196	7,762	21,067	206,579	464,946		464,946	279,283		80,779	348,974	246
52		261	12,984	29,775	311,881	1,052,229	4,000	1,048,229	155,895		7,000	548,457	247
126		193	12,622		681,711	1,811,685		1,811,685	115,227		4,000	930,961	248
258		188	10,871		849,313	1,979,671		1,979,671	25,500			1,256,213	249
15		29	896		56,745	191,400		191,400				148,025	250
					16,000	80,000		80,000				56,000	251
												13,750	252
													253
9		41	2,636		107,251	364,000		364,000	23,200		2,000	211,525	254
24		29	1,618		80,105	200,000		200,000	1,800			153,150	255
													256
													257
													258
													259
17		94	6,974	17,854	121,828	744,469		744,469	64,212		1,761	222,343	260
31		99	7,960	27,155	163,864	800,500		800,500	88,632			333,534	261
21		114	5,422		147,226	566,900		566,900	31,697		1,000	279,424	262
19		31	1,430		98,272	276,000		276,000	8,320			199,600	263
													264
													265
													266
6		36	2,724	18,414	101,818	591,460		591,460	8,700		3,000	242,112	267
5		83	1,528	4,765	45,419	217,100		217,100	250			101,881	268
													269
1		5	240		12,775	50,000		50,000			4,000	21,000	270
													271
													272
													273
65		317	23,119	152,584	875,300	4,043,265		4,043,265	174,819		113,798	1,585,178	274
91		387	24,650	255,230	1,716,418	5,065,619	145,000	4,920,619	213,864		58,111	1,939,965	275
88		298	23,388		1,277,025	4,720,100	20,000	4,700,100	284,026	25,000	95,150	2,258,888	276
67		275	8,200		835,736	2,871,400		2,871,400	100,000		1,800	1,608,611	277
10		45	780		77,000	550,000		550,000				235,000	278
													279
													280
35		175	12,187	74,323	465,855	1,997,954		1,997,954	107,884		78,084	897,524	281
21		95	6,052	86,906	327,502	1,360,148		1,360,148	106,546		5,000	614,332	282
21		56	4,248		227,486	985,250		985,250	6,000		1,000	549,030	283
21		90	4,320		227,595	948,400		948,400				565,857	284
4		15	280		27,000	150,000		150,000				85,000	285
													286
													287
90		142	10,932	78,261	409,445	2,015,311		2,015,311	67,435		40,714	687,354	288
70		292	13,598	168,324	788,916	3,699,471	145,000	3,554,471	107,318		58,111	1,325,033	289
60		230	13,740		937,539	3,574,850	20,000	3,554,850	228,026	25,000	94,150	1,034,858	290
46		185	3,880		698,141	1,928,000		1,928,000	100,000		1,800	1,102,754	291
6		30	500		50,000	400,000		400,000				150,000	292
													293
													294

³Included in "all other Western states."

⁴Includes establishments distributed as follows: 1900—Colorado, 1; Idaho, 1; Kansas, 1; North Dakota, 1; Wyoming, 1. 1890—Idaho, 1; Kansas, 1; South Dakota, 2. 1870—New Mexico, 1.

⁵Includes the report from an establishment in Washington.

MANUFACTURES.

TABLE 30.—WOOL MANUFACTURES (EXCLUDING HOSIERY AND KNIT GOODS): SUMMARY BY CLASSES, 1900.

	ESTABLISHMENTS: COMMENCEMENT, NUMBER, AND CHARACTER OF ORGANIZATION.					CAPITAL.				
	Total number.	Individual.	Firm and limited partnership.	Incorporated company.	Miscellaneous.	Total.	Land.	Buildings.	Machinery, tools, and implements.	Cash and sundries.
Total.....	1,414	528	429	456	1	\$310,179,749	\$17,936,483	\$38,074,295	\$69,215,841	\$184,953,130
Worsted goods.....	186	43	60	83	.....	182,168,110	6,781,982	18,279,427	27,026,759	85,129,942
Woolen goods.....	1,085	426	298	311	.....	124,386,262	7,948,126	17,700,864	28,708,473	69,974,299
Carpets and rugs.....	133	48	49	35	1	44,449,299	2,641,774	5,717,961	11,495,056	24,594,508
Felt goods.....	36	7	7	22	.....	7,125,276	606,601	1,115,961	1,745,933	3,756,761
Wool hats.....	24	4	15	5	.....	2,050,802	108,000	200,582	244,620	1,497,600

	Proprietors and firm members.	SALARIED EMPLOYEES.									
		Total.		Officers of corporations.		General superintendents, managers, clerks, and salesmen.					
		Number.	Salaries.	Number.	Salaries.	Total.		Men.		Women.	
						Number.	Salaries.	Number.	Salaries.	Number.	Salaries.
Total.....	1,110	4,495	\$6,455,495	606	\$1,569,246	3,889	\$4,886,249	3,539	\$4,715,936	350	\$170,263
Worsted goods.....	127	1,369	2,342,218	117	440,492	1,252	1,901,726	1,130	1,837,907	122	68,819
Woolen goods.....	822	2,246	2,984,048	402	847,208	1,844	2,086,840	1,664	2,001,528	180	85,312
Carpets and rugs.....	111	687	881,398	52	173,931	635	707,467	607	693,532	28	13,935
Felt goods.....	13	136	281,065	28	92,110	108	138,955	94	133,278	14	6,377
Wool hats.....	37	57	66,786	7	15,505	50	51,261	44	49,741	6	1,520

	WAGE-EARNERS, INCLUDING PIECEWORKERS.									
	Total.				Men, 16 years and over.		Women, 16 years and over.		Children, under 16 years.	
	Greatest number employed at any one time during the year.	Least number employed at any one time during the year.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.
Total.....	181,719	139,915	159,108	\$57,933,817	88,371	\$36,412,872	64,141	\$19,549,423	11,590	\$1,971,522
Worsted goods.....	81,511	60,489	68,893	24,757,006	40,601	16,913,731	24,585	7,218,087	3,757	625,158
Woolen goods.....	64,080	49,848	57,008	20,092,738	25,595	11,300,071	25,829	7,831,109	5,584	961,558
Carpets and rugs.....	50,175	26,784	28,411	11,121,383	13,860	6,651,180	12,468	4,115,142	2,088	357,061
Felt goods.....	3,086	2,336	2,688	1,024,836	1,957	820,637	658	191,030	73	15,103
Wool hats.....	2,912	1,509	2,108	937,855	1,358	727,253	651	195,995	99	14,607

	PERSONS EMPLOYED: WAGE-EARNERS, INCLUDING PIECEWORKERS.											
	Average number employed during each month.											
	Men, 16 years and over.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Total.....	81,027	81,110	82,900	83,064	82,763	81,702	81,269	82,757	84,623	86,224	86,610	86,338
Worsted goods.....	24,947	24,292	24,876	25,299	25,389	25,047	25,161	25,616	26,022	26,719	26,728	27,044
Woolen goods.....	39,214	39,772	40,930	41,092	40,361	39,532	38,839	39,714	40,898	41,900	42,502	42,433
Carpets and rugs.....	13,828	13,915	13,865	13,428	13,733	13,337	13,923	13,916	14,018	14,043	14,100	13,659
Felt goods.....	1,929	1,931	1,976	1,912	1,921	1,898	1,901	2,003	2,050	2,011	1,975	1,977
Wool hats.....	1,109	1,200	1,253	1,333	1,309	1,383	1,445	1,508	1,635	1,546	1,305	1,255

	PERSONS EMPLOYED: WAGE-EARNERS, INCLUDING PIECEWORKERS—continued.											
	Average number employed during each month—Continued.											
	Women, 16 years and over.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Total.....	61,521	62,201	63,314	63,351	63,741	63,267	62,951	63,699	64,891	66,514	67,337	66,935
Worsted goods.....	24,100	24,578	24,947	25,322	25,691	25,675	25,493	25,899	26,072	26,892	27,596	27,753
Woolen goods.....	24,001	23,964	24,676	24,760	24,491	23,934	23,503	23,732	24,653	25,454	25,720	26,477
Carpets and rugs.....	12,285	12,521	12,498	12,082	12,331	12,335	12,497	12,551	12,604	12,641	12,732	12,436
Felt goods.....	659	640	665	634	654	663	672	646	662	669	662	670
Wool hats.....	476	498	523	563	574	627	736	851	895	863	567	569

TABLE 30.—WOOL MANUFACTURES (EXCLUDING HOSIERY AND KNIT GOODS): SUMMARY BY CLASSES, 1900—Cont'd.

PERSONS EMPLOYED: WAGE-EARNERS, INCLUDING PIECEWORKERS—Continued.												
Average number employed during each month—Continued.												
Children, under 16 years.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Total.....	11,081	11,364	11,435	11,437	11,533	11,457	11,579	11,619	11,837	11,814	11,099	12,047
Worsted goods.....	5,323	5,477	5,429	5,483	5,567	5,503	5,553	5,577	5,700	5,721	5,820	5,846
Woolen goods.....	3,564	3,644	3,757	3,738	3,709	3,639	3,731	3,732	3,818	3,840	3,922	3,930
Carpets and rugs.....	1,991	2,093	2,091	2,048	2,088	2,083	2,115	2,113	2,121	2,063	2,079	2,111
Felt goods.....	69	68	69	74	70	76	73	70	74	78	82	78
Wool hats.....	84	82	89	94	99	96	107	127	124	117	87	82

	SKILLED OPERATIVES (AVERAGE NUMBER).									MACHINERY.				
	Spinners.			Weavers.			Knit- ters.	Finishers.			Sets of woolen cards.	Combing machines.		
	Men, 16 years and over, number.	Women, 16 years and over, number.	Children, under 16 years, number.	Men, 16 years and over, number.	Women, 16 years and over, number.	Children, under 16 years, number.	Men, 16 years and over, number.	Women, 16 years and over, number.	Children, under 16 years, number.	Total number.		Of Amer- ican man- ufacture.	Of for- eign man- ufacture.	
Total.....	8,168	7,139	2,559	24,258	22,567	199	7	8,296	6,938	341	6,605	1,451	337	1,114
Worsted goods.....	1,995	4,852	1,580	7,426	6,194	62	.....	2,789	2,932	78	685	1,194	214	980
Woolen goods.....	5,619	1,137	790	10,381	11,812	103	7	4,625	2,793	180	5,019	123	77	46
Carpets and rugs.....	486	1,160	185	6,836	4,443	34	.....	516	1,018	80	468	134	46	88
Felt goods.....	68	.....	4	115	118	.....	.....	149	95	3	302	.....	.....	.....
Wool hats.....	.....	.....	.....	.....	.....	.....	.....	217	100	.....	140	.....	.....	.....

MACHINERY—continued.														
	Spindles.							Looms on woolen or worsted goods.						
	Total number.	Spinning.			Doubling.			Total number.	Broad (50 inches or over—reed space).		Narrow (50 inches or over—reed space).		Hand. On wool- en or worsted goods.	
		Woolen.	Worsted.	Cotton.	Woolen.	Worsted.	Cotton.		On woolen goods.	On worsted goods.	On woolen goods.	On worsted goods.		
Total.....	3,511,099	1,935,527	980,835	147,524	95,501	344,420	7,292	63,294	22,364	16,710	14,220	9,920	80	
Worsted goods.....	1,371,026	133,504	842,730	91,352	16,522	282,914	4,204	26,372	2,240	14,099	950	8,481	2	
Woolen goods.....	1,906,581	1,714,952	40,914	50,276	74,731	24,848	860	34,881	19,056	1,994	12,656	1,143	32	
Carpets and rugs.....	209,206	63,836	97,191	6,096	3,197	36,658	2,228	1,757	797	17	602	295	46	
Felt goods.....	24,286	23,235	.....	.....	1,051	.....	.....	284	271	.....	12	1	.....
Wool hats.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

MACHINERY—continued.																
	Looms on carpets and rugs.															
	Total num- ber.	Ingrain.		Broad ingrain.		Venetian.	Tapestry Brussels.	Tapes- try vel- vet.	Body Brus- sels.	Wilton.	Axmin- ster.	Mo- quette.	Wilton rug.	Tapes- try rug.	Smyrna rug.	
		Hand.	Power.	Hand.	Power.	Power.	Power.	Power.	Power.	Power.	Power.	Power.	Power.	Power.	Hand.	Power.
Total.....	10,396	99	4,386	1	246	80	1,094	737	647	507	611	150	22	3	955	1,358
Woolen goods.....	142	7	32	.....	.....	.....	.....	.....	103	.....	.....	.....	.....	.....	.....	.....
Carpets and rugs.....	10,754	92	4,354	1	246	80	1,094	737	544	507	611	150	22	3	955	1,358

TABLE 30.—WOOL MANUFACTURES (EXCLUDING HOSIERY AND KNIT GOODS): SUMMARY BY CLASSES, 1900—Cont'd.

	MACHINERY—continued.										
	Formers for fur hats.	Braiders.	Total number.	Knitting machines.							
				Spring beard needle.		Latch needle.					
				Circular, ribbed.	Circular, plain.	Flat, plain.	Full fashioned, flat ribbed.	Circular, ribbed.	Circular, plain.	Circular, hosiery automatic.	Hand and other variety, plain.
Total.....	504	14,958	157	4	110	7	5	11	16	2	2
Worsted goods.....		2,830									
Woolen goods.....	500	12,128	157	4	110	7	5	11	16	2	2
Carpets and rugs.....											
Felt goods.....											
Wool hats.....	4										

	MISCELLANEOUS EXPENSES.					MATERIALS USED.			
	Total.	Rent of works.	Taxes, not including internal revenue.	Rent of offices, interest, insurance, etc.	Contract work.	Aggregate cost.	Purchased in raw state.		
							Total cost.	Wool.	
								Foreign in condition purchased.	
Pounds.	Cost.	Pounds.	Cost.			Pounds.	Cost.		
Total.....	\$17,820,932	\$845,778	\$1,161,596	\$13,573,836	\$1,749,222	\$181,159,127	\$97,171,554	186,434,961	\$28,835,967
Worsted goods.....	6,767,611	286,920	880,210	5,121,974	978,507	77,075,222	46,274,155	57,263,393	15,150,048
Woolen goods.....	7,238,634	365,171	566,452	5,830,517	456,494	71,011,956	38,838,138	22,521,954	4,598,021
Carpets and rugs.....	2,751,879	162,657	178,469	2,096,592	314,221	27,228,719	8,783,166	51,761,523	8,077,420
Felt goods.....	356,164	16,140	28,391	311,633		3,801,028	2,390,926	4,248,880	782,221
Wool hats.....	185,644	14,890	8,074	162,680		2,042,202	876,169	639,211	218,651

	MATERIALS USED—continued.											
	Purchased in raw state—Continued.											
	Wool—Continued.				Animal hair and fur.				Cotton.			
	Domestic in condition purchased.		Foreign and domestic, etc., scoured.	Camel, alpaca, and vicuña hair.		Mohair.		Buffalo, cow, and other animal hair and fur.		Bales.	Pounds.	Cost.
Pounds.	Cost.	Pounds.		Cost.	Pounds.	Cost.	Pounds.	Cost.				
Total.....	257,934,562	\$61,057,383	238,632,452	2,536,296	\$530,225	3,048,146	\$1,430,288	29,085,363	\$1,821,559	99,054	43,414,562	\$3,487,132
Worsted goods.....	122,714,543	29,147,093	103,398,616	1,749,573	391,332	1,905,967	972,207	855,898	79,960	12,079	5,276,751	524,515
Woolen goods.....	127,678,682	29,899,065	89,306,903	238,247	34,337	1,117,179	459,831	19,679,181	1,090,796	80,725	34,967,959	2,755,435
Carpets and rugs.....	109,811	26,687	37,600,231	457,476	71,256	25,000	7,250	6,707,281	471,104	3,813	1,943,942	129,449
Felt goods.....	5,357,383	1,414,216	6,468,097	98,000	33,300			2,721,521	92,503	2,437	1,235,850	77,683
Wool hats.....	2,074,163	570,322	1,898,605					121,482	87,196			

	MATERIALS USED—continued.										
	Purchased in partially manufactured form.										
	Total cost.	Materials not made in mill.									
		Shoddy.		Wool waste and noils.		Camel, alpaca, and vicuña noils.		Mohair noils.		Tops.	
Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.		
Total.....	\$82,219,766	\$4,496,503	\$4,195,744	21,114,539	\$5,034,204	326,496	\$60,933	114,762	\$25,749	5,865,566	\$3,022,974
Worsted goods.....	23,250,097	1,807,827	303,644	1,885,867	558,494	55,679	12,856			5,260,775	2,701,582
Woolen goods.....	21,250,276	31,228,940	3,787,192	13,473,154	3,249,382	185,909	44,450	113,562	25,587	305,333	163,964
Carpets and rugs.....	15,945,010	744,233	43,559	2,238,946	801,944	84,908	3,627	1,200	162	200,000	96,000
Felt goods.....	892,973	712,373	80,737	2,633,590	552,992					99,458	61,423
Wool hats.....	881,410	3,135	618	362,982	370,792						

MANUFACTURES.

TABLE 30.—WOOL MANUFACTURES (EXCLUDING HOSIERY AND KNIT GOODS): SUMMARY BY CLASSES, 1900—Cont'd.

PRODUCTS—continued.										
All-wool woven goods, whether woolen or worsted—Continued.										
Wool dress goods, etc., and opera and similar flannels.		Worsted dress goods, cashmeres, burlings, etc.		Carriage cloths of all weights.		Fannels for underwear.		Blankets.		
Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	
Total.....	33,597,692	\$12,978,546	57,712,086	\$16,316,892	1,220,408	\$696,999	9,345,556	\$2,352,086	5,465,277	\$2,325,307
Worsted goods.....	3,220,974	1,598,459	54,480,569	14,994,513	1,220,408	696,999	9,324,720	2,344,559	187,530	42,194
Woolen goods.....	30,273,238	11,378,080	3,231,517	1,321,879			20,836	7,527	5,266,643	2,274,774
Felt goods.....	3,480	2,057							11,104	8,339

PRODUCTS—continued.												
All-wool woven goods, whether woolens or worsted—Cont'd.						Union or cotton mixed, woven goods.						
Horse blankets.		Carriage robes.		Woven shawls.		Unions, tweeds, etc.		Overcoatings, etc.		Sackings, tricots, etc., and opera and similar flannels.		
Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	
Total.....	518,452	\$259,221	28,979	\$17,877	600,104	\$500,523	30,767,915	\$13,695,830	6,087,366	\$3,518,613	11,176,752	\$3,669,584
Worsted goods.....					87,902	72,248	1,179,014	880,441	411,902	353,864	1,071,204	328,243
Woolen goods.....	514,952	256,211	615	510	512,202	428,275	29,588,901	12,815,389	5,675,464	3,164,749	10,105,548	3,341,341
Carpets and rugs.....			28,364	17,367								
Felt goods.....	3,500	3,010										

PRODUCTS—continued.										
Union or cotton-mixed woven goods—Continued.										Goods woven on cotton warps, with weft partly or wholly of wool, worsted, or of hair (or cotton weft with warp of wool).
Flannels for underwear.		Blankets.		Horse blankets.		Carriage robes.		Wool filling, cassimeres, etc.		
Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	
Total.....	6,217,094	\$1,284,578	1,530,696	\$561,649	1,094,537	\$228,943	460,210	\$152,499	37,160,449	\$11,024,538
Worsted goods.....										
Woolen goods.....	6,217,094	1,284,578	1,530,696	561,649	1,094,537	228,943	460,210	152,499	2,073,990	1,356,735
									35,085,459	9,667,803

PRODUCTS—continued.										
Goods woven on cotton warps, with weft partly or wholly of wool, worsted, hair (or cotton weft with warp of wool)—Continued.										
Worsted filling cassimeres, etc.		Wool filling overcoatings and cloakings.		Astrakhans, etc.		Satinets and linseys.		Worsted filling dress goods, etc.		
Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	
Total.....	12,663,719	\$7,267,508	3,917,498	\$1,430,430	32,576	\$14,150	13,051,729	\$2,873,181	45,784,011	\$10,423,206
Worsted goods.....	10,540,927	6,401,491								
Woolen goods.....	2,122,792	866,017	3,917,498	1,430,430	32,576	14,150	13,051,729	2,873,181	39,611,517	8,466,106
									6,172,494	1,957,100

TABLE 30.—WOOL MANUFACTURES (EXCLUDING HOSIERY AND KNIT GOODS): SUMMARY BY CLASSES, 1900—Cont'd.

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.										
Wool filling, dress goods, and repellants.		Domest flannels and shirtings.		Linings, Italian cloths, etc.		Cotton-warp blankets.		Horse blankets.		
Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	
Total.....	7,496,893	\$1,890,488	4,555,013	\$976,465	10,157,039	\$2,228,484	11,159,532	\$2,314,003	5,702,315	\$1,252,824
Worsted goods.....	347,882	155,042			6,987,330	1,953,139				
Woolen goods.....	7,149,016	1,735,446	4,555,013	976,465	3,169,709	275,295	11,107,104	2,241,342	5,702,315	1,252,824
Felt goods.....							52,428	72,661		

PRODUCTS—continued.											
Goods woven on cotton warps, with weft partly or wholly of wool, worsted, or of hair (or cotton weft with warp of wool)—continued.				Upholstery goods and sundries.			Carpets and rugs.				
Carriage robes.		Woolen and worsted upholstery goods.		Other upholstery goods.	Ingrain, 2-ply.		Ingrain, 3-ply.		Ingrain.		
Square yards.	Value.	Square yards.	Value.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	
Total.....	1,250,900	\$816,733	541,909	\$786,461	\$2,922,850	36,800,494	\$13,250,801	3,223,100	\$1,146,653	2,328,906	\$1,007,627
Worsted goods.....			43,614	82,130	454,995						
Woolen goods.....	1,250,233	815,233	403,954	679,991	2,062,611	102,202	28,144	543	880		
Carpets and rugs.....	667	1,500	94,341	44,340	405,244	36,698,292	13,222,657	3,222,557	1,146,273	2,328,906	1,007,627

PRODUCTS—continued.												
Carpets and rugs—Continued.												
Carpets—Continued.												
Tapestry Brussels.		Body Brussels.		Tapestry velvet.		Wilton and Wilton velvet.		Axminster.		Moquette.		
Running yards of 27 inches wide.	Value.	Running yards of 27 inches wide.	Value.	Running yards of 27 inches wide.	Value.	Running yards of 27 inches wide.	Value.	Running yards of 27 inches wide.	Value.	Running yards of 27 inches wide.	Value.	
Total.....	11,649,932	\$5,520,665	3,581,991	\$2,979,867	5,706,754	\$3,743,353	4,782,335	\$4,030,842	5,074,961	\$3,637,001	1,027,410	\$1,125,268
Carpets and rugs.....	11,649,932	5,520,665	3,581,991	2,979,867	5,706,754	3,743,353	4,782,335	4,030,842	5,074,961	3,637,001	1,027,410	1,125,268

PRODUCTS—continued.												
Carpets and rugs—Continued.												
Rugs.												
Tapestry.		Wilton.		Moquette and Axminster.		Ingrain.		Smyrna carpets and rugs.		Other rugs.		
Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	
Total.....	18,750	\$9,000	339,784	\$545,967	327,598	\$342,262	393,417	\$168,824	3,651,661	\$3,680,618	5,115,505	\$2,394,624
Carpets and rugs.....	18,750	9,000	339,784	545,967	327,598	342,262	393,417	168,824	3,651,661	3,680,618	5,111,173	2,391,484
Felt goods.....											4,332	3,090

MANUFACTURES.

TABLE 30.—WOOL MANUFACTURES (EXCLUDING HOSIERY AND KNIT GOODS): SUMMARY BY CLASSES, 1900—Cont'd.

	PRODUCTS—continued.										
	Felt goods.										
	Felt cloths.		Endless belts.		Boot and shoe linings.		Hair felting.		Trimming and lining felts, felt skirts, etc.		All other felts.
	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Value.
Total	2,169,061	\$599,961	1,114,357	\$1,084,835	1,052,538	\$540,110	125,000	\$56,950	2,472,568	\$797,093	\$2,285,310
Woolen goods	113,059	51,418							2,788	375	8,029
Carpets and rugs											15,393
Felt goods	2,056,002	548,543	1,114,357	1,084,835	1,052,538	540,110	125,000	56,950	2,469,830	796,718	2,261,918

	PRODUCTS—continued.											
	Hats.				Partly manufactured products for sale.							
	Wool hats.		Fur hats.		Woolen yarn all wool.		Worsted yarn and tops.		Woolen or worsted yarn, union or merino, cotton mixed.		Mohair and similar yarn.	
	Dozens.	Value.	Dozens.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Total	823,425	\$3,166,761	43,994	\$285,705	33,812,065	\$7,075,883	45,780,272	\$31,171,461	16,984,567	\$4,673,012	1,004,113	\$924,344
Worsted goods	12,000	5,400			3,556,375	1,052,508	41,659,360	29,358,056	2,537,303	1,903,639	788,166	705,211
Woolen goods					29,143,476	5,752,118	1,343,983	723,369	13,437,264	2,764,486	215,947	219,133
Carpets and rugs					1,073,214	252,857	2,776,929	1,030,036	10,000	4,837		
Felt goods					39,000	18,400						
Wool hats	811,425	3,161,361	43,994	285,705								

	PRODUCTS—continued.											
	Partly manufactured products for sale—Continued.											
	Cotton yarn.		Wool card rolls.		Nolls.		Waste.		Shoddy.		Flocks.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Total	3,531,992	\$527,046	977,706	\$395,808	12,851,081	\$3,474,818	8,511,905	\$1,253,170	430,176	\$70,064	612,422	\$33,017
Worsted goods	76,013	19,760			12,052,814	3,335,251	7,184,821	1,162,610			297,028	11,783
Woolen goods	3,455,979	507,286	977,706	395,808	124,029	18,936	978,473	67,059	430,176	70,064	212,625	21,037
Carpets and rugs					674,188	120,131	330,851	21,138				
Felt goods							18,260	7,368			2,169	197

	PRODUCTS—continued.										
	Partly manufactured products for sale—Continued.				Hosiery and knit goods.						
	No. 14. Wool-hat bodies and hats in the rough.				Hose and half hose.						
					Woolen.			Merino or mixed.		Cotton.	
					Half hose.		Hose.	Half hose.		Hose.	
	Dozens.	Value.	Dozens.	Value.	Dozens.	Value.	Dozens.	Value.	Dozens.	Value.	
Total		56,006	\$120,262	3,438	\$11,714	828	\$3,122	852	\$1,806	80	\$130
Woolen goods											
Wool hats		56,006	120,262	3,438	11,714	828	3,122	852	1,806	80	130

TABLE 30.—WOOL MANUFACTURES (EXCLUDING HOSIERY AND KNIT GOODS): SUMMARY BY CLASSES, 1900—Cont'd.

	PRODUCTS—continued.											
	Hosiery and knit goods—Continued.				Leggings and garters.		Gloves and mittens.		Eiderdown.		All other products.	Contract work.
	Boot and shoe linings.		Jersey cloth and stockinette.									
	Square yards.	Value.	Square yards.	Value.	Dozens.	Value.	Dozens.	Value.	Square yards.	Value.	Value.	Value.
Total.....	11,420	\$8,800	2,784	\$1,010	207	\$1,656	1,238	\$4,641	861,000	\$126,403	\$5,748,109	\$1,613,054
Worsted goods.....	11,420	8,800	2,784	1,010	207	1,656	1,238	4,641	861,000	126,403	1,077,474	793,338
Woolen goods.....											1,190,662	775,445
Carpets and rugs.....											2,648,205	20,100
Felt goods.....											831,327	
Wool hats.....											441	24,171

	COMPARISON OF PRODUCTS.				POWER.												
	Number of establishments reporting for both years.	Census year 1900.	Preceding business year.	Number of establishments reporting.	Total horse-power.	Owned.											
						Engines.				Water wheels.		Electric motors.		Other power.			
						Steam.		Gas or gasoline.		Number.	Horse-power.	Number.	Horse-power.	Number.	Horse-power.	Number.	Horse-power.
						Number.	Horse-power.	Number.	Horse-power.								
Total.....	1,163	\$277,335,405	\$227,326,132	1,393	274,262	1,525	186,252	17	446	1,161	79,056	89	2,697	3	9		
Woolen goods.....	861	109,712,214	95,443,073	1,024	139,645	893	32,933	12	191	954	52,858	51	1,217	2	4		
Worsted goods.....	145	113,635,037	85,483,346	185	97,333	399	73,180	4	220	147	20,491	26	1,151	1	6		
Carpets and rugs.....	114	46,885,929	40,191,460	127	26,932	155	23,091	1	85	22	3,145	5	192				
Felt goods.....	25	3,867,905	3,416,320	36	7,973	52	5,129			29	2,657	6	132				
Wool hats.....	18	3,284,380	2,791,933	21	2,329	26	1,919			9	405	1	5				

	POWER—continued.			FACTORIES.											
	Rented.		Furnished to other establishments.	Total number of establishments.	No employees.										
	Electric.	Other kind.				Under 5.	5 to 20.	21 to 50.	51 to 100.	101 to 250.	251 to 500.	501 to 1,000.	Over 1,000.		
	Horse-power.	Horse-power.	Horse-power.												
Total.....	4,798	1,004	1,044			1,414	115	193	193	206	243	232	115	45	22
Woolen goods.....	2,942		286	1,035	114	186	158	146	155	194	61	19	2		
Worsted goods.....	1,801	535	260	186		1	10	17	42	53	28	28	12		
Carpets and rugs.....		469	484	133		2	18	88	30	20	19	8	8		
Felt goods.....	55		14	36		1	6	4	13	10	2				
Wool hats.....				24		1	3	1	3	5	5				

TABLE 31.—WOOLEN GOODS.

	United States.	Alabama.	Arkansas.	California.	Connecticut.	
1	Number of establishments	1,035	11	13	5	51
	Character of organization:					
2	Individual	426	6	7	1	8
3	Firm and limited partnership	298	3	6		16
4	Incorporated company	311	2		4	23
	Capital:					
5	Total	\$124,386,262	\$97,759	\$48,525	\$1,050,474	\$9,140,056
6	Land	\$7,948,126	\$2,175	\$2,855	\$90,900	\$395,966
7	Buildings	\$17,760,364	\$14,795	\$6,000	\$117,935	\$1,458,743
8	Machinery, tools, and implements	\$28,703,473	\$81,723	\$17,800	\$270,348	\$2,012,192
9	Cash and sundries	\$69,974,299	\$49,066	\$16,870	\$571,291	\$5,278,165
10	Proprietors and firm members	822	13	18	1	46
	Salaried officials, clerks, etc.:					
11	Total number	2,246	2	3	18	144
12	Total salaries	\$2,934,048	\$1,820	\$903	\$25,460	\$191,857
	Officers of corporations—					
13	Number	402			6	44
14	Salaries	\$847,208			\$10,100	\$69,300
	General superintendents, managers, clerks, etc.—					
15	Total number	1,844	2	3	12	100
16	Total salaries	\$2,086,840	\$1,820	\$903	\$15,360	\$122,057
	Men—					
17	Number	1,664	2	3	12	94
18	Salaries	\$2,001,628	\$1,820	\$903	\$15,360	\$119,734
	Women—					
19	Number	180				6
20	Salaries	\$85,312				\$2,323
	Wage-earners, including pieceworkers, and total wages:					
21	Greatest number employed at any one time during the year	81,511	116	41	522	5,028
22	Least number employed at any one time during the year	60,489	38	33	387	4,082
23	Average number	68,893	75	27	430	4,068
24	Wages	\$24,757,006	\$10,458	\$5,153	\$159,825	\$1,760,917
	Men, 16 years and over—					
25	Average number	40,601	21	14	264	8,071
26	Wages	\$16,913,731	\$3,863	\$3,264	\$113,826	\$1,285,590
	Women, 16 years and over—					
27	Average number	24,535	51	11	147	1,448
28	Wages	\$7,218,087	\$6,395	\$1,651	\$48,012	\$446,762
	Children, under 16 years—					
29	Average number	3,757	3	2	19	149
30	Wages	\$625,188	\$200	\$243	\$2,987	\$29,565
	Average number of wage-earners, including pieceworkers, employed during each month:					
	Men, 16 years and over—					
31	January	39,214	19	9	234	8,006
32	February	39,772	20	6	210	8,025
33	March	40,930	20	8	269	8,181
34	April	41,092	22	8	250	8,128
35	May	40,861	21	14	250	8,082
36	June	39,532	17	14	255	2,838
37	July	38,839	20	17	288	2,783
38	August	39,714	22	18	282	2,968
39	September	40,898	22	22	293	8,127
40	October	41,900	22	23	299	8,212
41	November	42,502	23	20	309	8,248
42	December	42,438	24	9	224	3,258
	Women, 16 years and over—					
43	January	24,001	67	7	119	1,433
44	February	23,964	84	8	105	1,417
45	March	24,676	62	10	138	1,497
46	April	24,750	76	9	146	1,461
47	May	24,491	83	13	151	1,417
48	June	23,934	14	13	147	1,342
49	July	23,503	14	14	154	1,347
50	August	23,792	32	14	167	1,368
51	September	24,658	33	14	173	1,442
52	October	25,454	33	14	175	1,603
53	November	25,720	51	13	172	1,537
54	December	25,477	65	5	117	1,648
	Children, under 16 years—					
55	January	3,564	3	1	17	153
56	February	3,644	3	1	16	147
57	March	3,757	3	1	17	156
58	April	3,738	3	2	15	144
59	May	3,709	3	2	17	147
60	June	3,699	3	5	21	142
61	July	3,731	3	3	20	133
62	August	3,732	3	3	20	142
63	September	3,818	3	4	23	145
64	October	3,840	3	2	22	156
65	November	3,922	3	2	21	160
66	December	3,930	3	1	18	169
	Skilled operatives, average number:					
	Spinners—					
67	Men, 16 years and over	5,619	2	2	45	879
68	Women, 16 years and over	1,137	1		7	15
69	Children, under 16 years	790				6
	Weavers—					
70	Men, 16 years and over	10,881	4		31	883
71	Women, 16 years and over	11,812	25	7	79	574
72	Children, under 16 years	103			11	
	Knitters—					
73	Men, 16 years and over	7				
	Finishers—					
74	Men, 16 years and over	4,625	4	2	57	344
75	Women, 16 years and over	2,793	6		25	250
76	Children, under 16 years	180				12
	Machinery:					
77	Sets of woolen cards	5,010	8	16	30	343
78	Combing machines, number:	123				32
79	Of American manufacture	77				30
80	Of foreign manufacture	46				2
81	Spindles, number:	1,906,581	160	1,000	10,932	149,278
	Spinning—					
82	Woolen	1,714,952	160	960	10,476	127,218
83	Worsted	40,914				2,000
84	Cotton	50,276				10,000

WOOL.

BY STATES, 1900.

Georgia.	Illinois.	Indiana.	Iowa.	Kentucky.	Maine.	Maryland.	Massachu- setts.	Michigan.	Minnesota.	Mississippi.	Missouri.	
14	18	20	12	36	76	4	131	16	19	4	25	1
8	6	5	5	20	25	1	45	7	11	2	17	2
2	2	6	2	11	12	2	32	7	6	-----	5	3
4	5	9	4	6	39	1	54	2	2	2	8	4
\$455,114	\$1,571,625	\$1,849,268	\$494,074	\$1,588,816	\$12,642,058	\$1,330,549	\$33,196,903	\$775,609	\$762,825	\$315,700	\$490,747	5
\$82,065	\$100,994	\$57,375	\$24,990	\$32,955	\$728,715	\$28,630	\$2,357,178	\$14,200	\$178,900	\$5,400	\$36,135	6
\$61,895	\$211,679	\$288,799	\$67,850	\$157,195	\$1,883,515	\$169,177	\$4,668,468	\$111,938	\$133,092	\$96,400	\$89,450	7
\$198,185	\$367,781	\$525,997	\$143,950	\$340,422	\$2,759,954	\$171,663	\$5,706,431	\$187,285	\$183,005	\$107,900	\$170,475	8
\$162,969	\$891,221	\$977,092	\$257,894	\$1,058,244	\$7,319,874	\$961,079	\$20,469,331	\$462,186	\$267,828	\$106,000	\$194,637	9
1	4	12	11	18	34	6	102	16	6	2	18	10
13	50	58	26	20	190	25	438	23	20	5	18	11
\$16,936	\$69,023	\$68,148	\$16,611	\$28,972	\$241,988	\$35,625	\$729,724	\$18,099	\$23,450	\$10,166	\$20,928	12
3	6	15	5	9	39	3	55	3	2	2	7	13
\$7,114	\$12,000	\$24,480	\$4,320	\$21,200	\$69,115	\$14,100	\$203,875	\$3,500	\$11,000	\$2,000	\$9,900	14
10	44	43	21	11	151	22	333	20	18	3	11	15
\$9,822	\$57,023	\$48,718	\$12,291	\$7,772	\$172,873	\$21,525	\$625,349	\$14,599	\$12,450	\$8,166	\$11,023	16
10	40	37	19	9	140	20	326	19	16	3	9	17
\$9,822	\$54,788	\$39,712	\$11,523	\$6,692	\$167,599	\$20,401	\$496,264	\$14,365	\$10,950	\$3,166	\$10,123	18
-----	4	6	2	2	11	2	57	1	2	-----	2	19
-----	\$2,235	\$4,006	\$768	\$1,080	\$5,274	\$1,124	\$29,685	\$234	\$1,500	-----	\$900	20
590	383	1,226	295	704	7,746	943	21,040	441	355	332	336	21
551	637	782	242	642	5,086	811	14,966	311	305	262	219	22
561	693	1,048	256	618	6,280	877	17,717	337	300	302	237	23
\$97,159	\$210,157	\$306,822	\$64,596	\$144,374	\$2,333,323	\$221,215	\$6,823,051	\$108,163	\$90,662	\$55,192	\$68,314	24
284	868	432	126	149	4,230	576	11,177	193	160	146	139	25
\$55,013	\$139,831	\$109,875	\$39,576	\$50,350	\$1,778,171	\$173,152	\$4,808,450	\$71,726	\$60,196	\$34,869	\$42,427	26
189	290	571	128	364	1,941	204	5,865	144	119	111	79	27
\$31,720	\$66,888	\$129,266	\$24,647	\$79,966	\$534,122	\$33,011	\$1,888,520	\$36,442	\$27,031	\$16,234	\$18,203	28
88	35	46	2	105	109	97	675	-----	21	45	19	29
\$10,426	\$3,438	\$7,631	\$373	\$14,558	\$21,030	\$10,052	\$131,031	-----	\$3,335	\$4,089	\$2,539	30
275	372	396	111	125	4,245	563	11,027	196	127	125	67	31
274	351	410	113	125	4,223	557	11,252	201	126	139	140	32
278	360	425	112	129	4,303	573	11,511	202	135	144	149	33
283	313	423	116	139	4,215	585	11,583	183	152	147	166	34
293	366	441	126	162	4,081	585	10,988	183	180	145	186	35
291	372	430	131	170	4,007	587	11,008	207	174	133	187	36
290	372	403	142	175	3,847	597	10,439	193	182	140	176	37
291	390	438	138	174	4,124	572	10,413	189	169	146	169	38
293	391	465	139	152	4,244	583	11,054	189	172	156	149	39
281	399	456	140	140	4,448	575	11,399	193	170	156	128	40
272	370	457	132	154	4,544	563	11,662	190	168	156	46	41
279	366	433	128	137	4,481	563	11,787	180	163	153	125	42
181	296	519	122	365	1,924	200	5,781	153	98	96	64	43
181	285	525	124	364	1,908	203	5,933	161	96	106	85	44
185	290	567	119	364	1,966	203	6,066	103	101	110	82	45
191	243	567	121	365	1,961	207	6,079	133	119	111	74	46
195	292	579	127	365	1,884	202	5,896	126	135	109	95	47
196	237	549	133	366	1,863	203	5,332	133	133	106	95	48
197	300	551	135	366	1,768	201	5,446	142	139	107	87	49
197	309	532	134	366	1,897	206	5,269	133	125	112	88	50
195	313	635	137	346	1,893	203	5,701	143	124	118	64	51
182	311	604	126	348	2,019	203	6,023	150	121	119	63	52
182	277	605	130	376	2,102	203	6,167	144	123	120	59	53
188	279	536	124	377	2,111	202	6,186	137	118	122	87	54
87	29	42	-----	97	118	81	625	-----	20	39	18	55
89	29	46	-----	97	123	85	668	-----	20	43	18	56
87	29	49	-----	100	131	95	693	-----	20	44	20	57
91	31	37	1	102	139	104	703	-----	23	45	22	58
87	30	46	5	106	100	111	693	-----	23	44	27	59
90	31	44	5	108	105	110	685	-----	23	42	25	60
89	32	49	5	110	86	114	652	-----	23	44	23	61
86	39	44	6	111	93	99	621	-----	23	45	22	62
88	40	55	5	112	83	97	632	-----	20	47	13	63
88	40	46	1	112	98	87	639	-----	20	48	14	64
88	42	44	1	108	95	96	695	-----	20	49	12	65
86	42	42	-----	100	133	89	695	-----	20	50	9	66
77	31	23	14	77	430	96	1,467	27	33	14	17	67
11	30	107	6	-----	76	8	87	17	1	-----	11	68
66	3	21	-----	15	1	67	67	-----	1	-----	-----	69
89	102	74	17	19	1,231	115	3,101	27	13	15	20	70
167	57	343	40	273	699	122	3,014	46	101	59	79	71
10	-----	2	-----	-----	1	6	8	-----	-----	-----	1	72
-----	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	73
84	33	55	12	23	485	52	1,522	29	18	8	21	74
6	33	17	11	2	381	22	701	15	1	-----	9	75
-----	-----	-----	-----	2	4	-----	59	-----	2	-----	-----	76
81	46	85	26	58	422	47	1,251	40	33	26	36	77
3	-----	-----	-----	-----	5	-----	19	-----	-----	-----	-----	78
3	-----	-----	-----	-----	-----	-----	8	-----	-----	-----	-----	79
-----	-----	-----	-----	-----	5	-----	11	-----	-----	-----	-----	80
11,008	16,156	46,864	9,552	21,215	163,915	15,823	472,984	14,707	9,524	8,916	7,762	81
11,008	15,286	39,608	9,023	20,371	145,853	15,793	442,946	13,512	8,978	8,916	7,523	82
-----	-----	-----	-----	-----	6,984	-----	3,852	-----	-----	-----	-----	83
-----	-----	6,500	-----	-----	3,584	-----	1,300	-----	-----	-----	-----	84

TABLE 31.—WOOLEN GOODS:

	United States.	Alabama.	Arkansas.	California.	Connecticut.
Machinery—Continued.					
Spindles, number—Continued.					
Doubling—					
Woolen	74,781		40	456	6,060
Worsted	24,848				4,000
Cotton	860				
Looms on woolen or worsted goods, number—	34,881	12	40	142	2,274
Broad, 50 inches or over, reed space—					
On woolen goods	19,056		13	119	1,527
On worsted goods	1,994		2		280
Narrow, under 50 inches, reed space—					
On woolen goods	12,656	12	20	23	461
On worsted goods	1,143		5		6
Hand—					
On woolen or worsted goods	32				
Looms on carpets and rugs, number	142	80			
Ingrain—					
Hand	7				
Power	32	30			
Body Brussels—					
Power	103				
Formers for fur hats	500				
Braiders	12,128				
Knitting machines, number	157				86
Spring-beard needle—					
Circular, ribbed	4				
Circular, plain	110				86
Latch needle—					
Flat, plain	7				
Full fashioned, flat, ribbed	5				
Circular, ribbed	11				
Circular, plain	16				
Circular, hosiery, automatic	2				
Lamb and other variety, hand	2				
Miscellaneous expenses:					
Total	\$7,268,634	\$8,091	\$398	\$78,201	\$473,100
Rent of works	\$305,171	\$113			\$17,912
Taxes, not including internal revenue	\$506,452	\$231	\$308	\$4,417	\$38,435
Rent of offices, insurance, interest, and all sundry expenses not hitherto included	\$5,880,517	\$7,647	\$90	\$73,844	\$300,322
Contract work	\$456,494	\$100			\$17,437
Material used:					
Total cost	\$71,011,956	\$43,078	\$28,598	\$409,445	\$4,951,162
Wool—					
Foreign, in condition purchased, pounds	22,521,954				717,771
Cost	\$4,598,624				\$254,033
Domestic, in condition purchased, pounds	127,678,662	129,041	129,037	2,045,311	7,809,254
Cost	\$29,899,065	\$24,511	\$22,817	\$317,075	\$2,075,025
Foreign and domestic, etc., scoured, pounds	89,366,908	68,465	85,175	824,118	5,627,290
Animal hair and fur—					
Camel, alpaca, and vicuna hair, pounds	238,247				
Cost	\$34,337				
Mohair, pounds	1,117,179				5,000
Cost	\$459,831				\$2,000
Buffalo, cow, and other animal hair and fur, pounds	19,679,181				164,331
Cost	\$1,090,796				\$13,721
Cotton, bales	80,725	40		84	3,411
Pounds	34,967,959	20,000		43,058	1,694,850
Cost	\$2,755,485	\$2,000		\$3,122	\$150,049
Materials not made in mill—					
Shoddy, pounds	31,228,940			40,714	4,344,780
Cost	\$3,767,192			\$5,140	\$472,421
Wool waste and noils, pounds	18,478,154				1,021,804
Cost	\$3,249,982				\$186,135
Camel, alpaca, and vicuna noils, pounds	185,909				795
Cost	\$44,450				\$182
Mohair noils, pounds	113,562				6,248
Cost	\$25,587				\$1,849
Tops, pounds	305,333				17,236
Cost	\$163,964				\$9,211
Yarns not made in mill—					
Woolen, pounds	3,059,771	46,096			40,976
Cost	\$1,272,954	\$4,609			\$26,075
Worsted, pounds	6,214,076			1,000	615,351
Cost	\$4,791,079			\$1,200	\$380,389
Merino, pounds	3,215,245				4,000
Cost	\$516,636				\$1,101
Cotton, pounds	21,922,136	78,281	14,000	24,377	902,313
Cost	\$3,782,240	\$9,216	\$2,480	\$5,964	\$192,395
Silk, pounds	34,007				51
Cost	\$145,514				\$207
Spun silk, pounds	23,957				
Cost	\$72,632				
Linen, pounds	7,845				
Cost	\$6,998				
Jute, ramie, or other of vegetable fiber, pounds	1,118,767				
Cost	\$57,384				
Shoddy made in mill for use therein, pounds	35,626,165			79,265	1,862,929
Cost	\$2,817,663			\$4,781	\$168,251
All other materials which are components of the product	\$596,001				\$18,205
Soap, pounds	18,758,008				1,076,286
Cost	\$742,628	125	5,300	440,000	\$47,081
Oil for preparing wool for cards or combs, gallons	2,467,865	\$5	\$165	\$6,658	\$17,827
Cost	\$693,228	\$27	\$850	\$9,597	\$48,417
Chemicals and dyestuffs	\$3,068,020	\$500	\$550	\$26,000	\$297,765
Fuel	\$1,795,286	\$940	\$1,404	\$18,933	\$170,595
Rent of power and heat	\$102,131		\$100		\$700
Mill supplies	\$655,388	\$495	\$505	\$3,550	\$55,781
All other materials	\$1,983,130	\$355	\$340	\$5,866	\$142,950
Freight	\$983,881	\$317	\$15	\$6,959	\$77,616
Cotton yarn made in mill for use therein, pounds	2,783,789				565,000

WOOL.

BY STATES, 1900—Continued.

Georgia.	Illinois.	Indiana.	Iowa.	Kentucky.	Maine.	Maryland.	Massachusetts.	Michigan.	Minnesota.	Mississippi.	Missouri.	
	870	756	524	344	7,206	30	15,978	1,195	546		239	85
					5,288		4,408					86
503	184	891	112	533	2,447	179	8,939	159	143	130	196	87
	161	274	91	71	2,354	176	5,384	180	129	62	69	88
	2						541					89
503	21	617	21	460	93	3	2,960	29	14	68	127	90
							54					91
												92
				2								93
					104							94
					1							95
												96
					103							97
							1,000					98
									8			99
									4			100
									4			101
												102
												103
												104
												105
												106
												107
												108
\$22,430	\$78,486	\$97,855	\$16,831	\$48,644	\$659,319	\$54,181	\$1,745,199	\$29,717	\$96,178	\$17,817	\$21,067	109
	\$1,350	\$1,660	\$650	\$556	\$4,794		\$114,538	\$650	\$1,255		\$148	110
\$3,012	\$5,727	\$12,093	\$2,726	\$6,365	\$54,166	\$5,940	\$208,768	\$5,632	\$3,894	\$3,511	\$2,271	111
\$18,455	\$66,409	\$84,102	\$18,455	\$41,723	\$599,911	\$48,241	\$1,331,195	\$23,485	\$31,029	\$14,266	\$18,648	112
\$963					\$448		\$90,698			\$40		113
\$280,295	\$492,270	\$876,659	\$175,426	\$405,775	\$6,842,679	\$667,036	\$18,273,424	\$406,726	\$272,483	\$102,368	\$206,579	114
5,200				43,917	2,410,357		3,204,445	12,981	3,334			115
\$1,040				\$3,051	\$624,003		\$707,172	\$3,894	\$1,040			116
267,478	1,439,452	3,152,301	773,053	703,825	15,904,448	1,938,908	35,482,272	1,406,473	1,281,977	244,434	461,946	117
\$37,916	\$358,116	\$629,635	\$147,698	\$168,682	\$3,555,250	\$434,634	\$7,610,619	\$300,303	\$221,855	\$48,628	\$151,762	118
169,282	777,507	1,697,505	380,049	477,623	9,903,269	980,023	20,256,198	802,481	659,643	142,094	600,154	119
					9,781		29,499					120
					\$1,482		\$8,109					121
					428,845		656,754					122
550		1,194			\$180,055		\$269,637					123
\$60		\$327			823,952		879,331					124
1,000					\$60,066		\$55,349					125
\$160					4,586		10,059					126
2,923	87	1,491	9	1,686	2,298,770	1,267	4,746,530	102	8	144	359	127
1,433,936	43,217	736,030	4,103	856,115	2,298,770	637,730	4,746,530	55,650	1,475	70,560	165,221	128
\$101,536	\$4,497	\$46,562	\$513	\$49,661	\$247,988	\$49,661	\$453,782	\$5,571	\$152	\$3,780	\$9,150	129
												130
111,357	128,244	88,285	2,756	144,124	3,094,185	58,326	8,628,598	119,261	8,475		80,779	131
\$19,143	\$21,987	\$14,063	\$441	\$33,874	\$464,512	\$14,621	\$994,924	\$22,727	\$1,141		\$12,182	132
1,618	10,500	157,795	5,000		1,017,527	53,746	2,847,395	39,622	13,292			133
\$436	\$2,300	\$38,879	\$750		\$809,235	\$10,946	\$855,126	\$17,754	\$3,583			134
					30,228		100,773					135
					\$14,402		\$20,062					136
					555		31,512					137
					\$151		\$7,332					138
					3,263		11,136					139
					\$1,557		\$7,799					140
					17,839		949,270					141
					\$3,585		\$329,444					142
	9,078	10,864	110		28,795		1,979,720					143
	\$7,572	\$8,179	\$110		\$23,165		\$1,685,696					144
							50,080					145
284,536	23,500	108,413	500	581,454	901,913		3,813,317	3,000	2,056	12,500	113,012	146
\$49,337	\$4,610	\$19,463	\$100	\$92,062	\$164,017		\$760,694	\$1,200	\$220	\$2,500	\$16,952	147
							1,488					148
							\$8,619					149
							1,700					150
							\$5,652					151
					3,595		4,000					152
					\$3,955		\$3,000					153
1,500			2,008				5,981					154
\$240			\$257				\$403					155
53,532		37,532		108,650	1,030,345	1,219,108	12,891,959			447,117		156
\$5,169		\$1,422		\$13,364	\$51,902	\$92,279	\$1,151,019			\$22,563		157
\$63	\$32,554				\$193	\$20	\$61,380					158
10,920	221,543	486,216	158,029	79,623	2,047,844	47,589	4,409,936	133,832	215,420	251,000	27,025	159
\$426	\$9,237	\$15,018	\$3,345	\$1,480	\$33,217	\$4,053	\$178,047	\$5,539	\$8,966	\$2,620	\$623	160
9,706	20,264	33,849	4,961	10,201	165,694	23,913	509,750	12,504	14,348	4,325	9,820	161
\$1,726	\$2,397	\$7,514	\$1,299	\$2,196	\$49,265	\$15,182	\$167,000	\$3,525	\$4,282	\$1,041	\$3,766	162
\$24,300	\$27,258	\$42,437	\$9,967	\$14,753	\$398,788	\$26,647	\$1,246,294	\$22,127	\$6,107	\$4,850	\$4,891	163
\$6,347	\$13,378	\$29,374	\$6,003	\$5,555	\$188,202	\$13,193	\$537,646	\$15,981	\$6,608	\$3,530	\$5,239	164
	\$200	\$900	\$40	\$58	\$15,062		\$29,239	\$250	\$2,308		\$45	165
\$1,765	\$4,535	\$9,312	\$3,076	\$4,688	\$62,560		\$187,495	\$4,125	\$4,089	\$2,918	\$1,304	166
\$5,560	\$1,708	\$7,785	\$825	\$3,966	\$167,189		\$605,720	\$885	\$3,645	\$5,678	\$75	167
\$4,577	\$1,426	\$5,739	\$1,002	\$4,330	\$167,823	\$750	\$259,317	\$2,345	\$3,397	\$200	\$90	168
		100,000	1,000	150,000	264,667		12,000					169

TABLE 31.—WOOLEN GOODS:

	United States.	Alabama.	Arkansas.	California.	Connecticut.	
169	Products:					
	Total value	\$118,430,158	\$67,263	\$42,401	\$687,354	\$8,097,218
170	All-wool woven goods, whether woolen or worsted—					
	Wool cloths, doeskins, cassimeres, chevots, tweeds, indigo flannels, and broadcloths, for men's wear, square yards.	30,715,068	51,225	4,800	98,589	1,481,730
171	Value	\$20,186,951	\$19,792	\$2,946	\$92,352	\$1,089,652
172	Worsted coatings, serges, and suitings, for men's wear, square yards.	8,829,107			1,500	795,085
173	Value	\$3,450,777			\$2,500	\$326,539
174	Woolen overcoatings, cloakings, kerseys, etc., for men's or women's wear, square yards.	17,011,186			75,095	2,122,730
175	Value	\$14,426,064			\$78,826	\$1,851,673
176	Worsted overcoatings and cloakings, for men's or women's wear, square yards.	860,443				
177	Value	\$559,612				
178	Wool dress goods, sackings, tricots, ladies' cloth, broadcloth, and other all-wool goods for women's wear, and opera and similar flannels, square yards.	30,278,238				2,301,173
179	Value	\$11,378,030				\$939,698
180	Worsted dress goods, cassimeres, serges, and other worsted goods for women's wear, and buntings, square yards.	3,231,517				
181	Value	\$1,321,879				
182	Carriage cloths of all weights, square yards.	1,220,408				66,848
183	Value	\$696,999				\$32,866
184	Flannels for underwear, square yards.	9,324,720		764	549,044	1,751,930
185	Value	\$2,344,559		\$305	\$164,408	\$174,145
186	Blankets, square yards.	5,266,643		1,500	386,873	
187	Value	\$2,274,774		\$900	\$211,762	
188	Horse blankets, square yards.	514,952			4,000	21,822
189	Value	\$256,211			\$2,000	\$8,225
190	Carriage robes, square yards.	615				
191	Value	\$510				
192	Woven shawls, square yards.	512,202				14,633
193	Value	\$428,275				\$20,824
194	Union or cotton mixed, woven goods—					
	Unions, tweeds, chevots, cassimeres, or other goods for men's wear, square yards.	29,588,901		5,000	52,107	2,001,035
195	Value	\$12,815,389		\$1,800	\$31,264	\$863,243
196	Overcoatings and cloakings, square yards.	5,675,464				745,878
197	Value	\$3,164,749				\$417,041
198	Sackings, tricots, and dress goods for women's wear, and opera and similar flannels, square yards.	10,105,548				629,149
199	Value	\$3,341,341				\$323,304
200	Flannels for underwear, square yards.	6,217,094				
201	Value	\$1,284,578				
202	Blankets, square yards.	1,530,696		2,500	145,759	
203	Value	\$561,649		\$1,000	\$62,736	
204	Horse blankets, square yards.	1,094,537			390	
205	Value	\$228,943			\$206	
206	Carriage robes, square yards.	460,210			24,000	
207	Value	\$152,499			\$16,800	
208	Goods woven on cotton warps, with weft partly or wholly of wool, worsted or hair, or cotton weft with warp of wool—					
	Wool-filling cassimeres, doeskins, jeans, tweeds, coatings, suitings, and other cotton-warp goods for men's wear, not specified below, square yards.	35,086,459		28,664		1,455,329
209	Value	\$9,667,808		\$9,504		\$413,700
210	Worsted-filling cassimeres, doeskins, jeans, tweeds, coatings, suitings, and other cotton-warp goods for men's wear, not specified below, square yards.	2,122,792				355,288
211	Value	\$866,017				\$201,135
212	Wool-filling overcoatings and cloakings, square yards.	3,917,498				61,769
213	Value	\$1,430,430				\$26,100
214	Astrakhams and similar goods, square yards.	32,576				
215	Value	\$14,150				
216	Satinets and linseys, square yards.	13,051,729		4,000		929,900
217	Value	\$2,873,181		\$1,000		\$205,120
218	Worsted-filling dress goods, delaines, cassimeres, serges, mohairs, alpacas, and other stuffs, for women's wear, square yards.	6,172,494				
219	Value	\$1,957,100				
220	Wool-filling dress goods and repellents, square yards.	7,149,016				247,553
221	Value	\$1,735,446				\$123,453
222	Domest flannels and shirtings, square yards.	4,555,013				1,515,525
223	Value	\$976,465				\$280,592
224	Linings, Italian cloths, and lastings, square yards.	3,169,709				
225	Value	\$275,295				
226	Cotton-warp blankets, square yards.	11,107,104		300	40,000	740
227	Value	\$2,241,342		\$96	\$22,500	\$325
228	Horse blankets, square yards.	5,702,315				295,659
229	Value	\$1,252,824				\$73,951
230	Carriage robes, square yards.	1,250,233				63,416
231	Value	\$315,233				\$25,365
232	Upholstery goods and sundries—					
	Woolen and worsted upholstery goods, square yards.	403,954				
233	Value	\$679,991				
234	Other upholstery goods.	\$2,062,611				
	Carpets and rugs—					
	Carpets—					
235	Ingrain, 2-ply, square yards.	102,202	99,552			
236	Value	\$28,144	\$26,879			
237	Ingrain, 3-ply, square yards.	543				
238	Value	\$380				
	Felt goods—					
239	Felt cloths, square yards.	113,059			2,000	
240	Value	\$51,418			\$2,000	
241	Trimming and lining felts, felt skirts and skirting, table and piano covers, saddle felts, square yards.	2,738				
242	Value	\$375				
243	All other felts.	\$8,029				
	Hats—					
244	Wool hats, dozens.	12,000				
245	Value	\$5,400				
	Partly manufactured products for sale—					
246	Woolen yarn—all wool, pounds.	29,143,476		5,760		
247	Value	\$5,752,118		\$2,804		
248	Worsted yarn and tops, pounds.	1,343,983				
249	Value	\$723,369				
250	Woolen or worsted yarn, union or merino, cotton mixed, pounds.	13,437,264				
251	Value	\$2,764,486				

TABLE 31.—WOOLEN GOODS:

		United States.	Alabama.	Arkansas.	California.	Connecticut.
Products—Continued.						
Total value—Continued.						
Partly manufactured products for sale—Continued.						
252	Mohair and similar yarn, pounds.....	215, 947				
253	Value.....	\$219, 133				
254	Cotton yarn, pounds.....	3, 455, 979				52, 557
255	Value.....	\$507, 286				\$9, 367
256	Wool card rolls, pounds.....	977, 706	54, 261	57, 577		
257	Value.....	\$395, 808	\$20, 174	\$21, 746		
258	Nails, pounds.....	124, 029				
259	Value.....	\$18, 936				
260	Waste, pounds.....	978, 473	500			188, 709
261	Value.....	\$67, 059	\$50			\$7, 663
262	Shoddy, pounds.....	480, 176				202, 910
263	Value.....	\$70, 064				\$83, 552
264	Flocks, pounds.....	212, 625				
265	Value.....	\$21, 037				
Hosiery and knit goods—						
Hose and half hose—						
Woolen—						
266	Half hose, dozens.....	3, 438				
267	Value.....	\$11, 714				
268	Hose, dozens.....	828				
269	Value.....	\$3, 122				
Merino or mixed—						
270	Half hose, dozens.....	352				
271	Value.....	\$1, 806				
Cotton—						
272	Hose, dozens.....	80				
273	Value.....	\$180				
274	Leggins and gaiters, dozens.....	207				
275	Value.....	\$1, 656				
276	Gloves and mittens, dozens.....	1, 238				
277	Value.....	\$4, 641				
278	Eiderdown shawls, dozens.....	361, 000				
279	Value.....	\$126, 403				
280	Boot and shoe linings, square yards.....	11, 426				
281	Value.....	\$8, 800				
282	Jersey cloth and stockinette, square yards.....	2, 784				
283	Value.....	\$1, 010				
284	All other products.....	\$1, 190, 662				\$320, 303
285	Amount received for contract work.....	\$775, 445	\$368	\$300		\$18, 470
Comparison of products:						
286	Number of establishments reporting for both years.....	861	9	13	5	41
287	Value for census year.....	\$109, 712, 214	\$39, 955	\$42, 401	\$687, 354	\$7, 645, 096
288	Value for preceding business year.....	\$95, 443, 073	\$35, 422	\$40, 206	\$785, 822	\$6, 699, 210
Power:						
289	Number of establishments reporting.....	1, 024	10	11	5	51
290	Total horsepower.....	139, 645	235	224	560	11, 636
Owned—						
Engines—						
Steam—						
291	Number.....	893	3	7	7	58
292	Horsepower.....	82, 938	55	164	560	6, 315
Gas or gasoline—						
293	Number.....	12				1
294	Horsepower.....	191				25
Water wheels—						
295	Number.....	954	7	3		77
296	Horsepower.....	52, 358	176	41		5, 180
Electric motors—						
297	Number.....	51				4
298	Horsepower.....	1, 217				76
Other power—						
299	Number.....	2		1		
300	Horsepower.....	4		2		
Rented—						
301	Electric, horsepower.....	678		14		
302	Other kind, horsepower.....	2, 264	4			
303	Furnished to other establishments, horsepower.....	286				
Establishments classified by number of persons employed, not including proprietors and firm members:						
304	Total number of establishments.....	1, 035	11	13	5	51
305	No employees.....	114	4	6		1
306	Under 5.....	186	6	4		1
307	5 to 20.....	158		2		2
308	21 to 50.....	146		1	1	5
309	51 to 100.....	165	1	1		19
310	101 to 250.....	194			2	19
311	251 to 500.....	61			2	4
312	501 to 1,000.....	19				
313	Over 1,000.....	2				

		New Hamp- shire.	New Jersey.	New York.	North Carolina.	Ohio.
1	Number of establishments.....	43	13	65	16	35
Character of organization:						
2	Individual.....	9	3	28	9	16
3	Firm and limited partnership.....	14	3	23	3	12
4	Incorporated company.....	20	7	14	4	7
Capital:						
5	Total.....	\$8, 160, 673	\$4, 540, 798	\$7, 338, 813	\$347, 880	\$1, 591, 445
6	Land.....	\$753, 850	\$248, 502	\$440, 506	\$18, 355	\$112, 745
7	Buildings.....	\$1, 187, 493	\$703, 322	\$949, 362	\$42, 400	\$230, 978
8	Machinery, tools, and implements.....	\$1, 372, 793	\$374, 970	\$1, 371, 485	\$90, 754	\$473, 411
9	Cash and sundries.....	\$4, 846, 537	\$2, 723, 004	\$4, 077, 450	\$196, 321	\$725, 311
10	Proprietors and firm members.....	37	1	73	11	22

BY STATES, 1900—Continued.

Georgia.	Illinois.	Indiana.	Iowa.	Kentucky.	Maine.	Maryland.	Massachu- setts.	Michigan.	Minnesota.	Mississippi.	Missouri.	
							200,000					252
							\$200,000					253
		212,156										254
		\$41,995										255
28,700	5,600	7,500	1,200	109,841	97,501			2,500	34,200	7,000	80,558	256
\$11,347	\$2,240	\$4,275	\$660	\$45,981	\$43,014			\$950	\$16,132	\$2,100	\$34,997	257
					122,698		1,331					258
					\$18,404		\$532					259
				2,700	95,358		390,932		6,108			260
	224,160			\$135	\$17,499		\$22,892		\$1,076			261
	\$30,972								2,956			262
									\$465			263
					22,568		132,500		3,823		1,800	264
					\$597		\$17,646		\$331		\$18	265
												266
									60			267
									\$252			268
									80			269
									\$432			270
												271
												272
												273
												274
												275
												276
												277
							361,000					278
							\$126,403					279
							11,420					280
							\$8,800					281
							2,784					282
							\$1,010					283
			\$1,226		\$19,314		\$120,175	\$1,415	\$1,200			284
\$200		\$166		\$600			\$281,770		\$2,504	\$450		285
14	12	19	11	15	69	3	92	14	17	4	23	286
\$491,001	\$931,447	\$1,191,855	\$287,030	\$734,877	\$10,907,266	\$1,215,778	\$29,216,027	\$562,644	\$457,683	\$172,908	\$342,694	287
\$451,928	\$915,648	\$1,220,062	\$328,630	\$743,174	\$9,054,710	\$1,080,752	\$25,608,516	\$541,574	\$431,167	\$237,242	\$418,836	288
14	13	20	12	86	75	4	131	16	19	4	25	289
748	1,269	1,955	485	1,232	13,784	1,020	36,373	1,106	971	422	697	290
5	13	21	5	23	51	4	187	15	12	4	20	291
340	1,054	1,695	343	1,101	4,080	450	21,858	971	416	407	600	292
		2										293
		35						1				294
13	4	6	8	9	119	9	202	3	11	1	5	295
375	175	215	142	116	3,604	570	14,245	58	396	15	91	296
2	5	1										297
83	40	10					170	2	30	2		298
												299
				15	525							300
					575			15				301
					190		100	20	129		6	302
									20		40	303
14	13	20	12	36	78	4	131	16	19	4	25	304
		1	3	6	7	1		1	3		2	305
9	2	4	1	13	13			3	5	2	15	306
	3	4	4	7	6			6	8	1	5	307
1	3	3	1	1	6			4	2		1	308
1	3	3	2	2	12			29				309
3	1	4	1	1	26			44	2		2	310
	1	1		1	6			15		1		311
					1			8				312
												313
Oregon.	Pennsylvania.	Rhode Island.	Tennessee.	Texas.	Utah.	Vermont.	Virginia.	West Virginia.	Wisconsin.	All other states. ¹		
11	193	26	51	3	6	23	28	33	32	7	1	
3	83	6	33	1		10	10	22	16	3	2	
1	33	7	9	1	2	6	9	5	8		3	
7	27	13	9	1	4	7	9	6	8	4	4	
\$1,175,820	\$19,405,505	\$6,068,078	\$2,399,518	\$285,663	\$454,981	\$3,001,347	\$733,527	\$688,683	\$1,794,055	\$540,424	5	
\$102,796	\$1,051,999	\$636,200	\$57,102	\$13,250	\$32,620	\$133,625	\$44,656	\$28,037	\$154,654	\$24,300	6	
\$135,221	\$2,576,460	\$325,412	\$271,516	\$54,150	\$91,630	\$473,114	\$116,971	\$92,408	\$265,896	\$111,800	7	
\$315,907	\$5,612,433	\$1,240,042	\$1,189,560	\$112,792	\$96,905	\$731,290	\$180,252	\$222,030	\$433,588	\$191,740	8	
\$621,896	\$10,164,613	\$3,266,419	\$331,039	\$100,471	\$233,826	\$1,663,818	\$441,648	\$341,158	\$939,917	\$212,084	9	
8	231	24	29	1		21	15	12	26	2	10	

¹Includes establishments distributed as follows: Delaware, 2; Idaho, 1; Kansas, 1; North Dakota, 1; South Carolina, 1; Wyoming, 1.

TABLE 31.—WOOLEN GOODS:

	New Hamp- shire.	New Jersey.	New York.	North Carolina.	Ohio.	
Salarted officials, clerks, etc.:						
11	Total number.....	129	43	210	17	57
12	Total salaries.....	\$152,574	\$85,619	\$231,783	\$9,065	\$64,776
Officers of corporations—						
13	Number.....	85	6	16	7	14
14	Salaries.....	\$49,602	\$23,500	\$53,775	\$3,625	\$18,800
General superintendents, managers, clerks, etc.—						
15	Total number.....	94	37	194	10	43
16	Total salaries.....	\$102,972	\$62,119	\$177,958	\$5,440	\$45,976
Men—						
17	Number.....	76	35	177	10	37
18	Salaries.....	\$95,270	\$60,775	\$171,793	\$5,440	\$43,616
Women—						
19	Number.....	18	2	17	.....	6
20	Salaries.....	\$7,702	\$1,344	\$6,165	.....	\$2,360
Wage-earners, including pieceworkers and total wages:						
21	Greatest number employed at any one time during the year.....	4,888	3,184	4,694	246	305
22	Least number employed at any one time during the year.....	3,551	2,716	3,338	170	631
23	Average number.....	4,042	2,942	4,033	206	636
24	Wages.....	\$1,571,520	\$1,013,232	\$1,399,527	\$39,094	\$201,547
Men, 16 years and over—						
25	Average number.....	2,657	1,690	1,913	106	266
26	Wages.....	\$1,131,594	\$685,489	\$827,179	\$25,675	\$110,850
Women, 16 years and over—						
27	Average number.....	1,299	1,065	1,974	91	311
28	Wages.....	\$423,829	\$301,580	\$549,258	\$12,755	\$87,037
Children, under 16 years—						
29	Average number.....	86	187	146	9	29
30	Wages.....	\$16,097	\$26,213	\$23,095	\$664	\$3,660
Average number of wage-earners, including pieceworkers, employed during each month:						
Men, 16 years and over—						
31	January.....	2,574	1,599	1,875	98	221
32	February.....	2,725	1,641	1,708	94	224
33	March.....	2,822	1,726	1,842	99	243
34	April.....	2,829	1,735	1,885	101	281
35	May.....	2,767	1,712	1,874	103	289
36	June.....	2,508	1,701	1,878	112	279
37	July.....	2,516	1,672	1,897	115	281
38	August.....	2,526	1,689	1,902	109	288
39	September.....	2,569	1,689	1,958	111	294
40	October.....	2,645	1,683	1,996	113	284
41	November.....	2,712	1,712	2,064	111	266
42	December.....	2,685	1,727	2,077	100	243
Women, 16 years and over—						
43	January.....	1,269	1,021	2,024	86	207
44	February.....	1,237	1,035	1,919	76	226
45	March.....	1,302	1,060	1,997	87	330
46	April.....	1,341	1,076	2,052	77	339
47	May.....	1,330	1,066	1,981	81	407
48	June.....	1,217	1,072	1,940	87	344
49	July.....	1,273	1,059	1,901	102	348
50	August.....	1,254	1,070	1,927	103	357
51	September.....	1,290	1,075	2,064	108	348
52	October.....	1,339	1,058	1,990	108	326
53	November.....	1,349	1,088	1,946	102	333
54	December.....	1,390	1,102	1,947	78	301
Children, under 16 years—						
55	January.....	93	176	133	6	22
56	February.....	89	185	135	6	28
57	March.....	88	189	138	6	27
58	April.....	84	194	140	4	30
59	May.....	87	196	140	5	31
60	June.....	76	185	144	13	29
61	July.....	80	177	147	14	35
62	August.....	88	180	150	11	34
63	September.....	87	185	150	14	30
64	October.....	87	185	152	10	30
65	November.....	88	197	157	12	29
66	December.....	89	191	160	9	29
Skilled operatives, average number:						
Spinners—						
67	Men, 16 years and over.....	536	176	328	12	73
68	Women, 16 years and over.....	28	94	308	.....	39
69	Children, under 16 years.....	.....	124	4	.....	12
Weavers—						
70	Men, 16 years and over.....	967	467	401	4	27
71	Women, 16 years and over.....	807	650	561	32	126
72	Children, under 16 years.....	.....	.....	5	.....	6
Knitters—						
73	Men, 16 years and over.....	.....	.....	.....	.....	.....
Finishers—						
74	Men, 16 years and over.....	492	180	196	6	54
75	Women, 16 years and over.....	232	129	174	2	30
76	Children, under 16 years.....	7	7	14	.....	.....
Machinery:						
77	Sets of woolen cards.....	335	138	269	25	67
78	Combing machines, number.....	13	4	2	.....	.....
79	Of American manufacture.....	5	.....	.....	.....	.....
80	Of foreign manufacture.....	8	4	2	.....	.....
81	Spindles, number.....	125,532	61,672	88,249	5,334	23,953
Spinning—						
82	Woolen.....	113,604	56,878	31,130	5,080	22,652
83	Worsted.....	5,600	4,088	1,564	.....	.....
84	Cotton.....	.....	.....	.....	.....	.....
Doubling—						
85	Woolen.....	3,320	756	4,629	254	1,301
86	Worsted.....	3,008	.....	876	.....	.....
87	Cotton.....	.....	.....	.....	.....	.....
Looms on woolen or worsted goods, number:						
88	Broad, 50 inches or over, reed space—	2,071	1,240	1,425	161	342
On woolen goods						
89	.....	1,705	851	1,030	39	249
On worsted goods						
90	.....	33	25	110	.....	18

BY STATES, 1900—Continued.

Oregon.	Pennsylvania.	Rhode Island.	Tennessee.	Texas.	Utah.	Vermont.	Virginia.	West Virginia.	Wisconsin.	All other states. ¹
29	353	70	64	10	14	51	39	16	53	29
\$22,820	\$399,570	\$143,558	\$67,673	\$15,763	\$10,050	\$70,908	\$37,667	\$17,440	\$65,210	\$30,432
9	40	16	14	3	1	13	9	2	13	5
\$8,500	\$85,395	\$48,580	\$29,700	\$5,000	\$125	\$20,872	\$10,720	\$8,700	\$17,560	\$5,800
20	313	63	50	7	13	38	80	14	40	24
\$24,920	\$314,175	\$94,958	\$37,973	\$10,763	\$9,925	\$50,036	\$26,947	\$18,740	\$47,050	\$24,632
18	288	58	50	7	12	35	29	14	38	21
\$23,480	\$303,299	\$91,990	\$37,973	\$10,763	\$9,867	\$48,486	\$26,447	\$18,740	\$46,780	\$23,632
2	25	5	-----	-----	1	3	1	-----	2	3
\$340	\$10,876	\$2,068	-----	-----	\$58	\$1,000	\$500	-----	\$870	\$1,000
797	15,481	3,666	1,789	159	238	1,958	452	458	974	544
594	12,327	2,562	1,682	154	182	1,424	352	365	781	303
672	13,721	2,710	1,682	134	194	1,484	362	384	861	454
\$208,995	\$5,091,932	\$1,104,054	\$294,116	\$40,674	\$69,681	\$577,249	\$103,773	\$99,027	\$259,258	\$178,786
423	7,588	1,814	557	76	100	1,030	214	226	396	195
\$147,442	\$3,305,619	\$807,288	\$148,817	\$29,066	\$43,217	\$435,955	\$72,954	\$70,315	\$152,060	\$95,082
216	4,967	799	759	34	65	427	127	138	392	179
\$56,379	\$1,575,655	\$277,232	\$116,228	\$8,388	\$20,786	\$135,982	\$28,506	\$26,722	\$96,356	\$63,334
33	1,166	97	316	24	29	27	21	20	73	80
\$4,874	\$210,658	\$19,534	\$29,071	\$3,220	\$5,678	\$5,812	\$2,813	\$1,990	\$10,842	\$20,270
481	7,162	1,618	559	77	83	1,051	196	188	391	194
413	7,410	1,637	538	75	84	1,073	200	185	395	189
413	7,442	1,666	571	77	82	1,173	216	182	397	180
376	7,607	1,684	531	77	93	1,152	225	219	401	173
398	7,595	1,728	550	75	105	1,079	190	233	391	175
405	7,498	1,696	550	75	106	966	198	240	340	159
492	7,488	1,631	550	75	111	962	206	235	404	215
436	7,694	1,787	547	75	111	935	241	241	420	220
438	7,708	1,859	564	75	109	962	238	244	411	218
444	7,768	2,106	569	75	113	977	224	246	416	215
461	7,870	2,166	580	75	116	1,001	219	248	398	200
489	7,820	2,191	581	75	90	1,033	215	250	384	208
213	4,795	739	775	48	59	448	119	111	406	166
210	4,875	659	750	30	57	443	118	107	401	166
195	4,959	683	784	48	55	488	128	98	387	149
174	4,989	702	744	48	61	468	131	141	386	158
199	4,924	712	751	30	68	444	114	147	381	157
199	4,969	721	751	30	67	404	119	139	311	147
223	4,853	715	749	30	68	400	124	137	374	179
224	4,980	726	749	30	67	377	135	157	399	208
240	5,037	789	751	30	68	386	141	162	419	211
246	5,132	1,052	751	30	67	409	141	164	431	211
236	5,154	1,036	778	30	76	419	129	155	430	198
229	4,981	1,054	769	30	63	438	126	142	383	199
31	1,095	84	315	34	26	30	11	15	75	38
32	1,126	88	307	20	26	30	13	15	68	31
31	1,128	91	320	34	26	31	16	18	76	35
34	1,108	100	311	34	26	23	18	21	76	38
33	1,116	98	317	20	23	21	21	22	70	35
31	1,133	86	318	20	31	21	24	26	65	30
31	1,181	90	317	20	32	24	24	25	72	31
31	1,198	94	315	20	32	25	25	24	76	32
34	1,198	102	314	20	31	27	30	22	76	31
34	1,207	109	318	20	31	28	29	22	74	30
35	1,256	107	324	20	31	28	24	17	72	28
35	1,248	121	312	20	28	29	22	15	73	26
82	365	365	32	9	15	143	39	39	32	39
32	142	18	18	1	8	12	1	6	54	4
5	232	-----	91	3	8	5	9	8	1	42
108	2,016	531	59	40	31	279	41	-----	100	69
110	2,216	520	506	28	33	224	53	65	115	81
4	12	-----	15	10	2	5	3	1	2	72
-----	6	-----	-----	-----	-----	-----	-----	-----	-----	73
51	428	200	31	11	10	105	28	47	46	41
44	315	203	9	6	4	73	3	11	49	30
3	48	8	2	5	-----	3	-----	-----	2	76
35	980	220	99	4	17	124	52	53	69	20
-----	22	17	-----	-----	-----	-----	2	1	8	78
-----	12	13	-----	-----	-----	-----	2	1	8	79
-----	10	4	-----	-----	-----	-----	-----	-----	-----	80
12,187	848,169	124,082	38,654	2,600	6,974	38,920	14,322	14,180	25,904	11,048
11,199	307,118	100,190	33,035	2,600	6,192	37,460	13,171	13,520	22,760	10,172
-----	9,000	2,464	-----	-----	-----	-----	-----	-----	912	-----
-----	13,460	10,000	5,000	-----	432	-----	-----	-----	-----	-----
983	13,317	8,928	619	-----	350	1,460	1,151	660	1,378	876
-----	4,414	2,500	-----	-----	-----	-----	-----	-----	354	-----
860	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
175	8,057	1,418	1,239	94	94	670	221	242	272	276
172	2,379	602	143	48	73	561	130	157	236	71
-----	696	282	-----	-----	-----	5	-----	-----	-----	90

¹Includes establishments distributed as follows: Delaware, 2; Idaho, 1; Kansas, 1; North Dakota, 1; South Carolina, 1; Wyoming, 1.

TABLE 31.—WOOLEN GOODS:

	New Hamp- shire.	New Jersey.	New York.	North Carolina.	Ohio.
Spindles, number—Continued.					
Looms on woolen or worsted goods, number—Continued.					
Narrow, under 50 inches, reed space—					
91 On woolen goods.....	333	364	216	122	75
92 On worsted goods.....			4		
Hand—					
93 On woolen or worsted goods.....			15		
94 Looms on carpets and rugs, number					
Ingrain—					
95 Hand.....					
96 Power.....					
Body Brussels—					
97 Power.....					
98 Formers for fur hats.....					
99 Braiders.....			9,628		
100 Knitting machines, number.....			7		6
Spring-beard needle—					
101 Circular, ribbed.....					
102 Circular, plain.....					6
Latch needle—					
103 Flat, plain.....			7		
104 Full fashioned, flat, ribbed.....					
105 Circular, ribbed.....					
106 Circular, plain.....					6
107 Circular, hosiery, automatic.....					
108 Lamb and other variety, hand.....					
Miscellaneous expenses:					
109 Total.....	\$346,316	\$461,513	\$761,841	\$14,527	\$86,394
110 Rent of works.....	\$5,756	\$16,380	\$38,824		\$2,100
111 Taxes, not including internal revenue.....	\$39,490	\$30,021	\$23,906	\$1,443	\$7,936
112 Rent of offices, insurance, interest, and all sundry expenses not hitherto included.....	\$801,070	\$415,112	\$658,545	\$7,934	\$76,358
113 Contract work.....			\$40,566	\$5,150	
Material used:					
114 Total cost.....	\$4,741,396	\$2,700,889	\$3,499,864	\$204,961	\$869,236
Wool—					
Foreign, in condition purchased, pounds.....	1,098,990	115,797	800,110		7,025
Cost.....	\$306,024	\$33,318	\$272,142		\$1,426
Domestic, in condition purchased, pounds.....	10,201,344	3,883,063	5,600,556	577,750	1,551,667
Cost.....	\$2,554,191	\$1,603,959	\$1,360,111	\$147,445	\$375,004
Foreign and domestic, etc., scoured, pounds.....	6,122,739	3,299,612	4,342,006	403,395	1,089,775
Animal hair and fur—					
Camel, alpaca, and vicuna hair, pounds.....			2,396		
Cost.....			\$533		
Mohair, pounds.....	20,205				600
Cost.....	\$5,823				\$485
Buffalo, cow, and other animal hair and fur, pounds.....	142,414		789,000		1,927
Cost.....	\$6,995		\$41,130		\$135
Cotton, bales.....	5,535	2,604	1,811	10	751
Pounds.....	2,766,830	1,295,903	834,477	5,000	374,111
Cost.....	\$155,910	\$90,699	\$75,204	\$400	\$31,677
Materials not made in mill—					
Shoddy, pounds.....	4,181,362	86,000	560,501	38,365	217,940
Cost.....	\$353,251	\$12,885	\$101,190	\$6,553	\$29,470
Wool waste and noils, pounds.....	306,586	539,663	842,318	25,391	256,691
Cost.....	\$102,336	\$64,840	\$243,402	\$5,078	\$37,953
Camel, alpaca, vicuna noils, pounds.....	3,903				4,233
Cost.....	\$740				\$697
Mohair noils, pounds.....	12,840		11,500		
Cost.....	\$3,262		\$3,332		
Tops, pounds.....			14,616		
Cost.....			\$6,064		
Yarns not made in mill—					
Woolen, pounds.....	12,866	500	345,090		144,200
Cost.....	\$6,350	\$380	\$212,310		\$58,200
Worsted, pounds.....	40,638	116,060	245,517		64,518
Cost.....	\$31,031	\$32,192	\$259,638		\$41,461
Merino, pounds.....		14,500			2,000
Cost.....		\$6,900			\$1,000
Cotton, pounds.....	1,991,594	627,791	1,447,301	91,783	197,936
Cost.....	\$146,657	\$127,482	\$174,134	\$13,227	\$39,356
Silk, pounds.....			9,462		34
Cost.....			\$44,447		\$25
Spun silk, pounds.....	447		2,346		
Cost.....	\$1,617		\$2,957		
Linen, pounds.....					
Cost.....					
Jute, ramie, or other of vegetable fiber, pounds.....			25,000		10,120
Cost.....			\$1,010		\$1,328
Shoddy made in mill for use therein, pounds.....	2,251,639	3,059,698	630,084		897,397
Cost.....	\$260,000	\$186,667	\$43,697		\$111,069
All other materials which are component of the product.....	\$7,790		\$144,142	\$320	\$4,686
Soap, pounds.....	1,388,173	\$36,628	973,304	59,181	337,486
Cost.....	\$52,123	\$37,194	\$38,100	\$1,986	\$14,100
Oil for preparing wool for cards or combs, gallons.....	129,990	90,106	96,274	5,838	46,866
Cost.....	\$43,608	\$24,618	\$27,341	\$1,366	\$10,865
Chemicals and dyestuffs.....	\$265,354	\$217,272	\$193,351	\$10,517	\$61,795
Fuel.....	\$123,973	\$66,523	\$78,497	\$5,322	\$18,027
Rent of power and heat.....	\$3,423	\$7,000	\$5,740	\$1,687	\$20
Mill supplies.....	\$54,211	\$21,084	\$31,352	\$1,982	\$8,200
All other materials.....	\$179,881	\$70,421	\$38,029	\$1,801	\$11,293
Freight.....	\$76,341	\$53,755	\$45,111	\$7,274	\$10,964
Cotton yarn made in mill for use therein, pounds.....	45,000				2,000
Products:					
169 Total values.....	\$7,624,062	\$4,755,393	\$6,715,005	\$289,506	\$1,321,751
All-wool woolen goods, whether woolen or worsted—					
170 Wool cloths, doeskins, cassimeres, chevrets, tweeds, indigo flannels, and broadcloths, for men's wear, square yards.....	2,033,776	553,693	2,568,137	27,468	607,675
Value.....	\$1,200,397	\$412,320	\$1,932,270	\$19,772	\$139,735
172 Worsted coatings, serges, and suitings, for men's wear, square yards.....	115,962	98,731	93,075		150,000
Value.....	\$94,612	\$78,226	\$109,560		\$50,000
174 Woolen overcoatings, cloakings, kerseys, etc., for men's or women's wear, square yards.....	2,167,922	320,876	144,851		44,400
Value.....	\$1,570,343	\$279,299	\$145,411		\$26,346

BY STATES, 1900—Continued.

Oregon.	Pennsylvania.	Rhode Island.	Tennessee.	Texas.	Utah.	Vermont.	Virginia.	West Virginia.	Wisconsin.	All other states. ¹
3	3,912 1,060	530 4	1,096	36 10	21	104	90	81	36	205
	10 8						1	4		
	6 2									
	500 1,500 50									
	20									
	5 5 16 2 2									
\$74,323	\$1,444,778 \$117,422	\$287,685 \$28,104	\$86,141 \$355	\$17,428	\$17,354	\$98,541 \$7,000	\$22,780 \$1,770	\$31,649 \$2,488	\$104,250 \$1,946	\$30,524 \$110
\$5,669	\$43,379	\$17,010	\$8,045	\$1,528	\$2,403	\$10,452	\$2,015	\$2,932	\$9,849	\$2,818
\$68,654	\$1,014,310	\$212,476	\$77,741	\$15,900	\$14,891	\$81,014	\$18,125	\$26,229	\$92,080	\$27,706
	\$269,667	\$30,105				\$75	\$870		\$975	
\$465,855	\$15,874,544	\$3,386,093	\$874,359	\$117,327	\$121,828	\$1,554,525	\$391,659	\$819,313	\$899,711	\$554,558
	13,308,519	337,445	101,766			341,902	9,000	3,000		395
	\$2,085,725	\$115,205	\$30,783			\$141,838	\$2,190	\$600		\$140
1,997,954	11,712,697	7,555,470	1,421,676	291,979	744,469	2,828,600	1,175,231	840,959	3,483,348	1,139,089
\$322,417	\$3,036,405	\$1,562,307	\$405,487	\$52,123	\$34,662	\$702,908	\$295,004	\$223,155	\$711,265	\$330,882
1,204,461	18,008,382	3,877,898	1,269,181	117,848	244,251	2,173,644	687,759	553,560	1,817,928	803,595
	121,513					75,053				
	\$12,949					\$11,264				
	4,181									
	\$1,444									
	16,876,816	410								
	\$913,216	\$24								
206	26,780	2,951	5,247	46	107	1,299	95	152	225	7,619
86,998	12,098,656	1,062,552	2,602,988	18,700	53,790	342,273	36,416	72,197	119,770	359,052
\$8,456	\$388,205	\$119,180	\$173,081	\$1,124	\$4,804	\$54,418	\$4,081	\$6,784	\$15,685	\$38,761
73,084	6,107,141	1,112,319	487,089	19,266	1,761	\$22,699	124,351	135,912	308,033	103,819
\$14,188	\$699,095	\$188,020	\$58,036	\$2,896	\$352	\$108,943	\$23,344	\$19,806	\$55,012	\$10,380
	5,230,394	\$20,368	5,000			87,223	15,000	40,000	30,248	105,373
	\$1,027,984	\$281,859	\$500			\$10,097	\$2,175	\$9,745	\$7,227	\$90,592
	45,977									
	\$8,367									
	35,997					15,000				
	\$6,661					\$9,000				
	4,090	254,311				771				
	\$1,070	\$187,844				\$119				
	1,319,493	182,441	500				500			
	\$560,453	\$66,038	\$225				\$225			
	2,596,207	497,993			270	4,974	330	70		2,081
	\$1,767,860	\$347,110			\$219	\$3,488	\$274	\$73		\$1,422
	3,141,273						3,392			
	\$500,439						\$348			
20,391	9,417,582	200,817	586,833	68,000	10,422	214,312	65,018	90,226	22,989	6,001
85,578	\$1,712,056	\$46,973	\$100,497	\$20,417	\$2,222	\$44,837	\$11,477	\$11,588	\$6,211	\$323
	23,022									
	\$92,216									
	18,378	86				1,000				
	\$58,373	\$283				\$3,750				
	260									
	\$48									
	1,055,574	8,464	10,017					100		
	\$51,057	\$1,272	\$1,802					\$15		
280,876	8,954,396	470,630	20,688			1,825,120				
\$27,157	\$469,585	\$35,324	\$1,522			\$131,888				
	\$230,521	\$181		\$25,758						
200,678	3,110,845	376,008	99,947	10,000	109,709		\$188			
\$5,585	\$132,437	\$16,981	\$3,444	\$400	\$2,212	503,842	123,685	201,384	327,104	459,441
29,102	698,465	102,680	65,555	90	4,587	\$21,912	\$4,587	\$7,188	\$12,880	\$24,006
\$4,167	\$180,639	\$30,480	\$4,097	\$185	\$1,792	50,450	11,613	8,451	28,280	42,408
\$40,025	\$597,115	\$141,120	\$34,689	\$6,026	\$11,939	\$19,288	\$3,125	\$2,164	\$5,999	\$21,635
\$20,194	\$246,967	\$79,011	\$14,036	\$2,744	\$6,765	\$101,291	\$19,605	\$14,720	\$39,848	\$58,227
\$24	\$32,159	\$1,051	\$28			\$48,909	\$3,694	\$6,474	\$27,358	\$10,854
\$3,104	\$103,338	\$27,888	\$14,346	\$645	\$2,005	\$15	\$450	\$10	\$392	
\$2,937	\$429,893	\$160,588	\$13,410		\$1,322	\$16,273	\$3,515	\$3,209	\$8,035	\$4,405
\$11,726	\$138,181	\$29,049	\$18,376	\$4,409	\$3,487	\$42,946	\$3,356	\$8,205	\$4,873	\$6,444
3,000	1,301,019	147,184	138,129		4,740	\$26,981	\$7,771	\$5,632	\$4,786	\$3,582
\$897,824	\$25,389,344	\$5,380,550	\$1,517,194	\$196,340	\$222,343	\$2,572,646	\$627,581	\$507,300	\$1,435,368	\$790,081
566,107	1,652,012	1,735,526	10,404	26,865	488	468,989	256,948	33,385	391,594	148,257
\$661,147	\$1,128,958	\$1,308,525	\$4,053	\$16,302	\$422	\$354,199	\$236,212	\$16,620	\$227,515	\$150,219
878	859,423	325,253						1,500		
\$1,000	\$925,090	\$679,439			330	1,072,946	154,344	\$600		
370,095	1,408,734	614,566						9,000	297,346	5,085
\$127,927	\$1,225,883	\$698,244			\$330	\$773,190	\$110,041	\$3,600	\$179,915	\$3,594

¹Includes establishments distributed as follows: Delaware, 2; Idaho, 1; Kansas, 1; North Dakota, 1; South Carolina, 1; Wyoming, 1.

TABLE 31.—WOOLEN GOODS:

	New Hamp- shire.	New Jersey.	New York.	North Carolina.	Ohio.
Products—Continued.					
Total value—Continued.					
All wool woolen goods, whether woolen or worsted—Continued.					
176	Worsted overcoatings and cloakings, for men's or women's wear, square yards.		372,924		
177	Value		\$198,892		
178	Wool dress goods, sackings, tricots, ladies' cloth, broadcloth, and other all-wool goods for women's wear, and opera and similar flannels, square yards.	3,545,096	42,021	2,349,857	1,646
179	Value		\$1,432,063	\$33,095	\$956,169
180	Worsted dress goods, cassimeres, serges, and other worsted goods for women's wear, and buntings, square yards.			217,195	
181	Value			\$125,644	
182	Carriage cloths of all weights, square yards	1,087		247,998	6,000
183	Value		\$807	\$222,725	\$8,000
184	Flannels for underwear, square yards	252,489	2,813	51,972	1,718
185	Value		\$81,402	\$1,125	\$17,168
186	Blankets, square yards	56,875		7,920	
187	Value		\$35,332	\$4,750	\$132,045
188	Horse blankets, square yards			600	4,783
189	Value			\$500	\$3,400
190	Carriage robes, square yards				
191	Value				
192	Woven shawls, square yards			93,921	400
193	Value			\$77,041	\$180
Union, or cotton mixed, woven goods—					
194	Unions, tweeds, chevots, cassimeres, or other goods for men's wear, square yards.	1,081,060	2,103,591	438,781	
195	Value		\$441,963	\$1,874,030	\$138,771
196	Overcoatings and cloakings, square yards	52,949	180,308	138,768	
197	Value		\$26,860	\$102,942	\$130,454
198	Sackings, tricots, and dress goods for women's wear, and opera and similar flannels, square yards.	2,259,929		712,132	120,000
199	Value		\$673,175	\$246,317	\$68,000
200	Flannels for underwear, square yards	622,651		221,400	100,460
201	Value		\$116,837	\$40,356	\$24,100
202	Blankets, square yards				52,500
203	Value				\$22,500
204	Horse blankets, square yards				72,000
205	Value				\$36,000
206	Carriage robes, square yards				15,000
207	Value				\$27,500
Goods woven on cotton warps, with weft partly or wholly of wool, worsted, or hair, or cotton weft with warp of wool—					
208	Wool-filling cassimeres, doeskins, jeans, tweeds, coatings, suitings, and other cotton-warp goods for men's wear, not specified below, square yards.	988,474	1,164,768	1,087,925	319,212
209	Value		\$465,976	\$462,831	\$419,025
210	Worsted-filling cassimeres, doeskins, jeans, tweeds, coatings, suitings, and other cotton-warp goods for men's wear, not specified below, square yards.	75,000		64,322	7,445
211	Value		\$35,000		\$64,322
212	Wool-filling overcoatings and cloakings, square yards	5,475	2,364,063		
213	Value		\$3,650	\$930,106	
214	Astrakhans and similar goods, square yards				15,000
215	Value				\$4,000
216	Satinetts and linseys, square yards	648,267			4,230
217	Value		\$36,166		\$3,140
218	Worsted-filling dress goods, delaines, cassimeres, serges, mohairs, alpacas, and other stuffs, for women's wear, square yards.			91,009	23,500
219	Value				\$3,843
220	Wool-filling dress goods and repellents, square yards.	1,739,682	432,202	272,176	15,000
221	Value		\$390,276	\$118,855	\$92,242
222	Domest flannels and shirtings, square yards	12,800	42,750	591,454	30,000
223	Value		\$3,200	\$50,000	\$100,535
224	Linings, Italian cloths, and lastings, square yards	551,011			
225	Value		\$36,734		
226	Cotton-warp blankets, square yards.	477,856		115,500	263,599
227	Value		\$133,724	\$32,580	\$102,409
228	Horse blankets, square yards	1,887,015		227,500	537,500
229	Value		\$323,337	\$44,375	\$215,000
230	Carriage robes, square yards			150,000	32,000
231	Value			\$180,000	\$24,000
Upholstery goods and sundries—					
232	Woolen and worsted upholstery goods, square yards				
233	Value				
234	Other upholstery goods			\$1,334,658	
Carpets and rugs—					
Carpets—					
235	Ingrain, 2-ply, square yards				
236	Value				
237	Ingrain, 3-ply, square yards				
238	Value				
Felt goods—					
239	Felt cloths, square yards			1,025	
240	Value			\$963	
241	Trimming and lining felts, felt skirts and skirting, table and piano covers, saddle felts, square yards.				2,700
242	Value				\$325
243	All other felts			\$8,029	
Hats—					
244	Wool hats, dozens				12,000
245	Value				\$3,400
Partly manufactured products for sale—					
246	Woolen yarn—all wool, pounds	48,093		491,900	89,204
247	Value		\$22,141	\$80,490	\$48,965
248	Worsted yarn and tops, pounds	354,453	300,000		
249	Value		\$177,584	\$210,000	
250	Woolen or worsted yarn, union or merino, cotton mixed, pounds	161,638		350,000	
251	Value		\$45,671	\$105,000	
252	Mohair and similar yarn, pounds.				302,853
253	Value				\$92,557
254	Cotton yarn, pounds	8,000			
255	Value		\$1,600		
256	Wool card rolls, pounds.	1,000		45,465	
257	Value		\$500	\$23,290	\$6,355
258	Noils, pounds				6,775
259	Value				\$3,583

BY STATES, 1900—Continued.

Oregon.	Pennsylvania.	Rhode Island.	Tennessee.	Texas.	Utah.	Vermont.	Virginia.	West Virginia.	Wisconsin.	All other states. ¹	
										3,728	176
1,296	401,230									\$3,724	177
\$1,367	\$202,315									143,548	178
1,101	2,397,543	18,270			39,151	1,376,534	19,125	188,839	44,970		
										\$76,370	179
\$381	\$1,040,031	\$18,270			\$17,571	\$500,562	\$6,700	\$56,961	\$41,277		180
1,735	1,890,441	14,394						2,726			
\$1,490	\$775,069	\$9,596						\$1,363			181
	26,000	64,917									182
	\$16,800	\$48,181									183
	633,091		5,047		7,433	110,000	6,013	362,212	309,412	20,218	184
304,273	\$238,201		\$1,584		\$2,281	\$34,000	\$2,725	\$89,076	\$103,899	\$12,306	185
\$90,877	1,463,544		29,686		18,843	30,000	31,005	24,413	351,555	215,017	186
205,797	\$554,913		\$15,234		\$5,023	\$9,000	\$15,484	\$9,599	\$126,273	\$127,175	187
\$180,626	173,227					30,000					188
	\$65,959					\$12,000					189
											190
	331,184				5,299				19,784	10,052	191
	\$236,331				\$2,983				\$21,698	\$26,616	192
											193
150,000	11,032,137	1,165,303	521,382	17,229	99,527	669,461			472,732	804,173	194
\$40,000	\$3,103,779	\$782,578	\$293,822	\$9,283	\$53,701	\$234,949			\$286,625	\$357,948	195
399	2,287,661	280,696									196
\$335	\$1,146,490	\$213,772									197
	326,393	79,686			14,445	401,564					198
	\$45,383	\$47,856			\$93,960	\$113,940					199
62,406	825,300					914,075	3,000	91,563	135,020		200
\$25,088	\$275,105					\$116,099	\$700	\$21,331	\$36,005		201
51,552	28,660				1,531	175,000	19,930	317,450	47,667	1,600	202
\$36,915	\$12,195				\$380	\$25,000	\$7,280	\$84,623	\$29,164	\$1,600	203
	719,664					150,000					204
	\$110,918					\$30,000					205
		34,125									206
		\$23,887									207
											208
	8,053,311	1,755,954	4,438,833	457,553	763		339,423	323,475			209
	\$2,176,211	\$444,173	\$344,294	\$185,283	\$407		\$155,569	\$163,190			210
	10,000	12,960	609,141					40			211
	\$8,000	\$9,082	\$108,332					\$20			212
	142,058					273,375					213
	\$133,141					\$97,431					214
											215
	75,765		110,093		34,183	825,070	24,790	600	2,750	5,009	216
	\$7,534		\$33,060		\$16,986	\$243,704	\$15,814	\$240	\$1,100	\$1,880	217
	6,004,325	52,557			1,103						218
	\$1,878,835	\$24,088			\$582						219
	1,703,237				480						220
	\$525,885				\$320		314	72,000			221
	1,639,745		1,650		859	35,783	\$331	\$13,280			222
	\$253,378		\$530		\$572	\$7,299		100			223
	437,900							\$45			224
	\$57,520										225
57,500	6,665,804		3,325		10,721		20,319	3,533	23,472	346	226
\$23,000	\$991,634		\$1,416		\$10,396		\$3,054	\$2,000	\$6,157	\$103	227
	2,291,495								2,250		228
	\$404,727								\$980		229
									43,606		230
7,042							1,005		\$130,190		231
\$3,086							\$1,512				232
											233
	5,200										234
	\$4,400										235
	\$663,174										236
											237
	2,650										238
	\$1,265										239
	543										240
	\$380										241
											242
											243
											244
											245
											246
500	26,182,718	579,528	120,540		17,934	19,811	95,445	39,008	87,687	5,813	247
\$300	\$4,444,560	\$253,419	\$52,784		\$10,225	\$12,126	\$50,410	\$20,013	\$46,992	\$3,056	248
	389,530								250,000		249
	\$143,048								\$157,737		250
	10,957,882	1,187,639					9,959	977	6,770		251
	\$1,689,446	\$684,011					\$4,375	\$487	\$4,062		252
	15,947										253
	\$19,133										254
	2,855,364		827,902								255
	\$302,169		\$32,155								256
9,800	59,542		163,653	3,000	4,980	16,700	22,125	87,373	49,880	1,500	257
\$4,050	\$24,216		\$67,016	\$1,200	\$2,125	\$3,470	\$3,998	\$17,372	\$23,769	\$750	258
											259

¹Includes establishments distributed as follows: Delaware, 2; Idaho, 1; Kansas, 1; North Dakota, 1; South Carolina, 1; Wyoming, 1.

MANUFACTURES.

TABLE 32.—WORSTED GOODS: BY STATES, 1900.

	United States.	Connecticut.	Maine.	Massachusetts.	New Jersey.	New York.	Pennsylvania.	Rhode Island.	All other states. ¹
Number of establishments.....	186	10	3	45	11	7	51	51	8
Character of organization:									
Individual.....	48			10	3		15	18	1
Firm and limited partnership.....	60	1		12	4	4	29	11	
Incorporated company.....	83	9	3	23	4	3	7	27	7
Capital:									
Total.....	\$132,168,110	\$5,054,659	\$1,486,635	\$45,790,800	\$12,080,721	\$8,809,390	\$19,396,558	\$34,949,769	\$4,600,073
Land.....	\$6,731,982	\$266,900	\$17,500	\$2,988,592	\$171,902	\$515,170	\$417,832	\$2,174,879	\$179,207
Buildings.....	\$13,279,427	\$492,208	\$110,081	\$4,539,224	\$1,608,247	\$802,700	\$1,609,471	\$3,799,161	\$318,335
Machinery, tools, and implements.....	\$27,026,759	\$849,305	\$250,489	\$8,585,662	\$2,643,417	\$1,868,341	\$5,085,186	\$7,098,313	\$696,046
Cash and sundries.....	\$85,129,942	\$3,446,246	\$1,108,565	\$29,676,822	\$7,657,155	\$5,623,179	\$12,334,069	\$21,877,416	\$3,406,490
Proprietors and firm members.....	127	1		27	13		35	46	2
Salaries of officials, clerks, etc.:									
Total number.....	1,369	56	27	503	112	134	188	322	27
Total salaries.....	\$2,342,218	\$121,733	\$26,782	\$796,250	\$197,984	\$267,367	\$277,081	\$593,869	\$61,102
Officers of corporations—									
Number.....	117	14	2	35	7	5	11	31	12
Salaries.....	\$440,492	\$41,200	\$6,000	\$117,004	\$27,300	\$36,095	\$34,275	\$139,218	\$39,400
General superintendents, managers, clerks, and salesmen—									
Total number.....	1,252	42	25	468	105	129	177	291	15
Total salaries.....	\$1,901,726	\$80,533	\$20,782	\$679,246	\$170,684	\$231,272	\$242,806	\$454,651	\$21,702
Men—									
Number.....	1,130	41	19	406	104	123	163	262	12
Salaries.....	\$1,837,907	\$79,833	\$18,598	\$646,037	\$170,320	\$227,695	\$236,635	\$438,267	\$20,522
Women—									
Number.....	122	1	6	62	1	6	14	29	3
Salaries.....	\$68,819	\$750	\$2,184	\$33,209	\$364	\$8,577	\$6,171	\$16,384	\$1,180
Wage-earners, including pieceworkers, and total wages:									
Greatest number employed at any one time during the year.....	64,036	2,434	955	21,085	4,907	4,028	11,335	16,704	2,548
Least number employed at any one time during the year.....	49,848	1,905	785	16,414	2,967	3,276	8,852	13,458	2,191
Average number.....	57,008	2,198	875	18,867	3,910	3,726	10,201	14,896	2,335
Wages.....	\$20,092,738	\$846,901	\$305,363	\$7,055,585	\$1,097,197	\$1,201,223	\$3,337,491	\$5,587,169	\$711,894
Men, 16 years and over—									
Average number.....	25,595	1,379	864	9,330	1,247	1,613	3,776	7,170	666
Wages.....	\$11,300,071	\$609,947	\$154,958	\$4,177,429	\$513,670	\$645,539	\$1,708,640	\$3,200,452	\$289,436
Women, 16 years and over—									
Average number.....	25,829	661	420	8,410	2,207	1,737	4,596	6,342	1,456
Wages.....	\$7,831,109	\$209,410	\$131,809	\$2,654,009	\$520,486	\$508,777	\$1,309,610	\$2,104,585	\$397,423
Children, under 16 years—									
Average number.....	5,584	158	91	1,077	456	376	1,829	1,384	218
Wages.....	\$961,558	\$27,544	\$18,596	\$224,147	\$68,041	\$51,912	\$319,241	\$232,132	\$24,945
Average number of wage-earners, including pieceworkers, employed during each month:									
Men, 16 years and over—									
January.....	24,947	1,350	339	9,944	967	1,581	3,584	6,574	608
February.....	24,292	1,259	344	9,041	1,043	1,622	3,633	6,723	624
March.....	24,876	1,264	345	9,258	1,037	1,645	3,647	6,733	637
April.....	23,299	1,343	354	9,338	1,121	1,662	3,665	7,179	632
May.....	23,339	1,406	360	9,168	1,149	1,601	3,812	7,265	628
June.....	23,047	1,343	365	9,185	1,180	1,523	3,811	6,987	638
July.....	23,101	1,397	367	9,100	1,158	1,613	3,706	7,143	679
August.....	23,616	1,397	371	9,180	1,319	1,595	3,754	7,305	695
September.....	23,022	1,409	373	9,343	1,396	1,595	3,838	7,361	702
October.....	23,719	1,441	384	9,760	1,471	1,642	3,905	7,401	715
November.....	23,728	1,440	371	9,510	1,517	1,658	3,958	7,557	711
December.....	27,044	1,485	390	9,727	1,556	1,616	3,998	7,569	703
Women, 16 years and over—									
January.....	24,100	653	393	7,921	1,809	1,746	4,239	5,946	1,333
February.....	24,578	629	395	8,089	1,825	1,746	4,279	6,087	1,406
March.....	24,917	611	403	8,179	1,918	1,778	4,330	6,236	1,442
April.....	23,322	654	404	8,439	1,917	1,756	4,423	6,322	1,407
May.....	23,691	665	408	8,477	2,020	1,697	4,668	6,347	1,439
June.....	23,675	649	413	8,538	2,072	1,618	4,672	6,232	1,430
July.....	23,493	645	423	8,340	2,186	1,630	4,557	6,211	1,451
August.....	23,830	649	418	8,269	2,327	1,686	4,623	6,373	1,494
September.....	23,072	689	423	8,420	2,423	1,693	4,605	6,309	1,505
October.....	23,882	686	445	8,616	2,549	1,777	4,814	6,489	1,506
November.....	27,596	704	457	8,758	2,698	1,823	4,896	6,753	1,517
December.....	27,733	704	455	8,820	2,737	1,824	4,906	6,793	1,514
Children, under 16 years—									
January.....	5,323	156	83	1,017	396	368	1,743	1,353	202
February.....	5,477	151	87	1,046	413	365	1,830	1,381	204
March.....	5,420	151	85	1,059	425	371	1,768	1,366	204
April.....	5,483	152	86	1,071	426	377	1,785	1,380	206
May.....	5,567	152	88	1,072	409	362	1,806	1,399	209
June.....	5,503	152	93	1,049	440	346	1,856	1,353	214
July.....	5,553	154	93	1,033	466	376	1,802	1,410	219
August.....	5,577	153	92	1,043	471	375	1,836	1,390	217
September.....	5,700	168	97	1,076	502	407	1,855	1,381	222
October.....	5,721	168	96	1,126	495	390	1,861	1,363	210
November.....	5,829	165	96	1,143	523	388	1,833	1,402	224
December.....	5,846	172	95	1,182	511	384	1,859	1,424	219
Skilled operatives, average number:									
Spinners—									
Men, 16 years and over.....	1,995	64	8	482	238	248	543	373	23
Women, 16 years and over.....	4,852	52	90	1,152	306	447	1,773	937	95
Children, under 16 years.....	1,580	15	28	298	112	158	662	237	80
Weavers—									
Men, 16 years and over.....	7,426	693	83	2,178	271	486	783	2,833	44
Women, 16 years and over.....	6,194	66	28	2,218	897	359	625	1,120	831
Children, under 16 years.....	62					44		13	
Finishers—									
Men, 16 years and over.....	2,789	123	31	1,411	71	251	319	563	10
Women, 16 years and over.....	2,932	178	60	1,199	22	255	349	809	
Children, under 16 years.....	78	1	7	39			6	25	
Machinery:									
Sets of woolen cards.....	685	72	5	181	29	24	128	246	
Combing machines, number.....	1,194	8	14	353	121	64	318	270	41
Of American manufacture.....	214			103	6	16	29	70	10
Of foreign manufacture.....	980	8	14	250	115	48	289	220	31

¹Includes states having less than 3 establishments in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Kentucky, 1; New Hampshire, 2; Ohio, 1; Vermont, 1; West Virginia, 1; Wisconsin, 2.
²Includes items as follows: Cotton upholstering plush, \$93,000; mohair matchings, \$14,127; waste, \$10,293; all-cotton goods, \$50,930; worsted and cotton twists, \$19,748.

TABLE 32.—WORSTED GOODS: BY STATES, 1900—Continued.

	United States.	Connecticut.	Maine.	Massachusetts.	New Jersey.	New York.	Pennsylvania.	Rhode Island.	All other states. ¹
Machinery—Continued.									
Spindles, number.....	1,871,026	47,444	9,800	429,526	107,884	89,149	250,354	403,017	34,352
Spinning—									
Woolen.....	183,504	25,460		33,674	4,140	9,968	16,374	43,888	
Worsted.....	842,730	12,214	6,600	263,594	78,888	53,354	175,566	222,182	30,432
Cotton.....	91,152			50,032				41,120	
Doubling—									
Woolen.....	16,522	3,230		2,524		3,579	996	6,193	
Worsted.....	232,914	6,540	2,800	79,654	24,856	22,248	57,418	85,478	3,920
Cotton.....	4,204			48				4,156	
Looms on woolen or worsted goods, number.....									
Broad, 50 inches or over, reed space—	26,372	834	199	9,584	1,394	1,515	2,619	6,589	3,633
On woolen goods.....	2,240	88		424	150	18	320	86	1,154
On worsted goods.....	14,699	700	162	4,469	1,174	1,003	1,718	4,841	632
Narrow, under 50 inches, reed space—									
On woolen goods.....	950	10			70	7	209	654	
On worsted goods.....	8,481	35	37	4,691		487	372	1,007	1,852
Hand—									
On woolen or worsted goods.....	2	1						1	
Braiders.....	2,830			500			630	1,700	
Miscellaneous expenses:									
Total.....	\$6,767,611	\$310,267	\$190,380	\$1,681,861	\$527,527	\$241,410	\$1,686,689	\$1,833,985	\$295,492
Rent of works.....	\$286,920	\$10,016	\$500	\$46,539	\$7,400	\$1,832	\$116,028	\$104,610	
Taxes, not including internal revenue.....	\$380,210	\$19,829	\$1,117	\$186,366	\$16,611	\$20,638	\$20,749	\$92,150	\$22,750
Rent of offices, insurance, interest, and all sundry expenses not hitherto included.....	\$5,121,974	\$273,235	\$188,763	\$1,362,930	\$459,165	\$218,940	\$1,133,745	\$1,335,015	\$150,181
Contract work.....	\$978,507	\$7,187		\$86,026	\$44,351		\$416,172	\$302,210	\$122,561
Materials used:									
Total cost.....	\$77,075,222	\$2,971,926	\$1,102,807	\$25,315,707	\$4,547,694	\$3,406,918	\$14,737,134	\$21,490,592	\$3,562,944
Wool—									
Foreign, in condition purchased, pounds.....	57,263,393	776,154	711,000	24,850,427	4,734,448	504,767	15,331,105	9,504,898	850,604
Cost.....	\$15,159,048	\$266,400	\$142,200	\$6,511,450	\$1,411,072	\$168,035	\$3,619,895	\$2,779,182	\$270,314
Domestic, in condition purchased, pounds.....	122,714,543	2,400,894	268,500	39,012,421	8,957,098	10,338,442	20,390,877	33,459,274	7,887,537
Cost.....	\$29,147,093	\$643,339	\$61,755	\$9,106,578	\$1,951,047	\$2,163,772	\$6,575,855	\$6,771,448	\$1,373,969
Foreign and domestic, etc., scoured, pounds.....	103,393,616	1,744,604	658,800	35,231,431	6,113,858	5,209,033	29,552,613	20,006,151	4,822,576
Animal hair and fur—									
Camel, alpaca, and vicuna hair, pounds.....	1,742,573		129,500	1,562,491			50,000	532	
Cost.....	\$391,332		\$49,210	\$329,040			\$12,500	\$532	
Mohair, pounds.....	1,905,967		858,000	256,347			10,102	781,518	
Cost.....	\$972,207		\$265,980	\$117,991			\$1,850	\$586,386	
Buffalo, cow, and other animal hair and fur, pounds.....	855,898						855,898		
Cost.....	\$79,900						\$79,900		
Cotton, bales.....									
Pounds.....	12,079	6		4,425	29	1	1,112	6,507	
Cost.....	\$24,515	\$75		\$250,878	\$957	\$37	\$31,157	\$241,111	
Materials not made in mill—									
Shoddy, pounds.....	1,807,827	116,292		643,563	16,093	14,817	28,129	988,933	
Cost.....	\$303,644	\$17,655		\$93,891	\$3,038	\$3,233	\$1,640	\$181,267	
Wool waste and noils, pounds.....	1,895,867	157,332		184,747	265,000		92,939	1,135,349	
Cost.....	\$558,494	\$66,098		\$55,471	\$104,997		\$25,023	\$306,905	
Camel, alpaca, and vicuna noils, pounds.....	55,679			3,238			52,441		
Cost.....	\$12,856			\$348			\$12,008		
Tops, pounds.....	5,260,775	58,493		1,490,776	532,958		543,853	2,620,226	14,969
Cost.....	\$2,701,532	\$34,630		\$705,605	\$300,164		\$201,944	\$1,361,520	\$7,769
Yarns not made in mill—									
Woolen, pounds.....	2,847,091	10,801	95,000	477,831	232,500		969,523	991,837	20,099
Cost.....	\$1,402,189	\$6,592	\$45,305	\$230,323	\$109,100		\$372,045	\$516,803	\$11,956
Worsted, pounds.....	18,896,863	1,737,214	534,172	4,870,023	258,860	380,514	2,940,497	7,296,627	823,951
Cost.....	\$14,704,172	\$1,506,184	\$331,451	\$4,257,607	\$174,401	\$232,263	\$2,130,476	\$5,378,892	\$592,893
Merino, pounds.....	419,434			172,488	500		130,696	115,690	
Cost.....	\$147,891			\$34,554	\$200		\$59,561	\$53,576	
Cotton, pounds.....	13,420,590	572,875	69,170	2,640,290	338,996	965,014	2,035,332	3,973,373	2,175,540
Cost.....	\$9,032,039	\$114,407	\$22,533	\$342,712	\$62,920	\$214,838	\$561,249	\$395,521	\$317,809
Silk, pounds.....	26,418	134		16		1,350	5,845	18,688	385
Cost.....	\$144,971	\$1,332		\$96		\$3,712	\$56,243	\$32,046	\$1,542
Spun silk, pounds.....	47,533	219		17,621	1,806	15	2,729	25,143	
Cost.....	\$169,672	\$654		\$63,922	\$4,965	\$101	\$3,777	\$38,053	
Linen, pounds.....	1,314			234				1,030	
Cost.....	\$1,052			\$229				\$323	
All other materials which are components of the product.....									
Soap, pounds.....	18,436,089	734,431	261,011	5,408,939	577,905	1,016,293	2,361,358	2,845,308	230,844
Cost.....	\$485,397	\$22,330	\$10,006	\$156,422	\$23,390	\$39,477	\$101,340	\$121,958	\$10,474
Oil, for preparing wool for cards or combs, gallons.....	488,703	21,491	5,895	144,241	31,393	14,280	149,838	112,939	8,676
Cost.....	\$221,981	\$8,199	\$3,046	\$63,130	\$14,333	\$6,980	\$60,997	\$59,874	\$5,372
Chemicals and dyestuffs.....	\$2,627,140	\$121,729	\$25,896	\$69,968	\$91,879	\$235,681	\$100,253	\$377,948	\$213,786
Fuel.....	\$1,226,933	\$54,894	\$29,418	\$49,281	\$62,571	\$65,023	\$161,151	\$348,314	\$55,031
Rent of power and heat.....	\$79,338		\$10,450	\$34,368	\$4,204		\$22,855	\$7,461	
Mill supplies.....	\$564,150	\$18,859	\$6,500	\$182,460	\$24,892	\$28,875	\$108,710	\$135,661	\$3,193
All other materials.....	\$1,818,608	\$54,788	\$27,828	\$761,558	\$100,635	\$118,721	\$126,399	\$516,156	\$117,523
Freight.....	\$527,418	\$33,511	\$20,679	\$147,320	\$41,562	\$36,472	\$109,337	\$123,326	\$15,158
Cotton yarn made in mill for use therein, pounds.....	3,237,131			1,956,949				1,230,182	
Products:									
Total value.....	\$120,314,344	\$4,539,814	\$1,779,552	\$40,567,363	\$6,823,721	\$5,958,259	\$22,109,392	\$33,341,329	\$5,204,914
All-wool woven goods, whether woolen or worsted:									
Wool cloths, doeskins, cassimeres, chevlots, tweeds, indigo flannels, and broadcloths, for men's wear, square yards.....	3,582,788	719,351		2,094,678	33,000	58,462	9,000	658,797	9,500
Value.....	\$2,508,918	\$601,636		\$1,396,451	\$9,530	\$60,072	\$9,000	\$413,229	\$19,000
Worsted coatings, serges, and suitings, for men's wear, square yards.....	50,204,672	2,180,270	663,508	21,180,544	770,128	3,039,235	3,831,644	16,629,693	1,909,550
Value.....	\$39,552,773	\$2,523,127	\$364,074	\$17,413,922	\$539,090	\$2,527,599	\$2,619,437	\$12,584,943	\$380,581
Woolen overcoatings, cloakings, kerseys, etc., for men's or women's wear, square yards.....	1,718,003	91,257		1,365,790		64,653		196,308	
Value.....	\$1,705,645	\$101,751		\$1,338,555		\$38,869		\$131,470	
Worsted overcoatings and cloakings, for men's or women's wear, square yards.....	16,690							16,690	
Value.....	\$7,773							\$7,773	

¹ Includes states having less than 3 establishments in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Kentucky, 1; New Hampshire, 2; Ohio, 1; Vermont, 1; West Virginia, 1; Wisconsin, 2.

TABLE 32.—WORSTED GOODS: BY STATES, 1900—Continued.

	United States.	Connecticut.	Maine.	Massachusetts.	New Jersey.	New York.	Pennsylvania.	Rhode Island.	All other states. ¹
Products—Continued.									
Total value—Continued.									
All-wool woven goods, whether woolen or worsted—Continued.									
Wool dress goods, sackings, tricots, ladies cloth, broadcloth, and other all-wool goods, for women's wear, and opera and similar flannels, square yards.....	3,820,974			1,068,475	1,609,856		504,258		188,885
Value.....	\$1,698,459			\$580,940	\$773,991		\$168,528		\$76,000
Worsted dress goods, cassimeres, serges, and other worsted goods, for women's wear, and buntings, square yards.....	54,480,569		956,653	13,026,286	4,368,475	523,529	3,922,075	9,885,726	21,847,825
Value.....	\$14,991,513		\$539,411	\$4,088,468	\$1,310,543	\$242,670	\$1,970,180	\$4,050,351	\$2,842,940
Blankets, square yards.....	187,580			187,530					
Value.....	\$42,194			\$42,194					
Woven shawls, square yards.....	87,902							87,902	
Value.....	\$72,248							\$72,248	
Union or cotton mixed woven goods:									
Unions, tweeds, chevylots, cassimeres, or other goods for men's wear, square yards.....	1,179,014					83,125	1,016,920	78,969	
Value.....	\$880,441					\$60,375	\$766,743	\$53,323	
Overcoatings and cloakings, square yards.....	411,902						250,540	161,362	
Value.....	\$353,864						\$156,589	\$197,275	
Sackings, tricots, and dress goods for women's wear, and opera and similar flannels, square yards.....	1,071,204			169,234			901,970		
Value.....	\$328,243			\$55,061			\$273,182		
Goods woven on cotton warps, with weft partly or wholly of wool, worsted, or hair (or cotton weft with warp of wool):									
Wool-filling cassimeres, doeskins, jeans, tweeds, coatings, suitings, and other cotton-warp goods, for men's wear, not specified below, square yards.....	2,073,990	471,825		450,000		716,334	109,166	326,665	
Value.....	\$1,356,735	\$429,255		\$380,000		\$342,378	\$109,166	\$145,936	
Worsted-filling cassimeres, doeskins, jeans, tweeds, coatings, suitings, and other cotton-warp goods, for men's wear, not specified below, square yards.....	10,540,927	200,470		2,084,766	628,268		621,181	6,738,436	207,856
Value.....	\$6,401,491	\$144,726		\$1,083,222	\$157,960		\$323,010	\$4,585,717	\$108,856
Worsted-filling dress goods, delaines, cassimeres, serges, mohairs, alpacos, and other stuffs, for women's wear, square yards.....	39,611,517			21,794,250	633,429	4,823,470	3,577,092	8,783,276	
Value.....	\$8,466,106			\$4,128,159	\$106,037	\$1,051,246	\$984,279	\$1,596,385	
Wool-filling dress goods and repellents, square yards.....	347,882			347,882					
Value.....	\$155,042			\$155,042					
Linings, Italian cloths, and lastings, square yards.....	6,987,330		483,651	6,309,534		69,584	124,561		
Value.....	\$1,953,139		\$172,326	\$1,699,430		\$26,577	\$54,806		
Upholstery goods and sundries—									
Woolen and worsted upholstery goods, square yards.....	43,614		7,314					36,300	
Value.....	\$62,130		\$5,130					\$57,000	
Other upholstery goods.....	\$454,995						\$90,970	\$325,000	
Partly manufactured products for sale—									
Woolen yarn—all wool, pounds.....	3,556,375	63,671		434,192	79,255		2,979,257		
Value.....	\$1,052,508	\$24,194		\$162,982	\$39,627		\$325,705		
Worsted yarn and tops, pounds.....	41,659,360	678,726	358,500	8,828,568	4,365,683	980,510	16,424,117	8,789,306	1,233,950
Value.....	\$29,358,056	\$577,010	\$304,629	\$4,990,268	\$3,395,322	\$701,166	\$11,733,065	\$6,789,859	\$866,737
Woolen or worsted yarn, union or merino, cotton mixed, pounds.....	2,537,303			878,506			1,837,292	321,505	
Value.....	\$1,903,639			\$746,808			\$1,002,022	\$154,809	
Mohair and similar yarn, pounds.....	788,166	6,675	260,000	245,616				275,875	
Value.....	\$705,211	\$6,225	\$316,800	\$102,899				\$279,287	
Cotton yarn, pounds.....	76,013							76,013	
Value.....	\$19,760							\$19,760	
Noils, pounds.....	12,052,814	55,964	292,750	4,879,286	708,793	526,925	2,984,381	2,099,777	504,938
Value.....	\$3,335,251	\$11,937	\$64,405	\$1,281,606	\$229,424	\$165,567	\$793,279	\$651,720	\$137,313
Waste, pounds.....	7,184,821	125,040	21,000	1,185,361	692,392	261,804	653,581	3,292,631	958,012
Value.....	\$1,162,610	\$21,698	\$3,780	\$221,900	\$205,633	\$36,700	\$106,024	\$410,317	\$156,508
Flocks, pounds.....	297,628	4,926		164,329	41,000	13,000	30,000	35,443	8,930
Value.....	\$11,783	\$125		\$5,768	\$1,700	\$260	\$3,000	\$699	\$231
All other products.....	\$1,077,474	\$93,000	\$14,127	\$84,730	\$10,293	\$59,780	\$60,930	\$744,866	\$19,746
Amount received for contract work.....	\$793,338			\$609,933	\$44,521		\$69,527	\$69,357	
Comparison of products:									
Number of establishments reporting for both years.....	145	10	2	34	10	5	38	39	7
Value for census year.....	\$113,635,037	\$4,539,814	\$1,579,562	\$33,622,603	\$6,399,677	\$4,501,327	\$20,271,290	\$32,575,860	\$5,144,914
Value for preceding business year.....	\$85,483,346	\$3,466,430	\$1,104,443	\$29,535,477	\$5,340,615	\$3,705,023	\$13,899,155	\$24,278,130	\$4,154,018
Power:									
Number of establishments reporting.....	185	10	3	44	11	7	51	51	8
Total horsepower.....	97,383	3,949	1,386	38,611	5,576	7,255	14,314	22,562	3,730
Owned—									
Engines—									
Steam, number.....	399	17	11	151	15	34	63	96	12
Horsepower.....	73,180	1,548	651	27,001	5,251	3,475	13,860	18,944	2,450
Gas or gasoline, number.....	4			1		3			
Horsepower.....	220			10		210			
Water wheels, number.....	147	16	1	64	1	14	2	45	4
Horsepower.....	20,491	2,346	75	10,262	100	3,810	60	3,108	1,230
Electric motors, number.....	26	2		15		5	2	1	1
Horsepower.....	1,151	55		740		255	46	5	50
Other power, number.....	1					1			
Horsepower.....	5					5			
Rented—									
Electric, horsepower.....	1,801		630	598	225		348		
Other kind, horsepower.....	535		30					505	
Furnished to other establishments, horsepower.....	260			190			70		

¹Includes states having less than 3 establishments in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Kentucky, 1; New Hampshire, 2; Ohio, 1; Vermont, 1; West Virginia, 1; Wisconsin, 2.

TABLE 32.—WORSTED GOODS: BY STATES, 1900—Continued.

	United States.	Connecticut.	Maine.	Massachusetts.	New Jersey.	New York.	Pennsylvania.	Rhode Island.	All other states. ¹
Establishments classified by number of persons employed, not including proprietors and firm members:									
Total number of establishments.....	186	10	3	45	11	7	51	51	8
Under 5.....	1							1	
5 to 20.....	10			4			3	1	2
21 to 50.....	17			5	1		7	4	
51 to 100.....	42	2	2	11	4		11	11	1
101 to 250.....	58	2		9	3	8	14	20	2
251 to 500.....	28	6		6	1		8	5	2
501 to 1,000.....	22		1	6	1		8	5	
Over 1,000.....	12			4	1	2		4	1

¹ Includes states having less than 3 establishments in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Kentucky, 1; New Hampshire, 2; Ohio, 1; Vermont, 1; West Virginia, 1; Wisconsin, 2.

TABLE 33.—CARPETS AND RUGS, OTHER THAN RAG: BY STATES, 1900.

	United States.	Massachusetts.	New Jersey.	New York.	Pennsylvania.	All other states. ¹
Number of establishments.....	133	8	13	12	93	7
Character of organization:						
Individual.....	48	1	5		41	1
Firm and limited partnership.....	49		2	5	42	
Incorporated company.....	35	7	5	7	10	6
Miscellaneous.....	1		1			
Capital:						
Total.....	\$44,449,299	\$9,400,829	\$1,487,031	\$12,870,200	\$17,957,607	\$2,733,632
Land.....	\$2,041,774	\$614,572	\$120,015	\$375,806	\$956,375	\$94,006
Buildings.....	\$5,717,961	\$1,503,394	\$260,137	\$939,963	\$2,705,050	\$308,917
Machinery, tools, and implements.....	\$11,495,056	\$2,010,830	\$232,860	\$3,086,323	\$5,294,986	\$320,057
Cash and sundries.....	\$24,594,508	\$5,271,533	\$824,019	\$7,967,608	\$9,020,696	\$1,510,652
Proprietors and firm members.....	111	1	3	3	103	1
Salaried officials, clerks, etc.:						
Total number.....	687	71	47	189	336	44
Total salaries.....	\$881,398	\$127,264	\$73,197	\$250,169	\$375,483	\$55,285
Officers of corporations—						
Number.....	52	7	9	10	17	9
Salaries.....	\$173,931	\$38,200	\$39,500	\$40,500	\$34,868	\$20,869
General superintendents, managers, clerks, etc.—						
Total number.....	635	64	38	179	319	35
Total salaries.....	\$707,467	\$89,064	\$33,697	\$209,669	\$340,615	\$34,422
Men—						
Number.....	607	62	35	172	303	35
Salaries.....	\$693,532	\$88,123	\$32,215	\$205,732	\$332,935	\$34,422
Women—						
Number.....	28	2	3	7	16	
Salaries.....	\$13,935	\$36	\$1,482	\$3,837	\$7,630	
Wage-earners, including pieceworkers, and total wages:						
Greatest number employed at any one time during the year.....	30,175	4,390	1,290	9,040	13,480	1,475
Least number employed at any one time during the year.....	25,734	3,742	1,124	7,631	12,166	1,021
Average number.....	28,411	4,480	1,171	8,603	12,919	1,233
Wages.....	\$11,121,838	\$1,720,239	\$379,423	\$3,303,643	\$5,330,643	\$382,500
Men, 16 years and over—						
Average number.....	13,360	2,022	759	3,911	6,608	560
Wages.....	\$6,651,180	\$996,216	\$233,005	\$1,837,556	\$3,269,567	\$214,336
Women, 16 years and over—						
Average number.....	12,468	1,954	326	4,112	5,461	615
Wages.....	\$4,113,142	\$629,638	\$84,831	\$1,313,904	\$1,926,024	\$153,635
Children, under 16 years—						
Average number.....	2,033	504	86	530	350	63
Wages.....	\$357,061	\$94,435	\$11,637	\$106,978	\$135,052	\$9,059
Average number of wage-earners, including pieceworkers, employed during each month:						
Men, 16 years and over—						
January.....	13,823	2,075	752	3,873	6,020	508
February.....	13,915	2,060	746	3,903	6,059	547
March.....	13,865	1,970	759	3,899	6,093	539
April.....	13,423	1,655	732	3,896	6,013	552
May.....	13,783	2,043	727	3,904	6,558	551
June.....	13,337	2,033	724	3,944	6,540	546
July.....	13,923	2,114	763	3,946	6,551	549
August.....	13,916	2,099	733	3,949	6,530	555
September.....	14,018	2,125	774	3,969	6,577	573
October.....	14,048	2,109	732	3,967	6,602	533
November.....	14,100	2,123	735	3,996	6,596	600
December.....	13,659	1,825	777	3,691	6,755	611
Women, 16 years and over—						
January.....	12,285	2,058	324	3,839	5,431	533
February.....	12,521	2,077	325	4,002	5,516	601
March.....	12,498	2,003	321	4,050	5,533	591
April.....	12,082	1,563	314	4,090	5,477	633
May.....	12,331	1,859	319	4,142	5,376	635
June.....	12,368	1,936	323	4,081	5,410	563
July.....	12,497	1,937	329	4,201	5,412	563
August.....	12,561	2,043	334	4,200	5,339	595
September.....	12,604	2,033	327	4,172	5,431	530
October.....	12,641	2,059	329	4,171	5,421	661
November.....	12,792	2,115	337	4,181	5,474	635
December.....	12,436	1,615	332	4,162	5,603	719
Children, under 16 years—						
January.....	1,991	519	80	475	352	65
February.....	2,033	520	83	543	380	67
March.....	2,091	505	79	566	374	67
April.....	2,048	462	81	577	363	65
May.....	2,033	503	85	569	363	63
June.....	2,033	503	87	534	347	62
July.....	2,115	508	89	609	343	63
August.....	2,113	505	83	615	341	64
September.....	2,121	510	87	615	350	59
October.....	2,033	512	87	603	347	56
November.....	2,079	515	91	607	307	49
December.....	2,111	492	93	599	309	53

¹ Includes states having less than 3 establishments in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Alabama, 1; Colorado, 1; Connecticut, 2; Indiana, 1; South Carolina, 1; Wisconsin, 1.

TABLE 33.—CARPETS AND RUGS, OTHER THAN RAG: BY STATES, 1900—Continued.

	United States.	Massachu- setts.	New Jersey.	New York.	Pennsylv- ania.	All other states. ¹
Skilled operatives, average number:						
Spinners—						
Men, 16 years and over.....	486	34	1	117	316	18
Women, 16 years and over.....	1,150	302		216	541	91
Children, under 16 years.....	185			21	162	2
Weavers—						
Men, 16 years and over.....	5,836	480	398	625	4,167	221
Women, 16 years and over.....	4,443	701	137	1,307	2,024	274
Children, under 16 years.....	34		7		26	1
Finishers—						
Men, 16 years and over.....	516	92	6	186	247	35
Women, 16 years and over.....	1,018	161	35	375	405	42
Children, under 16 years.....	80			6	64	10
Machinery:						
Sets of woolen cards.....	468	66	10	275	92	25
Combing machines, number.....	134	47	3	50	17	17
Of American manufacture.....	46	29	1	11	5	
Of foreign manufacture.....	88	18	2	39	12	17
Spindles, number.....	209,206	50,344	3,344	89,982	42,926	22,610
Spinning—						
Woolen.....	63,836	10,164	752	26,724	21,416	4,780
Worsted.....	97,191	27,352	1,728	41,620	18,267	13,224
Cotton.....	6,096	1,872		4,224		
Doubling—						
Woolen.....	3,197	680		1,944	573	
Worsted.....	36,658	9,688	864	13,874	7,626	4,606
Cotton.....	2,228	588		1,596	44	
Looms on woolen or worsted goods, number						
Broad, 50 inches or over, reed space—						
On woolen goods.....	797		26	50	721	
On worsted goods.....	17			17		
Narrow, under 50 inches, reed space—						
On woolen goods.....	602			602		
On worsted goods.....	295			295		
Hand—						
On woolen or worsted goods.....	46			34	12	
Looms on carpets and rugs, number						
Ingrain—	10,754	1,223	911	2,238	5,843	539
Hand.....	92			28	62	2
Power.....	4,354	253	31	287	3,467	316
Broad Ingrain—						
Hand.....	1				1	
Power.....	246			11	207	28
Venetian—						
Power.....	80				80	
Tapestry brussels—						
Power.....	1,094	191	7	625	271	
Tapestry velvet—						
Power.....	737	26	13	432	266	
Body brussels—						
Power.....	544	333		24	87	100
Wilton—						
Power.....	507	276	46	10	168	7
Axminster—						
Power.....	611	143	19	358	12	79
Moquette—						
Power.....	150			150		
Wilton rug—						
Power.....	22	1		18		3
Tapestry rug—						
Power.....	3		1		2	
Smyrna rug—						
Hand.....	955		447	123	385	
Power.....	1,358		347	172	835	4
Miscellaneous expenses:						
Total.....	\$2,751,879	\$427,241	\$45,610	\$541,841	\$1,671,015	\$86,172
Rent of works.....	\$162,657	\$683	\$970	\$53,200	\$107,624	\$180
Taxes, not including internal revenue.....	\$178,469	\$77,957	\$4,766	\$47,608	\$35,151	\$12,987
Rent of offices, insurance, interest, and all sundry expenses not hitherto included.....	\$2,096,532	\$329,705	\$39,874	\$425,654	\$1,248,594	\$52,705
Contract work.....	\$314,221	\$18,896		\$15,379	\$279,646	\$300
Materials used:						
Total cost.....	\$27,228,719	\$3,989,945	\$807,959	\$7,681,097	\$13,773,788	\$915,930
Wool—						
Foreign, in condition purchased, pounds.....	51,761,523	13,746,907	663,452	23,297,198	11,458,910	2,595,056
Cost.....	\$8,077,420	\$2,003,995	\$99,497	\$3,875,638	\$1,686,477	\$851,813
Domestic, in condition purchased, pounds.....	109,811				109,811	
Cost.....	\$26,687				\$26,687	
Foreign and domestic, etc., scoured, pounds.....	37,560,231	10,096,801	420,000	17,224,476	8,189,811	1,629,143
Animal hair and fur—						
Camel, alpaca, and vicuna hair, pounds.....	457,476				457,476	
Cost.....	\$71,256				\$71,256	
Mohair, pounds.....	25,000				25,000	
Cost.....	\$7,250				\$7,250	
Buffalo, cow, and other animal hair and fur, pounds.....	5,707,281		91,185	1,325,814	3,825,421	464,861
Cost.....	\$471,104		\$11,912	\$99,978	\$311,325	\$47,839
Cotton, bales.....	3,813	1,242		2,571		
Pounds.....	1,943,942	641,460		1,802,432		
Cost.....	\$129,449	\$36,828		\$92,621		
Materials not made in mill—						
Shoddy, pounds.....	744,233			6,653	737,580	
Cost.....	\$43,555			\$410	\$43,145	
Wool waste and noils, pounds.....	2,288,946	403,698		1,039,591	795,057	600
Cost.....	\$301,944	\$65,000		\$151,173	\$85,741	\$30
Camel, alpaca, and vicuna noils, pounds.....	81,008			84,908		
Cost.....	\$3,627			\$3,627		
Mohair noils, pounds.....	1,200				1,200	
Cost.....	\$162				\$162	
Tops, pounds.....	200,000				200,000	
Cost.....	\$96,000				\$96,000	
Yarns not made in mill—						
Woolen, pounds.....	32,996,316		2,036,980	1,594,801	28,029,987	1,334,543
Cost.....	\$5,030,654		\$343,618	\$266,998	\$4,218,605	\$201,433
Worsted, pounds.....	9,218,267	2,142,847		37,047	6,504,583	251,960
Cost.....	\$3,544,860	\$835,863		\$113,588	\$2,481,729	\$93,229
Merino, pounds.....	237,970				229,700	8,270
Cost.....	\$38,994				\$37,837	\$1,157

¹Includes states having less than 3 establishments in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Alabama, 1; Colorado, 1; Connecticut, 2; Indiana, 1; South Carolina, 1; Wisconsin, 1.

TABLE 33.—CARPETS AND RUGS, OTHER THAN RAG: BY STATES, 1900—Continued.

	United States.	Massachu- setts.	New Jersey.	New York.	Pennsyl- vania.	All other states. ¹
Materials used—Continued.						
Total cost—Continued.						
Yarns not made in mill—Continued.						
Cotton, pounds	19,828,561	2,163,677	432,988	3,617,216	13,215,750	393,985
Cost	\$2,744,928	\$250,008	\$67,918	\$443,351	\$1,939,047	\$14,609
Silk, pounds	9,634				9,634	
Cost	\$48,455				\$48,455	
Spun silk, pounds	178,780				178,780	
Cost	\$250,233				\$250,233	
Linen, pounds	8,388,211	1,175,181	92,346	5,382,255	1,699,108	89,871
Cost	\$1,164,826	\$159,702	\$19,929	\$732,307	\$252,810	\$1,678
Jute, ramie, or other vegetable fiber, pounds	38,846,413	2,981,326	3,091,776	10,411,276	15,784,809	627,726
Cost	\$2,476,029	\$186,779	\$208,678	\$944,901	\$1,101,507	\$39,169
Shoddy, made in mill for use therein, pounds	125,000				125,000	
Cost	\$6,125				\$6,125	
All other materials which are components of the product	\$199,618				\$158,952	\$40,666
Soap, pounds	2,096,173	197,290	208,814	929,496	1,277,598	82,975
Cost	\$90,271	\$4,712	\$7,221	\$26,211	\$49,705	\$2,422
Oil, for preparing wool for cards or combs, gallons	465,731	61,844	4,659	261,501	116,137	21,500
Cost	\$108,671	\$19,413	\$1,812	\$31,684	\$39,095	\$1,667
Chemicals and dyestuffs	\$1,151,726	\$128,315	\$37,856	\$384,835	\$550,542	\$52,178
Fuel	\$469,913	\$97,656	\$18,902	\$118,466	\$213,722	\$26,267
Rent of power and heat	\$22,881	\$600		\$240	\$22,041	
Mill supplies	\$138,181	\$28,750	\$3,565	\$36,935	\$53,510	\$16,961
All other materials	\$366,761	\$101,799	\$39,038	\$108,612	\$127,287	\$1,025
Freight	\$157,139	\$12,630	\$3,392	\$35,666	\$24,454	\$21,103
Cotton yarn made in mill for use therein, pounds	1,712,421	636,374		1,176,047		
Products:						
Total value	\$48,192,351	\$6,966,237	\$1,522,827	\$15,029,218	\$23,118,058	\$1,561,011
All-wool woven goods, whether woolen or worsted—						
Carriage robes, square yards	28,364		28,364			
Value	\$17,367		\$17,367			
Goods woven on cotton warps with weft partly or wholly of wool, worsted, or hair—						
Carriage robes, square yards	667				667	
Value	\$1,500				\$1,500	
Upholstery goods and sundries—						
Woolen and worsted upholstery goods square yards	94,341				94,341	
Value	\$44,340				\$44,340	
Other upholstery goods	\$405,244				\$405,244	
Carpets and rugs—						
Carpets—						
Ingrain, 2-ply, square yards	36,698,292	2,295,695	97,500	2,390,608	30,469,168	1,445,291
Value	\$13,222,657	\$976,588	\$15,840	\$392,012	\$10,754,000	\$584,127
Ingrain, 3-ply, square yards	3,222,557			91,595	2,598,477	532,455
Value	\$1,146,273			\$56,411	\$349,559	\$240,303
Ingrain art carpets, square yards	2,328,906			125,784	2,085,326	114,840
Value	\$1,007,627			\$81,102	\$376,474	\$50,051
Tapestry Brussels, running yards of 27 inches wide	11,649,932	1,812,447	72,000	6,898,863	2,866,622	
Value	\$5,520,665	\$1,069,050	\$90,240	\$3,080,597	\$1,340,978	
Body Brussels, running yards of 27 inches wide	3,581,991	2,536,261		107,778	756,348	121,609
Value	\$2,979,807	\$2,143,570		\$113,216	\$618,633	\$109,443
Tapestry, velvet, running yards of 27 inches wide	5,706,754	105,665	180,000	2,448,555	2,072,581	
Value	\$3,743,353	\$78,296	\$108,000	\$1,076,920	\$1,880,131	
Wilton and Wilton velvet, running yards of 27 inches wide	4,782,835	891,034	306,407	5,097,432	478,630	
Value	\$4,030,842	\$1,259,781	\$268,932	\$1,978,494	\$509,637	9,332
Axminster, running yards of 27 inches wide	5,074,961	685,229	12,400	3,834,992		\$19,098
Value	\$3,637,001	\$612,855	\$14,700	\$2,607,707		\$42,340
Moquette, running yards of 27 inches wide	1,627,410			1,627,410		\$502,239
Value	\$1,125,268			\$1,125,268		
Rugs—						
Tapestry, square yards	18,750				18,750	
Value	\$9,000				\$9,000	
Wilton, square yards	339,784	164,401		75,814	90,869	2,700
Value	\$545,967	\$262,118		\$136,007	\$138,842	\$9,000
Moquette and Axminster, square yards	327,598	289,698			37,900	
Value	\$342,262	\$297,495			\$44,767	
Ingrain, square yards	398,417				294,800	98,617
Value	\$168,324				\$124,800	\$45,438
Smyrna carpets and rugs, square yards	3,651,661		1,007,786	504,468	2,139,407	
Value	\$3,630,618		\$885,653	\$755,927	\$2,089,038	
Other rugs, square yards	5,111,173	52,000		5,056,577		2,506
Value	\$2,391,494	\$65,000		\$2,321,959		\$4,476
Felt goods—						
All other felts	\$15,393		\$15,393			
Partly manufactured products for sale—						
Woolen yarn, all wool, pounds	1,073,214	312,000		44,675	716,539	
Value	\$252,857	\$98,740		\$10,447	\$148,070	
Worsted yarn and tops, pounds	2,776,929	555,722	90,732	381,378	1,709,097	
Value	\$1,090,036	\$205,144	\$30,933	\$140,701	\$713,298	
Woolen or worsted yarn, union or merino, cotton mixed, pounds	10,000				10,000	
Value	\$4,887				\$4,887	
Nails, pounds	674,183		159,316	250,667	264,205	
Value	\$120,331		\$26,619	\$44,049	\$49,463	
Waste, pounds	330,351	31,000		102,315	150,000	
Value	\$21,133	\$3,100		\$3,601	\$7,500	
All other products	\$2,648,205		\$109,100		\$2,539,105	\$1,932
Amount received for contract work	\$20,100				\$20,100	
Comparison of products:						
Number of establishments reporting for both years	114	7	10	10	83	4
Value for census year	\$46,885,929	\$6,497,371	\$1,493,136	\$14,867,002	\$22,505,237	\$1,523,188
Value for preceding business year	\$40,181,460	\$5,117,762	\$1,279,003	\$13,385,231	\$18,930,902	\$1,423,562
Power:						
Number of establishments reporting	127	8	12	12	83	6
Total horsepower	26,932	6,000	1,056	7,845	10,537	1,494
Owned—						
Engines—						
Steam, number	155	23	14	23	87	8
Horsepower	28,091	4,690	751	6,103	10,088	1,459
Gas or gasoline, number	1					1
Horsepower	35					
Water wheels, number	22	10	3	9		85
Horsepower	3,145	1,185	300	1,660		
Electric motors, number	5	2	1	2		
Horsepower	192	125	5	62		
Rented—						
Other than electric, horsepower	469				449	
Furnished to other establishments, horsepower	484				484	

¹ Includes states having less than 3 establishments in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Alabama, 1; Colorado, 1; Connecticut, 2; Indiana, 1; South Carolina, 1; Wisconsin, 1.

MANUFACTURES.

TABLE 33.—CARPETS AND RUGS, OTHER THAN RAG: BY STATES, 1900—Continued.

	United States.	Massachu- setts.	New Jersey.	New York.	Pennsyl- vania.	All other states. ¹
Establishments classified by number of persons employed, not including proprietors and firm members:						
Total number of establishments	183	8	13	12	93	7
Under 5	2	2	3	1	2	2
5 to 20	18	1	4	3	12	2
21 to 50	33	1	3	3	28	2
51 to 100	30	1	1	1	21	2
101 to 250	20	1	2	4	15	2
251 to 500	19	1	2	4	11	2
501 to 1,000	3	1	2	4	2	2
Over 1,000	8	2	3	3	2	1

¹ Includes states having less than 3 establishments in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Alabama, 1; Colorado, 1; Connecticut, 2; Indiana, 1; South Carolina, 1; Wisconsin, 1.

TABLE 34.—FELT GOODS: BY STATES, 1900.

	United States.	Massachu- setts.	New Jersey.	New York.	Pennsyl- vania.	All other states. ¹
Number of establishments.....	36	7	4	11	3	11
Character of organization:						
Individual.....	7	1	2	1	2	1
Firm and limited partnership.....	7	1	1	4	1	1
Incorporated company.....	22	5	2	6	1	9
Capital:						
Total.....	\$7,125,276	\$1,338,640	\$806,057	\$2,183,050	\$186,445	\$2,611,084
Land.....	\$509,601	\$134,400	\$65,000	\$143,500	\$6,150	\$167,651
Buildings.....	\$1,115,961	\$229,980	\$102,000	\$396,684	\$53,800	\$333,697
Machinery, tools, and implements.....	\$1,745,933	\$324,212	\$161,819	\$628,401	\$68,050	\$663,451
Cash and sundries.....	\$3,760,781	\$650,048	\$487,238	\$1,114,615	\$58,445	\$1,448,986
Proprietors and firm members:						
Salaried officials, clerks, etc.:						
Total number.....	13	1	7	7	4	1
Total salaries.....	\$231,065	\$41,897	\$19,650	\$73,130	\$6,836	\$90,652
Officers of corporations—						
Number.....	28	2	3	9	1	14
Salaries.....	\$92,110	\$17,000	\$13,900	\$23,450	.....	\$37,760
General superintendents, managers, clerks, etc.—						
Total number.....	108	17	5	32	6	48
Total salaries.....	\$138,955	\$24,397	\$5,750	\$49,680	\$6,836	\$52,792
Men—						
Number.....	94	15	4	27	5	43
Salaries.....	\$133,278	\$23,496	\$5,400	\$47,184	\$6,036	\$51,162
Women—						
Number.....	14	2	1	5	1	5
Salaries.....	\$5,677	\$901	\$350	\$2,496	\$300	\$1,630
Wage-earners, including pieceworkers, and total wages:						
Greatest number employed at any one time during the year.....	3,085	526	227	891	80	1,361
Least number employed at any one time during the year.....	2,335	340	190	740	67	992
Average number.....	2,633	464	206	735	75	1,203
Wages.....	\$1,024,835	\$180,795	\$83,514	\$297,853	\$30,490	\$492,133
Men, 16 years and over—						
Average number.....	1,957	402	180	507	74	794
Wages.....	\$320,637	\$165,861	\$77,793	\$228,966	\$29,890	\$318,122
Women, 16 years and over—						
Average number.....	653	47	26	197	1	387
Wages.....	\$191,090	\$12,512	\$5,716	\$62,379	\$600	\$109,833
Children, under 16 years—						
Average number.....	73	15	.....	31	.....	27
Wages.....	\$13,108	\$2,422	.....	\$6,508	.....	\$4,173
Average number of wage-earners, including pieceworkers, employed during each month:						
Men, 16 years and over—						
January.....	1,929	387	173	520	76	773
February.....	1,931	379	174	526	70	782
March.....	1,976	382	173	534	63	814
April.....	1,912	398	181	528	65	740
May.....	1,921	398	180	523	66	754
June.....	1,893	385	186	467	77	773
July.....	1,901	400	187	472	77	765
August.....	2,003	443	192	502	77	789
September.....	2,050	437	179	526	77	831
October.....	2,011	403	180	507	77	844
November.....	1,975	405	175	485	77	833
December.....	1,977	402	174	488	77	836
Women, 16 years and over—						
January.....	659	47	21	203	3	385
February.....	640	45	25	187	3	380
March.....	665	46	26	193	2	399
April.....	634	46	26	193	2	365
May.....	654	48	29	190	.....	387
June.....	663	48	29	189	.....	397
July.....	672	49	29	190	.....	408
August.....	646	48	28	198	.....	372
September.....	662	46	28	200	.....	388
October.....	669	50	26	207	.....	396
November.....	662	49	25	206	.....	382
December.....	670	48	26	207	.....	389
Children, under 16 years—						
January.....	69	14	.....	29	.....	26
February.....	68	13	.....	31	.....	24
March.....	69	13	.....	31	.....	25
April.....	74	15	.....	32	.....	27
May.....	70	16	.....	31	.....	23
June.....	76	15	.....	32	.....	29
July.....	73	14	.....	32	.....	27
August.....	70	15	.....	31	.....	24
September.....	74	15	.....	31	.....	28
October.....	73	16	.....	31	.....	26
November.....	82	16	.....	33	.....	30
December.....	78	16	.....	32	.....	33

¹ Includes states having less than 3 establishments in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Connecticut, 2; Illinois, 1; Indiana, 1; Michigan, 1; Ohio, 2; Rhode Island, 1; Wisconsin, 1; Maine, 2.

TABLE 34.—FELT GOODS: BY STATES, 1900—Continued.

	United States.	Massachu- setts.	New Jersey.	New York.	Pennsyl- vania.	All other states. ¹
Skilled operatives, average number:						
Spinners—						
Men, 16 years and over	68		1	14	1	52
Children, under 16 years	"			4		
Weavers—						
Men, 16 years and over	115		5	36	1	73
Women, 16 years and over	118			22	3	93
Finishers—						
Men, 16 years and over	149	5	24	50	1	60
Women, 16 years and over	95	10				85
Children, under 16 years	3	1		2		
Machinery:						
Sets of woolen cards	302		30	120	12	74
Spindles, number	24,286	66	3,440	6,629	208	14,009
Spinning—						
Woolen	23,235		3,140	6,303	208	13,584
Doubling—						
Woolen	1,051		300	326		425
Looms on woolen or worsted goods, number	284		5	93	5	181
Broad, 50 inches or over reed space—						
On woolen goods	271		5	89	3	174
Narrow, under 50 inches reed space—						
On woolen goods	12			3	2	7
On worsted goods	1			1		
Miscellaneous expenses:						
Total	\$356,164	\$67,612	\$17,523	\$114,900	\$11,678	\$144,451
Rent of works	\$16,140	\$3,080	\$1,070	\$2,500	\$1,200	\$5,290
Taxes, not including internal revenue	\$28,391	\$7,169	\$4,909	\$7,492	\$410	\$8,411
Rent of offices, insurance, interest, and all sundry expenses not hitherto included	\$311,633	\$54,863	\$11,544	\$104,908	\$10,068	\$130,750
Materials used:						
Total cost	\$3,301,028	\$953,203	\$377,312	\$987,380	\$88,715	\$1,304,418
Wool—						
Foreign, in condition purchased, pounds	4,248,880	784,713	133,057	554,623	155,409	2,671,078
Cost	\$782,224	\$143,695	\$73,218	\$172,238	\$22,397	\$370,376
Domestic, in condition purchased, pounds	5,357,383	680,164	182,140	2,085,101	11,830	2,398,048
Cost	\$1,414,216	\$253,092	\$56,288	\$581,139	\$2,266	\$566,361
Foreign and domestic, etc., scoured, pounds	6,468,097	1,088,649	315,197	1,835,883	62,644	3,165,724
Animal hair, and fur—						
Camel, alpaca, and vicuna hair, pounds	98,000			20,000		78,000
Cost	\$33,300			\$6,000		\$27,300
Buffalo, cow, and other animal hair and fur, pounds	2,721,521	165,707		25,920	1,720,357	759,537
Cost	\$92,503	\$11,445		\$1,109	\$41,730	\$38,219
Cotton, bales	2,437	1,628	413			62
Pounds	1,225,850	814,157	208,800	174,781		23,112
Cost	\$77,683	\$50,628	\$14,638	\$9,344		\$3,073
Materials not made in mill—						
Shoddy, pounds	712,373	536,242	93,890	64,756		17,485
Cost	\$30,737	\$56,191	\$10,327	\$11,303		\$2,856
Wool waste and noils, pounds	2,653,590	929,048	404,430	554,205		765,912
Cost	\$552,992	\$220,900	\$156,799	\$100,399		\$74,894
Tops, pounds	99,458	74,979		24,479		
Cost	\$61,428	\$48,736		\$12,692		
Yarns not made in mill—						
Worsted, pounds	48,530					48,530
Cost	\$28,877					\$28,877
Merino, pounds	31,866	31,866				
Cost	\$6,273	\$6,373				
Cotton, pounds	51,707			14,955		36,752
Cost	\$9,657			\$2,819		\$6,838
Silk, pounds	14					14
Cost	\$61					\$61
Linen, pounds	17,905			14,412		3,493
Cost	\$5,538			\$3,603		\$1,935
Shoddy, made in mill for use therein, pounds	1,243,835					1,243,835
Cost	\$50,098					\$50,098
All other materials which are components of the product	\$97,212	\$55,476	\$200		\$4,071	\$37,465
Soap, pounds	968,495	195,477	138,600	41,301	165,042	378,075
Cost	\$51,760	\$8,955	\$9,258	\$10,792	\$4,687	\$18,073
Oil, for preparing wool for cards or combs, gallons	77,553	9,982	4,517	22,838		40,216
Cost	\$20,232	\$2,107	\$1,060	\$7,027		\$10,038
Chemicals and dyestuffs	\$128,296	\$47,870	\$29,033	\$39,557	\$1,251	\$20,535
Fuel	\$110,355	\$21,936	\$12,438	\$30,804	\$4,499	\$40,578
Rent of power and heat	\$1,976		\$601	\$1,375		
Mill supplies	\$39,446	\$9,647	\$1,270	\$1,637	\$2,250	\$14,592
All other materials	\$91,029	\$3,855	\$5,920	\$25,039	\$5,418	\$46,897
Freight	\$64,435	\$6,947	\$6,167	\$17,343	\$146	\$33,832
Products:						
Total value	\$6,461,601	\$1,526,380	\$691,203	\$1,734,136	\$160,633	\$2,343,839
All-wool woven goods, whether woolen or worsted—						
Wool cloths, etc., square yards	252,340					252,340
Value	\$214,914					\$214,914
Woolen overcoating, etc., square yards	3,723					3,723
Value	\$3,727					\$3,727
Wool dress goods, etc., and opera and similar flannels, square yards	3,480					3,480
Value	\$2,057					\$2,057
Flannels for underwear, square yards	20,336					20,336
Value	\$7,527					\$7,527
Blankets, square yards	11,104		1,500			9,604
Value	\$8,339		\$700			\$7,639
Horse blankets, square yards	3,500			3,500		
Value	\$3,010			\$3,010		
Goods woven on cotton warp, etc.—						
Cotton warp blankets, square yards	52,428					52,428
Value	\$72,661					\$72,661
Felt goods—						
Felt cloths, square yards	2,056,002	569,500	133,224		250,200	1,089,078
Value	\$543,543	\$142,385	\$65,390		\$103,683	\$236,535
Endless belts, square yards	1,114,357			626,857		487,500
Value	\$1,084,335			\$617,881		\$466,454
Boot and shoe lining, square yards	1,052,538	939,717		62,821		
Value	\$540,110	\$500,938		\$39,172		
Hair felting, square yards	125,000				125,000	
Value	\$56,950				\$56,950	
Trimming and lining felts, felt skirts, etc., square yards	2,469,330	933,155	545,619	941,056		
Value	\$796,713	\$238,631	\$146,869	\$361,168		

¹ Includes establishments distributed as follows: Connecticut, 2; Illinois, 1; Indiana, 1; Michigan, 1; Ohio, 2; Rhode Island, 1; Wisconsin, 1; Maine, 2.

MANUFACTURES.

TABLE 34.—FELT GOODS: BY STATES, 1900—Continued.

	United States.	Massachusetts.	New Jersey.	New York.	Pennsylvania.	All other states. ¹
Products—Continued.						
Total value—Continued.						
Felt goods—Continued.						
All other felts	\$2, 261, 918	\$392, 882	\$471, 744	\$639, 136		\$768, 156
Partly manufactured products for sale—						
Woolen yarn, all wool, pounds	39, 000					39, 000
Value	\$18, 400					\$18, 400
Waste, pounds	18, 260		10, 000			8, 260
Value	\$7, 368		\$6, 000			\$1, 368
Flocks, pounds	2, 169					2, 169
Value	\$197					\$197
Value of all other products ²	\$834, 417	\$201, 944		\$78, 769		\$558, 704
Comparison of products:						
Number of establishments reporting for both years	25	4	3	7	2	9
Value for census year	\$3, 867, 905	\$602, 476	\$55, 874	\$1, 271, 640	\$153, 683	\$1, 784, 232
Value for preceding business year	\$3, 416, 320	\$512, 768	\$39, 805	\$1, 179, 764	\$145, 082	\$1, 538, 901
Power:						
Number of establishments reporting	36	7	4	11	3	11
Total horsepower	7, 973	1, 755	622	2, 834	400	2, 362
Owned—						
Engines—						
Steam, number	52	9	5	22	5	11
Horsepower	5, 129	810	557	1, 857	350	1, 555
Water wheels, number	29	10	2	6	3	8
Horsepower	2, 657	920	65	\$62	50	760
Electric motors, number	6	1		1		4
Horsepower	132	25		60		47
Rented—						
Electric, horsepower	55			55		
Furnished to other establishments, horsepower	14					14
Establishments classified by number of persons employed, not including proprietors and firm members:						
Total number of establishments	36	7	4	11	3	11
Under 5	1				1	
5 to 20	6	1	2	3		1
21 to 50	4		1	1	1	5
51 to 100	13	4		3	1	1
101 to 250	10	2	1	4		3
251 to 500	2					2

¹ Includes states having less than 3 establishments in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Connecticut, 2; Illinois, 1; Indiana, 1; Michigan, 1; Ohio, 2; Rhode Island, 1; Wisconsin, 1; Maine, 2.

² This item includes felt boots and shoes, \$298,944; felt rugs, \$3,000; felt mangle cloths, etc., \$40,722; felt cord cloths and machine blankets, \$114,930; wool boots, \$370,000; wool yarn spun for lining department, \$6,731.

TABLE 35.—WOOL HATS, BY STATES, 1900.

	United States.	Massachusetts.	New York.	Pennsylvania.
Total number of establishments	24	4	5	16
Character of organization:				
Individual	4	1	1	2
Firm and limited partnership	15		2	13
Incorporated company	5	3	2	
Capital:				
Total	\$2, 050, 802	\$402, 082	\$896, 852	\$751, 868
Land	\$108, 000	\$17, 000	\$46, 500	\$41, 500
Buildings	\$200, 582	\$40, 000	\$100, 082	\$60, 500
Machinery, tools, and implements	\$244, 620	\$38, 500	\$130, 096	\$76, 025
Cash and sundries	\$1, 497, 600	\$306, 582	\$620, 176	\$570, 843
Proprietors and firm members	37		3	34
Salaries of officials, clerks, etc.:				
Total number	57	17	23	17
Total salaries	\$66, 766	\$15, 459	\$42, 462	\$8, 846
Officers of corporations—				
Number	7	5	2	
Salaries	\$15, 505	\$5, 505	\$10, 000	
General superintendents, managers, clerks, etc.—				
Total number	50	12	21	17
Total salaries	\$51, 261	\$9, 954	\$32, 462	\$8, 845
Men				
Number	44	9	21	14
Salaries	\$49, 741	\$9, 334	\$32, 462	\$7, 945
Women				
Number	6	3		3
Salaries	\$1, 520	\$620		\$900
Wage-earners, including pieceworkers, and total wages:				
Greatest number employed at any one time during the year	2, 912	662	1, 354	896
Least number employed at any one time during the year	1, 509	529	474	506
Average number	2, 108	541	930	637
Wages	\$937, 855	\$278, 129	\$403, 213	\$256, 613
Men, 16 years and over—				
Average number	1, 358	382	609	367
Wages	\$727, 253	\$228, 586	\$319, 729	\$178, 938
Women, 16 years and over—				
Average number	651	144	310	197
Wages	\$195, 995	\$47, 005	\$81, 558	\$67, 432
Children, under 16 years—				
Average number	99	15	11	73
Wages	\$14, 607	\$2, 538	\$1, 926	\$10, 143
Average number of wage-earners, including pieceworkers, employed during each month:				
Men, 16 years and over—				
January	1, 900	898	867	344
February	1, 200	896	451	353
March	1, 253	395	506	352
April	1, 333	425	551	357
May	1, 309	962	589	358
June	1, 388	974	677	337
July	1, 445	289	793	263
August	1, 508	282	824	402
September	1, 635	386	833	416
October	1, 646	414	730	402
November	1, 305	430	514	361
December	1, 265	436	467	362

¹ Two establishments in New Jersey included in Pennsylvania to avoid disclosing the operations of these establishments.

TABLE 35.—WOOL HATS, BY STATES: 1900—Continued.

	United States.	Massachusetts.	New York.	Pennsylvania. ¹
Average number of wage-earners, including pieceworkers, employed during each month—Con.				
Women, 16 years and over—				
January	476	147	165	164
February	498	145	185	168
March	528	147	213	168
April	563	149	243	171
May	574	136	260	178
June	627	141	327	159
July	786	124	439	223
August	861	124	480	257
September	895	158	481	256
October	868	160	464	254
November	567	150	226	191
December	569	147	245	177
Children, under 16 years—				
January	84	17	3	64
February	82	17	3	62
March	89	17	9	68
April	94	17	10	67
May	99	13	10	76
June	96	13	14	69
July	107	13	14	80
August	127	13	23	91
September	124	13	23	88
October	117	14	18	85
November	87	16	5	66
December	82	17	3	62
Skilled operatives, average number:				
Finishers—				
Men, 16 years and over	217		116	101
Women, 16 years and over	100		100	
Machinery:				
Sets of woolen cards	140	30	60	50
Formers for fur hats	4	2		2
Miscellaneous expenses:				
Total	\$185,644	\$97,319	\$68,296	\$20,029
Rent of works	\$14,890	\$1,200	\$8,462	\$5,228
Taxes, not including internal revenue	\$8,074	\$2,784	\$2,974	\$2,316
Rent of offices, insurance, interest, and all sundry expenses not hitherto included	\$162,680	\$93,335	\$56,860	\$12,485
Materials used:				
Total cost	\$2,042,202	\$587,902	\$739,348	\$664,952
Wool—				
Foreign, in condition, purchased, pounds	639,211	50,000	390,149	199,062
Cost	\$218,651	\$25,000	\$92,463	\$101,188
Domestic, in condition, purchased, pounds	2,074,163	920,738	668,344	485,081
Cost	\$570,322	\$242,612	\$124,655	\$203,055
Foreign and domestic, etc., scoured, pounds	1,898,605	771,084	443,378	684,143
Animal hair and fur—				
Buffalo, cow, and other hair and fur, pounds	121,482	61,482		60,000
Cost	\$87,196	\$42,196		\$45,000
Materials not made in mill—				
Shoddy, pounds	3,135		1,635	1,500
Cost	\$616		\$301	\$315
Wool waste and noils, pounds	862,982	84,467	515,156	263,359
Cost	\$370,792	\$47,867	\$222,682	\$100,243
Wool hat bodies and hats in the rough, dozen	4,939		2,676	2,263
Cost	\$13,920		\$9,618	\$4,302
Fur hat bodies and hats in the rough, dozen	8,500		8,500	
Cost	\$21,982		\$21,982	
All other materials which are components of the products	\$474,100	\$183,966	\$201,315	\$138,818
Soap, pounds	227,833	15,000	102,755	110,078
Cost	\$9,930	\$550	\$4,341	\$5,039
Oil for preparing wool for cards or combs, gallons	1,730	70	1,055	605
Cost	\$567	\$140	\$255	\$172
Chemicals and dyestuffs	\$108,502	\$49,290	\$32,784	\$26,428
Fuel	\$49,670	\$15,810	\$19,022	\$14,829
Mill supplies	\$9,741	\$2,000	\$4,175	\$3,566
All other materials	\$63,193	\$18,233	\$40,565	\$4,895
Freight	\$43,020	\$10,229	\$15,189	\$17,602
Products:				
Total value	\$3,591,940	\$1,103,003	\$1,376,721	\$1,112,216
Hats—				
Wool, dozen	811,425	247,163	284,494	279,768
Value	\$3,161,861	\$989,298	\$1,218,498	\$1,003,565
Fur, dozen	43,994	20,494	8,500	15,000
Value	\$285,705	\$153,705	\$47,000	\$85,000
Partly manufactured products for sale—				
Wool hat bodies and hats in the rough, dozen	56,006	3,500	52,506	
Value	\$120,262	\$10,000	\$110,262	
All other products	\$441		\$441	
Amount received for contract work	\$24,171		\$520	\$23,651
Comparison of products:				
Number of establishments reporting for both years	18	3	5	10
Value for census year	\$3,294,380	\$1,026,841	\$1,376,721	\$830,818
Value for preceding business year	\$2,791,933	\$884,792	\$1,101,932	\$205,209
Power:				
Number of establishments reporting	21	4	4	13
Total horsepower	2,329	475	1,055	799
Owned—				
Engines—				
Steam, number	26	4	7	15
Horsepower	1,919	475	780	664
Water wheels, number	9		3	6
Horsepower	405		275	130
Electric motors, number	1			1
Horsepower	5			5
Establishments classified by number of persons employed, not including proprietors or firm members:				
Total number of establishments	24	4	5	15
No employees	1			1
Under 5	3		1	2
5 to 20	1			1
21 to 50	6			6
51 to 100	3	1		2
101 to 250	5	2	1	2
251 to 500	5	1	3	1

¹Two establishments in New Jersey included in Pennsylvania to avoid disclosing the operations of these establishments.

TABLE 36.—CARDING MILLS

	United States.	Alabama.	Arkansas.	Georgia.	Kentucky.	Maine.
1	Number of establishments	231	9	11	9	23
2	Character of organization:					
3	Individual	178	3	6	8	17
4	Firm and limited partnership	51	5	5	1	2
5	Incorporated company	2	1			1
6	Capital:					
7	Total	\$458,286	\$8,175	\$15,025	\$7,111	\$17,067
8	Land	\$59,433	\$875	\$1,555	\$1,065	\$1,805
9	Buildings	\$98,805	\$750	\$3,800	\$895	\$4,015
10	Machinery, tools, and implements	\$222,148	\$5,700	\$8,900	\$5,050	\$10,800
11	Cash and sundries	\$77,900	\$850	\$370	\$101	\$447
12	Proprietors and firm members	171	14	14	1	12
13	Salaries:					
14	Total number	5		1		1
15	Total salaries	\$2,390		\$90		\$300
16	General superintendents, managers, clerks, etc.—					
17	Total number	5		1		1
18	Total salaries	\$2,390		\$90		\$300
19	Men—					
20	Number	5		1		1
21	Salaries	\$2,390		\$90		\$300
22	Wage-earners, including pieceworkers, and total wages:					
23	Greatest number employed at any one time during the year	300	10	12	12	39
24	Least number employed at any one time during the year	249	7	12	11	30
25	Average number	140	5	6	6	14
26	Wages	\$33,106	\$843	\$980	\$835	\$2,106
27	Men, 16 years and over—					
28	Average number	102	4	4	6	12
29	Wages	\$26,168	\$823	\$710	\$835	\$1,840
30	Women, 16 years and over—					
31	Average number	23		1		1
32	Wages	\$5,289		\$80		\$160
33	Children, under 16 years—					
34	Average number	15	1	1		1
35	Wages	\$1,649	\$20	\$140		\$116
36	Average number of wage-earners, including pieceworkers, employed during each month:					
37	Men 16 years and over—					
38	January	51	1	2	4	6
39	February	49	1		4	6
40	March	58	1	2	5	5
41	April	74	2	2	5	5
42	May	127	1	2	5	14
43	June	136	1	3	5	15
44	July	148	3	6	5	21
45	August	157	6	6	7	25
46	September	155	7	8	9	21
47	October	130	7	10	10	13
48	November	89	6	7	6	7
49	December	64	6	3	6	5
50	Women, 16 years and over—					
51	January	12				
52	February	13				
53	March	15		1		
54	April	28		1		5
55	May	31		1		2
56	June	32		1		3
57	July	25		1		1
58	August	28		1		2
59	September	28		1		2
60	October	27		1		2
61	November	21		1		2
62	December	21		3		5
63	Children under 16 years—					
64	January	5				1
65	February	5				1
66	March	6		1		1
67	April	11		1		1
68	May	18		1		3
69	June	25		1		3
70	July	25	1	1		4
71	August	25	1	1		3
72	September	24	1	1		3
73	October	17	1	1		2
74	November	10	1	1		2
75	December	10	1	1		2
76	Skilled operatives, average number:					
77	Spinners—					
78	Men	5				
79	Women	2				
80	Weavers—					
81	Men	1				
82	Women	1				
83	Finishers—					
84	Men	1				
85	Women	1				
86	Children	2				
87	Machinery:					
88	Sets of woolen cards	259	7	11	9	24
89	Combing machines, number					
90	Of American manufacture	7				
91	Of foreign manufacture					
92	Spindles, number	12,025		240		1,797
93	Spinning—					
94	Woolen	10,889		240		1,467
95	Doubling—					
96	Woolen	1,136				330
97	Looms on woolen or worsted goods, number	92				17
98	Broad, 50 inches or over, reed space—					
99	On woolen goods	31				6
100	Narrow, under 50 inches, reed space—					
101	On woolen goods	60				11
102	Hand—					
103	On woolen or worsted goods	1				

BY STATES: 1900.

Minnesota.	Missouri.	New York.	North Carolina.	Ohio.	Pennsylvania.	Tennessee.	Vermont.	Virginia.	West Virginia.	Wisconsin.	All other states. ¹	
5	17	16	9	3	26	33	8	4	12	15	11	1
5	13	12	8	3	19	26	7	3	11	12	10	2
	4	4	1		7	7	1	1	1	3	1	3
												4
\$18,050	\$33,455	\$22,016	\$7,943	\$11,700	\$96,556	\$65,919	\$12,990	\$10,740	\$3,387	\$53,194	\$17,925	5
\$2,900	\$3,135	\$2,669	\$865	\$2,000	\$16,667	\$3,930	\$2,825	\$750	\$987	\$6,585	\$3,275	6
\$4,700	\$7,050	\$4,172	\$1,503	\$3,100	\$21,310	\$3,665	\$6,225	\$1,875	\$2,320	\$12,415	\$4,350	7
\$5,600	\$19,575	\$9,995	\$5,550	\$5,800	\$43,204	\$26,705	\$3,550	\$6,950	\$4,625	\$27,844	\$8,400	8
\$550	\$3,695	\$5,190	\$25	\$800	\$15,375	\$21,619	\$390	\$1,165	\$405	\$6,350	\$1,400	9
4	5	18	4	2	32	15	10	1	8	11	9	10
						2						11
						\$1,000						12
						2						13
						\$1,000						14
						2						15
						\$1,000						16
3	39	4	9	8	20	53		8	10	27	6	17
2	24	4	9	8	18	50		7	9	29	5	18
2	13	2	2	3	11	34		2	3	21	3	19
\$600	\$2,639	\$450	\$242	\$649	\$3,208	\$6,361		\$617	\$725	\$7,318	\$355	20
2	11	1	2	2	7	24		1	2	13	3	21
\$600	\$2,339	\$350	\$242	\$418	\$2,580	\$5,251		\$462	\$675	\$5,125	\$555	22
	1	1		1	2	5				7		23
	\$255	\$100		\$231	\$350	\$1,105				\$2,073		24
	1				2	5		1	1	1		25
	\$95				\$248	\$505		\$155	\$50	\$120		26
3					5	18				10	1	27
2					6	18				10	1	28
3					6	16				10		29
3	5		2		8	20				12	3	30
2	25	1	2	2	10	32		1	1	15	3	31
2	22	1	3	4	10	32		1	6	14	1	32
2	25	1	4	4	6	31		3	8	16	2	33
1	25	1	3	4	7	29		4	7	15	2	34
1	23	1	4	4	7	29		5	5	15	5	35
2	6	1	6	4	6	29		3	3	15	5	36
3	2	1	4	4	8	21				12	2	37
3		1			6	16				12	2	38
					1	4				7		39
					2	4				7		40
					1	6				7		41
	8			1	3	7				8		42
3	3			2	2	7				9		43
1	1	3		2	2	7				7		44
2	1	1		1	1	5				7		45
2	2	1		3	2	5				6		46
2	2	1		3	1	6				7		47
1	1	1		3	2	6				7		48
		1		1	1	4				7		49
					2	4				7		50
						4						51
						4						52
						4						53
	1				2	4						54
	1				2	6		3	2	2		55
	2				4	6		3	2	2		56
	2				3	7		3	2	2		57
	2				3	7		2	2	2		58
	2				2	7		2	2	2		59
	1				2	6		2	2	2		60
					2	4						61
					2	4						62
						4						63
					1	1		1				64
					1							65
					1							66
						1						67
						2						68
												69
5	19	18	10	3	31	37	9	4	15	19	12	70
1					4	2						71
1					4	2						72
484	584	809	200	544	4,025	678		450	570	1,136	508	74
484	417	715	200	494	3,792	580		450	538	1,040	472	75
	117	94		50	233	98			32	146	86	76
	3	5		7	44		1	4		7	4	77
		1		4	16			1		2	1	78
	3	4		3	27		1	3		5	3	79
					1							80

¹Includes establishments distributed as follows: Connecticut, 1; Illinois, 1; Indiana, 1; Iowa, 1; Mississippi, 1; New Hampshire, 2; Oregon, 2; South Carolina, 1; Texas, 1.

TABLE 36.—CARDING MILLS

	United States.	Alabama.	Arkansas.	Georgia.	Kentucky.	Maine.
Machinery—Continued.						
81 Looms on carpets and rugs, number	3					
82 Ingrain, hand	1					
83 Power	2					
Miscellaneous expenses:						
84 Total	\$10,480	\$225	\$258	\$103	\$500	\$1,174
85 Rent of works	\$3,362	\$113			\$206	\$260
86 Taxes, not including internal revenue	\$2,540	\$65	\$193	\$63	\$161	\$394
87 Rent of offices, insurance, interest, and all sundry expenses not hitherto included	\$4,578	\$47	\$65	\$40	\$133	\$520
Materials used:						
88 Total cost	\$395,116	\$14,664	\$16,148	\$7,761	\$34,827	\$48,126
Wool—						
89 Domestic, in condition purchased, pounds	1,540,025	99,041	97,137	51,922	113,164	148,884
90 Cost	\$375,469	\$14,011	\$15,117	\$7,435	\$33,857	\$45,265
91 Domestic, etc., scoured, pounds	1,189,727	48,465	57,675	31,650	110,703	131,075
Materials not made in mill—						
92 Shoddy, pounds	1,554					
93 Cost	\$348					
94 Wool waste and noils, pounds	5,200					
95 Cost	\$544					
Yarns not made in mill—						
96 Woolen, pounds	925					
97 Cost	\$400					
98 Cotton, pounds	4,190					80
99 Cost	\$676					\$16
100 Linen, pounds	50					
101 Cost	\$9					
102 Jute, ramie, or other of vegetable fiber, pounds	100					
103 Cost	\$12					
104 All other materials which are components of the product	\$50					
105 Soap, pounds	22,716	125	100	50		2,044
106 Cost	\$373	\$5	\$5	\$12		\$94
107 Oil, for preparing wool for cards or combs, gallons	7,274	213	200	40	135	1,052
108 Cost	\$1,936	\$30	\$47	\$13	\$71	\$446
109 Chemicals and dyestuffs	\$1,966					\$898
110 Fuel	\$5,436	\$60	\$194	\$75	\$415	\$347
111 Rent of power and heat	\$762				\$50	\$50
112 Mill supplies	\$4,696	\$215	\$280	\$95	\$371	\$640
113 All other materials	\$1,610	\$335	\$90	\$130	\$18	\$298
114 Freight	\$329	\$8	\$15		\$45	\$82
Products:						
115 Total value	\$584,512	\$20,163	\$21,930	\$11,547	\$42,401	\$65,155
All-wool woven goods, whether woolen or worsted—						
116 Wool cloths, doeskins, cassimeres, chevots, tweeds, indigo flannels, and broadcloths, for men's wear, square yards	7,238					4,500
117 Value	\$6,225					\$8,300
118 Woolen overcoatings, cloakings, kerseys, etc., for men's or women's wear, square yards	100					
119 Value	\$60					
120 Flannels for underwear, square yards	11,356					
121 Value	\$4,072					
122 Blankets, square yards	13,500					3,300
123 Value	\$6,585					\$1,400
Union, or cotton mixed, woven goods—						
124 Unions, tweeds, chevots, cassimeres, or other goods, for men's wear, square yards	350					
125 Value	\$150					
126 Flannels for underwear, square yards	800					
127 Value	\$105					
Goods woven on cotton warps, with weft partly or wholly of wool, worsted, or hair; or cotton weft with warp of wool—						
128 Wool-filling cassimeres, doeskins, jeans, tweeds, coatings, suitings, and other cotton warp goods, for men's wear, not specified below, square yards	50					
129 Value	\$35					
130 Satinets and linseys, square yards	3,163					418
131 Value	\$1,513					\$418
132 Wool-filling dress goods and repellants, square yards	60					
133 Value	\$60					
134 Domett flannels and shirtings, square yards	207					57
135 Value	\$94					\$30
136 Cotton-warp blankets, square yards	650					150
137 Value	\$420					\$140
Carpets and rugs—						
Carpets—						
138 Ingrain, 2-ply, square yards	900					
139 Value	\$515					
140 Ingrain, 3-ply, square yards	543					
141 Value	\$380					
Partly manufactured products for sale—						
142 Woolen yarn, all wool, pounds	266,789		600			15,600
143 Value	\$127,138		\$300			\$10,860
144 Wool card rolls, pounds	857,296	44,800	52,577	28,700	100,366	110,279
145 Value	\$373,404	\$19,745	\$21,630	\$11,347	\$42,266	\$49,012
146 All other products	\$2,391					
147 Amount received for contract work	\$11,020	\$368		\$200		
Comparison of products:						
148 Number of establishments reporting for both years	214	9	11	9	20	20
149 Value for census year	\$484,920	\$20,163	\$21,930	\$11,547	\$38,101	\$65,155
150 Value for preceding business year	\$479,850	\$19,022	\$24,206	\$11,414	\$38,280	\$65,446
Power:						
151 Number of establishments reporting	229	8	11	9	23	20
152 Total horsepower	3,346	150	169	140	291	368
Owned—						
Engines—						
153 Steam, number	73	3	5	2	13	1
154 Horsepower	1,097	24	109	55	180	47
155 Gas or gasoline, number	1					
156 Horsepower	6					
157 Water wheels, number	165	6	3	9	8	19
158 Horsepower	2,174	126	44	85	96	321
159 Electric motors, number	1					
160 Horsepower	5					
161 Other power, horsepower	2		2			

TABLE 36.—CARDING MILLS,

	United States.	Alabama.	Arkansas.	Georgia.	Kentucky.	Maine.
Power—Continued.						
Total horsepower—Continued.						
Rented—						
162 Electric, horsepower	4					
163 Other kind, horsepower	58		14		15	
164 Furnished to other establishments, horsepower	45					
Establishments classified by number of persons employed, not including proprietors and firm members:						
165 Total number of establishments	281	9	11	9	23	20
166 No employees	98	4	5		6	7
167 Under 5	126	5	6	9	15	12
168 5 to 20	6				2	1
169 21 to 50	1					

BY STATES: 1900—Continued.

Minnesota.	Missouri.	New York.	North Carolina.	Ohio.	Pennsylvania.	Tennessee.	Vermont.	Virginia.	West Virginia.	Wisconsin.	All other states. ¹	
		4										162
	6					13				8	2	163
	40			5								164
5	17	16	9	3	26	33	8	4	12	15	11	165
3	2	14	4	8	15	12	6	1	7	7	5	166
2	14	2	5	8	11	19	2	3	5	7	6	167
	1					1				1		168
						1						169

¹Includes establishments distributed as follows: Connecticut, 1; Illinois, 1; Indiana, 1; Iowa, 1; Mississippi, 1; New Hampshire, 2; Oregon, 2; South Carolina, 1; Texas, 1.

MANUFACTURES.

TABLE 37.—WOOL SCOURING, BY STATES: 1900.

	United States.	California.	Massachu- setts.	New Jersey.	New Mexico.	All other states. ¹
Number of establishments	25	6	5	3	4	7
Character of organization:						
Individual	11	3	3	2	1	2
Firm and limited partnership	6	2	1	1	1	3
Incorporated company	8	1	2	1	2	2
Capital:						
Total	\$1,061,123	\$329,668	\$354,154	\$23,776	\$136,700	\$216,825
Land	\$82,950	\$40,000	\$18,750	.....	\$4,700	\$19,500
Buildings	\$148,000	\$20,000	\$75,000	.....	\$19,000	\$34,000
Machinery, tools, and implements	\$377,576	\$74,600	\$166,500	\$18,476	\$32,000	\$86,000
Cash and sundries	\$452,597	\$195,068	\$98,904	\$5,300	\$81,000	\$77,325
Proprietors and firm members	11	1	3	.....	1	6
Salaried officials, clerks, etc.:						
Total number	45	9	20	4	3	9
Total salaries	\$72,011	\$11,440	\$44,176	\$3,278	\$2,960	\$10,157
Officers of corporations—						
Number	9	.....	3	2	.....	4
Salaries	\$15,000	.....	\$8,000	\$2,000	.....	\$5,000
General superintendents, managers, clerks, etc.—						
Total number	36	9	17	2	3	5
Total salaries	\$57,011	\$11,440	\$36,176	\$1,278	\$2,960	\$5,157
Men—						
Number	36	9	17	2	3	5
Salaries	\$57,011	\$11,440	\$36,176	\$1,278	\$2,960	\$5,157
Wage-earners, including pieceworkers, and total wages:						
Greatest number employed at any one time during the year	1,070	382	416	35	79	158
Least number employed at any one time during the year	473	147	175	21	53	77
Average number	720	230	298	24	67	101
Wages	\$338,608	\$107,167	\$145,946	\$12,065	\$21,890	\$51,538
Men, 16 years and over—						
Average number	646	189	297	17	42	101
Wages	\$316,924	\$93,375	\$145,556	\$8,565	\$17,890	\$51,538
Women, 16 years and over—						
Average number	74	41	1	7	25	.....
Wages	\$21,682	\$13,792	\$390	\$3,500	\$4,000	.....
Average number of wage-earners, including pieceworkers, employed during each month:						
Men, 16 years and over—						
January	680	216	326	15	38	85
February	632	178	318	15	38	83
March	535	146	272	13	32	72
April	449	97	230	13	33	76
May	456	67	198	12	40	139
June	548	145	231	14	42	116
July	739	255	295	18	47	124
August	741	203	346	21	47	124
September	752	222	335	21	47	127
October	734	222	340	26	49	97
November	734	250	332	21	46	85
December	752	263	347	14	43	85
Women, 16 years and over—						
January	73	38	1	7	27	.....
February	66	28	1	7	27	.....
March	57	31	2	7	20	.....
April	52	23	2	7	20	.....
May	29	.....	2	7	20	.....
June	51	23	1	7	20	.....
July	92	57	1	7	27	.....
August	93	58	1	7	27	.....
September	98	68	1	7	27	.....
October	91	56	1	7	27	.....
November	88	53	1	7	27	.....
December	98	63	1	7	27	.....
Miscellaneous expenses:						
Total	\$102,039	\$45,276	\$30,569	\$2,331	\$5,500	\$17,863
Rent of works	\$19,450	\$9,920	\$1,655	\$2,200	.....	\$5,675
Taxes, not including internal revenue	\$19,795	\$14,362	\$3,355	\$31	\$650	\$347
Rent of offices, insurance, interest, and all sundry expenses not hitherto included	\$62,794	\$20,494	\$25,559	\$550	\$4,850	\$11,341
Materials used:						
Total cost	\$193,826	\$53,354	\$78,371	\$3,695	\$22,930	\$35,476
Soap, pounds	567,169	200,000	265,937	15,907	.....	85,325
Cost	\$16,763	\$3,000	\$10,268	\$482	.....	\$3,013
Oil, for preparing wool for cards or combs, gallons	950	.....	350	.....	.....	600
Cost	\$450	.....	\$210	.....	.....	\$240
Chemicals and dyestuffs	\$66,393	\$24,498	\$21,127	\$54	\$18,020	\$7,604
Fuel	\$42,931	\$10,380	\$15,934	\$1,067	\$5,750	\$9,800
Rent of power and heat	\$1,446	.....	\$1,146	.....	.....	.....
Mill supplies	\$20,816	\$1,390	\$15,020	\$1,327	\$600	\$2,419
All other materials	\$8,982	\$3,086	\$1,702	\$130	\$500	\$3,564
Freight	\$36,045	\$11,000	\$13,174	\$125	\$3,000	\$9,746
Products:						
Pounds of wool scoured	70,878,519	19,050,000	30,709,844	503,420	6,200,000	14,415,255
Amount received for wool scouring	\$389,309	\$293,200	\$334,912	\$32,535	\$77,875	\$151,237
Comparison of products:						
Number of establishments reporting for both years	23	6	5	3	3	6
Value for census year	\$389,079	\$293,200	\$334,912	\$32,535	\$46,875	\$131,507
Value for preceding business year	\$764,052	\$283,000	\$284,052	\$33,000	\$46,000	\$118,000
Power:						
Number of establishments reporting	25	6	5	3	4	7
Total horsepower	2,900	485	1,330	80	135	770
Owned—						
Engines, steam—						
Number	25	6	6	3	4	6
Horsepower	2,333	485	890	53	135	720
Water wheels—						
Number	8	.....	5	2	.....	1
Horsepower	567	.....	490	27	.....	50
Furnished to other establishments, horsepower	116	.....	.....	.....	.....	116
Establishments classified by number of persons employed, not including proprietors and firm members:						
Total number of establishments	25	6	5	3	4	7
5 to 20	12	.....	1	3	3	5
21 to 50	6	3	1	.....	1	1
51 to 100	6	3	2	.....	.....	1
101 to 250	1	.....	1	.....	.....	.....

¹ Includes establishments distributed as follows: Colorado, 1; Connecticut, 1; Illinois, 2; Missouri, 1; Oregon, 1; Pennsylvania, 1.

TABLE 38.—WOOL PULLING, BY STATES: 1900.

	United States.	Missouri.	New York.	Pennsyl- vania.	All other states. ¹
Number of establishments.....	34	4	5	7	18
Character of organization:					
Individual.....	16	2	2	2	10
Firm and limited partnership.....	11	2	3	4	2
Incorporated company.....	6				6
Miscellaneous.....	1			1	
Capital:					
Total.....	\$944,715	\$65,420	\$114,510	\$222,690	\$542,095
Land.....	\$104,700	\$400	\$46,600	\$20,000	\$87,700
Buildings.....	\$140,700	\$500	\$31,400	\$31,700	\$77,100
Machinery, tools, and implements.....	\$91,275	\$15,120	\$6,960	\$17,550	\$51,645
Cash and sundries.....	\$608,040	\$49,400	\$29,550	\$153,440	\$375,650
Proprietors and firm members.....	81	4	7	9	11
Salaried officials, clerks, etc.:					
Total number.....	85	1	1	4	29
Total salaries.....	\$35,422	\$1,200	\$600	\$2,162	\$31,430
Officers of corporations—					
Number.....	8				8
Salaries.....	\$8,600				\$8,600
General superintendents, managers, clerks, etc.—					
Total number.....	27	1	1	4	21
Total salaries.....	\$26,822	\$1,200	\$600	\$2,192	\$22,830
Men—					
Number.....	25	1	1	3	20
Salaries.....	\$25,626	\$1,200	\$600	\$1,776	\$22,110
Women—					
Number.....	2			1	1
Salaries.....	\$1,196			\$416	\$720
Wage-earners, including pieceworkers, and total wages:					
Greatest number employed at any one time during the year.....	631	71	79	89	392
Least number employed at any one time during the year.....	351	13	51	85	202
Average number.....	475	33	59	85	298
Wages.....	\$247,950	\$19,759	\$34,866	\$44,393	\$148,932
Men, 16 years and over—					
Average number.....	475	33	59	85	298
Wages.....	\$247,950	\$19,759	\$34,866	\$44,393	\$148,932
Average number of wage-earners, including pieceworkers, employed during each month:					
Men, 16 years and over—					
January.....	433	46	50	88	249
February.....	441	46	50	89	256
March.....	524	69	61	88	306
April.....	491	31	63	86	311
May.....	452	20	65	85	282
June.....	467	8	78	84	297
July.....	432	11	82	88	306
August.....	432	13	68	84	317
September.....	455	13	53	83	305
October.....	435	48	48	84	305
November.....	502	48	46	83	325
December.....	436	46	46	84	310
Miscellaneous expenses—					
Total.....	\$47,395	\$4,053	\$7,755	\$7,328	\$28,249
Rent of works.....	\$6,210	\$1,580	\$60	\$2,580	\$2,040
Taxes, not including internal revenue.....	\$6,810	\$233	\$1,920	\$840	\$3,817
Rent of offices, insurance, interest, and all sundry expenses not hitherto included.....	\$34,075	\$2,300	\$5,475	\$3,908	\$22,392
Amount paid for contract work.....	\$300		\$300		
Materials used:					
Total cost.....	\$53,975	\$2,956	\$3,552	\$9,231	\$38,236
Sheepskins handled, number.....	103,000			103,000	\$1,000
All other materials used which are components of the product.....	\$7,006	\$376	\$1,250	\$4,380	5,000
Oil for preparing wool for cards or combs, gallons.....	5,000				\$1,000
Cost.....	\$7,900	\$500			\$7,400
Chemicals and dye stuffs.....	\$19,832	\$1,910	\$1,565	\$2,910	\$13,447
Fuel.....	\$960				\$960
Rent of power and heat.....	\$2,788	\$80	\$125	\$388	\$1,745
Mill supplies.....	\$8,794	\$90	\$552	\$843	\$7,309
All other materials.....	\$3,695		\$60	\$260	\$5,375
Freight.....					
Products:					
Amount received for custom or contract work.....	\$531,287	\$45,800	\$56,731	\$96,314	\$332,442
Wool pulled, pounds.....	6,112,298	784,000	1,024,178	2,071,000	2,233,120
Value.....	\$529,287	\$45,800	\$56,731	\$96,314	\$330,442
Tallow rendered, pounds.....	500,000				500,000
Value.....	\$2,000				\$2,000
Comparison of products:					
Number of establishments reporting for both years.....	21	1	2	3	15
Value for census year.....	\$372,137	\$35,000	\$40,283	\$31,012	\$265,842
Value for preceding year.....	\$331,754	\$30,000	\$34,000	\$30,904	\$236,850
Power:					
Number of establishments reporting.....	17	1	1	2	13
Total horsepower.....	825	55	50	180	590
Owned—					
Engines—					
Steam, number.....	21	1	1	2	17
Horsepower.....	640	50	50	115	425
Gas or gasoline, number.....	1			1	
Horsepower.....	15			15	
Water wheels, number.....	2				2
Horsepower.....	125				125
Electric motors, number.....	1	1			
Horsepower.....	5	5			
Rented—					
Electric, horsepower.....	40				40
Establishments classified by number of persons employed, not including proprietors and firm members:					
Total number of establishments.....	34	4	5	7	18
No employees.....	1				1
Under 5.....	6	1	2		3
5 to 20.....	16	1	2	6	7
21 to 50.....	9	2	1	1	5
51 to 100.....	2				2

¹Includes establishments distributed as follows: California, 2; Illinois, 1; Indiana, 1; Kentucky, 1; Maine, 1; Massachusetts, 2; Minnesota, 1; New Jersey, 1; Ohio, 2; Washington, 1; Wisconsin, 1.

TABLE 39.—SHODDY,

	United States.	California.	Connecticut.	
1	Number of establishments	105	8	7
	Character of organization:			
2	Individual	58	1	3
3	Firm and limited partnership	30	1	4
4	Incorporated company	17	1	
	Capital:			
5	Total	\$5,272,929	\$10,225	\$494,074
6	Land	\$484,675	\$1,500	\$30,050
7	Buildings	\$765,936	\$2,625	\$66,650
8	Machinery, tools, and implements	\$1,865,925	\$2,500	\$67,651
9	Cash and sundries	\$2,706,993	\$3,600	\$329,723
10	Proprietors and firm members	102	4	13
	Salaried officials, clerks, etc.:			
11	Total number	189		8
12	Total salaries	\$166,704		\$8,191
	Officers of corporations—			
13	Number	18		
14	Salaries	\$44,462		
	General superintendents, managers, clerks, etc.—			
15	Total number	121		8
16	Total salaries	\$122,242		\$8,191
	Men—			
17	Number	111		8
18	Salaries	\$118,506		\$8,191
	Women—			
19	Number	10		
20	Salaries	\$8,736		
	Wage-earners, including pieceworkers, and total wages:			
21	Greatest number employed at any one time during the year	2,426	9	144
22	Least number employed at any one time during the year	1,520	8	101
23	Average number	1,926	8	118
24	Wages	\$748,948	\$3,940	\$44,163
	Men, 16 years and over—			
25	Average number	1,425	8	101
26	Wages	\$620,444	\$3,940	\$40,461
	Women, 16 years and over—			
27	Average number	480		7
28	Wages	\$124,004		\$1,402
	Children, under 16 years—			
29	Average number	21		10
30	Wages	\$4,500		\$2,300
	Average number of wage-earners, including pieceworkers, employed during each month:			
	Men, 16 years and over—			
31	January	1,458	8	99
32	February	1,576	8	105
33	March	1,557	8	107
34	April	1,492	8	107
35	May	1,424	8	102
36	June	1,422	8	97
37	July	1,260	8	87
38	August	1,353	8	92
39	September	1,401	8	93
40	October	1,401	8	104
41	November	1,429	8	100
42	December	1,327	8	116
	Women, 16 years and over—			
43	January	503		8
44	February	525		8
45	March	528		8
46	April	483		8
47	May	491		4
48	June	485		8
49	July	398		8
50	August	464		9
51	September	464		9
52	October	483		6
53	November	503		6
54	December	433		6
	Children, under 16 years—			
55	January	18		10
56	February	18		10
57	March	19		10
58	April	21		10
59	May	22		10
60	June	21		10
61	July	21		10
62	August	22		10
63	September	22		10
64	October	22		10
65	November	24		10
66	December	22		10
	Skilled operatives, average number:			
	Spinners—			
67	Men, 16 years and over	11		
	Finishers—			
68	Men, 16 years and over	3		
	Machinery:			
69	Sets of woolen cards	356	2	7
70	Spindles, number	3,288		288
	Spinning—			
71	Woolen	3,288		288
72	Looms, on woolen or worsted goods, number	20		20
	Narrow, under 50 inches reed space—			
73	On woolen goods	20		20
	Miscellaneous expenses:			
74	Total	\$293,149	\$586	\$33,601
75	Rent of works	\$40,130	\$384	\$4,945
76	Taxes, not including internal revenue	\$21,042	\$67	\$1,559
77	Rent of offices, insurance, interest, and all sundry expenses not hitherto included	\$219,561	\$185	\$18,721
78	Contract work	\$12,416		\$3,976

BY STATES: 1900.

Massachusetts.	New Jersey.	New York.	Ohio.	Pennsylvania.	Rhode Island.	Vermont.	All other states. ¹	
29	4	9	6	26	9	3	9	1
20	-----	7	1	16	5	1	4	2
4	1	2	-----	10	4	2	2	3
5	3	-----	5	-----	-----	-----	3	4
\$769,294	\$538,956	\$320,861	\$1,397,746	\$972,070	\$228,980	\$245,982	\$285,811	5
\$82,085	\$49,290	\$18,700	\$120,500	\$83,650	\$6,500	\$11,200	\$81,200	6
\$188,858	\$98,953	\$45,150	\$138,000	\$146,600	\$21,700	\$25,800	\$32,000	7
\$215,885	\$128,751	\$77,152	\$408,700	\$254,181	\$114,605	\$15,500	\$81,000	8
\$282,466	\$261,942	\$188,859	\$730,546	\$488,689	\$86,125	\$193,482	\$141,611	9
29	-----	11	-----	19	18	4	6	10
30	15	7	35	84	3	1	6	11
\$34,839	\$30,100	\$6,130	\$55,225	\$24,746	\$3,400	\$1,000	\$3,576	12
5	6	-----	6	-----	-----	-----	1	13
\$5,850	\$22,300	-----	\$16,000	-----	-----	-----	\$312	14
25	9	7	29	34	3	1	5	15
\$28,486	\$7,800	\$6,130	\$39,225	\$24,746	\$3,400	\$1,000	\$3,264	16
24	9	6	28	32	3	1	5	17
\$28,086	\$7,800	\$5,630	\$37,025	\$24,110	\$3,400	\$1,000	\$3,264	18
1	-----	1	6	2	-----	-----	-----	19
\$400	-----	\$500	\$2,200	\$696	-----	-----	-----	20
449	222	173	562	413	156	126	172	21
234	102	166	339	322	98	70	80	22
307	156	167	474	368	181	93	104	23
\$127,715	\$56,027	\$65,739	\$164,579	\$148,240	\$56,397	\$45,345	\$36,803	24
260	123	137	229	285	127	67	83	25
\$114,492	\$49,445	\$58,695	\$102,736	\$126,604	\$55,096	\$38,142	\$30,833	26
44	28	28	245	80	4	26	18	27
\$12,794	\$6,582	\$6,781	\$61,843	\$21,064	\$1,301	\$7,203	\$5,034	28
3	-----	2	-----	3	-----	-----	3	29
\$429	-----	\$203	-----	\$372	-----	-----	\$936	30
273	129	141	253	292	181	69	63	31
336	131	141	280	296	182	68	79	32
820	110	141	285	299	137	75	75	33
306	113	141	281	273	186	58	69	34
289	105	141	249	280	184	54	62	35
253	115	138	233	294	122	67	95	36
200	118	115	159	282	114	74	108	37
220	132	137	195	286	114	65	104	38
237	142	141	195	294	120	69	102	39
214	146	137	230	289	123	83	83	40
230	155	133	229	267	131	72	99	41
242	142	137	154	266	133	63	66	42
40	26	28	263	84	6	28	20	43
47	28	28	272	82	2	33	25	44
58	26	28	270	85	2	33	18	45
47	29	28	270	75	2	17	7	46
44	28	28	263	85	2	22	15	47
41	22	28	265	80	2	20	19	48
33	25	27	182	75	2	25	21	49
46	32	29	228	76	3	25	16	50
48	28	28	227	75	3	26	20	51
34	28	28	262	74	4	27	20	52
41	31	28	261	80	6	26	24	53
46	34	32	181	87	8	28	11	54
1	-----	1	-----	3	-----	-----	3	55
1	-----	1	-----	3	-----	-----	3	56
2	-----	1	-----	3	-----	-----	3	57
4	-----	1	-----	3	-----	-----	3	58
5	-----	1	-----	3	-----	-----	3	59
4	-----	1	-----	3	-----	-----	3	60
3	-----	2	-----	3	-----	-----	3	61
4	-----	2	-----	3	-----	-----	3	62
4	-----	2	-----	3	-----	-----	3	63
4	-----	2	-----	3	-----	-----	3	64
4	-----	4	-----	3	-----	-----	3	65
4	-----	2	-----	3	-----	-----	3	66
-----	-----	-----	-----	2	-----	-----	9	67
-----	-----	-----	-----	3	-----	-----	-----	68
58	48	22	57	62	63	9	28	69
-----	-----	-----	-----	480	-----	-----	2,520	70
-----	-----	-----	-----	480	-----	-----	2,520	71
-----	-----	-----	-----	-----	-----	-----	-----	72
-----	-----	-----	-----	-----	-----	-----	-----	73
\$50,027	\$25,798	\$18,122	\$69,259	\$57,728	\$23,823	\$7,609	\$6,591	74
\$7,368	\$250	\$2,440	\$540	\$11,023	\$11,290	-----	\$2,490	75
\$5,372	\$1,457	\$1,184	\$5,495	\$3,513	\$324	\$1,103	\$453	76
\$37,287	\$22,176	\$14,548	\$63,224	\$40,667	\$11,714	\$6,441	\$3,643	77
-----	\$915	-----	-----	\$2,525	-----	-----	-----	78

¹ Includes establishments distributed as follows: Georgia, 1; Illinois, 2; Indiana, 1; Maine, 2; New Hampshire, 2; Wisconsin, 1.

BY STATES: 1900—Continued.

Massachusetts.	New Jersey.	New York.	Ohio.	Pennsylvania.	Rhode Island.	Vermont.	All other states. ¹	
\$685,123	\$526,492	\$310,783	\$1,077,529	\$1,069,944	\$899,126	\$268,712	\$165,889	79
	17,500							80
	\$8,700							81
7,000	37,500		324,094	3,500			32,755	82
\$2,800	\$12,200		\$89,427	\$1,050			\$12,922	83
7,000	55,000		150,047	3,500			27,450	84
			2,000					86
			\$160					86
	103,000		1,000					87
	\$10,250		\$35					88
		150	108			40	47	89
		75,000	53,986			20,000	23,666	90
		\$5,250	\$4,793			\$900	\$4,259	91
305,500	1,261,421	100,000	66,922	1,392,000	300,000			92
\$89,210	\$189,715	\$10,000	\$11,102	\$288,460	\$70,000			93
	11,600							94
	\$3,600							95
				8,000				96
				\$960				97
							158,000	98
							\$4,875	99
11,205,073	5,933,355	22,940,559	8,992,053	11,871,628	3,311,607	6,616,000	1,958,053	100
\$526,164	\$267,001	\$249,411	\$866,740	\$705,764	\$287,800	\$252,234	\$125,326	101
2,500	5,200	16,700	13,000	1,950	25,000			102
\$65	\$245	\$636	\$475	\$75	\$900			103
75,207	27,500	17,502	102,433	123,288	16,000	14,800	6,299	104
\$19,946	\$6,024	\$8,128	\$12,893	\$24,272	\$6,760	\$5,920	\$1,263	105
\$16,260	\$4,550	\$11,800	\$39,390	\$12,950	\$10,397	\$2,595	\$4,760	106
\$26,013	\$11,665	\$9,933	\$21,910	\$16,808	\$9,727	\$5,678	\$4,115	107
		\$410		\$926	\$3,060		\$500	108
\$10,286	\$2,500	\$2,345	\$7,621	\$6,124	\$2,850	\$1,125	\$2,204	109
\$4,107	\$6,017	\$12,814	\$18,900	\$3,638	\$45	\$110	\$395	110
\$10,273	\$4,015	\$5,056	\$4,083	\$8,917	\$7,647	\$150	\$5,290	111
\$988,189	\$685,048	\$443,520	\$1,478,712	\$1,448,886	\$515,643	\$382,852	\$232,704	112
				75,000				113
				\$30,000				114
							157,775	115
		5,000					\$97,077	116
		\$2,000						117
								118
								119
								120
	142,000	100,000	279,160	1,074,810				121
	\$29,950	\$10,000	\$24,150	\$88,516				122
4,543,254	2,459,233	4,567,209	5,914,245	11,655,149	1,854,820	2,633,000	1,876,748	123
\$622,454	\$589,566	\$416,105	\$1,327,939	\$1,282,599	\$368,964	\$323,792	\$153,899	124
1,922,863		10,000	900,000		17,000	420,000		125
\$274,069		\$9,000	\$126,000		\$500	\$56,700		126
79,180	600,547			32,000	908,000			127
\$5,332	\$80,032			\$1,920	\$52,812			128
	\$35,500					\$1,360	\$4,750	129
\$86,284		\$6,424	\$623	\$50,851	\$98,367	\$1,000	\$36,078	130
20	3	7	5	22	9	3	4	131
\$894,775	\$380,948	\$291,529	\$1,460,712	\$1,196,200	\$515,643	\$382,852	\$169,046	132
\$786,024	\$275,092	\$230,509	\$1,330,010	\$942,115	\$482,582	\$202,821	\$190,400	133
29	4	9	6	26	9	3	9	134
3,622	790	699	1,050	1,632	741	882	735	135
21	5	4	6	29	4	4	5	136
1,952	725	400	1,035	1,464	275	307	315	137
1								138
20								139
30	1	6		1	5	5	5	140
1,650	65	299		50	391	510	420	141
				1	1	1		142
				15		65		143
					128			144
					40			145
								146
29	4	9	6	26	9	3	9	146
2		1						147
9		2	1	6				148
11		2		12	7	2	6	149
5		3	2	6	2		1	150
1	3	1	1	1			1	151
1			1					152
			1					153

TABLE 40.—FUR HATS, BY STATES: 1900.

	United States.	Connecticut.	Massachusetts.	New Jersey.	New York.	Pennsylvania.	All other states. ¹
Number of establishments.....	171	58	11	59	15	20	8
Character of organization:							
Individual.....	69	16	2	30	6	11	4
Firm and limited partnership.....	72	31	7	19	6	7	2
Incorporated company.....	30	11	2	10	3	2	2
Capital:							
Total.....	\$16,701,908	\$3,197,551	\$1,467,700	\$2,932,311	\$3,050,381	\$5,726,259	\$927,106
Land.....	\$1,501,514	\$113,788	\$46,356	\$242,980	\$246,000	\$848,940	\$3,500
Buildings.....	\$3,023,693	\$323,338	\$319,101	\$476,746	\$476,746	\$1,368,207	\$51,500
Machinery, tools, and implements.....	\$3,043,261	\$714,116	\$363,939	\$500,950	\$634,112	\$736,849	\$98,295
Cash and sundries.....	\$9,132,840	\$2,046,259	\$738,304	\$1,708,680	\$1,695,523	\$2,772,262	\$178,811
Proprietors and firm members.....	208	85	18	66	12	22	6
Salaries of officials, clerks, etc.:							
Total number.....	726	173	54	154	185	180	30
Total salaries.....	\$943,908	\$172,780	\$55,659	\$186,266	\$224,354	\$269,619	\$35,320
Officers of corporations—							
Number.....	76	26	4	26	8	6	6
Salaries.....	\$242,734	\$59,524	\$6,000	\$55,320	\$79,770	\$54,120	\$8,000
General superintendents, managers, clerks, etc.—							
Total number.....	650	147	50	128	127	174	24
Total salaries.....	\$701,264	\$133,256	\$49,659	\$130,946	\$144,584	\$215,499	\$27,320
Men—							
Number.....	585	133	45	117	116	154	20
Salaries.....	\$670,355	\$125,900	\$48,053	\$125,593	\$130,044	\$200,135	\$25,560
Women—							
Number.....	65	14	5	11	11	20	4
Salaries.....	\$30,909	\$7,296	\$1,601	\$5,348	\$5,540	\$9,364	\$1,760
Wage-earners, including piece workers, and total wages:							
Greatest number employed at any one time during the year.....	22,008	5,916	2,380	5,335	4,499	3,101	477
Least number employed at any one time during the year.....	16,398	4,171	1,377	3,925	3,386	2,662	377
Average number.....	18,880	4,868	1,823	4,745	4,138	2,890	421
Total wages.....	\$9,119,264	\$2,414,561	\$790,786	\$2,487,067	\$2,079,404	\$1,187,272	\$160,114
Men, 16 years and over—							
Average number.....	13,187	3,405	976	3,507	2,900	2,043	295
Wages.....	\$7,231,777	\$1,966,174	\$514,262	\$2,071,822	\$1,566,907	\$984,782	\$127,830
Women, 16 years and over—							
Average number.....	5,436	1,458	834	1,199	1,112	714	110
Wages.....	\$1,840,454	\$447,020	\$274,254	\$405,795	\$499,772	\$182,006	\$30,993
Children, under 16 years—							
Average number.....	257	5	13	39	61	133	6
Wages.....	\$47,033	\$1,358	\$2,270	\$9,450	\$12,785	\$19,884	\$1,236
Average number of wage-earners, including pieceworkers, employed during each month:							
Men, 16 years and over—							
January.....	12,989	3,369	1,025	3,274	3,002	1,990	329
February.....	13,229	3,521	1,060	3,385	2,979	2,009	325
March.....	13,459	3,706	1,054	3,353	2,999	2,023	319
April.....	12,781	3,314	994	3,440	2,736	2,025	372
May.....	12,451	3,098	860	3,470	2,719	2,041	263
June.....	12,470	2,879	880	3,432	2,992	2,040	247
July.....	13,313	3,592	916	3,735	2,961	2,000	297
August.....	14,018	3,906	1,047	3,735	2,988	2,035	307
September.....	14,101	3,931	1,076	3,692	3,005	2,080	317
October.....	13,360	3,262	975	3,771	2,973	2,086	293
November.....	12,825	3,126	891	3,488	2,975	2,052	263
December.....	13,243	3,160	937	3,540	3,192	2,130	259
Women, 16 years and over—							
January.....	5,608	1,497	1,047	1,124	1,137	679	124
February.....	5,819	1,563	1,102	1,170	1,155	705	121
March.....	5,875	1,607	1,100	1,186	1,147	710	135
April.....	5,532	1,427	1,027	1,205	1,031	721	124
May.....	5,226	1,334	842	1,200	1,012	714	124
June.....	5,087	1,258	708	1,155	1,146	710	112
July.....	5,265	1,517	676	1,180	1,073	704	110
August.....	5,484	1,594	730	1,249	1,092	709	110
September.....	5,548	1,616	720	1,283	1,102	709	113
October.....	5,294	1,356	701	1,263	1,114	739	121
November.....	5,129	1,343	636	1,170	1,136	723	121
December.....	5,365	1,378	723	1,202	1,193	748	121
Children, under 16 years—							
January.....	253	5	7	39	58	138	6
February.....	252	5	8	40	58	135	6
March.....	249	5	8	40	59	131	6
April.....	250	4	8	39	61	132	6
May.....	251	3	8	40	60	134	6
June.....	266	3	23	41	62	131	6
July.....	266	4	20	41	62	133	6
August.....	272	7	24	39	62	134	6
September.....	269	7	22	39	63	132	6
October.....	254	7	8	39	62	132	6
November.....	246	6	8	35	61	131	6
December.....	258	5	8	39	60	138	6
Skilled operatives, average number:							
Weavers—							
Men, 16 years and over.....	135					135	
Finishers—							
Men, 16 years and over.....	840	248	96	60	214	220	2
Women, 16 years and over.....	45	9			5	81	
Children, under 16 years.....	1				1		
Machinery:							
Formers for fur hats.....	294	81	19	104		46	4
Miscellaneous expenses:							
Total.....	\$1,416,787	\$392,152	\$97,787	\$253,998	\$300,185	\$351,729	\$20,586
Rent of works.....	\$95,217	\$30,864	\$9,910	\$28,912	\$11,380	\$9,536	\$1,635
Taxes, not including internal revenue.....	\$51,568	\$11,979	\$10,587	\$11,622	\$3,792	\$6,986	\$1,630
Rent of offices, insurance, interest, and all sundry expenses not hitherto included.....	\$1,172,011	\$313,683	\$70,410	\$188,682	\$269,283	\$315,322	\$14,631
Contract work.....	\$97,943	\$35,626	\$6,900	\$24,782	\$10,750	\$19,855	

¹ Includes establishments distributed as follows: Delaware, 1; Indiana, 1; Maine, 1; Missouri, 1; Ohio, 1; Rhode Island, 2; West Virginia, 1.

TABLE 40.—FUR HATS, BY STATES: 1900—Continued.

	United States.	Connecticut.	Massachu- setts.	New Jersey.	New York.	Pennsyl- vania.	All other states. ¹
Materials used:							
Total cost.....	\$13,513,668	\$3,685,748	\$1,389,546	\$3,636,521	\$2,607,454	\$1,866,866	\$327,533
Animal hair and fur—							
Buffalo, cow, and other animal hair and fur, pounds.....	6,166,269	1,499,767	456,593	1,897,113	1,281,452	817,311	214,033
Cost.....	\$6,376,991	\$1,463,491	\$542,035	\$2,076,259	\$1,168,340	\$833,748	\$138,118
Yarns not made in mill—							
Cotton, pounds.....	2,052					2,052	
Cost.....	\$3,276					\$3,276	
Spun silk, pounds.....	3,541					3,541	
Cost.....	\$24,984					\$24,984	
Fur hat bodies, and hats in the rough, dozens.....	148,212	61,726	29,338	22,711	24,620	5,045	4,772
Cost.....	\$882,986	\$381,362	\$139,839	\$113,197	\$171,660	\$42,341	\$34,537
All other materials which are components of the prod- uct.....	\$8,884,630	\$993,703	\$487,573	\$954,107	\$773,214	\$802,407	\$73,671
Soap, pounds.....	34,065				13,500	5,665	15,006
Cost.....	\$1,535				\$560	\$225	\$750
Chemicals and dyestuffs.....	\$656,794	\$272,635	\$62,930	\$121,917	\$117,681	\$77,317	\$4,314
Fuel.....	\$376,366	\$117,839	\$26,316	\$118,802	\$65,130	\$40,957	\$7,322
Rent of power and heat.....	\$6,310	\$2,045	\$1,012	\$400	\$225	\$1,658	\$970
Mill supplies.....	\$72,793	\$24,913	\$4,140	\$14,933	\$14,568	\$11,114	\$3,070
All other materials.....	\$1,144,635	\$392,809	\$120,540	\$220,219	\$289,665	\$119,624	\$1,323
Freight.....	\$32,268	\$36,941	\$5,111	\$17,137	\$11,411	\$9,215	\$2,453
Products:							
Total value.....	\$27,811,187	\$7,546,882	\$2,630,964	\$7,211,229	\$5,602,458	\$4,243,352	\$576,302
Hats—							
Wool hats, dozens.....	180					180	
Value.....	\$4,320					\$4,320	
Fur hats, dozens.....	1,882,372	497,688	227,032	590,939	226,061	280,880	59,777
Value.....	\$25,385,506	\$6,549,736	\$2,244,941	\$6,773,402	\$5,052,570	\$4,203,169	\$567,688
Partly manufactured products for sale—							
Waste, pounds.....	160,950				160,950		
Value.....	\$3,219				\$3,219		
Fur hat bodies and hats in the rough, dozens.....	165,010	153,188	4,322	7,500			
Value.....	\$992,730	\$946,957	\$3,273	\$37,500			
Value of all other products.....	\$933,493	\$3,818	\$377,750	\$2,040	\$541,710	\$975	\$7,200
Received for contract work.....	\$491,919	\$52,371		\$393,287	\$4,959	\$34,838	\$1,414
Comparison of products:							
Number of establishments reporting for both years.....	146	49	10	53	10	13	6
Value for census year.....	\$25,505,730	\$7,163,221	\$2,500,104	\$6,736,546	\$4,781,539	\$3,774,339	\$549,431
Value for preceding business year.....	\$22,950,739	\$6,359,757	\$2,143,770	\$6,430,270	\$4,287,320	\$3,266,571	\$462,601
Power:							
Number of establishments reporting.....	131	49	8	44	10	15	5
Total horsepower.....	12,625	3,372	1,005	4,077	1,941	1,833	347
Owned—							
Engines—							
Steam, number.....	143	51	9	45	16	19	3
Horsepower.....	11,570	3,216	835	3,684	1,816	1,694	325
Gas or gasoline, number.....	3		1	1			
Horsepower.....	38		10	8	20		
Water wheels, number.....	1	1					
Horsepower.....	25	25					
Electric motors, number.....	30	1	3	7	3	15	1
Horsepower.....	782	2	150	368	101	146	15
Rented—							
Electric horsepower.....	79		10	17	4	43	5
Other kind, horsepower.....	131	129					2
Furnished to other establishments, horsepower.....	62			62			
Establishments classified by number of persons employed, not including proprietors and firm members:							
Total number of establishments.....	171	53	11	59	15	20	8
No employees.....	1			1			
Under 5.....	22	4	1	8	4	3	2
5 to 20.....	30	11	2	7	2	5	3
21 to 50.....	33	10		16	1	5	1
51 to 100.....	23	12	1	9		1	
101 to 250.....	32	14	2	11	2	2	1
251 to 500.....	22	7	4	5	3	2	1
501 to 1,000.....	6		1	2	2	1	
Over 1,000.....	2				1	1	

¹ Includes establishments distributed as follows: Delaware, 1; Indiana, 1; Maine, 1; Missouri, 1; Ohio, 1; Rhode Island, 2; West Virginia, 1.

BY STATES, ARRANGED GEOGRAPHICALLY, 1850-1900.

Miscellaneous expenses.	Cost of materials used.	PRINCIPAL MATERIALS—QUANTITIES CONSUMED.									Value of products.	
		Wool in condition purchased.			Yarns not made in mill.			Raw cotton and cotton warp and yarn not made in mill (pounds).	Animal hair and fur and noils not made in mill (pounds).	Shoddy not made in mill (pounds).		
		Total (pounds).	Foreign (pounds).	Domestic (pounds).	Merino (pounds).	Woolen (pounds).	Worsted (pounds).					
\$6,599,805	\$51,071,859	17,968,907	3,446,888	14,507,069	1,981,484	2,621,898	5,823,215	181,271,369	1,098,854	3,770,026	\$95,482,566	1
3,627,245	35,861,585	21,639,398	2,734,304	18,905,089	(2)	6,386,370	4,146,035	64,681,466	424,496	4,735,144	67,241,013	2
(3)	16,210,951	8,594,895	443,758	8,146,137	87,561	3,758,566	750,255	28,485,238	66,929	1,523,263	29,167,227	3
(3)	9,835,823	5,596,955	292,300	5,304,655	(2)	2,228,777	(2)	13,652,225	(2)	189,867	18,411,564	4
(3)	3,202,317	2,927,626	(2)	(2)	(2)	(2)	(2)	3,882,342	(2)	(2)	7,912,916	5
(3)	416,113	(3)	(3)	(3)	(2)	(2)	(2)	(2)	(2)	(2)	1,028,102	6
1,114,174	9,325,415	5,716,460	1,408,206	4,308,254	141,633	444,321	1,493,439	26,589,672	93,741	922,558	17,834,673	7
929,336	3,661,685	3,398,436	1,085,183	7,363,253		899,432	1,020,615	12,214,509	128,525	1,081,598	10,034,301	8
	4,034,873	4,348,024	209,440	4,138,584		674,986	106,201	3,977,864	26,779	366,843	7,912,916	9
	3,282,123	2,483,733	141,500	2,342,233		315,419		4,033,943		10,000	6,910,797	10
	1,092,358	1,457,260						1,693,001			2,374,242	11
0,389	10,810					18,000					29,075	12
1,019	33,839					29,075	12,320	6,000			76,603	13
	1,800					2,000					3,000	14
												15
												16
176,118	1,819,170	820,271	109,163	711,108	38,000	107,426	270,820	3,173,765		668,821	2,592,820	17
241,201	1,777,695	3,456,174	243,350	3,212,824		96,658	106,478	841,789	4,200	960,998	3,481,022	18
	1,249,600	1,756,332	76,000	1,680,332		96,500	2,500	1,102,284	5,000	186,900	2,862,779	19
	881,646	880,760	40,500	840,260				946,235			1,767,445	20
	388,075	362,120						308,280			578,794	21
108,006	1,115,324	540,934	86,530	454,404	20,878		46,091	2,632,214		161,145	1,884,685	22
63,188	649,004	576,669	66,000	510,669		2,000		666,448		16,832	1,105,958	23
	359,938	401,333		401,333		1,200	500	406,539		2,525	595,270	24
	191,219	146,289		146,289				384,789			551,129	25
	61,840	180,000						50,000			102,800	26
528,108	2,910,640	1,146,940	2,000	1,144,940	44,604	128,681	411,468	13,526,843		65,075	6,820,257	27
316,786	2,552,705	1,812,076	52,989	1,759,087		456,440	278,853	4,466,466		44,500	5,082,037	28
	1,394,748	1,088,684	7,266	1,081,418		502,511	88,619	857,700		8,000	2,483,596	29
	1,515,326	904,900	25,000	879,900		249,356		1,849,994			3,213,431	30
	182,076	196,000						148,000			314,120	31
90,900	1,766,831	735,548	28,850	706,698	8,989	181,264	581,778	4,196,940	90,566		2,719,850	32
110,720	1,618,621	788,311	140,000	648,311		108,159	445,633	3,337,264		12,218	2,516,664	33
	14,838					22,750					30,000	34
	68,541	113,000		113,000				80,000			137,000	35
												36
205,658	2,202,640	2,472,787	1,181,663	1,291,104	29,162	9,000	233,282	3,059,910	3,175	27,517	4,043,977	37
197,423	2,029,921	1,765,206	532,344	1,232,862		177,100	177,381	2,896,593	124,325	47,000	3,771,567	38
	1,013,949	1,101,675	126,174	975,501		50,025	14,582	1,611,841	21,779	169,418	2,432,271	39
	625,391	438,794	76,000	362,794		66,063		822,925		10,000	1,251,742	40
	560,368	709,140						1,186,721			1,383,523	41
4,260,577	32,699,721	7,081,403	1,381,117	5,650,286	934,460	1,393,685	2,948,525	128,244,160	685,885	2,212,261	60,473,407	42
2,242,276	23,059,630	10,083,581	1,081,363	9,002,218		3,188,204	2,741,794	47,428,283	241,049	3,174,904	42,993,046	43
	10,254,739	4,006,871	239,318	3,767,553	67,561	2,327,394	614,404	24,305,874	40,150	1,146,420	19,696,588	44
	6,505,973	3,112,622	150,800	2,961,822		1,871,183		9,601,982		179,857	11,405,380	45
	2,082,344	1,462,866						2,195,841			4,847,984	46
2,199,029	20,218,200	5,528,329	710,884	4,817,495	562,040	902,234	1,585,842	83,449,895	685,885	2,105,354	35,886,048	47
1,393,427	13,669,169	9,024,692	882,065	8,142,627		1,034,837	695,260	27,982,069	215,195	3,069,939	24,776,522	48
	5,072,058	2,548,969	186,326	2,362,643		538,467	46,159	16,164,505	40,000	1,062,011	9,899,540	49
	3,391,840	2,168,822	150,800	2,018,022		50,500		7,119,839		179,857	5,528,742	50
	870,479	689,066						1,348,941			1,944,090	51
122,374	997,110	155,160	88,068	67,092	10,000	43,800	232,157	2,140,882			1,748,148	52
101,146	582,783	404,847	183,839	216,008		113,600	36,629	842,202	10,673	18,623	1,091,403	53
	258,043	175,184	5,400	169,784		106,300	3,100	487,026	150	15,568	861,131	54
	188,030	280,000		230,000		1,000		216,700			508,900	55
	279,952	419,800						766,400			783,456	56
1,884,722	10,928,113	1,347,914	582,215	765,699	350,011	409,163	1,115,863	40,541,727		106,907	21,896,063	57
741,956	8,720,363	654,042	10,459	643,583		1,985,017	1,995,905	18,488,312	15,181	86,342	16,944,237	58
	4,924,138	1,282,718	47,592	1,235,126	67,561	1,682,127	565,145	7,654,343		68,856	8,935,147	59
	2,925,323	718,800		718,800		1,819,183		2,264,943			5,806,738	60
	928,815	854,000						80,000			2,114,315	61
32,471	209,043							1,099,817			429,055	62
												63
												64
												65
												66
21,981	347,250				12,409	38,488	14,663	1,011,889			514,093	67
9,747	87,315					54,760	14,000	116,700			180,823	68
	500					500					729	69
	780					500					1,000	70
	2,938										6,123	71

1 Includes proprietors and firm members, with their salaries; number only reported in 1900, but not included in this table. (See Table 42.)

2 Not reported separately.

3 Not reported.

4 At the census of 1850 totals for the different states were not published, totals for the United States only being given.

5 No establishments reported.

6 Maryland is classed in this table as a Middle state for purposes of comparison.

MANUFACTURES.

TABLE 41.—HOSIERY AND KNIT GOODS: COMPARATIVE SUMMARY

STATES.	Year.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		AVERAGE NUMBER OF WAGE-EARNERS AND TOTAL WAGES.					MACHINERY.					
				Number.	Salaries.	Total.		Men, 16 years and over.	Women, 16 years and over.	Children, under 16 years.	Cards.	Combining machines.	Knitting machines.	Sewing machines.	Looms.	Spindles.
						Average number.	Wages.									
Southern states . . .	1900	71	3,522,871	201	\$174,678	6,137	\$1,115,356	1,480	3,246	1,412	41		5,519	1,014	24,126	
	1890	22	647,099	30	24,708	1,484	288,352	211	894	379	15		795		6,353	
	1880	1	5,000			4	700	2		2			1		4	
	1870															
	1860	3	2,700			4	1,680	4								
Virginia	1900	15	978,575	38	36,057	1,845	394,871	601	988	256	34		998	565	12,036	
	1890															
	1880															
	1870															
	1860															
North Carolina . . .	1900	24	674,869	64	46,224	1,495	255,253	317	735	448	5		1,864	191	2,860	
	1890	5	72,900	5	3,150	179	27,260	19	105	55			136		512	
	1880															
	1870															
	1860															
South Carolina . . .	1900	6	345,212	15	13,520	359	73,872	73	158	128			785	10	5,620	
	1890															
	1880															
	1870															
	1860															
Georgia	1900	16	928,887	46	39,467	1,208	200,662	217	682	309			1,078	235		
	1890	4	121,494	11	7,860	338	64,092	43	221	74	2		225		960	
	1880															
	1870															
	1860															
Kentucky	1900															
	1890															
	1880															
	1870															
	1860	3	2,700			4	1,680	4								
Tennessee	1900	4	216,950	12	15,300	511	72,980	113	228	170			581			
	1890															
	1880															
	1870															
	1860															
Alabama	1900															
	1890	3	94,873	3	2,028	409	62,810	22	137	250	2		128			
	1880															
	1870															
	1860															
Louisiana	1900															
	1890	3	106,600	6	9,150	278	42,691	20	258				169		1,800	
	1880															
	1870															
	1860															
All other Southern states.	1900	6	378,878	26	24,110	719	117,718	159	454	106	2		728	13	3,610	
	1890	7	251,732	5	2,520	280	91,499	107	173		11		137		3,051	
	1880	1	5,000			4	700	2		2			1		4	
	1870															
	1860															
Western states	1900	129	10,792,485	592	719,315	11,061	2,885,045	2,535	7,400	1,126	92		10,261	1,925	32,898	
	1890	146	5,190,366	298	315,860	8,076	1,715,340	1,115	6,668	293	60		6,056		22,152	
	1880	65	584,799			2,862	330,210	339	2,093	430	7		1,609	72	1,600	
	1870	23	36,800			143	24,390	50	89	4	1		68	2	11	
	1860	13	21,900			46	12,228	33	13						12	
Ohio	1900	24	1,067,987	56	55,856	1,413	354,369	154	1,229	30	10		1,147	170	3,920	
	1890	44	1,071,007	67	68,134	1,881	393,496	107	1,649	75	8		1,574		2,456	
	1880	23	137,000			745	94,853	53	574	118			368	4	60	
	1870	5	9,400			22	5,250	16	6				7		10	
	1860	11	10,900			36	9,264	23	13							
Michigan	1900	32	2,135,916	201	187,574	2,509	580,129	498	1,873	138	28		2,828	588	6,686	
	1890	10	560,917	33	34,435	815	173,909	131	633	1	14		678		3,680	
	1880	11	147,389			962	92,324	80	706	176	4		521	9	920	
	1870															
	1860															
Indiana	1900	7	2,728,306	103	201,085	2,016	703,129	1,032	874	110	27		633	272	8,500	
	1890	9	716,989	27	29,721	935	177,793	281	698	61	18		670		7,332	
	1880	5	45,000			284	24,700	26	201	57			183	5		
	1870	5	4,050			26	510	7	18	1			9	1		
	1860															
Wisconsin	1900	27	2,553,299	125	150,209	2,722	600,495	341	1,756	625	16		2,832	451	8,694	
	1890	23	1,214,727	57	70,550	2,239	379,144	232	1,362	105	6		1,138		2,800	
	1880															
	1870	4	10,010			28	3,364	6	20	2			19	4		
	1860															
Illinois	1900	14	1,580,990	46	66,720	1,805	494,285	417	1,233	155	7		1,975	282	3,460	
	1890	35	1,254,576	74	73,301	1,804	466,803	279	1,479	46	14		1,525		5,324	
	1880	14	105,800			707	92,385	160	471	76	3		433	48	690	
	1870	3	1,800			27	1,800	4	21	2	1		19	1	12	
	1860															

1 Included in "all other Southern states."

2 No establishments reported.

BY STATES, ARRANGED GEOGRAPHICALLY, 1850 TO 1900—Continued.

Miscellaneous expenses.	Cost of materials used.	PRINCIPAL MATERIALS—QUANTITIES CONSUMED.								Value of products.		
		Wool in condition purchased.			Yarns not made in mill.			Raw cotton and cotton warp and yarn not made in mill (pounds).	Animal hair and fur and noils not made in mill (pounds).		Shoddy not made in mill (pounds).	
		Total (pounds).	Foreign (pounds).	Domestic (pounds).	Merino (pounds).	Woolen (pounds).	Worsted (pounds).					
\$346,408 52,760	\$2,798,219 469,808 1,700 5,900	58,000 56,500 1,000	10,000	48,000 56,500	353,580	2,000 200 1,400	72,600	16,584,551 2,380,475		150,007 140,000	\$6,031,336 978,135 2,600 11,700	72 73 74 75 76
119,198	797,818				2,400	2,000	2,600	6,294,312		90,694	1,498,066	67 78 79 80 81
85,920 3,097	504,027 66,925							3,436,982 277,000		20,000	1,028,150 126,875	82 83 84 85 86
38,787	237,622							1,737,039			392,237	87 88 89 90 91
72,631 10,605	757,430 70,697				1,180			3,707,218 486,340			1,280,801 166,850	92 93 94 95 96
	5,900	1,000									11,700	97 98 99 100 101
10,270	248,950						20,000	1,099,000			895,150	102 103 104 105 106
8,422	103,893							545,400			190,725	107 108 109 110 111
2,480	53,202							420,000			151,180	112 113 114 115 116
69,602 33,156	252,372 160,001 1,700	58,000 56,500	10,000	48,000 56,500	350,000	200 1,400	50,000	370,000 651,735		39,813 140,000	491,932 337,506 2,600	117 118 119 120 121
878,706 402,873	6,248,504 3,680,462 919,639 47,727 21,715	5,148,044 3,100,876 240,000 600 6,500	647,515 617,758	4,500,529 2,483,118 240,000 600	551,811	781,887 2,328,534 749,786 43,175	1,308,651 383,626 29,650	9,852,986 2,658,199 201,500 16,300 4,000	314,228 54,922	485,800 338,642 10,000	12,143,150 7,240,031 1,555,123 95,887 46,080	122 123 124 125 126
99,411 68,991	807,673 914,085 241,583 10,360 13,515	140,500 359,000 6,500	15,000 4,000	125,500 355,000	202,934	64,823 851,313 241,850 10,600	455,569 145,857 8,850	482,372 296,372 6,000 4,000	5,053	70,000 5,000	1,576,285 1,635,948 418,825 28,100 31,800	127 128 129 130 131
265,124 57,901	1,459,378 285,057 226,627	1,484,998 247,081 180,000	32,905 25,000	1,402,093 222,081 180,000	178,866	205,029 121,667 154,600	238,822 19,400 5,000	1,919,138 332,955 41,300	3,605	154,304 30,937 10,000	2,791,257 701,322 377,249	132 133 134 135 136
108,442 70,437	1,200,483 408,195 103,280 2,842	1,214,122 1,095,253	523,216 568,758	690,906 526,495	15,000	74,098 76,300 2,575	5,995 3,342 5,200	1,118,533 292,826 80,000	300,000 25,762	92,763 143,572	2,424,304 827,104 158,200 5,450	137 138 139 140 141
223,216 102,727	1,176,146 899,371 9,125	799,357 581,042	76,394 20,000	722,963 561,042	109,643	276,286 886,786 7,100	277,930 84,047 700	1,656,901 267,906	5,265 11,660	54,833 131,213	2,486,813 1,635,641 18,817	142 143 144 145 146
126,832 68,123	1,261,242 930,780 290,895 5,775	1,514,400 818,500 60,000 600		1,514,400 818,500 60,000 600	10,500	109,600 251,020 226,800 5,100	215,700 72,480 10,000	4,140,150 1,348,620 112,900 100		111,500 27,920	2,145,429 1,990,035 484,124 8,800	147 148 149 150 151

^aIncludes establishments, distributed as follows: 1900—Alabama, 1; Louisiana, 1; Mississippi, 1; Texas, 1; West Virginia, 2. 1890—Florida, 1; Kentucky, 2; Virginia, 2; West Virginia, 2. 1880—West Virginia, 1.

MANUFACTURES.

TABLE 41.—HOSIERY AND KNIT GOODS: COMPARATIVE SUMMARY

STATES.	Year.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		AVERAGE NUMBER OF WAGE-EARNERS AND TOTAL WAGES.				MACHINERY.						
				Number.	Salaries.	Total.		Men, 16 years and over.	Women, 16 years and over.	Children under 16 years.	Cards.	Comb-ing machines.	Knit-ting machines.	Sewing machines.	Looms.	Spin-dles.
						Average number.	Wages.									
Western states—Continued.																
152	1900	8	484,004	21	26,657	293	77,589	51	206	36	3	476	94	1,418		
158	1890	3	247,498	10	15,356	119	31,000	17	102			162				
164	1880	1	8,000			12	2,819	8	4			10	2	1		
165	1870	1	150			1		1						1		
156	1860															
Iowa																
157	1900	3	8,950	2	820	7	1,730	1	6			14				
158	1890	3	2,200			6	460	3	3			7				
159	1880	2	5,200			6	1,200	3	3							
160	1870															
161	1860															
Missouri																
162	1900	7	83,247	8	6,188	117	28,289	1	116			145				
163	1890	4	29,400			118	19,300	8	114	1		68				
164	1880	7	15,700			61	15,600	19	41	1		88				
165	1870	2	11,000			10	2,964	10								
166	1860															
Utah																
167	1900	5	52,550	13	5,260	91	21,599	15	72	4		101	20			
168	1890	5	33,370	5	3,070	65	13,950		60	5		73				
169	1880															
170	1870															
171	1860															
California																
172	1900	3	89,160	10	12,160	79	27,880	6	66	7		82	43			
173	1890															
174	1880															
175	1870															
176	1860															
All other Western states. ³																
177	1900	9	145,323	17	14,294	133	25,570	21	91	21	1	187	5	200		
178	1890	7	49,085	10	9,255	144	44,216	16	128			87				
179	1880															
180	1870															
181	1860															

¹ No establishments reported.
² Included in "all other Western states."
³ Includes establishments, distributed as follows: 1900—Idaho, 1; Iowa, 2; Kansas, 1; Missouri, 2; Montana, 1; Nebraska, 1; Oregon, 1. 1890—California, 2; Colorado, 2; Kansas, 1; Nebraska, 1; Washington, 1.

TABLE 42.—HOSIERY AND KNIT GOODS:

	United States.	California.	Connecticut.	Delaware.	Georgia.
1 Number of establishments.....	921	8	25	7	16
2 Character of organization:					
3 Individual.....	353	1	6	2	2
4 Firm and limited partnership.....	252	1	2	1	1
5 Incorporated company.....	312	2	17	5	13
6 Miscellaneous.....	4				
7 Capital:					
8 Total.....	\$81,860,604	\$89,160	\$6,149,388	\$298,511	\$928,837
9 Land.....	\$3,367,732		\$160,000	\$9,000	\$21,836
10 Buildings.....	\$9,556,726	\$4,000	\$632,500	\$25,808	\$65,012
11 Machinery, tools, and implements.....	\$24,036,431	\$17,910	\$1,306,134	\$162,785	\$416,329
12 Cash and sundries.....	\$44,899,685	\$87,250	\$4,050,614	\$109,923	\$405,710
13 Proprietors and firm members.....	776		12	2	
14 Salaried officials, clerks, etc.:					
15 Total number.....	2,809	10	101	19	46
16 Total salaries.....	\$8,124,798	\$12,160	\$169,300	\$14,686	\$59,467
17 Officers of corporations—					
18 Number.....	439	2	31	8	11
19 Salaries.....	\$763,316	\$4,800	\$69,050	\$9,200	\$11,907
20 General superintendents, managers, clerks, etc.—					
21 Total number.....	2,370	8	70	11	35
22 Total salaries.....	\$2,361,482	\$7,360	\$90,250	\$5,486	\$27,560
23 Men—					
24 Number.....	1,965	7	60	6	33
25 Salaries.....	\$2,188,207	\$6,560	\$84,864	\$8,386	\$26,780
26 Women—					
27 Number.....	405	1	10	5	2
28 Salaries.....	\$173,275	\$800	\$5,386	\$2,100	\$780
29 Wage-earners, including pieceworkers, and total wages:					
30 Greatest number employed at any one time during the year.....	95,726	94	3,469	713	1,518
31 Least number employed at any one time during the year.....	71,829	58	2,978	511	1,153
32 Average number.....	83,887	79	3,243	582	1,208
33 Total wages.....	\$24,358,627	\$27,880	\$1,131,078	\$123,103	\$200,662
34 Men, 16 years and over—					
35 Average number.....	21,154	6	966	85	217
36 Wages.....	\$8,890,728	\$3,200	\$417,414	\$25,390	\$64,148
37 Women, 16 years and over—					
38 Average number.....	53,565	66	2,181	408	682
39 Wages.....	\$14,213,808	\$23,500	\$666,597	\$84,307	\$104,754
40 Children, under 16 years—					
41 Average number.....	8,668	7	96	89	309
42 Wages.....	\$1,224,091	\$1,180	\$17,067	\$13,406	\$31,760
43 Average number of wage-earners, including pieceworkers, employed during each month:					
44 Men, 16 years and over—					
45 January.....	19,995	6	923	80	194
46 February.....	20,902	5	938	77	200
47 March.....	21,310	6	980	87	208
48 April.....	21,569	6	979	85	242
49 May.....	21,718	6	972	88	222
50 June.....	21,393	6	972	84	210
51 July.....	21,052	6	945	85	219
52 August.....	21,033	6	966	85	222
53 September.....	21,183	6	974	88	221
54 October.....	21,565	6	984	88	223
55 November.....	21,430	6	985	88	222
56 December.....	20,698	6	978	85	222
57 Women, 16 years and over—					
58 January.....	51,125	55	2,062	424	655
59 February.....	52,499	52	2,139	399	662
60 March.....	54,352	67	2,185	430	678
61 April.....	55,419	66	2,199	405	723
62 May.....	54,873	67	2,227	392	718
63 June.....	53,865	56	2,139	367	685
64 July.....	52,485	65	2,111	370	663
65 August.....	52,444	70	2,182	356	669
66 September.....	53,427	72	2,237	414	691
67 October.....	54,659	71	2,230	449	692
68 November.....	54,468	76	2,226	448	677
69 December.....	53,174	76	2,182	440	674
70 Children, under 16 years—					
71 January.....	8,510	5	89	70	310
72 February.....	8,608	6	91	84	310
73 March.....	8,820	7	97	95	323
74 April.....	8,973	7	97	87	326
75 May.....	9,053	7	97	88	322
76 June.....	8,658	6	101	87	304
77 July.....	8,394	7	95	77	280
78 August.....	8,474	7	95	85	283
79 September.....	8,566	8	96	99	302
80 October.....	8,546	8	92	97	300
81 November.....	8,763	8	100	99	316
82 December.....	8,661	8	99	94	315
83 Skilled operatives, average number:					
84 Spinners—					
85 Men, 16 years and over.....	1,624		142		
86 Women, 16 years and over.....	273				
87 Children, under 16 years.....	92				
88 Knitters—					
89 Men, 16 years and over.....	4,615	5	82	9	46
90 Women, 16 years and over.....	11,482	36	348	207	46
91 Children, under 16 years.....	1,501	4		29	18
92 Finishers—					
93 Men, 16 years and over.....	2,427		54	30	19
94 Women, 16 years and over.....	16,502	37	705	123	149
95 Children, under 16 years.....	980	2		5	12
96 Machinery:					
97 Sets of woolen cards.....	1,161		134		
98 Combing machines, number:					
99 Of American manufacture.....	15		9		
100 Of foreign manufacture.....	8		5		
101 Spindles, number:					
102 Spinning—					
103 Woolen.....	521,871		79,536		
104 Woolen.....	290,366		32,876		
105 Worsted.....	14,064		6,000		
106 Cotton.....	205,742		39,500		

WOOL.

SUMMARY BY STATES, 1900.

Illinois.	Indiana.	Maine.	Maryland.	Massachusetts.	Michigan.	Minnesota.	New Hampshire.
14	7	8	4	54	32	8	22
7		1		18	5	3	8
2		2		9	4	1	4
5	1		1	27	23	4	5
	6		3				2
\$1,580,900	\$2,728,306	\$9,000	\$311,508	\$6,288,672	\$2,135,916	\$484,004	\$2,525,286
\$28,200	\$76,200		\$3,000	\$369,004	\$90,922	\$29,000	\$208,756
\$167,387	\$188,602		\$8,083	\$711,522	\$194,090	\$78,000	\$374,086
\$521,250	\$375,771	\$4,400	\$94,789	\$1,268,522	\$495,552	\$120,858	\$655,251
\$814,153	\$2,087,733	\$4,600	\$205,686	\$3,939,534	\$1,355,352	\$255,151	\$1,286,194
6		6	2	86	4	1	11
46	108		28	166		21	51
\$66,720	\$201,085		\$14,518	\$212,753	\$187,574	\$20,657	\$58,011
12	18		8	29	22	7	11
\$26,500	\$43,879		\$4,179	\$50,260	\$33,920	\$18,500	\$17,650
84	85		20	137	14	14	40
\$40,220	\$157,206		\$10,339	\$162,498	\$153,054	\$8,167	\$40,361
26	84		19	106	124	10	31
\$34,100	\$156,816		\$10,300	\$148,104	\$130,358	\$6,767	\$87,214
8	1		1	9	55	4	9
\$9,120	\$390		\$39	\$14,389	\$23,296	\$1,400	\$3,147
1,934	2,105	41	765	7,690	3,040	380	2,974
1,573	1,273	36	609	5,715	2,071	194	2,040
1,805	2,016	97	682	6,067	2,509	293	2,492
\$494,285	\$708,129	\$7,425	\$119,456	\$2,091,258	\$580,129	\$77,599	\$790,558
417	1,082	4	60	1,058	498	51	890
\$178,298	\$518,724	\$1,300	\$23,715	\$752,081	\$172,085	\$18,553	\$339,032
1,233	874	81	526	4,549	1,873	208	1,514
\$293,337	\$175,925	\$6,000	\$89,751	\$1,268,543	\$391,345	\$53,876	\$434,417
155	110	2	96	460	188	36	80
\$22,650	\$8,480	\$125	\$5,987	\$75,084	\$16,699	\$5,160	\$17,109
429	1,044	4	62	1,681	396	86	783
430	1,029	3	64	1,656	443	41	847
430	1,045	5	65	1,673	479	39	884
431	1,027	6	65	1,658	510	44	902
406	1,035	5	60	1,596	514	51	900
403	1,039	6	56	1,617	583	53	914
405	1,029	2	55	1,611	529	53	883
405	1,043	3	64	1,616	563	59	869
405	1,035	2	61	1,677	563	60	893
407	1,017	3	59	1,696	562	63	920
423	1,022	3	61	1,713	471	54	964
424	1,016	3	64	1,709	417	64	912
1,063	878	29	545	4,657	1,688	110	1,295
1,171	829	29	549	4,745	1,755	121	1,354
1,261	883	29	550	4,808	1,854	138	1,451
1,265	911	29	552	4,837	2,016	177	1,495
1,246	846	29	491	4,822	1,989	218	1,542
1,246	893	29	508	4,811	1,857	242	1,556
1,251	917	32	514	4,109	1,854	264	1,555
1,249	877	32	518	4,121	1,813	264	1,549
1,258	851	32	516	4,847	1,985	259	1,552
1,253	850	32	510	4,636	2,010	257	1,536
1,265	880	32	528	4,820	1,830	241	1,630
1,264	869	32	538	4,872	1,727	132	1,601
149	94	2	112	454	137	36	80
156	94	2	111	471	137	36	85
156	98	2	109	476	137	36	82
156	115	2	112	484	137	36	90
156	112	3	95	467	138	36	89
156	118	3	100	453	138	36	89
156	112	3	91	446	138	36	92
156	121	3	92	457	138	36	88
156	118	2	84	449	138	36	88
156	112	3	83	437	139	36	83
156	112	3	85	457	139	36	80
156	114	2	88	465	138	36	86
37	15			88	68	1	66
	12			27	1	3	8
144	124		14	379	307	15	261
594	208		37	496	774	93	354
27				26	26	16	16
184	68		18	227	73	7	104
524	495		21	120	1,576	64	352
110	22			11	24		
7	27			39	28	3	74
				8			
				8			
3,480	8,500			108,988	6,686	1,418	26,607
3,480	8,400			8,582	5,284	1,248	20,136
				8,500	960		
				90,780			6,820

TABLE 42.—HOSIERY AND KNIT GOODS.

	United States.	California.	Connecticut.	Delaware.	Georgia.
Machinery—Continued.					
Spindles, number—Continued.					
Doubling—					
Woolen	8,618				
Worsted	7,130		960		
Cotton	958		200		
Looms on woolen or worsted goods, number	188				
Narrow, under 50-inch reed space—					
On woolen goods	180				
Hand—					
On woolen or worsted goods	3				
Braiders, number	128				
Sewing machines, number	24,585	43	988	246	236
Knitting machines, number	89,047	82	2,662	674	1,078
Spring-beard needle—					
Flat, ribbed	1,691		420	30	
Flat, plain	1,432		19	12	
Full fashioned, flat, ribbed	65		6		
Full fashioned, flat, plain	1,069		542		
Circular, ribbed	1,467		45		
Circular, plain	6,753		618	8	
Circular, hosiery, automatic	1,700		28	8	10
Lamb, and other variety, hand	336				
Latch needle—					
Flat, ribbed	1,655		66	19	22
Flat, plain	1,936				10
Full fashioned, flat, ribbed	358		7		
Full fashioned, flat, plain	869				
Circular, ribbed	17,490	8	237	243	262
Circular, plain	6,760		44	8	15
Circular, hosiery, automatic	39,993	6	580	341	759
Lamb, and other variety, hand	5,478	68	50	5	
Miscellaneous expenses:					
Total	\$6,599,865	\$10,570	\$205,658	\$32,471	\$72,631
Rent of works	\$424,250	\$1,800	\$12,370	\$1,875	\$910
Taxes, not including internal revenue	\$236,780	\$540	\$23,990	\$689	\$5,853
Rent of offices, insurance, and all sundry expenses not hitherto included	\$4,747,007	\$8,230	\$164,698	\$29,657	\$55,496
Contract work	\$1,141,828		\$14,600	\$300	\$10,872
Materials used:					
Total cost	\$61,071,859	\$71,751	\$2,202,640	\$209,048	\$757,430
Wool—					
Foreign, in condition purchased, pounds	3,446,838		1,181,668		
Cost	\$1,944,397		\$479,436		
Domestic, in condition purchased, pounds	14,507,069		1,291,104		
Cost	\$3,917,738		\$344,178		
Foreign and domestic, etc., scoured, pounds	18,031,308		1,722,259		
Animal hair and fur—					
Mohair, pounds	631,199				
Cost	\$44,953				
Buffalo, cow, and other animal hair and fur, pounds	330,920				
Cost	\$11,175				
Cotton, bales	99,518		4,588		
Pounds	49,451,301		2,068,413		
Cost	\$3,561,592		\$176,729		
Materials, not made in mill—					
Shoddy, pounds	3,770,626		27,517		
Cost	\$488,792		\$4,362		
Wool waste and noils, pounds	5,276,454		498,216		
Cost	\$1,487,907		\$117,935		
Camel, alpaca, and vicuña noils, pounds	131,635		3,175		
Cost	\$39,832		\$1,352		
Mohair noils, pounds	100				
Cost	\$25				
Tops, pounds	133,614		12,066		
Cost	\$92,103		\$7,188		
Yarns, not made in mill—					
Woolen, pounds	2,021,893	14,481	9,000		
Cost	\$1,257,587	\$13,302	\$5,455		
Worsted, pounds	5,823,215	48,487	233,282		
Cost	\$4,865,804	\$36,939	\$224,648		
Merino, pounds	1,981,484	4,868	29,162		1,180
Cost	\$642,535	\$2,362	\$24,116		\$413
Cotton, pounds	131,820,068	30,020	991,497	1,099,817	3,707,213
Cost	\$22,204,918	\$9,046	\$250,011	\$167,700	\$624,311
Silk, pounds	162,424	203	901		
Cost	\$669,236	\$1,583	\$4,726		
Spun silk, pounds	103,823	1,076	12,749		
Cost	\$277,665	\$8,179	\$30,974		
Linen, pounds	71,478	657	3,000		
Cost	\$53,588	\$490	\$3,000		
Jute, ramie, or other vegetable fiber, pounds	44,682				
Cost	\$57,677				
All other materials which are components of product	\$3,932,624		\$88,074	\$25,522	\$55,074
Soap, pounds	5,908,557		605,522	3,800	5,852
Cost	\$204,485		\$23,757	\$190	\$234
Oil for preparing wool for cards or combs, gallons	396,278		92,183		60
Cost	\$91,815		\$13,057		\$25
Chemicals and dyestuffs	\$1,023,161		\$40,094	\$7,200	\$12,063
Fuel	\$738,039	\$800	\$44,644	\$4,595	\$10,453
Rent of power and heat	\$131,503	\$200	\$2,959		\$436
Mill supplies	\$312,214	\$100	\$15,042	\$1,825	\$6,080
All other materials	\$3,236,699	\$1,850	\$327,171	\$200	\$39,546
Freight	\$384,395	\$1,400	\$23,732	\$316	\$3,790
Cotton yarn made in mill for use therein, pounds	40,845,839		333,929		
Products:					
Total value	\$95,482,566	\$126,930	\$4,043,977	\$429,055	\$1,230,801
Partly manufactured products for sale—					
Woolen yarn, all wool, pounds	79,027				
Value	\$38,307				
Worsted yarn and tops, pounds	51,202				
Value	\$36,303				
Woolen or worsted yarn, union or merino, cotton mixed, pounds	4,300				
Value	\$2,080				
Cotton yarn, pounds	2,419,282				
Value	\$422,100				
Waste, pounds	335,863				
Value	\$31,267			25,372	\$765

SUMMARY BY STATES, 1900—Continued.

Illinois.	Indiana.	Maine.	Maryland.	Massachusetts.	Michigan.	Minnesota.	New Hampshire.	
	100			5,500	440	170	411	85
				576	2			86
								87
								88
								89
								90
282	272	8	70	1,855	588	94	548	91
1,975	688	126	612	6,008	2,828	476	23,174	92
								93
1	7			134	5			94
2				86	141		1	95
	17			2			4	96
	54			74			1	97
30	32			75	92		27	98
				829	255		80	99
				21	12	3	78	100
				35	62		78	101
							1	102
25				119	38			103
	18			83	3			104
60				2	9		128	105
400	6			6		18		106
891	104		100	1,006	521			107
152	151		454	211	409	75	1,015	108
597	114		58	2,130	380	100	812	109
817	180	126		294	870	188	21,014	110
						37	169	111
\$126,882	\$108,442	\$6,389	\$21,981	\$528,103	\$265,124	\$81,470	\$175,118	112
\$14,132	\$200	\$200	\$1,300	\$18,580	\$10,227	\$11,297	\$11,625	113
\$7,204	\$8,373	\$58	\$851	\$55,519	\$9,912	\$1,297	\$9,392	114
\$104,996	\$100,069	\$1,581	\$16,943	\$340,054	\$209,852	\$29,111	\$159,061	115
		\$4,600	\$2,887	\$113,950	\$35,135	\$163	\$14,540	116
\$1,261,242	\$1,200,483	\$10,810	\$347,250	\$2,910,640	\$1,459,378	\$197,184	\$1,319,170	117
	523,216			2,000	32,905		109,163	118
	\$75,832			\$1,000	\$5,387		\$48,474	119
1,514,400	690,906			1,144,940	1,402,093	37,697	711,108	120
\$205,760	\$129,323			\$252,252	\$254,169	\$18,937	\$155,076	121
764,400	588,081			671,387	1,382,584	37,697	441,685	122
								123
	300,000				505			124
	\$9,000				\$45			125
117	2,674			21,908	351	163	4,034	126
322,500	173,038			10,915,958	182,467	84,284	1,942,884	127
\$23,125	\$12,585			\$781,259	\$15,727	\$6,240	\$177,079	128
								129
111,500	92,763			65,075	154,304		668,821	130
\$18,728	\$15,037			\$9,797	\$29,266		\$124,316	131
150,000	137,515			204,755	\$3,179	24,950	128,486	132
\$18,000	\$28,518			\$68,795	\$21,683	\$2,495	\$47,541	133
					\$,100	305		134
					\$498	\$61		135
								136
				5,000				137
				\$3,400				138
								139
109,600		18,000	\$8,488	128,631	205,029	71,048	107,426	140
\$70,475		\$10,200	\$16,905	\$63,321	\$99,098	\$26,131	\$82,986	141
215,700	5,995		14,663	411,468	238,822	54,098	270,820	142
\$186,400	\$5,626		\$5,911	\$380,425	\$220,029	\$45,419	\$294,096	143
10,500	15,000		12,409	44,604	178,866	30,000	\$8,000	144
\$3,700	\$3,161		\$4,891	\$27,794	\$67,018	\$9,300	\$5,220	145
\$,817,650	945,495		1,011,889	2,610,885	1,736,671	254,988	1,230,881	146
\$571,961	\$184,487		\$214,709	\$628,635	\$860,351	\$62,271	\$229,778	147
5,600				10,114	5,271		2,000	148
\$30,000				\$31,816	\$19,004		\$3,012	149
7,000				20,570	1,263	520	300	150
\$23,000				\$64,044	\$3,908	\$1,482	\$210	151
	1,000			678				152
	\$1,200			\$678				153
					4,000			154
\$1,650	\$671,305	\$50	\$79,560	\$184,259	\$3,400	\$5,625	\$94,493	155
200,000	108,875		9,000	260,776	\$148,411	40,420	385,651	156
\$3,000	\$3,455		\$489	\$7,682	\$3,408	\$1,570	\$13,663	157
4,100	8,490		115	12,608	14,400	1,229	26,315	158
\$1,200	\$1,926		\$58	\$1,602	\$3,168	\$202	\$7,357	159
\$24,200	\$19,550		\$4,627	\$121,525	\$82,154	\$3,625	\$66,640	160
\$18,028	\$17,725	\$100	\$3,167	\$63,119	\$25,099	\$6,805	\$26,679	161
\$9,512	\$510	\$10		\$8,595	\$4,049	\$50	\$2,490	162
\$4,080	\$3,535	\$210	\$1,300	\$22,384	\$9,912	\$968	\$12,665	163
\$25,824	\$6,476	\$240	\$10,677	\$163,384	\$74,250	\$5,246	\$77,521	164
\$22,599	\$6,232		\$2,011	\$23,923	\$14,299	\$5,848	\$18,924	165
	115,000			8,555,495	154,626		457,998	166
\$2,145,429	\$2,424,304	\$29,075	\$514,093	\$6,620,257	\$2,791,257	\$410,092	\$2,592,829	167
								168
								169
								170
								171
								172
				1,880,670				173
				\$336,887				174
			1,068	172,979			5,000	175
			\$609	\$6,959			\$2,756	176

TABLE 42.—HOSTIERY AND KNIT GOODS:

	United States.	California.	Connecticut.	Delaware.	Georgia.
Product—Continued.					
Total value—Continued.					
Hosiery and knit goods—					
Hose and half hose—					
Woolen—					
179	Half hose, dozens.....	939,957	20	167,213	
180	Value.....	\$1,733,535	\$80	\$224,634	
181	Hose, dozens.....	1,176,705	50	3,998	
182	Value.....	\$2,267,681	\$400	\$14,208	
Merino or mixed—					
183	Half hose, dozens.....	957,520		125,662	690
184	Value.....	\$1,384,764		\$163,491	\$619
185	Hose, dozens.....	436,891			
186	Value.....	\$659,959			
Cotton—					
187	Half hose, dozens.....	11,352,081		25,811	149,233
188	Value.....	\$7,906,945		\$70,014	\$88,181
189	Hose, dozens.....	15,028,173		70,007	341,612
190	Value.....	\$13,275,732		\$75,717	\$228,575
191	Silk hose, dozens.....	12,572		420	
192	Value.....	\$186,413		\$4,081	
Shirts and drawers—					
193	Merino or mixed, dozens.....	2,675,416	100	298,148	
194	Value.....	\$13,293,829	\$500	\$1,999,994	
195	All wool, dozens.....	1,086,046	400	58,479	
196	Value.....	\$4,980,818	\$5,000	\$533,651	
197	All cotton, dozens.....	12,058,431		159,169	12,456
198	Value.....	\$26,882,902		\$446,073	\$20,275
199	Silk or silk mixed, dozens.....	54,807	100	4,514	
200	Value.....	\$518,045	\$4,000	\$86,318	
Combination suits—					
201	Merino or mixed, dozens.....	139,994		898	
202	Value.....	\$1,133,328		\$13,450	
203	All wool, dozens.....	9,601	50		
204	Value.....	\$201,667	\$600		
205	All cotton, dozens.....	824,632		256	
206	Value.....	\$2,240,566		\$2,828	\$28,867
207	Silk or silk mixed, dozens.....	12,728			20,000
208	Value.....	\$116,286			\$40,000
209	Leggings and gaiters, dozens.....	71,038	50	1,350	
210	Value.....	\$248,523	\$500	\$4,650	
211	Gloves and mittens, dozens.....	1,898,587		16,250	
212	Value.....	\$4,244,046		\$47,825	
213	Hoods, scarfs, nubius, etc., dozens.....	843,429	500		
214	Value.....	\$1,002,392	\$5,000		
Cardigan jackets, sweaters, athletic goods, fancy jackets, etc., dozens.....					
215	Value.....	594,090	1,200	50	
216	Value.....	\$3,498,837	\$24,000	\$2,500	
217	Shawls, dozens.....	157,622			
218	Value.....	\$328,720			
219	Fancy knit goods, wristers, etc., dozens.....	284,685	10		
220	Value.....	\$951,052	\$100		
221	Boot and shoe linings, square yards.....	10,406,440		983,295	
222	Value.....	\$2,205,003		\$98,603	
223	Astrakians, square yards.....	664,779			
224	Value.....	\$332,488			
225	Jersey cloth and stockinette, square yards.....	4,488,011		174,604	
226	Value.....	\$1,305,376		\$84,807	
227	All other products.....	\$3,774,671	\$86,800	\$144,257	
228	Amount received for contract work.....	\$273,931		\$26,876	\$18,319
Comparison of products.					
229	Number of establishments reporting for both years.....	716	8	24	7
230	Value for census year.....	\$85,163,454	\$126,980	\$4,003,802	\$429,055
231	Value for preceding business year.....	\$74,917,674	\$112,888	\$3,542,686	\$364,845
Power:					
232	Number of establishments reporting.....	882	1	24	7
233	Total horsepower.....	58,087	10	3,108	246
Owned—					
Engines—					
234	Steam, number.....	697		26	8
235	Horsepower.....	39,693		2,230	246
236	Gas or gasoline, number.....	28	1		
237	Horsepower.....	203	7		
238	Water wheels, number.....	206		19	
239	Horsepower.....	14,824		871	
240	Electric motors, number.....	71			
241	Horsepower.....	745			
242	Other power, number.....	1			
243	Horsepower.....	4			
Rented horsepower—					
244	Electric.....	1,303	3	2	
245	Other kind.....	1,315		5	
246	Furnished to other establishments, horsepower.....	393		3	45
Establishments classified by number of persons employed, not including proprietors and firm members.					
Total number of establishments.....					
247	No employees.....	921	3	25	7
248	Under 5.....	6			16
249	5 to 20.....	46	1	1	
250	21 to 50.....	165	1	3	
251	51 to 100.....	221		3	
252	101 to 250.....	175	1	3	2
253	251 to 500.....	213		11	3
254	501 to 1,000.....	74		1	
255	Over 1,000.....	20		2	
256		2			

SUMMARY BY STATES, 1900—Continued.

Illinois.	Indiana.	Maine.	Maryland.	Massachusetts.	Michigan.	Minnesota.	New Hampshire.	
117,517	31,696		16,947	32,009	28,542	14,210	217,381	159
\$184,232	\$61,927		\$30,304	\$72,444	\$101,709	\$32,830	\$356,591	180
117,726	8,450	100	7,215	21,311	27,838	6,433	667,510	181
\$254,244	\$19,520	\$500	\$12,627	\$44,358	\$115,380	\$17,508	\$805,811	182
58,334	15,300			48,149	43,140	10,283	139,038	183
\$48,564	\$25,245			\$49,225	\$87,046	\$20,175	\$230,406	184
58,333	7,450			2,160	44,134	10,551	108,899	185
\$66,040	\$12,292			\$3,240	\$103,681	\$17,779	\$103,769	286
1,193,150	86,121		172,525	223,420	173,282	3,137		187
\$600,056	\$38,754		\$145,898	\$321,076	\$152,626	\$34,140		188
469,000	198,836		26,624	2,031,921	128,726	51,365	\$569,439	189
\$390,000	\$304,659		\$25,155	\$1,384,865	\$159,532	\$30,313	\$408,301	190
				4,902				191
				\$77,112				192
2,000	3,547			75,121	2,548	6,191	145,522	193
\$20,000	\$35,470			\$234,956	\$29,567	\$41,531	\$442,271	194
16,679	13,664			64,356	2,998	967	8,000	195
\$61,288	\$163,968			\$505,379	\$61,977	\$13,067	\$76,000	196
2,000	17,742		100,000	852,167	303,955	2,272	46,058	197
\$10,000	\$48,790		\$300,000	\$2,304,872	\$420,716	\$10,600	\$102,116	198
6,300				4,500	368		1,128	199
\$72,172				\$37,830	\$11,597		\$7,724	200
				30,514	8,378	4,943	792	201
				\$231,433	\$103,569	\$75,448	\$7,128	202
14				969	1,650			203
\$840				\$23,897	\$56,418			204
				12,069	4,034	8,309	6,014	205
				\$96,406	\$51,300	\$65,679	\$24,056	206
				1,281	586			207
				\$16,200	\$27,654			208
506				4,852	3,271			209
\$1,372				\$24,987	\$12,199			210
200,381	45,798	100		51,440	298,332	495		211
\$353,711	\$87,281	\$275		\$110,449	\$733,954	\$1,055		212
				1,060		100		213
				\$6,850		\$400		214
5,310		1,000		7,476	1,090	1,616	116	215
\$59,600		\$13,500		\$116,756	\$20,020	\$23,225	\$4,211	216
				416				217
				\$1,261				218
11,000				10,841	12,074	50	4	219
\$2,600				\$26,860	\$12,148	\$500	\$40	220
				905,000				221
				\$235,750				222
				24,000	111,300			223
				\$11,843	\$61,232			224
				461,134	20,000			225
				\$163,051	\$5,000			226
\$15,510	\$1,566,998			\$32,985	\$463,932	\$24,947	\$10,949	227
\$200		\$14,800		\$92,326		\$400	\$10,700	228
14	7	1	4	44	27	7	20	229
\$2,145,429	\$2,424,304	\$8,000	\$514,093	\$6,412,114	\$2,593,430	\$405,517	\$2,407,919	230
\$1,839,794	\$2,063,379	\$8,500	\$430,650	\$5,402,826	\$1,991,189	\$353,320	\$2,208,455	231
9	7		4	46	30	7	20	232
902	1,519		160	6,725	1,482	304	2,313	233
8	11		6	46	22	6	10	234
490	585		160	4,533	1,050	250	570	235
1				1	4	2		236
10				8	32	13		237
1	6			11	4	1	27	238
160	750			1,940	257	40	1,040	239
6	14			3	4			240
90	159			35	26			241
				1				242
				4				243
150	25			103	37	1	28	244
12				102	80		75	245
	25			56				246
14	7	3	4	54	82	8	22	247
		1		1			1	248
1				6	3			249
4		1		9	3	4	4	250
4				16	8	1	2	251
	2	1		10	10	2	4	252
1	2			6	5	1	6	253
3	1			4	2		6	254
1	2			1	1			255
				1				256

TABLE 42.—HOSIERY AND KNIT GOODS:

	New Jersey.	New York.	North Carolina.	Ohio.	Pennsylvania.
1 Number of establishments	16	242	24	24	310
2 Character of organization:					
3 Individual	11	98	4	8	151
4 Firm and limited partnership	2	57	7	8	134
5 Incorporated company	3	86	18	8	93
6 Miscellaneous		1			1
7 Capital:					
8 Total	\$1,973,482	\$30,203,640	\$674,869	\$1,067,987	\$15,743,081
9 Land	\$83,000	\$1,194,978	\$16,925	\$40,320	\$721,067
10 Buildings	\$256,855	\$3,944,373	\$52,852	\$77,046	\$1,800,387
11 Machinery, tools, and implements	\$742,687	\$9,001,637	\$300,420	\$323,958	\$6,509,572
12 Cash and sundries	\$890,940	\$16,062,052	\$244,672	\$620,613	\$7,532,055
13 Proprietors and firm members	5	230	15	24	307
14 Salaried officials, clerks, etc.:					
15 Total number	61	805	64	56	688
16 Total salaries	\$78,043	\$980,764	\$46,224	\$55,356	\$638,483
17 Officers of corporations—					
18 Number	6	119	18	12	58
19 Salaries	\$17,000	\$216,411	\$12,185	\$15,050	\$89,331
20 General superintendents, managers, clerks, etc.—					
21 Total number	55	686	46	44	630
22 Total salaries	\$56,043	\$714,353	\$34,039	\$40,306	\$540,152
23 Men—					
24 Number	54	608	41	34	487
25 Salaries	\$55,243	\$676,428	\$32,901	\$37,170	\$491,717
26 Women—					
27 Number	1	78	5	10	143
28 Salaries	\$800	\$37,925	\$1,078	\$3,186	\$57,435
29 Wage-earners, including pieceworkers, and total wages:					
30 Greatest number employed at any one time during the year	2,079	30,852	1,692	1,565	24,063
31 Least number employed at any one time during the year	1,544	22,136	1,425	1,311	19,185
32 Average number	1,841	26,470	1,495	1,413	21,540
33 Total wages	\$446,608	\$8,964,097	\$255,253	\$354,369	\$5,826,783
34 Men, 16 years and over—					
35 Average number	602	8,327	317	154	3,725
36 Wages	\$187,756	\$3,612,989	\$91,029	\$74,125	\$1,599,768
37 Women, 16 years and over—					
38 Average number	1,087	17,219	785	1,229	13,739
39 Wages	\$241,974	\$5,180,572	\$123,742	\$275,317	\$3,643,505
40 Children, under 16 years—					
41 Average number	152	924	443	30	4,076
42 Wages	\$16,878	\$170,536	\$40,432	\$4,927	\$577,212
43 Average number of wage-earners, including pieceworkers, employed during each month:					
44 Men, 16 years and over—					
45 January	534	7,641	323	146	3,715
46 February	594	8,154	340	151	3,825
47 March	586	8,334	348	157	3,869
48 April	563	8,423	351	161	3,869
49 May	587	8,633	356	151	3,832
50 June	589	8,589	287	148	3,606
51 July	592	8,437	288	153	3,572
52 August	592	8,348	280	158	3,623
53 September	614	8,347	285	161	3,651
54 October	633	8,700	295	156	3,670
55 November	636	8,451	323	150	3,706
56 December	671	7,852	329	155	3,658
57 Women, 16 years and over—					
58 January	1,052	16,142	719	1,213	13,693
59 February	1,061	16,506	785	1,217	13,950
60 March	1,106	17,414	804	1,255	14,206
61 April	1,045	17,694	802	1,285	14,280
62 May	1,063	17,946	799	1,259	14,109
63 June	1,078	17,709	681	1,242	13,569
64 July	1,066	17,452	676	1,238	12,619
65 August	1,067	16,852	690	1,219	13,462
66 September	1,088	16,944	706	1,195	13,730
67 October	1,123	17,666	716	1,221	13,706
68 November	1,143	17,502	719	1,202	13,739
69 December	1,154	16,717	713	1,201	13,659
70 Children, under 16 years—					
71 January	160	863	451	25	4,173
72 February	163	893	458	27	4,160
73 March	157	959	461	30	4,238
74 April	112	947	461	32	4,271
75 May	154	956	463	35	4,266
76 June	149	943	431	38	3,963
77 July	152	939	430	38	3,835
78 August	156	918	424	34	3,837
79 September	158	907	432	29	3,966
80 October	137	937	436	28	3,964
81 November	135	920	434	25	4,100
82 December	162	900	434	25	4,085
83 Skilled operatives, average number:					
84 Spinners—					
85 Men, 16 years and over	56	892	18	4	67
86 Women, 16 years and over		42	18	16	49
87 Children, under 16 years		3	18		14
88 Knitters—					
89 Men, 16 years and over	164	1,466	62	110	1,032
90 Women, 16 years and over	157	836	178	469	5,090
91 Children, under 16 years	16	19	88		886
92 Finishers—					
93 Men, 16 years and over	35	480	45	30	854
94 Women, 16 years and over	320	7,803	95	275	2,539
95 Children, under 16 years	48	68	18		302
96 Machinery:					
97 Sets of woolen cards	26	674	5	10	31
98 Combing machines, number					
99 Of American manufacture					
100 Of foreign manufacture					
101 Spindles, number					
102 Spinning—					
103 Woolen	8,408	191,582	2,800	3,920	31,604
104 Worsted	8,408	152,622		3,920	16,493
105 Cotton		38,404	2,860		14,128

¹Includes states having less than 3 establishments in order that the operations of individual establishments may not be disclosed. The establishments are distributed as follows: Alabama, 1; Idaho, 1; Iowa, 2; Kansas, 1; Louisiana, 1; Mississippi, 1; Montana, 1; Nebraska, 1; Oregon, 1; Texas 1; West Virginia 2; Missouri, 2.

TABLE 42.—HOSIERY AND KNIT GOODS:

	New Jersey.	New York.	North Carolina.	Ohio.	Pennsylvania.
Machinery—continued.					
Spindles, number—continued.					
Doubling—					
Woolen.....		480			800
Worsted.....		76			
Cotton.....					180
Looms on woolen or worsted goods, number.....					133
Narrow, under 50 inch-reed space—					
On woolen goods.....					180
Hand—					
On woolen or worsted goods.....					3
Braiders, number.....					128
Sewing machines, number.....	382	12,282	191	170	4,612
Knitting machines, number.....	1,385	11,666	1,354	1,147	26,120
Spring-beard needle—					
Flat, ribbed.....	24	898		13	52
Flat, plain.....		860		5	319
Full fashioned, flat, ribbed.....		24			12
Full fashioned, flat, plain.....	54	77			178
Circular, ribbed.....		274		1	606
Circular, plain.....	126	2,501	22	82	1,272
Circular, hosiery, automatic.....		74	18		764
Lamb, and other variety, hand.....		40		70	66
Latch needle—					
Flat, ribbed.....	8	599	32	61	610
Flat, plain.....	1	891	15	62	770
Full fashioned, flat, ribbed.....	61	79	11		31
Full fashioned, flat, plain.....	1	84			20
Circular, ribbed.....	466	3,668	472	272	6,962
Circular, plain.....	438	547	104	194	2,013
Circular, hosiery, automatic.....	109	246	629	45	10,215
Lamb, and other variety, hand.....	52	859	56	392	1,420
Miscellaneous expenses:					
Total.....	\$122,374	\$2,199,029	\$85,920	\$99,411	\$1,884,722
Rent of works.....	\$7,148	\$144,387	\$4,803	\$14,707	\$107,905
Taxes, not including internal revenue.....	\$10,380	\$94,980	\$8,822	\$9,338	\$26,416
Rent of offices, insurance, and all sundry expenses not hitherto included.....	\$108,846	\$1,818,590	\$27,005	\$54,015	\$1,042,198
Contract work.....	\$1,000	\$141,072	\$290	\$27,351	\$708,203
Materials used:					
Total cost.....	\$997,110	\$20,218,200	\$504,027	\$807,673	\$10,928,113
Wool—					
Foreign, in condition purchased, pounds.....	88,068	710,834		15,000	582,215
Cost.....	\$62,539	\$896,246		\$3,900	\$183,224
Domestic, in condition purchased, pounds.....	67,092	4,817,495		125,500	765,699
Cost.....	\$15,166	\$1,663,529		\$57,840	\$291,936
Foreign and domestic, etc., scoured, pounds.....	183,583	4,808,101		123,750	1,069,994
Animal hair and fur—					
Mohair, pounds.....		626,146		5,053	
Cost.....		\$41,076		\$3,877	
Buffalo, cow, and other animal hair and fur, pounds.....		30,415			
Cost.....		\$2,130			
Cotton, bales.....	434	45,937	2,624	100	4,859
Pounds.....	217,148	24,837,305	1,800,378	50,000	2,218,423
Cost.....	\$19,807	\$1,068,014	\$92,764	\$3,500	\$189,401
Materials, not made in mill—					
Shoddy, pounds.....		2,105,354	20,000	70,000	106,907
Cost.....		\$199,127	\$1,400	\$10,000	\$21,065
Wool waste and noils, pounds.....	16,229	2,923,552		90,000	487,078
Cost.....	\$9,774	\$317,592		\$29,310	\$142,244
Camel, alpaca, and vicuna noils, pounds.....		29,224			
Cost.....		\$14,212			
Mohair noils, pounds.....		100			
Cost.....		\$25			
Tops, pounds.....	23,728	47,500			11,876
Cost.....	\$15,359	\$38,866			\$9,955
Yarns, not made in mill—					
Woolen, pounds.....	43,800	902,234		64,823	409,163
Cost.....	\$23,485	\$423,411		\$38,346	\$219,025
Worsted, pounds.....	232,157	1,585,842		455,669	1,115,863
Cost.....	\$223,580	\$1,221,820		\$112,277	\$561,068
Merino, pounds.....	10,000	562,040		202,934	350,011
Cost.....	\$8,000	\$232,011		\$54,774	\$92,478
Cotton, pounds.....	1,923,684	59,112,590	2,136,604	432,372	38,323,301
Cost.....	\$387,418	\$8,517,051	\$393,058	\$38,317	\$7,183,052
Silk, pounds.....	3,190	110,660		4,088	18,175
Cost.....	\$13,470	\$473,073		\$13,948	\$71,458
Spun silk, pounds.....	5,592	31,899		3,550	12,222
Cost.....	\$16,592	\$69,271		\$12,402	\$31,711
Linen, pounds.....		66,000			
Cost.....		\$48,000			
Jute, ramie, or other vegetable fiber, pounds.....		39,782			500
Cost.....		\$54,109			\$100
All other materials which are components of product.....	\$100,251	\$1,659,728	\$3,460	\$8,385	\$575,488
Soap, pounds.....	107,069	3,092,438	24,015	68,720	266,371
Cost.....	\$4,940	\$99,635	\$631	\$2,639	\$12,707
Oil for preparing wool for cards or combs, gallons.....	6,548	173,458		2,600	30,458
Cost.....	\$3,170	\$40,927		\$880	\$8,629
Chemicals and dyestuffs.....	\$27,102	\$211,687	\$53,219	\$10,683	\$271,662
Fuel.....	\$13,712	\$254,801	\$12,533	\$7,316	\$124,736
Rent of power and heat.....	\$1,300	\$38,657	\$1,229	\$2,932	\$52,607
Mill supplies.....	\$3,080	\$94,630	\$6,810	\$2,015	\$48,800
All other materials.....	\$45,852	\$1,812,802	\$12,680	\$21,819	\$477,665
Freight.....	\$3,068	\$130,165	\$3,303	\$11,968	\$60,832
Cotton yarn made in mill for use therein, pounds.....		14,497,904	968,000		328,937
Products:					
Total value.....	\$1,748,148	\$35,886,048	\$1,028,150	\$1,576,285	\$21,806,063
Partly manufactured products for sale—					
Woolen yarn, all wool, pounds.....		7,027			72,000
Value.....		\$2,307			\$36,000
Worsted yarn and tops, pounds.....		200			
Value.....		\$200			
Woolen or worsted yarn, union or merino, cotton mixed, pounds.....		2,000			
Value.....		\$700			
Cotton yarn, pounds.....		211,000			327,612
Value.....		\$33,200			\$52,018

WOOL.

SUMMARY BY STATES, 1900—Continued.

Rhode Island.	South Carolina.	Tennessee.	Utah.	Vermont.	Virginia.	Wisconsin.	All other states. ¹	
74,129							2,108	175
\$16,657							\$569	176
21,111			1,900	5,889	1,500	117,788	5,815	177
\$43,722			\$5,122	\$16,616	\$2,100	\$937,782	\$18,789	178
181,018		20,000	4,250	8,722	1,200	6,527	2,960	179
\$357,501		\$57,000	\$12,790	\$6,141	\$1,800	\$38,030	\$0,805	180
80,000				26,881	1,800	128,371	140,480	181
\$51,000				\$49,405	\$2,100	\$204,163	\$202,575	182
40,000				6,202		67,616	8,115	183
\$93,000				\$10,283		\$108,953	\$4,984	184
4,301	306,500	360,000	500	25,661	56,000	91,028	251,440	185
\$8,501	\$204,750	\$208,000		\$24,702	\$40,350	\$37,313	\$167,045	186
45,837	420,250	153,500	1,600		299,800	256,586	204,700	187
\$81,997	\$182,687	\$135,150	\$4,350		\$249,850	\$298,359	\$107,818	188
			50					189
			\$420					190
28,980			80	95,151	22,400	7,785		191
\$166,175			\$980	\$548,409	\$46,821	\$67,697		192
2,000			100	82,960		8,805	25	193
\$21,000			\$2,710	\$269,940		\$31,623	\$800	194
102,506			60	181,898	580,744	11,040		195
\$259,910			\$918	\$497,206	\$1,108,780	\$24,957		196
					1,000	130		197
					\$1,500	\$11,760		198
8,800			510			1,422		199
\$10,440			\$11,370			\$31,120		200
			350			1,060	10	201
8,000			\$8,100			\$22,568	\$200	202
\$18,000			700	17,500	40,100	5,130		203
			\$10,410	\$96,617	\$48,850	\$29,876		204
			32			216		205
			\$1,140			\$28,900		206
			14			11,810	2	207
			\$94			\$66,889	\$16	208
11,200			160			350,550	8	209
\$19,090			\$407			\$324,768	\$22	210
			103			5,744		211
			\$891			\$23,430		212
			245			38,136	60	213
			\$3,570			\$121,805	\$1,000	214
			46			9,000		215
			\$479			\$24,600		216
			30			1,376		217
			\$936			\$2,964		218
								219
5,151,255								220
\$826,851								221
98,990								222
\$30,775				1,243,000				223
\$34,269				\$280,000				224
\$493,644				\$46,416	\$1,415	\$117,606	\$2,500	225
\$215,484	\$4,800		\$750			\$1,260	\$36,742	226
			\$700					227
11	4	3	3	12	11	23	13	228
\$2,509,694	\$328,487	\$270,500	\$40,275	\$1,518,811	\$1,362,806	\$2,422,597	\$584,192	229
\$2,364,270	\$304,000	\$225,000	\$37,615	\$1,484,059	\$1,307,528	\$2,185,300	\$583,228	230
13	6	4	1	14	15	19	13	231
1,281	501	212	5	1,213	1,203	1,169	564	232
14	8	3		11	16	17	18	233
999	456	125		683	1,170	1,107	549	234
						4		235
6	2	2		14	1	2		236
180	20	37		526	25	25		237
								238
								239
								240
								241
		25		4	8	20	5	242
102	25	25	5			13	10	243
16						8		244
15	6	4	5	14	15	27	15	245
2						1		246
1			2			8	4	247
5	1		2	2	1	6	4	248
1	4		1	4	5	1	2	249
3	1	1		3	6	1	1	250
2		2		4	7	3	3	251
1		1		1	8	1	1	252
						1		253
								254

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

SILK MANUFACTURES.

(197)

SILK MANUFACTURES.

By FRANKLIN ALLEN, *Expert Special Agent.*

Silk manufacture in the United States has shown a marked development since the census of 1890. It has taken its place as one of the leading industries of the nation and along several lines has established its independence of foreign competition. The causes for these favorable conditions were manifold. Chief among them were the enterprise of the manufacturer, the

perfection and reliability of his machinery, and the wise restriction of importation during the less prosperous period of the development of the industry.

Table 1 presents a comparative summary of the industry as returned at each census from 1850 to 1900, inclusive, with the percentages of increase for each decade.

TABLE 1.—COMPARATIVE SUMMARY, 1850 TO 1900, WITH PER CENT OF INCREASE FOR EACH DECADE.

	DATE OF CENSUS.						PER CENT OF INCREASE.				
	1900	1890	1880	1870	1860	1850	1890 to 1900	1880 to 1890	1870 to 1880	1860 to 1870	1850 to 1860
Number of establishments.....	483	472	382	86	139	67	2.3	28.6	344.2	138.1	107.5
Capital.....	\$81,082,201	\$51,007,537	\$19,125,300	\$6,281,180	\$2,926,980	\$678,300	59.0	166.7	206.9	112.9	331.5
Salaried officials, clerks, etc., number.....	2,657	2,531	(3)	(3)	(3)	(3)	78.5	.....	.....	.....	.....
Salaries.....	\$3,134,352	\$1,917,877	(3)	(3)	(3)	(3)	63.4	.....	.....	.....	.....
Wage-earners, average number.....	65,416	49,382	31,337	6,649	5,435	1,723	32.5	57.6	371.8	22.3	215.4
Total wages.....	\$20,982,194	\$17,762,441	\$9,146,705	\$1,942,286	\$1,050,224	\$297,416	18.1	94.2	370.9	84.9	253.1
Men, 16 years and over.....	24,206	17,602	9,375	1,734	1,585	503	37.5	87.8	440.7	9.4	215.1
Wages.....	\$10,699,483	\$9,349,531	(3)	(3)	(3)	(3)	14.4	.....	.....	.....	.....
Women, 16 years and over.....	34,797	28,914	16,396	3,529	3,850	1,220	20.3	76.3	364.6	18.3	215.6
Wages.....	\$9,377,096	\$7,970,065	(3)	(3)	(3)	(3)	17.7	.....	.....	.....	.....
Children, under 16 years.....	6,418	2,866	5,566	1,386	(3)	(3)	123.8	148.5	301.6	.....	.....
Wages.....	\$905,015	\$442,845	(3)	(3)	(3)	(3)	104.4	.....	.....	.....	.....
Miscellaneous expenses.....	\$10,264,208	\$4,259,023	(4)	(4)	(4)	(4)	141.0	.....	.....	.....	.....
Cost of materials used.....	\$62,406,665	\$51,004,425	\$22,467,701	\$7,817,559	\$3,901,777	\$1,093,860	22.4	127.0	187.4	100.4	256.7
Value of products, including amount received for contract work.....	\$107,256,258	\$87,298,454	\$41,033,045	\$12,210,062	\$6,607,771	\$1,809,476	22.9	112.8	236.0	84.8	265.2
Raw silk used, pounds.....	9,760,770	6,376,881	2,680,482	684,488	462,965	(4)	53.1	187.0	293.1	47.8	.....

¹ Decrease.

² Includes proprietors and firm members, with their salaries; number only reported in 1900, but not included in this table. (See Table 23.)

³ Not reported separately.

⁴ Not reported.

Table 1 shows that in the items of capital, wages, materials, and products the industry has maintained a constant increase from 1850 to 1900. In considering such increases the differences in the method and scope of the inquiries at the several censuses should be taken into account. The reports on silk manufacture at prior censuses included establishments engaged in the manufacture of hosiery and knit goods, braids and trimmings, and other small goods in which silk was the fiber of chief value, but in which cotton or wool or both may also have been used. At the present census the statistics of hosiery and knit goods appear in a separate report, and only such braids and trimmings products and other small goods in the manufacture of which silk is the material of predominant value are included in this report. To what extent these differences may have affected the percentages of increase between 1890 and 1900 can not be accurately determined.

In the principal items of inquiry the absolute increase shown by the statistics for 1900, as compared with those for 1890, is less than it was during the preceding decade and, with the exception of capital invested, less than it was in the decade 1870 to 1880. A noteworthy and striking fact shown in the foregoing table is that the value of the products in 1900 was nearly sixty times as great as it was in 1850.

Table 2 presents the statistics of establishments man-

ufacturing a product exceeding \$500 in value and those reporting a product of less than \$500; the latter were not reported at previous censuses and therefore are omitted from the other tables and their use confined to Table 2.

In addition to the 488 active establishments in the United States during the census year, with a capital of \$81,097,276, shown in Table 2, there were 22 idle establishments, with a capital of \$427,491, distributed by states as follows:

STATES.	Number of idle establishments.	Capital.	SPINDLES.			LOOMS.		
			Total.	Throwing.	All other.	Total.	Broad.	Ribbon.
Total.....	22	\$427,491	13,534	4,050	9,484	211	183	23
Connecticut.....	1	20,300	.....	.....	.....	.....	.....	.....
Massachusetts.....	2	19,000	.....	.....	.....	.....	.....	.....
New Jersey.....	11	57,810	1,854	250	1,104	185	173	12
New York.....	1	95,000	.....	.....	.....	.....	.....	.....
Pennsylvania.....	7	235,381	12,180	3,800	8,380	26	10	16

Adding the statistics of active establishments to those shown in the foregoing statement gives a total of 510 active and idle establishments in the United States, with a capital of \$81,524,767; total number of throwing spindles, 1,053,674; accessory spindles, 952,122; broad looms, 37,174; and narrow fabric looms, 7,469.

TABLE 2. SUMMARY OF ESTABLISHMENTS WITH A PRODUCT EXCEEDING \$500 AND THOSE WITH A PRODUCT OF LESS THAN \$500.

CLASSES.	Number of establishments.	Capital.	Proprietors and firm members.	WAGE-EARNERS.		Miscellaneous expenses.	COST OF MATERIALS USED.		
				Average number.	Total wages.		Total.	Textile.	All other.
Total.....	488	\$81,097,276	482	65,420	\$20,982,680	\$10,264,444	\$62,406,800	\$68,093,267	\$4,313,533
Establishments with a product exceeding \$500...	483	81,082,201	477	65,416	20,982,194	10,264,208	62,406,665	68,093,249	4,313,416
Establishments with a product of less than \$500...	5	15,075	5	4	486	286	186	18	117

CLASSES.	Raw silk thrown into organzine or tram, on commission (pounds).	Value of products, including amounts received for contract work.	NUMBER OF SPINDLES.			NUMBER OF LOOMS.		
			Total.	Throwing.	All other.	Total.	Broad.	Ribbon.
Total.....	4,300,059	\$107,257,376	1,992,262	1,049,624	942,638	44,482	36,991	7,441
Establishments with a product exceeding \$500...	4,298,659	107,256,258	1,987,404	1,045,304	942,100	44,480	36,989	7,441
Establishments with a product of less than \$500...	1,400	1,118	4,858	4,320	538	2	2	.....

MATERIALS AND PRODUCTS TWICE INCLUDED.

Table 3 is a comparative summary by states for 1890 and 1900 of the cost of materials and value of products as reported, the cost and value, respectively, of the materials and products twice included, and the cost of materials and value of products exclusive of duplications.

The amount shown in Table 3 as the value of products as reported, \$107,256,258, is in excess of the merchant-

able product of the silk industry in 1900. The value of finished goods is \$92,451,212. The tabulation has been made in the form herein presented in order to show statistics comparable with those of the censuses of 1880 and 1890, which included in their totals thrown silks and other materials which, while completed products to the throwster, are materials to the weaver and the trimmings manufacturer. They were designated in subsidiary tables of those censuses as "materials twice

TABLE 3.—ELIMINATION OF MATERIALS AND PRODUCTS TWICE INCLUDED: 1890 AND 1900.

STATES.	Year.	MATERIALS.			PRODUCTS.		
		Cost of materials as reported.	Cost of materials twice included.	Cost of materials exclusive of duplications.	Value of products as reported.	Value of products twice included.	Value of products exclusive of duplications.
United States.....	1900	\$62,406,665	\$11,840,267	\$50,566,398	\$107,256,258	\$14,805,046	\$92,451,212
	1890	51,004,425	15,537,520	35,466,905	87,298,454	18,143,855	69,154,600
California.....	1900	146,219	8,420	137,799	255,902	9,300	246,602
	1890	146,406	9,500	142,906	271,912	5,600	266,312
Connecticut.....	1900	7,198,008	557,718	6,640,295	12,378,981	1,041,714	11,337,267
	1890	6,201,876	889,756	5,312,120	9,788,951	1,665,390	8,123,561
Illinois.....	1900	187,514	51,042	136,472	421,088	29,893	391,195
	1890	311,855	.....	314,855	785,845	.....	785,845
Maryland.....	1900	34,305	.....	34,305	100,361	.....	100,361
	1890	.....	.....	.....	.....	.....	.....
Massachusetts.....	1900	3,823,963	354,697	3,469,266	5,957,532	290,780	5,666,802
	1890	3,251,893	746,175	2,505,718	5,557,569	945,610	4,611,959
New Jersey.....	1900	21,631,118	5,704,322	15,926,796	39,966,662	2,268,720	37,697,942
	1890	17,908,883	5,205,501	12,703,382	30,760,371	5,354,389	25,405,982
New York.....	1900	6,570,037	1,144,973	5,425,064	12,706,246	751,034	11,955,212
	1890	10,174,818	1,318,742	8,856,076	19,417,796	1,681,481	17,736,315
North Carolina.....	1900	99,403	.....	99,403	135,354	64,461	70,893
	1890	.....	.....	.....	.....	.....	.....
Ohio.....	1900	13,983	.....	13,983	33,927	.....	33,927
	1890	.....	.....	.....	.....	.....	.....
Pennsylvania.....	1900	10,834,869	8,979,831	15,905,038	31,072,926	9,359,279	21,713,647
	1890	12,094,389	7,017,604	5,076,785	19,357,546	7,953,323	11,404,223
Rhode Island.....	1900	818,561	37,730	780,831	1,811,333	22,204	1,289,089
	1890	149,763	68,242	81,521	229,062	94,062	135,000
Virginia.....	1900	720,525	.....	720,525	981,680	940,776	40,901
	1890	.....	.....	.....	.....	.....	.....
All other states.....	1900	1,326,448	1,539	1,324,909	2,068,554	26,845	2,041,709
	1890	713,254	238,000	475,254	995,114	444,000	551,114

¹Included in "all other states."

²Includes establishments distributed as follows: Delaware, 2; Maine, 1; Maryland, 2; Michigan, 2; New Hampshire, 2; Utah, 2.

³Includes establishments distributed as follows: Maine, 1; Michigan, 1; Missouri, 1; North Carolina, 1; Virginia, 1.

included," but in order to avoid the erroneous impression which might be conveyed by the figures without an explanation, and make clear the reasons for this duplication and consequent elimination, the conditions under which organzine and tram are manufactured are stated as follows:

1. Raw silk is purchased by a silk manufacturer who has the same thrown into organzine and tram in a plant owned by him, but located elsewhere than in proximity to his factory, possibly in another state. In this case the raw silk and the organzine and tram are reported as material and product, respectively, by the throwing plant, and the quantity and value of the organzine and tram thus thrown is also reported as material by the manufacturer at his weaving plant, and duplication occurs.

2. Raw silk is purchased by a silk manufacturer and thrown into organzine and tram in larger quantities than his own factory consumption requires, and this excess is reported in the products as organzine and tram for sale to other silk manufacturers. In this case the organzine and tram are also reported as material by the purchasing silk manufacturers, and duplication occurs.

3. Raw silk is purchased by a throwster on his own account and thrown into organzine and tram for sale to silk manufacturers. In this case the raw silk and organzine and tram are reported by the throwster as material and product, respectively, of his mill, and also as material (organzine and tram) by the purchasing silk manufacturer, and duplication occurs.

4. Raw silk is purchased by a silk manufacturer, who has the same thrown into organzine and tram in his silk factory or in a plant owned by him in close proximity thereto. In this case the raw silk is reported as material, and the quantity and value of the organzine and tram is not shown, the conversion of the raw silk thereto being only one of the several stages of the manufacturing process for the finished product, and no duplication occurs.

5. Raw silk is purchased by a silk manufacturer, who has the same thrown, on contract, at a throwing mill not owned or operated by himself. In this case the cost of the raw silk is not reported by the throwster, but only by the manufacturer in the report for his silk factory, and no duplication occurs. (The quantity of raw silk thus thrown by commission throwsters was 4,298,659 pounds, 2,331,456 pounds being thrown into organzine and 1,967,203 pounds into tram.)

Large quantities of spun silk are imported and a very considerable quantity is also manufactured in the United States. The spun silk manufactured in the United States is reported under material as silk waste, and the manufactured product as spun silk by the mill producing the same for sale, and when purchased and used by a silk manufacturer as material is necessarily duplicated. The amount of this duplication can not be more

accurately determined than by taking the amount thus reported "for sale" and deducting its value from materials and products alike.

A considerable quantity of manufactured floss and fringe silk is also used by silk trimmings manufacturers, not the product of their own factories, which is properly charged as materials. A duplication to that extent occurs and has therefore been eliminated by deducting its cost from materials and products alike.

Briefly, the elimination of "materials and products twice included" has been accomplished as follows:

1. The cost and value of organzine and tram are deducted as reported, under both "materials" and "products."

2. The value of spun silk reported as a product is deducted from both materials and products.

3. The cost of fringe and floss reported as material is deducted from both materials and products.

4. The amount received for contract work, in all cases, is deducted from the value of the products.

The results obtained are termed in Table 3 "cost of materials, exclusive of duplications," and "value of products, exclusive of duplications." The above method has been followed for the purpose of presenting results comparable with those published in reports of silk manufacture at former censuses. The results as presented in Table 3 will differ from the net value of products presented in the general tables of manufactures. The true "net value" is obtained by deducting from the gross value of products the total amount reported as the cost of materials used in partially manufactured form.

In Table 3, \$11,840,267 is estimated to represent the cost of "materials twice included" and \$14,805,046 to represent the value of "products twice included" in 1900. At the census of 1890 the corresponding allowances were \$15,537,520 and \$18,143,855 for materials and products, respectively. The following statement shows the items in detail, for the United States, of materials and products twice included at the present census:

CLASSES.	MATERIALS.		PRODUCTS.	
	Pounds.	Value.	Pounds.	Value.
Organzine and tram ...	2,338,464	\$10,539,632	12,468,387	\$11,167,191
Fringe and floss, bought as such and used in manufacture	67,984	274,408	67,984	274,408
Spun silk made for sale. Amount received for contract work	437,459	1,026,227	437,459	1,026,227
				2,337,220
Total	2,843,907	11,840,267	2,973,830	14,805,046

¹ Organzine and tram "made for sale."

It should be noted that in many instances the products of partial manufacture reported in one state go to some other state to be completed. Hence, in some cases the gross product of a state more nearly represents the

industry in that state than would its finished products. For instance, the value of the gross product of Pennsylvania, amounting to \$31,072,926, is much nearer the total value of its manufactures of silk than the sum of \$21,713,647, the net value of its products, because a considerable portion of the thrown silk in the state went to other states to be woven into finished products. The relative figures of the number of looms and spindles in Pennsylvania and New Jersey are instructive on this point, the fact being that a considerable number of "throwing" plants in Pennsylvania are operated for account of weaving plants in New Jersey, as explained elsewhere in this report. Thus, it appears that there were 17,641 broad power looms and 2,916 ribbon power looms reported in New Jersey as against 11,135 and 1,785, respectively, in Pennsylvania, while the number of throwing spindles was 275,516 in the former state and 611,670 in the latter.

IMPORTS AND CONSUMPTION OF SILK AND SILK GOODS.

Silk factories depend entirely upon imports for their raw silk material. The quantity and value of the imports, raw silk, spun silk, raw silk waste, and manufactured silk goods for 1850, 1860, 1870, 1880, and each fiscal year between 1880 and 1900, inclusive, together with the value of silk of domestic manufacture at each census from 1850 to 1900, inclusive, are given in Table 4.

Table 4 shows the silk industry of the United States in several of its more important aspects. As the

import values of manufactured silk goods are foreign invoice values, an average of about 70 per cent should be added for freight, revenue duty, importers' profits, and occasional advances on imports, to represent cost to consumers. It should be stated in this connection that the figures of import values of manufactured goods at the several periods include the value of sundry articles, of which silk is the chief or only component material, such as silk caps, bonnets, and hats, silk wearing apparel, umbrellas and parasols of silk, and silk buttons.

The value of the domestic manufacture in the last six decennial census periods, when added to the value of foreign manufactured goods imported, presents in the most graphic way the volume of the consumption of silk goods in the United States. This consumption is shown by the table to be steadily increasing.

In 1850 there were 67 establishments reported as engaged in the manufacture of silk goods. Their total product was valued at \$1,809,476, an average of \$27,007 for each establishment. In 1900 the establishments had increased in number to 483 and the value of the products to \$107,256,258, an average product of \$222,063 for each establishment. The imports of raw silk in 1850 amounted to 120,010 pounds, valued at \$401,385, and it is probable that the total amount was consumed in the silk mills. The imports of raw silk for 1900 amounted to 11,259,310 pounds, valued at \$44,549,672, exceeding those for any prior fiscal year of the Government.

TABLE 4.—COMPARATIVE SUMMARY OF IMPORTED SILK MATERIALS, AND OF IMPORTED AND DOMESTIC MANUFACTURED SILK GOODS, 1850 TO 1900.¹

FISCAL YEAR ENDING JUNE 30—	IMPORTED SILK MATERIALS.						VALUE OF MANUFACTURED SILK GOODS.		
	Total cost.	Raw silk.		Spun silk.		Raw silk waste, including cocoons and noils.		Imported. ²	Domestic.
		Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.		
1850.....	\$401,385	120,010	\$401,385	(4)	(4)	.....	.....	\$17,694,658	\$1,809,476
1860.....	1,340,676	297,877	1,340,676	(4)	(4)	.....	.....	32,961,120	6,607,771
1870.....	3,055,626	588,589	3,017,958	7,521	\$37,668	.....	.....	24,219,981	12,210,662
1880.....	18,385,184	2,562,236	12,024,699	37,239	111,999	.....	.....	31,348,948	41,033,045
1881.....	11,509,008	2,550,103	10,888,264	19,325	60,830	240,310	559,914	32,316,306	.....
1882.....	13,610,072	2,879,402	12,890,392	14,726	47,296	841,867	672,384	38,280,955	.....
1883.....	15,269,984	3,258,370	14,043,540	48,812	126,832	1,477,736	1,099,812	33,180,280	.....
1884.....	13,427,851	3,222,546	12,481,496	91,750	189,722	1,062,342	756,633	37,840,852	.....
1885.....	13,112,641	3,424,076	12,421,739	78,890	226,412	884,832	464,490	27,880,386	.....
1886.....	18,696,578	4,754,626	17,232,505	178,883	442,310	2,068,434	1,021,763	27,613,545	.....
1887.....	20,079,384	4,599,574	18,687,245	172,617	441,299	1,428,517	950,840	30,822,978	.....
1888.....	20,509,092	5,178,840	19,151,208	197,139	578,950	1,196,482	778,034	32,368,678	.....
1889.....	19,900,955	5,320,646	18,544,025	274,362	659,045	1,315,478	787,885	34,297,684	.....
1890.....	25,209,175	5,943,390	23,285,099	411,621	833,644	1,567,080	1,040,432	37,363,143	87,298,454
1891.....	20,897,502	4,917,688	17,994,654	356,706	1,821,421	1,348,941	1,081,427	35,478,966	.....
1892.....	26,152,709	7,521,342	24,321,494	489,652	1,093,334	1,312,707	737,831	30,348,796	.....
1893.....	31,175,837	7,422,436	29,055,557	758,502	1,388,851	1,075,047	781,429	36,581,097	.....
1894.....	16,953,572	4,956,875	15,627,822	437,428	719,390	945,610	606,360	23,441,139	.....
1895.....	23,865,675	7,974,810	22,029,068	843,647	1,239,619	1,341,610	596,933	29,783,529	.....
1896.....	27,762,032	8,000,621	26,246,902	782,796	998,604	1,868,366	516,526	25,629,128	.....
1897.....	20,001,899	6,513,612	18,496,944	801,336	1,083,616	1,479,832	421,339	25,433,477	.....
1898.....	33,287,833	10,315,162	31,446,800	956,974	1,177,817	1,772,789	663,266	21,457,249	.....
1899.....	34,442,215	9,691,145	31,827,061	1,703,794	1,902,538	1,559,238	652,566	23,063,916	.....
1900.....	48,884,987	11,259,310	44,549,672	2,386,947	3,555,227	1,814,405	780,088	26,303,534	107,256,258

¹ Figures for imported goods, both raw and manufactured, derived from reports of the United States Treasury Department.

² Not including spun silk.

³ Estimated from current prices, only the value being on record.

⁴ Not separately reported.

During the fiscal years 1898, 1899, and 1900 there was imported an annual average of 10,421,872 pounds of raw silk, valued at \$35,941,178. In the census year 1900, as shown by Table 23, there were consumed in the manufacture of silk goods and silk braids and trimmings 9,760,770 pounds of raw silk, costing \$40,721,877. Making allowance for the amount carried over as raw material from year to year, and the considerable quantity used by the wool and cotton textile industries, the consumption of raw silk as obtained for this report agrees closely with the quantities of the imports as reported by the Treasury Department.

During the year 1880 the manufactured silk goods of all varieties imported into the United States were valued at \$31,348,948 (foreign value). The gross value of manufactured silk products for the United States for that year was \$41,033,045. In 1890 the value of the imports of silk manufactures was \$37,363,143, while the gross value of the domestic product was \$87,298,454. In 1900 these values were \$26,803,549 and \$107,256,258, respectively.

In 1860 the silk goods made in the United States as compared with the entire consumption was only 13 per cent. The percentage rose to 38 in 1880,¹ to 55 in 1890,² and to 70 in 1900. In broad silk fabrics the domestic production in 1900 was 67.3 per cent of the total estimated consumption of such goods. America now produces 85 per cent of the annual consumption of silk ribbons, the value of imported ribbons representing only 15 per cent. The classes of goods now principally imported from Europe are high novelties, handmade silk velvets, and handmade silk laces which are not as yet made to any appreciable extent here, but, without doubt, will be made in due time. From Japan we are also receiving Habutai and Kaiki silks which, by reason of their extreme lightness in weight, have been in considerable demand in the American markets. American manufacturers expect, however, that international trade returns will show a considerably diminishing percentage of this class of goods in the next few years. The census tables show a production of 8,970,933 yards of velvets and plushes made in the United States by power-loom weaving in the census year. The value of this product is \$4,959,971, which is 55.5 per cent of the annual consumption. The annual import of foreign manufactured velvets and plushes during the census year was \$2,335,576, foreign invoice value, and allowing 70 per cent additional for revenue duties, freight, insurance, and importers' profits, we find the approximate value to the consumers to be \$3,970,479. The present relative position of the silk industry in the United States in the manufacture of broad silks, velvets and plushes, and ribbons, to the consumption of such silk goods annually, is shown by the following statement:

¹Tenth Census of the United States, Report on Silk Manufacture, by William C. Wyckoff, special agent, page 21.

²Eleventh Census of the United States: Report on Manufacturing Industries, Part III, page 215.

	TOTAL.		BROAD SILKS, ¹	
	Value.	Per cent.	Value.	Per cent.
Domestic production	\$75,579,966	70.0	\$52,152,816	67.3
Imports ²	32,439,342	30.0	25,379,055	32.7
Consumption	108,019,308	100.0	77,531,871	100.0

	VELVETS AND PLUSHES.		RIBBONS.	
	Value.	Per cent.	Value.	Per cent.
Domestic production	\$4,959,971	55.5	\$18,467,179	85.7
Imports ²	3,970,479	44.5	3,089,808	14.3
Consumption	8,930,450	100.0	21,556,987	100.0

¹ Does not include production of tapestry and upholstery silks, value \$1,009,835.

² Selling value to consumer by adding to invoice value 70 per cent for revenue duties, freight, insurance, and importers' profits.

In the above statement no account is taken of manufactured silk goods exported, such exports being inconsiderable. The domestic production of sewing silks and machine twist, 1,465,575 pounds, valued at \$9,274,800, practically represents the entire American consumption, there being no importations of any consequence.

MATERIALS AND PRODUCTS, 1890 AND 1900.

The growth of the silk manufacture during the last half of the century has been in keeping with the growth of other industries, and the returns of the Twelfth Census indicate the continued prosperity of the industry. The increase during the past ten years in the quantity and total cost of the different materials used and in the value of goods manufactured is shown in Table 5.

TABLE 5.—COMPARATIVE SUMMARY OF MATERIALS AND PRODUCTS: 1890 AND 1900.

	1900	1890	Per cent of Increase.
Number of establishments	483	472	2.8
Materials used:			
Total cost	\$62,406,665	\$51,004,425	22.4
Raw silk	9,760,770 pounds	8,376,581	53.1
Waste silk, cocoons, and noils	\$40,721,877 cost	\$20,087,871	56.1
Organzine and tram	1,667,195 pounds	1,557,618	22.8
Spun silk	\$784,839 cost	\$1,100,008	135.6
Other silk materials	2,338,484 pounds	3,305,372	129.3
Yarns, other than silk	\$10,539,632 cost	\$16,518,979	136.2
Fuel and rent of power and heat	1,650,291 pounds	(?)	
All other materials, including mill supplies and freight	\$3,406,659 cost	(?)	
Products:			
Total value	74,040 pounds	744,223	118.3
Organzine and tram made for sale	\$284,788 cost	\$2,638,242	39.9
Spun silk yarn made for sale	7,116,728 pounds	5,824,960	23.5
Machine twist and sewing, knitting, embroidery, fringe, floss, and wash silks	\$2,406,354 cost	\$2,327,684	3.4
Dress goods, figured and plain, and other silk broad goods, except velvets and plushes	\$384,002 cost	\$485,516	40.9
Velvets and plushes	\$3,629,414	\$1,840,025	97.2
Tapestries, curtains, and other upholstery broad goods	\$107,256,258	\$87,298,454	22.9
Ribbons and laces	\$11,107,191	\$16,880,366	133.8
Braids and bindings	\$1,026,227	\$1,263,489	118.8
Dress, cloak, millinery, and military trimmings	\$10,246,190	\$8,917,844	14.9
All other products	\$52,152,816	\$22,955,750	127.2
Received for contract work	\$4,959,971	\$3,141,026	57.9
All other products	\$1,009,835	\$8,712,382	172.8
All other products	\$19,270,283	\$17,843,197	11.1
All other products	\$1,522,565	\$2,771,382	145.1
All other products	\$2,295,010	\$8,554,566	173.2
All other products	\$1,268,950	\$1,753,502	127.8
All other products	\$2,337,220	(?)	

¹ Decrease.

² Not separately reported.

It will be noted that Table 5 shows an apparent decrease of 29.3 per cent in quantity and 36.2 in cost of organzine and tram as materials used and 33.8 per cent in value as products manufactured. The explanation for this seeming anomaly lies in the fact that the organzine and tram manufactured by commission or custom throwsters are not included in the statistics for 1900 presented in this report, either as materials used or as products manufactured, although so included in 1890. Therefore, in a comparison of the two censuses, the 2,331,456 pounds of raw silk thrown into organzine and the 1,967,203 pounds thrown into tram by commission throwsters in 1900 should be taken into consideration. As elsewhere explained, the small increase in the number of establishments is partly accounted for by the elimination from this report of 39 braids and trimmings and 78 hosiery and knit goods manufacturers.

The industry has undergone many changes since 1850, when the variety of its products was very limited. The demands of fashion, the adaptability of silk to fancy designs, and the varying proportions in which silk may be used with other materials in fabrics of all kinds have resulted in an almost unlimited variety of products. Much of the silk spun is now consumed in cotton and woolen mills, while the silk mills consume large quantities of cotton and woolen yarns.

There were 1,667,195 pounds of silk waste and noils consumed in the industry in the census year, from which were produced 661,292 pounds of spun-silk yarn. Of this quantity 437,459 pounds were made for sale to textile manufacturers and 223,833 pounds consumed in

manufacturing by the spinners of the yarn. Adding 1,550,291 pounds reported as spun silk used as materials, there were 1,774,124 pounds of spun silk consumed by the silk industry in the census year.

The quantity of spun-silk yarns of all grades imported in the fiscal year ending June 30, 1900, was 2,336,946 pounds; adding thereto the amount made in the United States during the census year, 661,292 pounds, we find the total for distribution among the textile industries to be 2,998,238 pounds.

The quantities of raw silk and spun-silk yarns consumed by the textile industries of the United States are reported as follows for the censuses of 1890 and 1900:

	RAW SILK.		SPUN-SILK YARNS.	
	1890	1900	1890	1900
Silk manufacture.....	<i>Pounds.</i> 6,376,881	<i>Pounds.</i> 9,760,770	<i>Pounds.</i> (¹)	<i>Pounds.</i> 21,774,124
Cotton manufacture.....	32,851	342,425	18,538	218,255
Wool manufacture ²	166,709	70,073	88,785	253,811
Hosiery and knit goods.....	77,597	162,424	42,744	108,823

¹Not reported.

²Includes 223,833 pounds remanufactured into other silk goods by the spinners.

³Including woolen goods, worsted goods, fur hats, felt goods, and carpets.

Table 6 indicates the extent of the further interchange of fibers for the silk industry, and shows the quantity and cost of the different textile materials reported at the censuses of 1890 and 1900 and the cost of all other materials (fuel, mill supplies, etc.), and the percentage which each item forms of the total.

TABLE 6.—COMPARATIVE SUMMARY OF MATERIALS: 1890 AND 1900.

	MATERIALS USED.				PER CENT OF TOTAL.			
	Pounds.		Cost.		Pounds.		Cost.	
	1900	1890	1900	1890	1900	1890	1900	1890
Total materials.....	22,507,488	17,409,054	\$62,406,665	\$51,004,425	100.0	100.0	100.0	100.0
Silk materials.....	15,890,760	11,784,094	55,636,895	46,351,200	68.4	67.7	89.2	90.9
Textile yarns other than silk.....	7,116,728	5,624,960	2,406,354	2,327,684	31.6	32.3	3.9	4.6
Cotton yarn.....	6,444,208	(¹)	1,830,550	(¹)	28.6	.....	2.9	.....
Mercerized cotton yarn.....	219,861	(¹)	165,683	(¹)	1.0	.....	0.3	.....
Wool yarn.....	239,461	(¹)	167,770	(¹)	1.1	.....	0.3	.....
Mohair yarn.....	104,810	(¹)	107,365	(¹)	0.4	.....	0.2	.....
Other yarns.....	108,388	(¹)	134,986	(¹)	0.5	.....	0.2	.....
All other materials.....	.....	.....	4,313,416	2,325,541	.....	.....	6.9	4.5

¹Not reported separately in 1890.

Table 6 shows but slight differences in the several percentages at the two census periods. Owing to the high cost of silk per pound, the textile yarns other than silk form a much smaller percentage of the total cost of materials than of the total quantity.

The statistics for 1890, as presented in this table, show that establishments engaged in the manufacture of silk and silk goods used silk materials (raw, waste, spun, organzine, tram, etc.) and yarns other than silk amounting to 17,409,054 pounds. Of this total

quantity, silk materials formed 67.7 per cent and yarns other than silk 32.3 per cent. In 1900 the same class of materials amounted to 22,507,488 pounds, of which quantity silk materials formed 68.4 per cent and yarns other than silk 31.6 per cent. The total cost of these materials in 1890 was \$48,678,884, of which cost silk formed 95.2 per cent and yarns other than silk 4.8 per cent, while the cost in 1900 was \$58,093,249, of which amount silk formed 95.9 per cent and yarns other than silk 4.1 per cent.

SEWING SILK AND MACHINE TWIST.

Connecticut continues in the lead in the production of sewing silks and machine twist, its proportion being 47.1 per cent of the total quantity manufactured. Massachusetts is second, its proportion being 30 per cent. These two states produced 77.1 per cent of the total annual output of this class of goods. The following statement shows the output in pounds, for the census year, of the several states in the order of their importance as manufacturers of these products:

	Total.	Sewing, embroidery, and wash silks.	Machine twist.
	Pounds.	Pounds.	Pounds.
United States.....	1,465,575	477,658	987,917
Connecticut.....	690,455	145,032	545,423
Massachusetts.....	439,664	170,423	269,241
Michigan.....	124,535	64,000	60,535
Pennsylvania.....	117,951	74,475	43,476
New York.....	65,028	18,528	46,500
California.....	27,942	5,200	22,742

There is very little competition from abroad with domestic manufacturers of sewing silk and machine twist. In fact, the United States product is universally acknowledged as superior in finish and purity of dye to that of any other country, chiefly because only the best Japan and China filatures, dyed unweighted, are used. It is noteworthy that at the Paris Exposition of 1900, the grand prix d'honneur, the highest award given, was awarded to an American exhibitor of this class of silks.

Among the most important changes in the methods of business in this branch of the industry during the past decade are the following:

1. An increase in the use of machine twist for manufacturing purposes has been effected by shortening the lengths from 1-ounce or large spools to 200 and 100 yard spools. While this is a decided convenience and benefit to the smaller manufacturing trade, it entails greater cost to the silk manufacturer in the additional spooling and spools and in preparing the goods for the market. In the early days of the industry—say forty years ago—sewing silk was universally put up in skeins, but with the introduction of sewing machines and their use in the manufacture of clothing and shoes, that practice is now a thing of the past, fully 99 per cent of all machine and sewing silk being, at this time, put up on spools.

2. A decided tendency toward finer sizes of thread. Formerly the average size used was about size A, representing 1,000 yards per ounce. To-day the principal goods sold are double 0 (00), representing 1,600 yards per ounce.

While these changes have been a benefit to the consumer, they subject the silk manufacturer to the additional expense of spooling up 96 or 192 spools instead of 12, and to the further disadvantage of being able to

“throw” only 300 pounds of 00 in the time sufficient to “throw” 480 pounds A. The increasing quantities used in the manufacture of clothing and leather goods necessitates the use of an increased quantity of fine sizes for certain parts of the work.

These commercial changes, which are a direct loss to the manufacturer through the increase of his expense account, are indicative of his controlling desire to lead the trade in the direction of greater economies in the distribution of his product, and for that reason are noteworthy.

About two-thirds of the output of machine twist is sold to manufacturers of clothing, shoes, cloaks, etc., one-third being sold to the dry-goods trade in small wares, such as spool silks for the retail dressmaking trade. The manufacturing trade absorbs about one-half of sewings, the remaining one-half being sold as small wares in embroidery silks, knittings, and wash embroidery silks. The sale of embroidery silks has increased phenomenally during the decade, owing to the great vogue of art embroideries for decorative purposes.

Other noticeable features of the decade have been marked improvements in the luster and evenness of the thread, firmness of the twist, and great variety of brilliant, plain, and ombre or shaded colors, perfectly blended. In sewing silks alone a full assortment of colors now runs up to 200.

The following statement illustrates the growth of this branch of the industry, and gives the percentage of increase in quantities produced since the census of 1860:

CENSUS YEAR.	Pounds.	Value of product.	Per cent of increase in quantity.
1850.....	(1)	\$1,200,426	.....
1860.....	409,429	(1)	.....
1870.....	516,621	(1)	26.2
1880.....	791,525	6,783,855	53.2
1890.....	1,119,825	7,068,213	41.5
1900.....	1,465,575	9,274,800	30.9

¹ Not reported separately.

² All sewing silk; machine twist first made in 1852.

³ Sewing silk and machine twist only.

BROAD SILK WEAVING.

The salient features of the development of broad silk weaving in the United States during the past decade are four in number:

1. The production of silk taffetas in both black and colors by power looms. This method of producing these goods was first employed in the United States, the production being on a scale of sufficient commercial importance to entitle this country to credit for its success. Later, power loom weaving of taffetas was adopted in Europe as a profitable commercial proposition. Foreign countries are now, therefore, close competitors in the manufacture of these goods, but the credit of original achievement remains with the United States. The

ican silk manufacturers, has been the manufacture of velvet in this country on a paying basis. The American consumption of velvets and plushes is not so large as that of other weaves. It is estimated at a value of \$8,930,450 annually, but when we realize that mills in the United States are now supplying 55.5 per cent of this amount it becomes evident that the problem of successful production is being solved. The development during the past decade has been principally along the lines of medium grades of black and colored velvets, used largely for millinery and dress trimmings. In these grades the United States is now supplying 75 per cent of the trade consumption. There is a growing tendency to decided improvement in the better grades; also in the successful manipulation of "panne" velvets, and in various styles of fancy velvets, such as checks, stripes, and figures. The yardage of velvets produced in the census year was 5,122,249 yards, the reported value at the factory being \$2,479,903.

Germany has been most seriously affected by the competition of the United States in the last ten years. Lyon has well held its own, on account of its new fabrics, styled "velours panne" and "velours mousseline." Its supremacy over Crefeld is due in fact to its higher grades of velvet, produced by using pure silk instead of spun silk and cotton. Lyon continues to excel and control the bulk of the trade in all pile fabrics where the material is reeled silk.

The relative importance of the velvet trade with the United States from these foreign centers is shown by the following figures of their exports to the United States for the past four years.¹

YEAR.	From Lyon, velvets and plushes.	From Crefeld, silk velvets.	From Crefeld, cotton velvets.
1897	\$328,070	\$1,268,142	\$194,450
1898	345,717	601,840	153,855
1899	304,912	631,256	174,675
1900	498,558	802,876	285,711

PLUSHES.—The production of plushes amounted to 3,848,684 yards, the factory value being \$2,480,068. The relative positions of velvets and plushes as to the quantity of each manufactured have been reversed during the past decade. Ten years ago the seal plush and

¹Exports Declared for the United States, quarterly publication United States Department of State.

upholstery plush industry in the United States was in a flourishing condition, and continued so for some time; but in 1900 it was much less so, and at the time of writing this report the seal plush industry especially has suffered yet greater decline. The census of 1890 reported a product of velvets and plushes valued at \$3,141,026, but though no separate classification of the two items was then made, it was recognized that the output of plushes largely exceeded that of velvets.² At this census the yardage and factory cost of both descriptions of goods are given.

Seal plushes are used in the cloak, cape, cap, and trimmings trades. Sharp domestic competition finally reduced prices materially, but the benefit to consumers was of comparatively brief duration. Cheaper and yet cheaper grades of goods were made until, fashion no longer favoring the fabric, the demand declined as stated. The importation of these goods from England, where formerly the largest proportion of them was manufactured, has now entirely ceased.

The development of broad goods weaving in the United States is best illustrated by a comparison of the production of such goods in each census year since 1870, which is shown in the following statement, presenting the yardage, the value, and the per cent of increase in the quantity of broad silk goods manufactured in the United States at the periods mentioned, including tapestry and upholstery silks, velvets, and plushes, and embracing all silk goods and silk-mixed fabrics (woven on broad looms) in which silk is the material of chief value.

CENSUS YEAR.	Yards.	Value of products.	Per cent of increase in quantity.
1870	1,026,422	(1)	.....
1880	10,856,284	\$11,224,895	957.7
1890	37,648,220	29,809,108	246.8
1900 ²	97,940,935	58,122,622	160.2

¹Not reported separately.

²The census of 1900 separates the yardage and value as follows: All silk, 68,437,218 yards, valued at \$42,573,279; and silk mixed, 29,503,717 yards, valued at \$15,549,343.

Table 8 presents, in detail, the production of broad silk goods by yardage, value, and average value per yard for the United States during the census year.

²Eleventh Census of the United States, Report on Manufacturing Industries, Part III, page 217.

TABLE 8.—SILK BROAD GOODS MANUFACTURED: 1900.

CLASSES.	TOTAL.			ALL-SILK BROAD GOODS.			SILK-MIXED BROAD GOODS.		
	Quantity (yards).	Value.	Average value per yard (cents).	Quantity (yards).	Value.	Average value per yard (cents).	Quantity (yards).	Value.	Average value per yard (cents).
Total	97,940,935	\$58,122,622	59.3	68,437,218	\$42,573,279	62.2	29,503,717	\$15,549,343	52.7
Plain and fancies	62,536,803	39,302,821	62.8	53,573,488	33,852,111	63.2	8,963,315	5,450,710	60.8
Jacquards	9,209,695	6,639,322	72.1	7,532,229	5,379,001	71.4	1,677,466	1,260,321	75.1
Piece-dyed	15,890,385	6,210,673	39.1	7,331,501	3,342,167	45.6	8,558,884	2,868,506	33.5
Velvets	5,122,249	2,479,903	48.4	.....	.....	.....	5,122,249	2,479,903	48.4
Plushes	3,848,684	2,480,068	64.4	.....	.....	.....	3,848,684	2,480,068	64.4
Tapestry and upholstery	1,388,119	1,009,835	75.7	.....	.....	.....	1,388,119	1,009,835	75.7

Table 9 presents a summary, by states, of establishments classified according to number of looms operating on velvets and plushes.

TABLE 9.—VELVET AND PLUSH WEAVING MILLS, CLASSIFIED BY NUMBER OF LOOMS: 1900.

STATES.	Total number of establishments.	ESTABLISHMENTS CLASSIFIED BY NUMBER OF LOOMS.				Total number of looms.
		Under 50.	50 and under 150.	150 and under 250.	250 and over.	
United States.....	15	4	8	1	2	1,543
1. Connecticut.....	6	.....	4	1	1	787
2. Pennsylvania.....	4	2	1	.....	1	499
3. New York.....	2	.....	2	.....	.....	153
4. New Jersey:						
Paterson.....	2	1	1	.....	.....	86
Outside of Paterson.....	1	1	.....	.....	.....	18

SILK RIBBONS.

Awards of gold and silver medals were made at the Paris Exposition of 1900 to American manufacturers of plain and faconné ribbons.

The invention of the high-speed ribbon loom, about ten years ago, was a great advance over the so-called "Swiss" and "German" power looms which were used exclusively in this country up to 1889. The new loom was first made in the United States, and in the last few years has reached a high state of perfection. Ease in leveling the harness, handling the warps, and the positive control of the take-up, which enable the looms to be run at continuous high speed, are the marked features of this invention. It has furnished occupation for a new class of labor, women being now generally and profitably employed in this particular grade of

TABLE 11.—MILLS CLASSIFIED BY NUMBER OF THROWING SPINDLES: 1900.

STATES.	Total number of establishments.	ESTABLISHMENTS CLASSIFIED BY NUMBER OF THROWING SPINDLES.													Total number of throwing spindles.
		Under 2,500.	2,500 and under 5,000.	5,000 and under 7,500.	7,500 and under 10,000.	10,000 and under 12,500.	12,500 and under 15,000.	15,000 and under 20,000.	20,000 and under 25,000.	25,000 and under 40,000.	40,000 and under 45,000.	45,000 and under 60,000.	75,000 and over.		
United States.....	121	85	21	21	13	8	3	5	8	3	1	2	1	1,015,304	
1. Pennsylvania.....	45	7	3	8	7	4	2	4	5	2	1	1	1	611,670	
2. New Jersey:															
Paterson.....	29	10	7	7	2	1	.....	1	.....	.....	.....	1	.....	171,410
Outside of Paterson.....	13	5	2	1	.....	2	.....	.....	.....	.....	.....	.....	.....	104,105
3. New York.....	12	3	4	3	2	.....	.....	.....	1	1	.....	.....	.....	47,991
4. Massachusetts.....	3	1	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....	21,306
5. Connecticut.....	9	5	2	.....	1	1	.....	.....	.....	.....	.....	.....	.....	29,662
6. Virginia.....	2	.....	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....	28,372
7. North Carolina.....	2	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	9,680
8. New Hampshire.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,403
9. Delaware.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,264
10. Maine.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,622
11. Michigan.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,104
12. Maryland.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	618
13. California.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	88

The number of throwing spindles reported for this census, as shown in Table 11, is 1,045,304; these spindles are classified as follows:

Organzine, first time over.....	532,180
Organzine, second time over.....	345,145
Tram spindles.....	117,979

work, whereas on the looms formerly in use male labor was a necessity.

It is not too much to say that the equipment of ribbon machinery in the United States is now equal to any commercial demand that may be made upon it in turning out all articles of ribbon known to the trade.

The ribbon looms reported were classified as follows:

Total.....	7,441
German looms. warps on top.....	4,471
High-speed looms.....	2,105
Jacquards.....	856
Hand looms.....	9

Table 10 presents a summary, by states, of establishments classified according to number of looms operating on ribbons.

TABLE 10.—SILK RIBBON WEAVING MILLS, CLASSIFIED BY NUMBER OF LOOMS: 1900.

STATES.	Total number of establishments.	ESTABLISHMENTS CLASSIFIED BY NUMBER OF LOOMS.					Total number of looms.
		Under 50.	50 and under 150.	150 and under 200.	200 and under 300.	500 and over.	
United States.....	115	65	39	5	5	1	7,441
1. New Jersey:							
Paterson.....	37	19	12	3	3	.....	2,655
Outside of Paterson.....	5	4	1	.....	.....	.....	261
2. New York.....	31	16	12	2	.....	1	2,218
3. Pennsylvania.....	35	23	10	.....	2	.....	1,788
4. Connecticut.....	5	3	2	.....	.....	.....	491
5. Massachusetts.....	1	1	.....	.....	.....	.....	144
6. Maryland.....	1	1	.....	.....	.....	.....	51

THROWING SPINDLES.

Table 11 presents a summary, by states, of establishments classified according to number of organzine and tram spindles.

The total number of accessory spindles, as shown in Table 23, is 942,100, making an aggregate of 1,987,404, as against 1,087,395 similar spindles in 1890 and 426,530 in 1880.

Of the total number of throwing spindles reported at

this census, 58.5 per cent were located in Pennsylvania, the center of the throwing industry. It will be noticed that 20 establishments of the 45 reported in this state operate more than 10,000 spindles, and one as high as 75,000 spindles.

American "throwing" is done principally on belt spinners which are run from 11,000 to 12,000 turns a minute on first time over and 9,000 on second time over. The machines and organizations are inferior to none.

A review of the improvements effected in the past decade in "throwing" machinery will be found appended.

FINISHED SILK GOODS.

Owing to the differences in the schedules of inquiry and in the methods employed at the several censuses, and the changing conditions in the industry, necessitating changes in the classification of the manufactured products, it is not possible to present a table giving comparable items of production for this and preceding censuses.

At this census the aim has been to indicate the production by quantities (yardage and pounds) so far as was possible, as comparison by values is frequently misleading, owing to changes in the price of merchandise. The classification of the products of the loom by their commercial designations as fabrics, which was employed in former censuses, has been abandoned, for the reason that considerable quantities are now woven and sold in the grey, even the sellers, for example, not knowing whether the fabrics would be finished for dress goods, cloak linings, hat linings, or millinery, etc. By the method adopted the yardage of all silk fabrics or silk-mixed goods is shown for 1900. For this reason comparison of production with previous censuses is difficult as to special articles, but it is believed that the change is a wise one, as the former classification is no longer practicable. The following statements present for 1880, 1890, and 1900, respectively, the quantities and values of the finished or merchantable products:

FINISHED GOODS FOR THE CENSUS YEAR 1880.¹

	Quantity.	Value.
Total value.....		\$84,519,723
Sewing silk.....		776,120
Machine twist.....	821,523 pounds...	6,007,735
Floss silk.....		225,025
Dress goods.....		4,115,205
Satins.....		1,101,375
Tie silks and scarfs.....	10,856,284 yards...	606,675
Millinery silks.....		891,955
Other broad goods.....		627,595
Handkerchiefs.....		3,881,690
Ribbons.....	30,129,951 yards...	6,023,100
Laces.....		437,000
Braids and bindings.....		999,685
Fringes and dress trimmings.....		4,950,276
Cords, tassels, passementeries, and millinery trimmings.....		1,866,575
Upholstery and military trimmings.....		1,392,365
Coach lace and carriage trimmings.....		37,510
Undertakers', hatters', and fur trimmings.....		59,805
Mixed goods and silk values therein.....		519,643

¹Tenth Census of the United States, Report on Silk Manufacture, by William C. Wyckoff, special agent, pages 25 and 26.

FINISHED GOODS FOR THE CENSUS YEAR 1890.¹

	Quantity.	Value.
Total value.....		\$69,154,599
Machine twist and sewing silk.....	1,119,825 pounds...	7,068,213
Fringe, knitting, embroidery, and floss silk.....	329,637 pounds...	1,819,631
Dress goods, figures and plain.....		15,183,134
Tailors' linings.....		3,011,437
Tie silks and scarfs.....	37,648,220 yards...	919,919
Other broad goods.....		1,923,035
Handkerchiefs.....		1,913,224
Velvets and plushes.....		3,141,025
Upholstery goods:		
Curtains.....		471,924
Tapestries.....		1,330,287
Other upholstery goods.....		1,910,721
Ribbons.....	25,737,211 pieces...	17,081,447
Laces.....		261,750
Braids and bindings.....		2,771,382
Gimps and trimmings.....		3,913,209
Dress and cloak trimmings.....		4,408,757
Military trimmings.....		232,600
Hosiery and knit goods:		
Shirts and drawers.....		26,421
Hosiery.....		141,183
Mittens, gloves, etc.....		397,904
Jersey cloth.....		90,664
Other products.....		602,330

¹Eleventh Census of the United States, Report on Manufacturing Industries, Part III, pages 213 and 214.

FINISHED GOODS FOR THE CENSUS YEAR 1900.

	Quantity.	Value.
Total value.....		\$92,451,212
Machine twist.....	987,917 pounds...	5,997,974
Sewing, embroidery, and wash silks.....	477,653 pounds...	3,276,326
Fringe and floss silks.....	193,659 pounds...	696,982
Broad goods, total.....	97,940,935 yards...	53,125,622
Broad silks, all silk, and silk mixed:		
Plain and fancies.....	62,536,803 yards...	39,302,821
Jacquards.....	9,208,635 yards...	6,639,322
Piece-dyed.....	15,890,385 yards...	6,210,678
Velvets.....	5,122,249 yards...	2,479,803
Plushes.....	3,848,634 yards...	2,480,065
Upholstery and tapestry.....	1,333,119 yards...	1,009,336
Ribbons.....		18,467,179
Laces, nets, veils, veillings, etc.....		803,104
Braids and bindings.....		1,522,665
Dress, cloak, millinery, and military trimmings.....		2,235,010
All other products.....		1,268,950

COMPARATIVE STATISTICS BY STATES.

Table 12 is a comparative summary, by states, for 1880, 1890, and 1900, of the data reported under the principal heads of the inquiry.

In considering the comparative statistics shown in Table 12, it should be understood that the omission of silk hosiery and knit goods, and of braids and trimmings in which silk was a material of minor value, reduces the increase between 1890 and 1900. The large decrease in New York during the last decade is due, in part, to this omission, which affects, more or less, the statistics for the other states. A noticeable feature shown in Table 12 is the practical disappearance of hand looms and the marked increase in power looms. The number of spindles has increased, since 1880, 363.6 per cent.

The five leading states in silk manufacture at the last three censuses were New Jersey, Pennsylvania, New York, Connecticut, and Massachusetts. The relative

rank of these states with respect to the principal items of information presented in the table varied slightly from time to time as shown in the following statement, the number indicating the rank:

STATES.	NUMBER OF ESTABLISHMENTS.			CAPITAL.			AVERAGE NUMBER OF WAGE-EARNERS.			WAGES.			COST OF MATERIALS USED.			VALUE OF PRODUCTS.		
	1900	1890	1880	1900	1890	1880	1900	1890	1880	1900	1890	1880	1900	1890	1880	1900	1890	1880
New Jersey.....	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Pennsylvania.....	2	3	3	2	3	2	2	3	3	3	3	2	2	2	2	2	2	2
New York.....	3	1	1	4	4	2	3	2	2	3	2	2	4	3	3	3	2	3
Connecticut.....	4	4	4	3	3	3	4	4	3	4	4	3	3	4	4	4	4	4
Massachusetts.....	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5

Based upon all essential considerations, the states included in the statement rank, at this census, in the order given. The greatest growth is noted in Pennsylvania, which, from a position of comparative insignificance in 1880, has advanced to second place at this census. This may be characterized as one of the prin-

cipal developments of the industry during the interval. It is a result of the abundance of suitable labor and cheap fuel in the eastern part of the state, advantages which continue to influence the establishment of new silk mills and the removal of old plants from other localities.

TABLE 12.—COMPARATIVE SUMMARY FOR THE UNITED STATES, BY STATES: 1880, 1890, AND 1900.

STATES.	Year.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		AVERAGE NUMBER OF WAGE-EARNERS AND TOTAL WAGES.					Miscellaneous expenses.	Cost of materials used.	Value of products, including amount received for contract work.	Number of spindles.	NUMBER OF LOOMS.		
				Number.	Salaries.	Total number.	Total wages.	Men, 16 years and over.	Women, 16 years and over.	Children, under 16 years.					Total.	Power.	Hand.
United States	1900	483	\$81,082,201	2,657	\$3,134,352	65,416	\$20,982,194	24,206	34,797	6,418	\$10,264,208	\$62,406,665	\$107,256,258	1,987,404	44,480	44,257	173
	1890	472	51,007,537	1,531	1,917,877	49,382	17,762,441	17,602	28,914	2,866	4,259,623	51,004,425	37,298,454	1,087,395	22,639	20,822	1,747
	1880	382	19,125,300	(1)	31,337	31,337	9,146,705	9,375	16,396	5,666	(2)	22,467,701	41,038,045	420,630	8,474	6,321	3,153
California.....	1900	5	308,847	6	4,998	117	38,055	24	91	2	4,113	146,219	255,902	3,380	2	2	
	1890	9	112,238	11	15,276	203	68,290	49	152	2	10,438	146,406	271,912	2,817	36	1	85
	1880	(1)	164,300	(1)	(1)	161	41,400	20	106	25	(2)	80,995	159,175	350	24		24
Connecticut....	1900	38	12,166,775	323	403,423	6,514	2,392,873	2,763	3,585	168	637,450	7,198,008	12,378,981	160,748	2,975	2,975	
	1890	35	9,037,042	117	159,273	4,964	1,847,531	1,540	3,801	123	270,426	6,201,876	9,788,951	129,604	1,378	1,372	6
	1880	28	4,436,500	(1)	(1)	3,428	1,026,530	785	1,990	653	(2)	3,811,206	5,881,000	88,825	615	603	12
Illinois.....	1900	4	259,540	33	51,180	412	121,644	81	310	21	42,410	187,514	421,088		34	27	7
	1890	10	422,036	49	54,314	756	241,322	157	589	10	35,761	314,855	785,845	732	126	44	82
	1880	5	82,000	(1)	(1)	259	72,195	67	135	57	(2)	125,895	244,150		64	18	61
Maryland.....	1900	4	50,400	3	3,600	72	20,633	28	44		3,798	34,305	100,361	6	14	14	
	1890	4	20,900	(1)	(1)	82	11,000	12	56	14	(2)	15,760	35,415		39		39
	1880																
Massachusetts..	1900	20	5,649,758	156	227,276	3,110	1,110,324	1,102	1,837	171	382,745	3,823,963	5,957,532	107,812	1,040	1,017	23
	1890	20	3,353,296	223	253,115	2,993	1,035,284	977	1,928	88	484,390	3,251,893	5,557,569	81,435	540	444	96
	1880	22	1,300,900	(1)	(1)	1,826	521,725	353	1,285	188	(2)	1,990,515	3,704,260	30,460	241	88	163
New Jersey....	1900	180	29,285,792	959	1,144,512	24,167	9,232,532	11,279	11,679	1,199	4,896,595	21,631,118	39,966,662	536,005	20,572	20,557	15
	1890	132	16,809,927	472	541,670	17,445	6,631,610	7,773	8,773	899	1,356,137	17,908,883	30,760,371	350,364	11,724	11,487	237
	1880	106	6,952,325	(1)	(1)	12,549	4,177,745	4,696	5,860	2,493	(2)	9,678,536	17,122,230	210,733	4,558	2,956	1,597
New York.....	1900	92	9,800,207	963	514,439	7,861	2,861,818	3,149	4,299	413	1,601,527	6,570,037	12,706,246	136,703	5,268	5,175	93
	1890	185	11,165,918	432	601,396	12,719	4,985,063	4,456	7,933	280	1,123,671	10,174,818	19,417,796	154,969	4,940	3,888	1,052
	1880	151	4,696,775	(1)	(1)	9,633	2,590,025	2,405	5,459	1,769	(2)	5,831,804	10,170,140	67,271	2,086	1,095	991
North Carolina	1900	3	130,376	11	3,455	209	25,420	35	119	55	5,159	99,403	185,354	18,790	125	125	
	1890																
	1880																
Ohio.....	1900																
	1890	3	37,830	4	2,512	36	11,173	8	28		2,662	13,933	33,927	96	16		16
	1880	6	24,700	(1)	(1)	135	12,550	21	73	41	(2)	19,495	53,110		22		22
Pennsylvania..	1900	121	20,894,023	745	718,776	21,028	4,629,626	5,214	11,565	4,249	2,451,820	19,884,869	31,072,926	942,545	12,949	12,920	29
	1890	66	9,362,063	192	256,049	9,330	2,725,285	2,420	5,617	1,293	939,051	12,094,389	19,367,546	318,215	3,588	3,360	223
	1880	49	1,379,900	(1)	(1)	3,159	678,120	1,000	1,870	319	(2)	1,880,985	3,491,840	25,241	828	566	262
Rhode Island..	1900	6	680,252	8	12,320	455	166,675	124	326	5	103,454	818,561	1,311,333	4,212	533	533	
	1890	3	122,256	8	8,507	186	63,471	49	107	80	17,427	149,763	229,062	3,393	43	43	
	1880																
Virginia.....	1900	3	594,359	12	12,678	473	105,056	144	228	101	15,300	720,525	981,680	41,798	147	147	
	1890																
	1880																
All other states	1900	11	1,312,272	41	41,295	1,080	303,171	291	758	31	123,635	1,326,448	2,068,554	35,856	785	779	6
	1890	5	534,426	20	17,325	678	133,779	145	392	141	15,862	713,254	995,114	36,704	169	169	
	1880	6	61,000	(1)	(1)	85	15,415	16	62	7	(2)	82,510	111,725	8,610	2		2

¹ Not reported separately.

² Not reported.

³ Included in "all other states."

⁴ Includes establishments distributed as follows: Delaware, 2; Maine, 1; Maryland, 2; Michigan, 2; New Hampshire, 2; Utah, 2.

⁵ Includes establishments distributed as follows: Maine, 1; Michigan, 1; Missouri, 1; North Carolina, 1; Virginia, 1.

⁶ Includes establishments distributed as follows: Kansas, 1; Maine, 1; Missouri, 1; New Hampshire, 1; Rhode Island, 1; Vermont, 1.

CAPITAL.

Table 13 is a comparative statement in detail of capital for 1890 and 1900, by states.

The value of land and buildings owned, as shown by Table 13, is \$12,250,905 as compared with \$6,904,628 in 1890. The estimated value of hired property as reported at the census of 1890 was \$10,335,160, for which \$734,268 was paid as rent for tenancy, or 7.1 per cent. In 1900 the amount reported as paid for rent of land and buildings was \$591,807, which, assuming that the earning power of property was the same, represented a capital value of \$8,335,310. The total amount of capital reported, \$81,082,201, does not include the

value of land and buildings rented. Compared with the census of 1890, the increase of aggregate capital is 59 per cent, and, specifically, land and buildings owned, 77.4 per cent; machinery, tools, and implements, 46.3 per cent; and cash and sundries, 60.7 per cent. The increase in the value of land and buildings owned, and the decrease in the value of land and buildings hired, as estimated, evidence the steadily growing prosperity of the industry. It is also interesting to note that in 1900 the value of finished goods produced for each dollar of capital invested was \$1.14, as compared with \$1.36 in 1890, and \$1.80 in 1880.

TABLE 13.—COMPARATIVE SUMMARY OF CAPITAL, BY STATES: 1890 AND 1900.

STATES.	Year.	Total.	Land.	Buildings.	Machinery, tools, and implements.	Cash and sundries.
United States	1900	\$81,082,201	\$2,045,098	\$10,205,812	\$20,750,449	\$48,080,847
	1890	51,007,537	1,691,660	5,212,968	14,181,680	29,921,229
California	1900	308,847	3,600	29,726	44,161	281,360
	1890	112,283	.....	.....	30,409	81,874
Connecticut	1900	12,166,775	282,294	1,597,852	2,061,799	8,225,890
	1890	9,037,042	152,589	1,143,200	1,617,538	6,126,715
Illinois	1900	259,540	15,000	25,000	95,959	123,581
	1890	422,096	33,000	60,000	106,200	222,896
Maryland	1900	.....	.....	.....	.....	.....
	1890	50,400	6,000	1,500	12,400	30,500
Massachusetts	1900	5,649,758	216,341	756,454	707,345	3,969,618
	1890	3,353,296	77,300	287,500	591,908	2,396,588
New Jersey	1900	29,285,792	733,367	2,966,084	7,297,856	18,288,485
	1890	16,809,927	590,919	1,579,100	5,039,564	9,600,284
New York	1900	9,800,207	202,138	586,224	3,061,252	5,950,593
	1890	11,165,918	544,002	832,240	3,612,753	6,176,918
North Carolina	1900	130,376	6,200	62,000	40,525	91,651
	1890	.....	.....	.....	.....	.....
Ohio	1900	.....	.....	.....	.....	.....
	1890	37,830	10,000	5,000	1,750	21,080
Pennsylvania	1900	20,894,023	491,598	3,688,545	6,696,158	10,017,722
	1890	9,362,063	236,850	1,225,652	2,941,679	4,957,882
Rhode Island	1900	630,252	24,955	96,224	165,032	394,041
	1890	122,256	.....	.....	70,364	51,892
Virginia	1900	594,359	12,600	174,440	210,200	197,119
	1890	.....	.....	.....	.....	.....
All other states	1900	1,312,272	57,000	233,768	370,162	651,347
	1890	534,426	41,000	78,716	157,110	257,600

¹Included in "all other states."

²Includes statistics reported by establishments distributed as follows: Delaware, 2; Maine, 1; Maryland, 2; Michigan, 2; New Hampshire, 2; Utah, 2.

³Includes statistics reported by establishments distributed as follows: Maine, 1; Michigan, 1; Missouri, 1; North Carolina, 1; Virginia, 1.

WAGE-EARNERS AND OPERATIVES EMPLOYED.

Table 14 presents the number of wage-earners—men, women, and children—by states, from 1870 to 1900, inclusive, with the percentage that each is of the total number.

TABLE 14.—COMPARATIVE SUMMARY OF WAGE-EARNERS, BY STATES: 1870, 1880, 1890, AND 1900.

STATES.	Year.	NUMBER.				PER CENT.		
		Total.	Men, 16 years and over.	Wom-en, 16 years and over.	Child-ren, under 16 years.	Men, 16 years and over.	Wom-en, 16 years and over.	Child-ren, under 16 years.
United States.	1900	65,416	24,206	34,797	6,413	37.0	53.2	9.8
	1890	49,382	17,602	28,914	2,866	35.6	58.6	6.3
	1880	31,337	9,375	16,306	5,566	29.9	52.3	17.8
	1870	6,649	1,734	3,529	1,386	26.1	58.1	20.8
California.....	1900	117	24	91	2	20.5	77.8	1.7
	1890	203	49	152	2	24.1	74.9	1.0
	1880	151	20	106	25	13.2	70.2	16.6
	1870							
Connecticut.....	1900	6,514	2,763	3,585	166	42.4	55.0	2.6
	1890	4,964	1,540	3,301	123	31.0	66.5	2.5
	1880	3,428	785	1,990	653	22.9	58.0	19.1
	1870	1,703	466	1,003	234	27.4	58.9	13.7
Illinois.....	1900	412	81	310	21	19.7	75.2	5.1
	1890	756	157	589	10	20.8	77.9	1.3
	1880	259	67	135	57	25.9	52.1	22.0
	1870							
Maryland.....	1900							
	1890	72	28	44		38.9	61.1	
	1880	82	12	56	14	14.6	68.3	17.1
	1870							
Massachusetts....	1900	3,110	1,102	1,837	171	35.4	59.1	5.5
	1890	2,993	977	1,928	88	32.6	64.4	3.0
	1880	1,826	853	1,285	188	19.3	70.4	10.3
	1870	453	97	286	70	21.4	63.1	15.5
New Jersey.....	1900	24,157	11,279	11,679	1,199	46.7	48.3	5.0
	1890	17,445	7,773	8,773	899	44.6	50.3	5.1
	1880	12,549	4,696	5,360	2,493	37.4	42.7	19.9
	1870	2,790	733	1,162	895	26.3	41.6	32.1
New York.....	1900	7,861	3,149	4,299	413	40.1	54.7	5.2
	1890	12,719	4,456	7,983	280	35.0	62.8	2.2
	1880	9,633	2,405	5,459	1,769	25.0	56.7	18.3
	1870	739	154	413	172	20.8	55.9	23.3
North Carolina...	1900	209	85	119	55	16.8	56.9	26.3
	1890							
	1880							
	1870							
Ohio.....	1900							
	1890	36	8	28		22.2	77.8	
	1880	135	21	73	41	15.5	54.1	30.4
	1870							
Pennsylvania.....	1900	21,023	5,214	11,565	4,249	24.8	55.0	20.2
	1890	9,380	2,420	5,617	1,293	25.9	60.2	13.9
	1880	3,139	1,000	1,870	819	31.4	58.6	10.0
	1870	936	266	655	15	28.4	70.0	1.6

¹Included in "all other states."

TABLE 14.—COMPARATIVE SUMMARY OF WAGE-EARNERS, BY STATES: 1870, 1880, 1890, AND 1900—Continued.

STATES.	Year.	NUMBER.				PER CENT.		
		Total.	Men, 16 years and over.	Wom-en, 16 years and over.	Child-ren, under 16 years.	Men, 16 years and over.	Wom-en, 16 years and over.	Child-ren, under 16 years.
Rhode Island.....	1900	455	124	326	5	27.3	71.6	1.1
	1890	186	49	107	80	26.4	57.5	16.1
	1880							
	1870							
Virginia.....	1900	473	144	223	101	30.4	48.2	21.4
	1890							
	1880							
	1870							
All other states...	² 1900	1,080	291	758	31	26.9	70.2	2.9
	³ 1890	678	145	392	141	21.4	57.8	20.8
	⁴ 1880	85	16	62	7	18.8	73.0	8.2
	⁵ 1870	28	18	10		64.3	35.7	

¹Included in "all other states."

²Includes establishments distributed as follows: Delaware, 2; Maine, 1; Maryland, 2; Michigan, 2; New Hampshire, 2; Utah, 2.

³Includes establishments distributed as follows: Maine, 1; Michigan, 1; Missouri, 1; North Carolina, 1; Virginia, 1.

⁴Includes establishments distributed as follows: Kansas, 1; Maine, 1; Missouri, 1; New Hampshire, 1; Rhode Island, 1; Vermont, 1.

⁵Includes establishments distributed as follows: New Hampshire, 1; Vermont, 1.

Table 14 shows that in 1870 children were 20.8 per cent of the total operatives in the United States, and in 1900, 9.8 per cent, a marked decrease. During the same period the percentage of women remained the same, while that of men increased from 26.1 per cent to 37 per cent. This decrease in the percentage of children took place between 1870 and 1890, for since 1890 the percentage has increased slightly. In some states the decrease in the percentage of children is even more marked, ranging from 32.1 per cent to 5 per cent in New Jersey. In contrast to this, the proportion of children in Pennsylvania has increased during the entire period. It has already been remarked that the prosperity of the throwing industry in this state is partly due to the cheap unskilled labor obtainable in the smaller towns, and this increase in the proportion of children employed corroborates the statement.

Table 15 presents the skilled and unskilled operatives, weavers, and spinners, winders, and warpers, including unskilled employees, by states, for 1900.

TABLE 15.—WAGE-EARNERS CLASSIFIED BY OCCUPATION, BY STATES: 1900.

STATES.	TOTAL.			WEAVERS.												SPINNERS, WINDERS, WARPERS, ETC.					
				Total.			Broad silks.			Ribbons.			Velvets and plushes.						All other.		
	Men.	Wom-en.	Child-ren.	Men.	Wom-en.	Child-ren.	Men.	Wom-en.	Child-ren.	Men.	Wom-en.	Child-ren.	Men.	Wom-en.	Child-ren.	Men.	Wom-en.	Child-ren.			
United States..	24,206	34,797	6,413	15,360	13,057	667	8,917	9,188	235	3,725	1,467	21	881	510	150	1,337	1,892	261	8,346	21,740	5,746
California.....	24	91	2																24	91	2
Connecticut.....	2,763	3,585	166	1,446	1,149	39	448	441		21	200	7	565	141		412	367	32	1,317	2,438	127
Illinois.....	81	310	21																81	310	21
Massachusetts....	1,102	1,837	171	311	282	8	301	208			40					10	34	8	791	1,555	163
New Jersey.....	11,279	11,679	1,199	7,992	4,813	116	5,491	3,548	88	1,762	602	3	48	5		691	703	75	3,287	5,861	1,033
New York.....	3,149	4,299	413	2,378	1,497	98	899	824	2	1,014	203	8	109	20		851	450	86	776	2,802	315
North Carolina...	35	119	55																35	119	55
Pennsylvania.....	5,214	11,565	4,249	3,020	4,916	401	1,645	3,777	191	835	517	1	149	344	150	341	278	59	2,194	6,439	3,848
Rhode Island.....	124	326	5	104	156		74	166					10			20			124	326	5
Virginia.....	144	228	101																144	228	101
All other states ¹	291	758	31	114	189	5	59	184	4	43	5					12		1	177	569	25

¹Includes the statistics reported by establishments distributed as follows: Delaware, 2; Maine, 1; Maryland, 2; Michigan, 2; New Hampshire, 2; Utah, 2.

Table 15, considered in connection with Tables 6, 8, 9, and 10, presenting the number of looms, spindles, etc., indicates in a measure the relative position of the several states with reference to the production of the various silk products.

COUNTIES LEADING IN SILK MANUFACTURE.

Table 16 shows the number of establishments, capital, number of wage-earners, total wages, and value of products in counties manufacturing a product exceeding \$1,000,000 in value.

TABLE 16.—COUNTIES MANUFACTURING PRODUCTS EXCEEDING \$1,000,000 IN VALUE: 1900.

COUNTIES.	Number of establishments.	Capital.	WAGE-EARNERS.		Value of products.
			Average number.	Total wages.	
Connecticut:					
Fairfield	5	\$1,207,927	903	\$354,265	\$1,657,954
Hartford	3	6,340,705	2,546	1,064,908	4,618,243
New London.....	6	2,180,524	1,181	440,427	2,316,810
Tolland.....	10	593,983	581	162,521	1,360,518
Massachusetts:					
Hampden ¹					
Hampshire.....	3	2,768,120	1,196	437,412	2,584,214
New Jersey:					
Hudson.....	19	6,581,756	4,703	1,825,906	7,925,620
Morris.....	5	723,766	857	248,509	1,424,837
Passaic.....	140	19,192,756	16,150	6,366,334	26,329,792
Warren.....	5	1,556,980	1,308	410,323	2,174,705
New York:					
New York.....	50	4,428,148	4,001	1,579,314	6,757,544
Kings.....	10	859,138	658	287,199	1,042,199
Queens.....	6	1,718,848	823	344,330	1,632,651
Pennsylvania:					
Blair ¹					
Lackawanna.....	14	2,392,256	3,313	528,433	4,135,179
Lancaster.....	5	524,367	1,396	284,524	1,622,494
Lehigh.....	13	3,321,009	3,614	894,152	4,780,909
Luzerne.....	8	1,115,449	1,207	229,520	1,513,333
Lycoming ¹					
Northampton.....	10	1,978,804	1,947	469,281	3,249,776
Northumberland ¹					
Philadelphia.....	28	3,813,532	2,506	826,456	4,531,794
Schuylkill ¹					
All other counties ²	9	4,329,575	3,244	861,495	7,264,660

¹Included in "all other counties."

²Includes counties having less than 3 establishments, distributed as follows: Massachusetts: Hampden, 2; Pennsylvania: Blair, 1; Lycoming, 2; Northumberland, 2; Schuylkill, 2.

The leading counties in silk manufacture, according to Table 16, are Passaic, Hudson, and Warren, N. J.;

New York, Kings, and Queens counties, which are comprised in the city of Greater New York; Lehigh, Philadelphia, Lackawanna, and Northampton, Pa.; Hartford and New London, Conn.; and Hampshire, Mass.

BRAIDS AND TRIMMINGS.

Table 17 presents, by states, the establishments manufacturing silk trimmings and braids, apportioning them among the silk, cotton, and woolen industries and showing the cost of the several textile materials used and the value of the products.

The figures appearing under the headings "Cotton" and "Wool" do not appear elsewhere in the silk tables. To properly present the entire braids and trimmings industry, however, it was necessary to include them.

It should also be noted that this table includes 19 establishments which, although manufacturing braids and trimmings as by-products, produce other silk goods of greater value, and are classified as silk manufactories.

In censuses prior to 1900 all establishments making braids and bindings, fringes and gimps, dress and cloak trimmings, millinery and military trimmings, etc., of which silk was a component material, were classed as silk establishments. At this census the number is limited to those which have reported silk as the material of greatest value. If, as in previous censuses, all establishments using silks were included, the gross product, as shown by Table 17, would be \$7,785,699, and the number of establishments 105. In 1880 the reported production was \$9,306,205; in 1890 it was \$11,325,948. At the present census \$4,059,053 is given as the product of 66 establishments classified as silk, \$1,615,707 as the production of 26 establishments classified as cotton, and \$2,110,939 as the production of 13 establishments classified as woolen.

The principal centers of the trimmings trade are New York city and Philadelphia, and the elimination of so many of these establishments from the silk tabulation in this census especially affects New York.

TABLE 17.—BRAIDS AND TRIMMINGS, WITH COST OF TEXTILE MATERIALS, CLASSIFIED BY PRINCIPAL TEXTILE COMPONENTS, BY STATES: 1900.

STATES.	Number of establishments.	TOTAL.				Value of products.	Number of establishments.	SILK.				Value of products.
		Cost of textile materials.						Cost of textile materials.				
		Total.	Silk.	Cotton.	Wool.			Total.	Silk.	Cotton.	Wool.	
United States.....	105	\$3,088,804	\$1,330,298	\$942,715	\$810,791	\$7,785,699	66	\$1,565,417	\$1,037,891	\$272,503	\$255,023	\$4,059,053
Connecticut.....	5	20,000	18,000	1,500	500	33,685	5	20,000	18,000	1,500	500	33,685
Illinois.....	4	160,210	69,421	40,063	50,726	421,088	4	160,210	69,421	40,063	50,726	421,088
Massachusetts.....	11	261,532	120,912	58,036	82,584	601,425	9	280,078	120,912	26,582	32,584	533,527
New Jersey.....	8	93,416	44,751	42,516	6,149	262,963	6	61,622	44,151	11,668	5,803	162,755
New York.....	51	1,375,774	501,691	394,989	479,094	3,434,980	28	455,625	316,454	84,126	55,045	1,374,305
Pennsylvania.....	21	1,026,777	442,353	399,381	185,048	2,793,278	9	491,787	335,783	102,334	53,670	1,300,413
All other states ¹	5	146,095	133,170	6,230	6,695	223,280	5	146,095	133,170	6,230	6,695	223,280

¹Includes establishments distributed as follows: California, 2; Michigan, 1; Rhode Island, 2.

MANUFACTURES.

TABLE 17.—BRAIDS AND TRIMMINGS, WITH COST OF TEXTILE MATERIALS, CLASSIFIED BY PRINCIPAL TEXTILE COMPONENTS, BY STATES: 1900—Continued.

STATES.	COTTON.					WOOL.						
	Number of establishments.	Cost of textile materials.				Value of products.	Number of establishments.	Cost of textile materials.				Value of products.
		Total.	Silk.	Cotton.	Wool.			Total.	Silk.	Cotton.	Wool.	
United States.....	26	\$680,885	\$88,182	\$582,549	\$60,204	\$1,615,707	18	\$837,502	\$204,275	\$137,663	\$495,564	\$2,110,939
Connecticut.....												
Illinois.....												
Massachusetts.....	2	31,454		31,454		67,898						
New Jersey.....	2	31,794	600	30,848	346	100,208						
New York.....	13	319,796	29,182	241,439	49,175	678,017	10	600,853	156,055	69,424	374,874	1,382,653
Pennsylvania.....	9	297,841	58,350	228,808	10,683	769,584	3	237,149	48,220	68,239	120,690	728,281
All other states ¹												

¹ Includes establishments distributed as follows: California, 2; Michigan, 1; Rhode Island, 2.

SKEIN DYEING, PIECE DYEING, PRINTING, AND FINISHING.

The following tables present the statistics of dyeing, printing, and finishing silk goods and other textile yarns and silk-mixed fabrics, including both the work

done in silk manufacturing establishments and that done in establishments engaged exclusively in dyeing, printing, and finishing. Table 18 shows the statistics of skein dyeing; Table 19, piece dyeing; Table 20, printing; and Table 21, finishing.

TABLE 18.—SKEIN DYEING IN SILK MILLS AND DYEING PLANTS, FOR SILK MANUFACTURE, BY STATES: 1900.

STATES.	Number of establishments.	Amounts charged for work done in dyeing plants.	Aggregate.	SILK.				OTHER YARNS.					
				Total.	Reeled.		Spun.		Total.	Cotton.		Wool.	
					Colors.	Black.	Colors.	Black.		Colors.	Black.	Colors.	Black.
United States...	95		Pounds. 12,175,988	Pounds. 9,875,477	Pounds. 6,551,313	Pounds. 3,393,871	Pounds. 621,043	Pounds. 309,250	Pounds. 2,800,511	Pounds. 1,067,589	Pounds. 1,049,215	Pounds. 100,658	Pounds. 83,049
Total in silk mills....	53		5,952,391	3,936,970	1,793,955	1,541,785	425,216	176,014	2,015,421	925,255	981,559	52,658	55,949
Total in dyeing plants.	37	\$4,305,809	6,223,597	5,938,507	3,757,358	1,852,086	195,827	133,236	285,090	142,334	67,656	48,000	27,100
Connecticut:													
Silk mills.....	17		1,787,934	1,223,435	511,298	445,999	203,181	62,957	564,499	113,830	450,669		
Massachusetts:													
Silk mills.....	8		1,150,790	707,432	263,700	350,083	71,151	22,498	443,358	122,109	224,642	45,658	50,949
New Jersey:													
Silk mills.....	13		1,207,345	1,093,655	833,582	257,844	2,139	90	103,690	25,640	83,050		
Dyeing plants.....	22	3,927,829	5,064,604	5,057,639	3,176,932	1,661,078	132,283	88,343	6,865	3,334	3,031		
New York:													
Silk mills.....	10		483,921	188,124	93,910	54,431	26,783	3,000	295,797	261,322	25,475	5,000	4,000
Dyeing plants.....	9	160,063	669,685	391,460	277,869	72,591	28,375	12,625	278,225	138,500	64,625	48,000	27,100
Pennsylvania:													
Silk mills.....	5		888,085	285,958	29,320	63,023	110,100	78,515	597,077	400,354	196,723		
Dyeing plants.....	5	215,292	484,158	484,158	300,957	115,817	35,141	32,243					
All other states: ¹													
Silk mills.....	7		439,366	439,366	52,145	365,405	11,822	3,954	6,000	2,000	1,000	2,000	1,000
Dyeing plants.....	1	2,625	5,250	5,250	2,600	2,600	25	25					

¹ Includes establishments distributed as follows: California, 2; Illinois, 1; Maine, 1; Michigan, 2; Rhode Island, 1; Virginia, 1.

TABLE 19.—PIECE DYEING IN SILK MILLS AND DYEING PLANTS, FOR SILK MANUFACTURE, BY STATES: 1900.

STATES.	Number of establishments.	Amounts charged for work done in dyeing plants.	Total.	All silk.	Silk and spun.	Silk and cotton.	Silk and wool.
United States.....	23		Yards. 40,484,911	Yards. 21,150,585	Yards. 2,044,630	Yards. 17,238,471	Yards. 51,225
Total in silk mills....	10		4,464,523	1,224,329	459,693	2,780,156	850
Total in dyeing plants.....	13	\$849,294	36,020,388	19,926,256	1,584,937	14,458,815	50,876
New Jersey:							
Silk mills.....	4		1,629,181	1,046,938	110,000	471,893	550
Dyeing plants.....	8	773,229	33,679,486	19,415,550	1,580,625	12,636,436	46,876
New York:							
Silk mills.....	2		538,310			538,310	
Dyeing plants.....	4	75,498	2,323,647	497,768		1,821,379	4,000
All other states: ¹							
Silk mills.....	4		2,297,037	177,391	349,693	1,769,953	
Dyeing plants.....	1	567	17,250	12,933	4,312		

¹ Includes establishments distributed as follows: Connecticut, 2; Illinois, 1; Pennsylvania, 2.

TABLE 20.—SILK PRINTING IN SILK MILLS AND SILK-PRINTING PLANTS, FOR SILK MANUFACTURE, BY STATES: 1900.

STATES.	Number of establishments.	Amounts charged for work done in silk-printing plants.	Total.	Printed in warps.	PRINTED IN PIECES.		
					Silk.	Silk and spun.	Silk and cotton.
United States.....	12		Yards. 10,239,606	Yards. 329,678	Yards. 4,955,893	Yards. 2,775,689	Yards. 2,168,346
Total in silk mills.....	4		3,084,811	16,855	346,704	1,684,624	537,228
Total in silk-printing plants.....	8	\$419,370	7,154,795	313,323	4,119,189	1,091,165	1,631,118
New Jersey:							
Silk mills.....	2		76,586	7,500	69,086		
Silk-printing plants.....	4	354,148	5,702,500	313,323	3,723,543	1,055,165	610,469
All other states: ¹							
Silk mills.....	2		3,008,225	8,855	777,618	1,684,524	537,228
Silk-printing plants.....	4	65,722	1,452,295		395,646	36,000	1,020,649

¹Includes establishments distributed as follows: Connecticut, 2; Massachusetts, 1; New York, 2; Pennsylvania, 1.

TABLE 21.—SILK FINISHING IN SILK MILLS AND SILK-FINISHING PLANTS, FOR SILK MANUFACTURE, BY STATES: 1900.

STATES.	Number of establishments.	Amounts charged for work done.	Total.	Total.	silk.	Silk and cotton.	Silk and wool.
United States.....	54		Yards. 133,463,540	Pieces. 2,228,346	Pieces. 1,462,594	Pieces. 765,569	Pieces. 183
Total in silk mills.....	38		44,616,500	782,002	472,534	289,362	116
Total in finishing plants.....	16	\$981,740	88,847,040	1,466,284	990,010	476,207	67
Connecticut:							
Silk mills.....	7		18,869,510	240,762	71,986	168,776	
New Jersey:							
Silk mills.....	15		17,845,990	297,949	268,128	29,767	54
Silk-finishing plants.....	6	449,021	41,706,460	680,608	453,192	227,416	
New York:							
Silk mills.....	5		4,937,520	82,292	67,240	15,052	
Silk-finishing plants.....	9	532,436	47,123,280	785,838	536,530	248,791	67
Pennsylvania:							
Silk mills.....	7		7,836,140	122,269	57,161	65,046	62
All other states: ¹							
Silk mills.....	4		1,127,400	18,790	8,069	10,721	
Silk-finishing plants.....	1	283	17,280	288	288		

¹Includes establishments distributed as follows: California, 1; Illinois, 1; Maine, 1; Rhode Island, 1; Utah, 1.

Owing to its importance as a distinct industry, the dyeing and finishing of textiles will be presented in a separate report at this census, as it was at the census of 1890. As the various operations of skein dyeing, piece dyeing, printing, and finishing are wholly or partly done in many silk manufacturing plants, a tabulation has been made, covering not only the returns from the independent or professional dye works, print works, and finishing plants, but also those from silk manufacturing plants, which, when combined, possess special interest for silk manufacturers, and, considered in conjunction with other tables presented in this report, embrace all the elements of the silk industry in the United States.

The tables present the number of establishments engaged in the different classes of work, the quantity of goods handled, and the amount charged for the work done by dyeing, printing, and finishing establishments. Skein dyeing embraces all the yarns dyed for the silk industry in the census year. Piece dyeing, printing, and finishing embrace broad goods only, and do not include sewing silk, veilings, veils, etc. Ribbons are not

included, as a given number of yards or pieces of ribbon, without designating the width, has no significance. It is to be understood, therefore, that the returns for piece dyeing, printing, and finishing deal only with plain and fancy broad silks, Jacquards, piece-dyed weaves, velvets, plushes, tapestries, and upholstery silks.

Data as to capital invested, operatives employed, wages paid, cost of materials used, and miscellaneous expenses of the independent or professional plants will be found in the separate report on "Dyeing and Finishing of Textiles." The principal object of the foregoing tables is to show the quantities of silk and other textile yarns and silk-mixed fabrics dyed, printed, and finished by and for silk manufacturers.

SKEIN DYEING.—Table 18 shows that there were 8,945,184 pounds of reeled silk, skein dyed in colors and black. The total consumption of reeled silk, including fringe and floss silk, in the census year was 9,828,754 pounds. The balance, 883,570 pounds, represents, with the exceptions noted below, goods woven in the grey and piece dyed.

There were 930,293 pounds of spun silk, skein dyed

in colors and black. The total consumption of spun silk was 1,774,124 pounds. The balance, 843,831 pounds, practically represents goods woven in the grey and piece dyed.

The returns show 2,116,804 pounds of cotton, skein dyed in colors and black. The total consumption of cotton yarns by the silk industry was 6,664,069 pounds. The balance, 4,547,265 pounds, largely represents piece-dyed mixed goods.

The returns show 183,707 pounds of woolen yarns, dyed in colors and black. The total consumption of wool and mohair yarns was 344,271 pounds. The balance, 160,564 pounds, represents piece-dyed mixed goods. "Other yarns" reported as raw materials in the census returns amount to 108,388 pounds.

The marked tendency in recent years to the production of silk-mixed goods, comprising silk, cotton, and wool, and the interchange of the several fibers in the textile industries, reference to which has been made elsewhere in this report, is illustrated by the returns tabulated. In the cotton textile industry the consumption of raw-silk and spun-silk yarns has increased from 51,434 pounds in 1890 to 560,680 pounds in 1900. In the wool textile industry and its several branches the consumption of such materials has increased from 255,494 pounds to 323,884 pounds, and in the hosiery and knit-goods industry an increase from 120,341 pounds in 1890 to 266,247 pounds in 1900 is reported. A considerable quantity of skein-dyed silk yarn is now used as warps by the cotton and woolen manufacturers of New England. The great development of electricity in the United States has utilized a very considerable quantity of skein-dyed silk yarns in covering electric wires.

PIECE DYEING, PRINTING, AND FINISHING.—In addition to the piece dyeing of domestic goods, very large quantities of Habutai silks from Japan figure in the returns as dyed and finished in the United States; also cotton-back satins in considerable quantities from Switzerland, Germany, and Lyon, France.

The redyeing and finishing in the United States of dress silks imported in colors, and later turned to other uses in the millinery and trimmings trade, and the re-finishing of imported taffetas to suit changed conditions of demand and use, help to account for the apparent large excess of yardage piece dyed and finished by professional plants over the figures of strictly domestic production of piece-dyed goods.

Another consideration is the probable fact that the production of double-width taffetas, 18-36 inches to 27-54 inches wide, in double pieces, may have been returned singly by the manufacturer and doubly by the dyer and finisher.

SILK PRINTING.—What has been said respecting the piece dyeing of imported goods equally applies to the printing branch of the industry. Foreign-made goods

imported in the grey are now printed here as successfully as in Europe.

The item "Amount charged for work done" in the tables indicates payments to the independent or professional establishments, as follows:

Skein dyeing.....	\$4,305,809
Piece dyeing.....	849,294
Printing.....	419,870
Finishing.....	981,740
Total.....	6,556,713

The proportion of this amount applicable to the silk manufacturers exclusively is included in the item "Contract work," under miscellaneous expenses, in the tables included in this report. From the foregoing description of the methods of the business it is plainly evident that a part of these charges was for account of importers of foreign silks in the piece, and of the domestic users of skein-dyed yarns in other industries. The reported expense of dyeing, finishing, and printing is not the total value of the work performed in these branches of the industry, but represents only the amount charged by the independent or professional establishments, and does not include the value of such work done by silk manufacturers. As one price per yard is charged by a number of concerns which do both piece dyeing and finishing, the apportionment of the returns between these processes was estimated. The principal object of the tabulation was, as stated, to report quantities under the designated headings. The price charged for "finishing" 88,829,760 yards by 15 professional establishments in New York and New Jersey is reported at \$981,457. The current price for finishing all silk broad goods is 1 cent per yard, and mixed goods 2½ cents per yard. Other prices current in this branch of the industry are as follows: Piece dyeing (including finishing), all silk, 2½ to 3 cents per yard, and mixed goods, double the price charged for all silk goods. Printing (including finishing), 5 to 7 cents per yard, and warp printing, 7 to 12 cents per yard. In broad goods the average yardage per piece is 60 yards. Some pieces measure only 30 yards, but the great bulk of the production is in 50-yard and 60-yard pieces, while all the foreign cotton-back satins dyed in the United States average 75 yards per piece.

CAPACITY OF AMERICAN MILLS.

There are now in the United States silk manufacturers who turn out over 100,000 pieces of 60 yards each per year, more than half being taffeta weaves; yarn dyers deliver uncharged silk in two days, black and colored organzine and tram, weighted 70 to 80 per cent, in five to six days and heavy charged silk in eight to fourteen days, it being possible to arrange for shorter deliveries when necessary. One yarn dyer is able to turn out and ship 4,500 pounds black and 3,000 pounds

colored daily. Finishing plants are now able to turn out 2,000 pieces per day. Formerly all piece-dyed goods made abroad were dyed in Europe and finished there, but since 1897 the piece-dyeing and printing branches in the United States have greatly enlarged their facilities, and now dye and print not only large quantities of domestic raw goods, but also some imported goods. The domestic production of piece-dyed goods as shown by the census returns is presented in the following statement:

	Quantity.	Value.
	Yards.	
All silk	7,331,501	\$3,342,167
Silk mixed	8,553,884	2,868,506
Total	15,885,385	6,210,673

During the last ten years every weave, article, and quality known to mechanical weaving, or which, through alterations on machinery or simplification in manufacturing, could be put in reach of power-loom weaving, have been manufactured in the United States. With the exception only of a few Lyon specialties, which for different reasons are not suitable for mechanical weaving, every style which the silk industry brings to the market is manufactured in the silk mill of to-day, viz:

Pure silk goods, silk and wool, and silk and cotton mixtures and spun-silk fabrics.

Warp prints of all descriptions and piece-dyed and printed goods in every variety.

Plain silks of all weaves; "fancies," from the simplest to the most complicated styles, and Jacquards, brochés, etc.

Light-weight goods, as chiffons, mousselines, marcelines, and the heaviest curtain and upholstery silks.

All the products of the various mills, including the great variety of dress silks, linings, and trimmings; goods for the cloak, necktie, and millinery trades; and silks for the manufacturers of silk waists, skirts, umbrellas, and parasols—all these give most convincing testimony to the many-sidedness of the American weaving mill. That the industry has in a comparatively short space of time achieved such good results may be attributed to the enterprise and intelligence of its leading men, who readily experiment with new and untried methods regardless of trouble and expense, even if there is only small hope of success.

The following is a statement in round numbers of the estimated value of the silk production of Europe and the United States in 1900, by countries, with the percentage that the production of each country forms of the total production. This statement includes only the value of finished goods, and not that of partially manufactured products. The several countries are presented in the order of their importance in the manufacture.

SILK PRODUCTION OF EUROPE AND THE UNITED STATES: 1900.¹

	Value of annual production.	Per cent of production.
France	\$122,000,000	90.9
United States	92,000,000	28.8
Germany	78,000,000	18.5
Switzerland	38,000,000	9.6
Russia (in Europe)	21,000,000	5.3
Austria	17,000,000	4.3
Great Britain	15,000,000	3.8
Italy	13,000,000	3.3
Spain and Portugal	4,000,000	1.0
Total	295,000,000	100.0

¹ International Universal Exposition at Paris: Report of United States Commissioner Peck: Report on Silk Fabrics, contributed by Franklin Allen, juror of the United States in the silk section (class 83). Government Printing Office, Washington, D. C., 1901, page 566.

RELATIVE POSITION OF FRANCE AND THE UNITED STATES.

The annual production of¹ France is claimed to be \$122,000,000, distributed as follows:¹

Lyon	\$80,000,000
St. Etienne (ribbons)	20,000,000
Paris	6,000,000
Calais, Le Nord, etc	16,000,000

The Lyon manufactures, therefore, constitute nearly two-thirds of the production of France; they include, however, a considerable quantity of silk and cotton mixture (mélange), the manufacture of which has been greatly developed at that city. The total is further swollen by including the foulards imported from Japan and China, which are valued at about 15,000,000 francs annually, and, being printed in Lyon, are returned as Lyon manufactures with a value of 20,000,000 francs. Strictly speaking, the value of the silk woven in another country should not be included in any correct statement of the gross volume of the local production. France now consumes somewhat less raw silk than the United States, her consumption being estimated by the Lyon Chamber of Commerce at 9,000,000 pounds, while that of the United States during the census year was 9,760,770 pounds. New York city, the only raw-silk market in America, now holds the first place among the raw-silk markets of the world, Shanghai alone excepted.

More raw silk is sold annually in New York than is consumed in France, which is the largest raw-silk consuming country of Europe. As to the selling value of the product, the United States ranks second, being surpassed by France, which still dominates, without serious competition, the world's markets in church ornaments and chasubles, and Parisian specialties representing the supremacy of Paris fashions for women's wear. Many

¹ From charts exhibited at the Paris Exposition of 1900, indicating the annual production of the principal silk manufacturing countries, prepared by Mr. Marius Morand, secretary of the Chamber of Commerce of Lyon.

of these are made on handlooms, the quantities required in different patterns and styles being so limited that their production in the United States by power-loom weaving would not be profitable.

WORLD'S RAW-SILK SUPPLY.

The quantity, character, and mercantile condition of the raw silk received from the several sources of supply are prime factors in the industry. The price of raw material also has an important influence. Wide variations in price are a great disadvantage. When, on the other hand, the maximum and minimum prices steadily maintain a narrow range the industry is benefited.

Likewise the stimulation of raw-silk production through the development of new centers of industrial activity in silk manufacture, as in the United States, is a general benefit. Steadier and more moderate prices follow increased production, as a rule, and these in time encourage the use of silk in ever-widening channels; the cost of raw silk to the consumer is thereby also greatly diminished. For instance, it is not so many years since the buyers of cocoons in Europe relied upon and received a profit of 10 to 20 francs a kilo for the

reeled silk, or 87½ cents to \$1.75 a pound, and in the United States, in the earlier days of the industry, the importers of raw silk confidently counted upon an equal profit. The manufacturers of the United States naturally began to import on their own account, and as a result of their competition with the importers, the difference between the price here and the price abroad was reduced to less than \$1 per pound. It is sufficient to say that to-day the competition is so healthful, owing to the increasing rivalry to which the United States has so largely contributed, that a small difference in the price per pound often determines whether the purchase is effected here or abroad. In "thrown silk" the contrast is quite as great. Many men now living recall the time when the silk manufacturers paid as high as \$4.50 a pound for the process of "throwing" organzine silk. Now the common price paid is from 60 to 75 cents per pound, depending upon the condition in which the silk is reeled where produced.

Table 22 presents the total raw-silk production of the world, showing the production in detail of the several sources of supply, at five-year periods, from 1870 to 1900, inclusive, the weight being given in kilograms, and in the aggregate reduced to pounds.

TABLE 22.—WORLD'S PRODUCTION OF RAW SILK, IN KILOGRAMS AND IN POUNDS.

COUNTRIES.	1900	1895	1890	1885	1880 ¹	1875 ¹	1870 ²
	Kilograms.	Kilograms.	Kilograms.	Kilograms.	Kilograms.	Kilograms.	<i>Kilograms.</i>
Europe: Total.....	4,277,000	4,761,000	3,830,000	3,520,000	3,608,000	3,456,800	3,317,000
Italy.....	3,383,000	3,509,000	2,880,000	2,810,000	.....	.....	3,180,000
France.....	560,000	895,000	618,000	483,000	.....	.....	687,000
Austria.....	276,000	268,000	267,000	142,000	.....	.....	.....
Spain.....	78,000	90,000	65,000	85,000	.....	.....	.....
Levant: Total.....	1,760,000	1,244,000	707,000	730,000	727,000	760,400	.....
Asia: Total production exported.....	10,730,000	8,027,000	6,783,000	5,676,000	6,242,000	5,399,700	3,589,400
China, Shanghai ³	4,756,000	3,358,000	2,914,000	2,695,000	.....	.....	1,680,400
China, Canton.....	2,253,000	1,394,000	1,529,000	774,000	.....	.....	1,018,000
Japan, Yokohama.....	3,371,000	3,076,000	2,130,000	1,346,000	.....	.....	423,000
India, Calcutta.....	350,000	199,000	210,000	861,000	.....	.....	408,000
Aggregate, kilograms.....	16,767,000	14,032,000	11,320,000	9,926,000	10,577,000	9,616,900	7,406,400
Aggregate, reduced to pounds.....	36,964,528	30,934,947	24,956,072	21,882,860	23,318,054	21,201,418	16,328,149

¹ Estimated from best information obtainable.

² Trustworthy figures of the world's supply prior to 1870 can not be given.

³ Tussah silk not included.

The following statement shows the quantity and invoice value of raw silk imported into the United States in each decennial year from 1860 to 1900, inclusive, and the average cost per pound, taken from the "Reports of the Bureau of Statistics of the United States Treasury Department:"

YEAR.	Pounds.	Invoice value.	Average cost per pound.
1860.....	297,877	\$1,340,676	\$4.50
1870.....	583,389	3,017,353	5.17
1880.....	2,562,238	12,024,693	4.69
1890.....	5,943,300	23,285,099	3.92
1900.....	11,259,310	44,549,672	3.96

A rise of \$1 per pound in the price to a country using, as the United States now does, about 10,000,000 pounds

annually, means, therefore, an increase of about \$10,000,000 in the cost of raw material, and must represent that much financial loss to the manufacturers, unless recouped from the consumer.

There have been great variations in the price meanwhile, as is shown by the following quotations:

In 1868 prices of raw silk averaged \$8.43 per pound, the highest prices of Blue Elephant Tsatlee, Best Italian No. 1, and Japan Maybash No. 2 averaging \$9.29 per pound.

In 1876 the highest prices of the same silks averaged \$9.10 per pound.

In 1894 the lowest prices prevailed, the lowest prices of the same silks averaging \$2.94 per pound. Canton Filature Best No. 2 was quoted at \$2.61 per pound. The world's supply in that year was 31,860,879 pounds.

The recognition by silk reelers of the standards of merit required by the most progressive silk manufacturers is also of great commercial and industrial importance. China and Japan are the two largest contributors to the world's supply from their surplus production. As a result of the close attention given by the progressive Japanese to the requirements of silk manufacturers in the United States, a much larger proportion of the raw silk consumed in the United States is supplied by Japan than by any other country. The percentage of raw silk that each principal producing country contributes to the world's supply, according to the statistics for 1900, shown in Table 22, also the percentage that each country contributes to the consumption of raw silk in the United States, as derived from the import statistics of the Treasury Department for the same period, are shown in the following statement:

COUNTRIES.	Per cent of contribution to world's supply.	Per cent of American consumption.
China	41.8	34.3
Japan	20.1	42.3
Italy	20.1	19.7
France	3.8	3.2
All other countries.....	14.7	0.5
	100.0	100.0

The production of raw silk in China is an absolutely unknown quantity. When prices in Europe and America are relatively high the supply increases surprisingly. When prices are normal or low the supply decreases. It is manifest, however, that by closer attention to the United States market, China could greatly extend its raw-silk trade with this country. It is to be hoped that an effort will be successfully made to overcome the commercial indifference of Chinese merchants to the trade wants of their customers. The vast amount of capital invested and the large number of operatives employed in the silk industry throughout the world should be, it would seem, a commercial stim-

ulus to China, the greatest producer of raw silk, to perfect its silk-reeling processes by the application of skilled labor, so as to secure a much larger share than now of the profits of a business in which the country has so many natural advantages. The profit of her reelers would be greater if the output of her filatures were better adapted to the requirements of foreign consumers.

In Japan the domestic consumption of raw silk is usually estimated at about 50 per cent of the production, the remainder being exported.

In Italy the domestic consumption is probably about 15 per cent of the production, the remaining 85 per cent being exported to supply the silk manufacturers of France, Switzerland, Germany, Russia, England, and the United States.

DETAILED STATISTICS OF SILK MANUFACTURE.

The detailed statistics for the industry as reported are shown in Table 23 at the end of the report. This table presents separate totals for each state in which there were 3 or more establishments, and groups the statistics for other states so as not to disclose the operations of individual establishments. The establishments are classified according to the character of the ownership, which shows that 132 were owned by individuals, 154 by partnerships, and 197 by corporations. The employees are segregated so as to show for salaried officers and wage-earners, separately, the number and salaries or wages of men, women, and children, respectively, and also the average number of wage-earners employed during each month of the year. Separate totals of the different materials and products are shown. The number of machines, spindles, looms, etc., are presented, and the quantities of goods dyed, finished, and printed by silk manufacturing establishments performing such work; also the number of engines, water wheels, electric motors, and other power in use, with their horsepower. The 483 establishments are grouped according to the number of employees in each.

HISTORICAL AND DESCRIPTIVE.

The silk industry has reached the point where its future seems assured as a permanent branch of the textile industries of the United States, and, judged by the commercial effect that its establishment in this country has had upon improving and cheapening the processes of manufacture, and in lowering the cost of silk goods, every American can take pride in this industrial and commercial achievement.

The silk maker's art in the United States was transplanted from Europe, but, like many another transplanted art, it has taken such a firm hold on the business activities of the country that it has become thoroughly domesticated.

The beginning of the industry on this continent dates back to the Spanish conquest of Mexico in the Sixteenth century. At the beginning of the Seventeenth century King James I of England lent his royal favor by bestowing upon the London Company "plenty of silkworms, seed of his own store being the best," and by this company the "seed" was sent out to Jamestown, Va., as one of the means of helping the early colonists.¹

Simultaneously with this effort of King James to develop silk culture in England and America, Henry of Navarre (Henry IV of France) brought 14,000 mulberry trees from Italy, which were planted in the royal gardens of France.² Silkworm eggs were also procured from Italy, and other measures were taken by this patriotic king to encourage the nascent industry in France. It is interesting now to note that the prime minister of the King, the great Duke Sully, looked coldly upon this enterprise, arguing that "Luxury should be repressed, most certainly not encouraged." But the King had been converted to the idea by Oliver de Serres, whom the French honor as "the father of agriculture," and was not moved by the arguments of the minister. Sully, referring to this matter in his *Memoirs*, 1603, says: "I could not persuade him. 'Are these,' the King said to me, 'the good reasons you have to offer? I would much rather fight the King of Spain in three pitched battles than all those gentlemen of the robe, of the inkstand, and of the city, beside their wives and daughters, whom you will bring down upon me with your fantastic regulations.'"³

The industry, thus encouraged in France three hundred years ago, made notable progress both as to culture and manufacture. In America, notwithstanding the efforts of essayists and the premiums and bounties offered by colonial assemblies and by the English Parliament, the planters could not be stirred to much activity in raising silk. Silk culture by the colonists

would evidently have been a good thing for British manufacturers, but the record of history is that it had a fitful, uncertain existence. From 1750 to 1772, the period of its greatest activity before the Revolution, the export of raw silk averaged only 500 pounds per annum and rarely exceeded 1,000 pounds in a single year.⁴

For many years after the War of the Revolution premiums and bounties for planting mulberry trees and for producing raw silk were authorized by a number of states. In New England, New York, New Jersey, and Pennsylvania, especially, great interest was taken in the subject. Dr. Ezra Stiles, president of Yale College, at New Haven, Conn., and Dr. Benjamin Franklin, of Philadelphia, were among the most notable promoters of the movement. In December, 1825, the subject of silk culture began to receive national attention, being brought before Congress by a resolution of inquiry introduced by Mr. Miner, of Pennsylvania, and referred to the Committee on Agriculture. This committee reported favorably in the spring of 1826, the report including a resolution directing the Secretary of the Treasury to cause to be prepared a well-digested manual on the growth and manufacture of silk. Inquiries for information on the subject were sent out by the Secretary, Mr. Richard Rush, in 1826; and from the replies and other material a manual was compiled entitled "Letter from the Secretary of the Treasury," dated February 7, 1828. Six thousand copies were printed by order of Congress.⁵ This document became known as the "Rush Letter;" it contains 220 pages, besides illustrations of machinery, and is a carefully executed work.

This favorable action and the publication by Congress at the same session, and at many subsequent sessions, of other documents relating to silk culture, together with the serious consideration of the subject by the Congressional Committee on Manufactures, as well as by the Committee on Agriculture, enlisted general attention. Sericulture gained the public ear. Legislatures of several states passed bills for its encouragement, and a most determined effort was made to place silk growing on a paying basis. For ten years all went well. Silk conventions were held in Maryland, New Jersey, New York, and Connecticut, between December, 1838, and April, 1839, and there were many other gatherings devoted to the cause. What soon proved to be a disturbing element had, however, been introduced by an effort to supplant the white mulberry, *Morus alba*, on the leaves of which the worms had been fed, by the so-called Chinese mulberry, the *Morus multicaulis*, on account of the superior qualities claimed

¹ Silk Industry, Paris Exposition, 1867, by Hon. Elliott C. Cowdin, United States commissioner, Washington, D. C., 1868, page 7. Purchas, *His Pilgrimes*, Vol. IV, page 1777.

² Tenth Census of the United States, Report on Silk Manufacture, by William C. Wyckoff, special agent, page 1.

³ *Memoirs of Sully*, London, 1778, Vol. V, pages 150-159.

⁴ Tenth Census of the United States, Report on Silk Manufacture, by William C. Wyckoff, special agent, page 10.

⁵ H. R. Doc. 158, Twentieth Congress, first session.

for it. All the agricultural literature in the country soon became suffused with the descriptions of this wonderful tree. Speculation began, and prices of trees advanced far beyond their value. Large as were the anticipated profits of producing silk, they were insignificant as compared with the fortunes to be made by raising the new mulberry tree. Orchards of it were planted in every state in the Union. With increasing velocity the tide of speculation rose. Trees became of greater value than the silk which they could by any possibility be the means of producing. One writer says: "Prices ranged for trees produced from one bud or cutting and of a single season's growth, from 5 cents to 10, 20, 50 cents, \$1, and in some instances \$5 apiece."¹

The list of stock companies formed for raising and manufacturing silk at this period is very long, but as Mr. William C. Wyckoff, writing the report on Silk Manufactures for the Tenth Census of the United States (1880), says of them, "Their lives were very short." The bubble burst in 1839. Silk culturists and manufacturers had everywhere been swept into the rising current. As for the tree speculators, it is related that one who had been among the most successful sent an agent to France with \$80,000 to buy trees and cuttings in the winter of 1838-39. Before the whole of his purchase had arrived the crisis had come. The nurseryman had failed for so large a sum that he could never reckon up his indebtedness, and the next spring his *Multicaulis* trees were offered in vain to the neighboring farmers at \$1 a hundred for pea brush.²

Notwithstanding the favorable climatic conditions both in France and the United States for the growth of mulberry trees and the rearing of silk worms and cocoons, silk culture has dwindled in both countries, because more remunerative occupations are afforded by other lines of industry. Although in France the raisers of cocoons and reelers of silk are protected by a considerable bounty, payable by the French Government to her citizens as against the Italians, that country produces less than 4 per cent of the world's supply of raw silk. Her silk manufacturers are well content to purchase, as America does, the raw silk from Italy, Japan, and China, in all of which countries the ruling rates of wages are much less than in France and very much less than in the United States. Both France and the United States pursue the same fiscal policy of admitting raw silk free of duty and therefore both are on a par in this respect. Under this policy France produces only a small portion of the raw silk needed for its silk manufactures, while in the United States silk culture, which was introduced simultaneously to its stimulation in France three hundred years ago, practically ceased to exist in 1844, although since that date sporadic attempts to revive it have been made in Cali-

fornia and more recently in Kansas and at Salt Lake City, Utah.

Meanwhile, step by step, but slowly, improvements have been effected here in the manufacture of silk goods. The making of sewing silk became a household industry in New England, at first by hand, and later by machinery. The manufacture of silk trimmings of various kinds was commenced in 1815 at Philadelphia, and ribbons in 1829, at Baltimore.³ The invention of the sewing machine in the United States developed a demand for "machine twist," a silk thread specially suited for use on sewing machines and first applied to that purpose in February, 1852. These goods, together with fringes, gimps, and tassels, and a few ribbons, continued to be the principal products of the silk industry in the United States until the outbreak of the Civil War.

One of the foremost silk manufacturers of the United States, the first vice-president of the Silk Association of America, in a recently published treatise on the silk textile industry, correctly sets forth the reasons for its powerful development in recent years, as follows:⁴

As reasons for the rapid as well as powerful development of the United States silk industry, notwithstanding the competition of well-introduced imported goods and the splendid organization of the importers, and in spite of the mistrust which was felt by consumers for a long time against the domestic goods, we find:

1. The natural capability of the American merchant and manufacturer, his common sense, enterprise, and self-confidence.
2. The capital which is always ready to support enterprise in this country in the form of extensive and liberal credits.
3. The support which is given all these undertakings by the people, by the city and state governments in form of tax privileges, donations of lots, putting up mill buildings, and renting same at a low rate of interest; even in some cases by subscribing a certain amount of the necessary working capital.
4. The intellectuality of the American technician, who through his inventions of time-saving machinery, which are simply constructed and easy to handle, is, perhaps, unequaled. The operative also is moderate and his common sense makes him especially fit for the manufacturing business.
5. The easy intercourse between manufacturer and dealer which enables the first to get fully and promptly acquainted with the needs and wants of the consumer.

The last point can not be too strongly emphasized. In a large sense the American manufacturer is his own merchant and distributor. He is in close touch with the dealers and retailers, knows what they want, and manufactures accordingly. Silk manufacturers abroad (especially in France and Switzerland) are fully aware of this requisite to successful trade. The closer silk manufacturers get to the consumer, the greater the success they achieve. When to this genius for trade is added the unconquerable energy and persevering inventiveness of the silk manufacturer in the United States; the superior intelligence and push of the operatives, both skilled and unskilled; the perfection of methods

¹ The Silk Industry of the United States from 1766 to 1874, by A. T. Lilly, Florence, Mass., 1875, page 8.

² The Silk Industry of America, by L. P. Brockett, M. D., New York, 1876, page 40.

³ Manual of American Silk Trade, 1873, by Franklin Allen, secretary of the Silk Association of America, New York, pages 22-23.

⁴ Twenty-ninth Annual Report of the Silk Association of America, New York, March 26, 1891, pages 48 and 49.

by "throwsters" in rapidity, certainty, and economy; the simplicity of high-speed looms in weaving; quick deliveries and perfectly satisfactory work in yarn dyeing, piece dyeing, finishing, and printing; and the ready adoption, at whatever cost, of every improvement known anywhere in silk manufacturing, the general excellence of the product manufactured in the United States, and its consequent success, is accounted for.

In England the silk industry has suffered a great decline since 1860. In recent years leading manufacturers there have emphasized the importance of specially organized technical schools for the education of artisans and for teaching drawing and designing to selected pupils. In the United States every large silk plant is a school of design, a teacher of scientific and technical education. All such plants have a corps of skillful designers, and many are in touch with artists and establishments abroad, whence is derived the latest information concerning novelties in all lines of manufacture. Skillful chemists are likewise attached to these plants, and, in fact, all processes of the industry proceed simultaneously under one management. To the clerk and workman is given a certain independence and freedom of action, no restraint being put upon his enterprise. Fulfillment of his duty is all that is required. That such a system improves the working methods and produces better results is plainly evident from the census figures.

IMPROVEMENTS IN THROWING AND WEAVING MACHINERY.

THROWING.—The past decade has not been marked by many changes in the throwing of silk. Efforts have been concentrated upon increasing labor efficiency, in saving waste, and similar economies, demanded by the constantly decreasing scale of prices. Larger mills have been built and equipped with the most modern appliances for heating, lighting, power, and manufacturing; smaller mills have been consolidated into larger establishments, thus lessening the general expenses; antiquated and worn-out equipments have been replaced by modern and more economical machines, the constant effort being to reduce cost of production. The success achieved has not, however, kept pace with the reduction in price of the product; and the throwster during these years has been confronted more or less with the problem of constantly increasing wages demanded by operatives, and decreasing prices paid by the manufacturers.

As regards machinery, the principal efforts have been to save space and processes; winding frames have been improved so as to produce more perfectly wound spools at higher speed, and obviate the necessity for redrawing. In the latest improved winding frame the bobbin is carried by a spindle having two heads resting upon the driving wheels, its bearings being supported upon inclined planes that sustain most of the weight, yet force the spindle into sufficient contact with the friction

wheel to secure a positive drive, the double support allowing high speed without throwing out the spindle.

Double-decking the winding frame has also been adopted by some to economize space and has some merits, though not generally adopted.

The doubling frame has also been perfected, allowing the work to be done at about double the speed and with better results; the old "flyer" and "jack-pin" system has been displaced by a cap on the bobbin, by means of which the thread can be drawn off naturally and the desired tension applied alike upon the assembled threads.

In spinning, the belt system, so called, where the spindles are driven by contact with an endless belt instead of with bands, has been adopted in all new installations. The many advantages of this type of frame were at once recognized, and at the present date over one-half of the spinning spindles in the country are of this system, although only first practically introduced in 1889. This belt-drive system adapted to the modern self-oiling spindle instantly won favor and adoption. A double-deck machine of this type quickly followed, giving double the number of spindles in the same space, still further solving the problem of economy and being generally adopted. In 1895 a combined spinner and doubler was designed, and it was soon evident that this invention had solved another great expense-saving problem and at the same time effected an improvement in the quality of the product. In the few years the last system has been practically upon the market 90,000 spindles have been put in use, or 15 per cent of the total number of first-time spindles. The system has, moreover, been introduced into several foreign countries, and it has been adopted by the technical schools of England and Switzerland as the most practical system of spinning organzine. This is a very substantial acknowledgment of the superiority of United States machinery for silk throwing over that of the rest of the world.

During the past ten years efforts have been made to solve the problem of spinning, doubling, and twisting organzine in one process, which have finally resulted in the production of a practical machine, but of the old band-drive system. A machine for this system of the belt-drive type, for which is claimed greater simplicity combined with increased effectiveness, has also been designed. It is too early as yet to say what the future of these machines will be, but they promise a large percentage of saving in the cost of production, with a decided improvement in quality, and at the same time a reduction in the cost of the equipment of a plant.

While during the past decade there have not been such great changes in throwing appliances as distinguished previous decades, there have been many marked improvements on the lines so briefly mentioned, and it can be said, from personal observation in many of the largest spinning mills in Europe, that in every step of

this branch of the silk industry the United States excels; our operatives tend a larger number of spindles; and, in spite of the higher wages paid here, the cost of production, pound for pound, aside from fuel and rents, will in nearly every case prove to be the lowest in the world.

The results from improvements in throwing machinery during the past decade can therefore be broadly summed up in the statement that these improvements have made possible a saving of about 40 per cent in the floor space needed and about 20 per cent in cost of production over the older system, figuring all the savings resulting from less floor space, power, and processes required to turn out a corresponding amount of work.

WEAVING.—The rapid strides made in the development of the power loom, together with the skill of American labor, have made the substitution of power looms for hand looms, which has been a noticeable feature of the industry for the last three decades, especially marked during the past decade, so much so that the statistics indicate the practically complete supersession of the hand loom by the power loom, there being in use, as reported, but 173 of the former as compared with 44,257 of the latter.

There are in successful operation in the silk mills of the United States to-day nearly two and a half times as many power looms as there were ten years ago. While improvements have been made constantly in the construction of these power looms ever since their introduction, probably the past ten years have witnessed the most rapid strides in this direction. These improvements have resulted in the production of a loom of high efficiency, equipped with mechanical devices designed for the saving of both time, labor, and material, such as the numerous multipliers, two-weave, leno, swivel, embroidery motions, and many other devices, all arranged to operate automatically, by the use of which marvelous results may be obtained.

Formerly the accomplishment of some of the above results, if possible at all on the power loom, required the use of a long pattern or indicator chain. Some of the principal progress has consisted in the invention of devices for facilitating the saving of such materials as this pattern or indicator chain. By dispensing with this long and cumbersome attachment the loom is made capable of much higher speed.

Among the multipliers particularly worthy of mention, in addition to the well-known multiplier for the box chain, whereby any shuttle box may be called at will, and any color used as long as desired, is the so-called two-weave multiplier, by the use of which two distinct weaves are produced in the loom and indicated from the same pattern chain.

Another multiplier, known as the manifold multiplier, consists of a mechanical device which, when used in addition to the two-weave motion, makes it possible to

produce three or more distinct weaves in the loom; each weave may be entirely different from the others. In fact, there is hardly any limit to the number of weaves that may be produced by the use of this mechanism, the change from one weave to the other being made automatically when the loom is in full operation.

Among the many other improvements, the progress made in producing leno effects might be mentioned. Present methods and attachments for producing this class of work are far in advance of the old methods, resulting in much saving of doups and in less breakage of warp threads. The old method of using two beams, one for the whip thread and one for the standard thread, is now generally superseded by taking all the threads from one beam, unless the pattern calls for a design in which the whip thread is longer than the standard thread. Slackeners are used only on such threads as require them, instead of rocking the whole warp beam.

The lappet motion has also been successfully applied to different types of looms during recent years, and at the present time these motions are built with one, two, three, and four bars or rows of needles, producing some beautiful effects on the surface of the goods.

The cross-weave loom produces a novel open-work effect in the woven fabric. A series of forked needles engages, as desired, selected groups of warp threads and crosses them over adjacent groups previous to the forming of the shed. After the passing of the shuttle and the beating up of the lay, the warp threads resume their normal position for plain weaving until again called for the cross-over process. A recent improvement produces an undulating or wavy effect by virtue of a movable reed, whose dents are inclined at different angles instead of being parallel, alternate groups of dents spreading upward, and intermediate groups spreading downward, so that the gradual raising and lowering of the reed produces a spreading of the warp threads at one point and a closing up at another.

The embroidery loom was especially designed for the purpose of making a figure on a light ground of cloth while the cloth is being woven, without waste of stock or material. Although the ground may be a light weight of goods, the figure is thick and compact in appearance. This effect can not be produced on a regular broad-silk loom, as the filling, when not wanted to show in the figure, must be buried in the body of the goods, and, moreover, for this reason there is a considerable waste of material.

Swivel looms built to-day have one, two, or three banks of swivel shuttles, so that it is possible to put as many as three colors in each figure at will with almost no loss or waste of material.

The principal difference between the swivel and embroidery looms as built to-day is that in the former the figures are usually arranged a certain distance apart in the goods, while in the latter a figure the entire width of the goods may be made if desired.

Outside of these special features there are many types of what might be termed standard looms used to-day for the manufacture of broad silks. In this connection special mention should be made of the improvement by which all classes of taffeta effects, formerly made on hand looms only, are now successfully made on power looms.

The highest type of loom designed for best grades of fabrics, both plain and fancy, is fitted with a positive head motion by which the harnesses or shafts are positively raised and lowered. The dobbie loom is similar in construction to the above-mentioned loom, but a dobbie is substituted in place of the positive head motion, the harness shafts being raised by the dobbie but pulled down by springs. The cam loom, the harness shafts being controlled by cams which are positive in their action, is somewhat limited in weaves and designs by reason of the weave being dependent on these cams. On the two first-mentioned classes of looms almost any weave may be produced, the head motion or the dobbie being controlled by means of a pattern chain which can be changed or made over at will. On the Jacquard loom the weave is controlled entirely by the Jacquard. On all of these types of looms shuttle-box motions of different capacities may be employed, allowing the use of from one to seven colors.

In the Jacquard, which forms so important a factor in the production of broad silks, there has been nearly as much improvement as in the loom itself, particularly as regards the saving of cards and increased speed. The present double-cylinder cross-border machine accomplishes about the same result on the loom as does the manifold multiplier described above. Attachments are now added to the Jacquard so that, through a suitable intermediate mechanism, the pattern or box chain is not required at all on the loom, the Jacquard cards being so punched that the shuttle boxes are controlled by the Jacquard, thus obviating the possibility of the Jacquard getting out of time with the shuttle boxes of the loom.

In addition to the many improvements referred to in looms designed for broad silks, the changes that have taken place in the development of the ribbon loom must not be overlooked. These looms, as built to-day, are capable of very high speed, and show a great advance over the "Swiss" and "German" types of looms which were almost universally used in this country ten or fifteen years ago. The modern ribbon loom was first designed and built in this country and has been constantly improved, until to-day it has reached a very high state of perfection. Under the old method of handling the warp it was necessary to employ men on the looms. Under the present arrangement of the loom the warp is placed on beams similar to broad-silk looms, and each individual warp is let off automatically from each beam, making it entirely unnecessary for the weaver to go behind the loom for this purpose.

The best type of ribbon loom, the high-speed auto-

matic, embodies all the latest improvements of construction; it is adapted to high-grade Jacquard work, where high speed has been slow of adoption, and to single-shuttle Jacquard work on labels, etc.; it has the automatic let-off system for the warps, is capable of a more uniform weave than the old machine, and has greater productive capacity.

There has recently been perfected a very efficient silk-velvet ribbon loom which is destined to fill a very important place in the ribbon industry. This loom will produce the best quality of silk-velvet ribbon at a very high speed for this class of work, the pile being cut automatically in the loom. It is one of the latest triumphs of American skill in the art of weaving.

The modern power loom is the result of much study and inventive genius, and with it to-day can be produced many fabrics which ten years ago it was impossible to make except by hand. Nowhere has this development been so pronounced and successful as in the United States.

DATE OF THE ESTABLISHMENT OF THE SILK INDUSTRY IN CITIES, TOWNS, ETC.

Incident to the growth of the industry, silk mills have been established in nearly all the New England and Middle states and in some of the Western and Southern states. Pennsylvania has been the greatest gainer in this respect during the last decade. Delaware, Virginia, and North Carolina have also attracted silk mills by liberal inducements to manufacturers.

The dates of starting the silk industry in the Nineteenth century in some of the more important places in various states, and the classes of goods, are shown in the following statement. It should be understood that in order to avoid duplication of towns in this statement only the first date at which any branch of the industry was inaugurated is given. Thus, in Philadelphia, when W. H. Horstman commenced the manufacture of dress trimmings, 1815 is mentioned, whereas the commencement there of the manufacture of sewing silk in 1843 and of ribbons in 1852 are omitted.

YEAR.	Place.	Class of goods.
PENNSYLVANIA.		
1815.....	Philadelphia.....	Dress trimmings.
1879.....	Scranton.....	Tram and organzine.
1880.....	Hawley.....	Tram, organzine, and broad silks.
1881.....	Allentown.....	Broad silks.
1881.....	Darby.....	Spun-silk yarns.
1883.....	Easton.....	Tram and organzine.
1886.....	Bethlehem.....	Tram and organzine.
1886.....	Catasauqua.....	Spun silk, laces, and braids.
1886.....	Harrisburg.....	Tram, organzine, and broad silks.
1886.....	East Mauch Chunk.....	Tram, organzine, broad silks, and ribbons.
1886.....	South Bethlehem.....	Tram, organzine, and broad silks.
1886.....	Stroudsburg.....	Tram and organzine.
1886.....	Wilkesbarre.....	Strah and figured pongees.
1887.....	Honesdale.....	Tram, organzine, broad silks, and ribbons.
1887.....	Pittston.....	
1887.....	Pottsville.....	Tram and organzine.
1887.....	Reading.....	Tram, organzine, and broad silks.
1888.....	Altoona.....	Tram and organzine.
1888.....	Bloomsburg.....	Tram, organzine, and broad silks.
1888.....	Weatherly.....	Tram and organzine.
1891.....	Carlisle.....	Tram and organzine.
1891.....	Eden.....	Silk and cotton curtains.

TABLE 23.—SILK AND SILK GOODS, INCLUDING

	United States.	California.	Connecticut.	Illinois.	
1	Number of establishments.....	483	5	38	4
2	Character of organization:				
3	Individual.....	132	3	14	1
4	Firm and limited partnership.....	154	1	4	
5	Incorporated company.....	197	1	20	3
6	Capital:				
7	Total.....	\$81,082,201	\$308,847	\$12,166,775	\$259,540
8	Land.....	\$2,045,093	\$3,600	\$282,294	\$15,000
9	Buildings.....	\$10,205,812	\$29,726	\$1,597,352	\$25,000
10	Machinery, tools, and implements.....	\$20,750,449	\$44,161	\$2,061,739	\$95,959
11	Cash and sundries.....	\$48,080,847	\$231,360	\$8,226,330	\$123,581
12	Proprietors and firm members.....	477	6	23	1
13	Salaried officials, clerks, etc.:				
14	Total number.....	2,057	6	323	33
15	Total salaries.....	\$3,184,852	\$4,998	\$403,423	\$51,180
16	Officers of corporations—				
17	Number.....	304		29	5
18	Salaries.....	\$769,771		\$103,090	\$13,000
19	General superintendents, managers, clerks, etc.—				
20	Total number.....	2,353	6	294	28
21	Total salaries.....	\$2,364,681	\$4,998	\$300,333	\$38,180
22	Men—				
23	Number.....	2,078	5	257	24
24	Salaries.....	\$2,240,552	\$4,530	\$284,352	\$35,200
25	Women—				
26	Number.....	275	1	37	4
27	Salaries.....	\$124,029	\$468	\$15,981	\$2,080
28	Wage-earners, including pieceworkers, and total wages:				
29	Greatest number employed at any one time during the year.....	75,110	142	7,400	507
30	Least number employed at any one time during the year.....	56,959	82	5,833	315
31	Average number.....	65,416	117	6,514	412
32	Wages.....	\$20,982,194	\$33,055	\$2,392,878	\$121,644
33	Men, 16 years and over—				
34	Average number.....	24,206	24	2,763	81
35	Wages.....	\$10,099,483	\$14,436	\$1,350,543	\$43,475
36	Women, 16 years and over—				
37	Average number.....	34,797	91	3,585	310
38	Wages.....	\$9,377,696	\$18,119	\$1,013,498	\$73,919
39	Children, under 16 years—				
40	Average number.....	6,413	2	166	21
41	Wages.....	\$905,015	\$500	\$28,832	\$4,250
42	Average number of wage-earners, including pieceworkers, employed during each month:				
43	Men, 16 years and over—				
44	January.....	24,197	25	2,677	82
45	February.....	24,729	26	2,710	82
46	March.....	25,024	26	2,708	83
47	April.....	25,200	23	2,785	86
48	May.....	24,752	23	2,745	86
49	June.....	23,855	22	2,618	66
50	July.....	23,792	18	2,711	65
51	August.....	23,829	22	2,730	75
52	September.....	23,797	24	2,855	81
53	October.....	23,749	26	2,947	83
54	November.....	23,801	27	2,967	86
55	December.....	23,747	27	2,701	81
56	Women, 16 years and over—				
57	January.....	34,742	98	3,501	319
58	February.....	35,340	95	3,581	367
59	March.....	36,221	91	3,659	363
60	April.....	36,038	86	3,719	356
61	May.....	35,352	86	3,658	293
62	June.....	34,402	82	3,534	265
63	July.....	33,822	64	3,542	233
64	August.....	34,137	88	3,515	253
65	September.....	34,045	91	3,497	283
66	October.....	34,309	99	3,589	340
67	November.....	34,517	106	3,662	335
68	December.....	34,639	105	3,566	306
69	Children, under 16 years—				
70	January.....	6,260	2	149	21
71	February.....	6,267	2	155	23
72	March.....	6,410	2	164	23
73	April.....	6,564	1	169	27
74	May.....	6,537	1	164	25
75	June.....	6,502	1	164	19
76	July.....	6,417	1	163	15
77	August.....	6,381	1	164	14
78	September.....	6,336	1	170	19
79	October.....	6,349	2	170	22
80	November.....	6,429	2	187	23
81	December.....	6,454	2	177	21
82	Weavers:				
83	Broad silk—				
84	Men.....	8,917		448	
85	Women.....	9,188		441	
86	Children.....	235			
87	Ribbons—				
88	Men.....	3,725		21	
89	Women.....	1,467		200	
90	Children.....	21		7	
91	Velvets and plushes—				
92	Men.....	881		565	
93	Women.....	510		141	
94	Children.....	150			
95	Other—				
96	Men.....	1,837		412	
97	Women.....	1,892		367	
98	Children.....	261		32	

BRAIDS AND TRIMMINGS, BY STATES: 1900.

Massachusetts.	New Jersey.	New York.	North Carolina.	Pennsylvania.	Rhode Island.	Virginia.	All other states. ¹
20	180	92	3	121	6	3	11
6	51	32	1	19	3	1	1
8	63	34	-----	47	-----	1	1
11	66	26	2	55	3	1	9
\$5,649,758	\$29,285,792	\$9,800,207	\$130,376	\$20,894,023	\$680,252	\$594,359	\$1,312,272
\$216,341	\$733,387	\$202,138	\$6,200	\$491,598	\$24,955	\$12,600	\$57,000
\$756,454	\$2,966,084	\$586,224	\$52,000	\$3,683,545	\$96,224	\$174,440	\$233,763
\$707,345	\$7,297,856	\$3,061,252	\$40,525	\$6,696,158	\$165,032	\$210,200	\$370,182
\$3,969,618	\$18,288,485	\$5,950,593	\$31,651	\$10,017,722	\$394,041	\$197,119	\$651,347
11	197	94	1	181	3	2	8
156	959	363	11	745	8	12	41
\$227,276	\$1,144,512	\$514,439	\$3,455	\$718,776	\$12,320	\$12,678	\$41,295
20	98	41	6	88	3	1	13
\$51,850	\$269,368	\$163,891	\$875	\$144,462	\$9,200	\$1,000	\$13,035
136	861	322	5	657	5	11	26
\$175,426	\$576,144	\$350,548	\$2,580	\$574,314	\$3,120	\$11,678	\$28,260
115	787	298	5	549	4	10	24
\$166,772	\$840,337	\$338,784	\$2,580	\$528,243	\$2,320	\$11,314	\$26,120
21	74	24	-----	108	1	1	4
\$8,654	\$34,807	\$11,764	-----	\$46,071	\$800	\$364	\$2,140
3,465	27,162	9,330	265	24,424	563	518	1,334
2,953	20,784	6,563	255	18,496	365	420	834
3,110	24,157	7,861	209	21,028	455	473	1,080
\$1,110,324	\$9,232,532	\$2,861,818	\$25,420	\$4,629,626	\$166,675	\$165,056	\$303,171
1,102	11,279	3,149	35	5,214	124	144	291
\$506,282	\$5,296,102	\$1,509,660	\$3,827	\$1,718,587	\$82,240	\$61,294	\$108,037
1,537	11,679	4,299	119	11,565	326	228	758
\$562,989	\$3,731,827	\$1,293,875	\$13,331	\$2,363,123	\$83,664	\$31,885	\$191,466
171	1,199	413	55	4,249	5	101	31
\$41,053	\$204,603	\$58,283	\$3,202	\$547,916	\$771	\$11,877	\$3,668
1,067	11,247	3,266	38	5,262	109	137	287
1,094	11,540	3,361	38	5,326	118	147	287
1,099	11,676	3,429	38	5,402	114	150	294
1,100	11,699	3,366	48	5,534	108	149	302
1,089	11,605	3,165	48	5,455	123	145	288
1,057	11,324	2,865	38	5,322	124	148	271
1,078	11,395	2,889	20	5,077	128	147	264
1,095	11,237	3,032	20	5,064	125	143	286
1,116	10,984	3,095	20	5,043	131	145	303
1,144	10,786	3,186	38	5,005	138	132	309
1,153	10,791	3,101	38	5,054	137	145	302
1,131	11,070	3,077	38	5,027	138	134	323
1,776	11,666	4,492	138	11,617	224	221	660
1,855	11,861	4,501	138	11,788	231	221	702
1,951	12,055	4,698	138	12,010	256	222	769
1,934	12,012	4,515	158	11,989	276	221	772
1,870	11,946	4,149	158	11,873	330	212	777
1,732	11,701	3,920	138	11,747	350	249	684
1,697	11,688	3,944	50	11,264	354	241	745
1,732	11,564	4,132	50	11,455	346	239	768
1,885	11,378	4,266	50	11,248	369	240	783
1,921	11,261	4,376	138	11,145	384	229	827
1,841	11,427	4,324	138	11,270	391	222	801
1,901	11,561	4,266	138	11,364	400	218	814
143	1,164	408	54	4,184	3	101	31
157	1,157	406	54	4,163	3	104	33
163	1,175	428	54	4,248	3	108	47
170	1,230	446	59	4,316	4	103	40
168	1,221	430	59	4,326	4	112	27
165	1,203	408	54	4,363	4	93	28
170	1,212	411	54	4,256	10	102	23
167	1,219	398	54	4,288	9	95	22
176	1,216	397	54	4,219	8	101	25
193	1,190	390	54	4,202	3	96	27
195	1,201	420	54	4,212	3	103	29
190	1,202	421	54	4,256	3	100	28
301	5,491	899	-----	1,645	74	-----	59
208	3,548	824	38	3,777	156	12	184
-----	38	2	-----	191	-----	-----	4
-----	1,762	1,014	-----	885	-----	-----	43
40	502	203	-----	517	-----	-----	5
-----	3	10	-----	1	-----	-----	-----
-----	48	109	-----	149	10	-----	-----
-----	5	20	-----	344	-----	-----	-----
-----	-----	-----	-----	150	-----	-----	-----
10	691	351	-----	341	20	-----	12
34	763	450	-----	278	-----	-----	-----
8	76	86	-----	59	-----	-----	1

¹ Includes establishments distributed as follows: Delaware, 2; Maine, 1; Maryland, 2; Michigan, 2; New Hampshire, 2; Utah, 2.

TABLE 23.—SILK AND SILK GOODS, INCLUDING

	United States.	California.	Connecticut.	Illinois.
Spinners, etc.:				
79 Men	7,332	11	1,268	
80 Women	19,513	60	1,990	
81 Children	4,955		227	
Miscellaneous expenses:				
82 Total	\$10,264,208	\$4,113	\$637,450	\$42,410
83 Rent of works	\$591,807	\$2,220	\$30,202	\$7,950
84 Taxes, not including internal revenue	\$238,116	\$680	\$36,506	\$1,074
85 Rent of offices, insurance, interest, and all sundry expenses not hitherto included	\$2,863,986	\$1,213	\$353,439	\$19,720
86 Contract work	\$6,570,299		\$217,253	\$12,766
Materials used:				
87 Total cost	\$62,406,665	\$146,219	\$7,198,008	\$187,514
Silk—				
88 Raw, pounds	9,760,770	30,425	1,159,961	
89 Cost	\$40,721,877	\$113,855	\$4,537,720	
90 Spun, pounds	1,550,291	725	502,558	4,225
91 Cost	\$3,406,059	\$2,380	\$998,566	\$12,724
92 Artificial, pounds	6,056			10
93 Cost	\$10,380			\$55
94 Waste, pounds	1,667,195		749,086	
95 Cost	\$784,539		\$404,183	
Other textile yarns—				
96 Cotton, pounds	6,444,208	8,500	1,187,863	255,247
97 Cost	\$1,830,550	\$2,675	\$338,836	\$36,950
98 Mercerized cotton, pounds	219,861	650	1,642	7,178
99 Cost	\$165,633	\$655	\$1,416	\$3,113
100 Wool, pounds	239,401	150	401	65,190
101 Cost	\$167,770	\$150	\$829	\$35,702
102 Mohair, pounds	104,810	380	1,236	6,992
103 Cost	\$107,365	\$545	\$1,543	\$10,024
104 Other, pounds	108,383		2,024	7,250
105 Cost	\$134,936		\$4,596	\$10,000
Silk purchased in partially manufactured form—				
106 Organzine and tram, pounds	2,338,464	980	31,041	4,713
107 Cost	\$10,539,632	\$7,320	\$154,881	\$21,149
108 Fringe and floss, pounds	67,934	250	743	8,905
109 Cost	\$274,403	\$1,100	\$4,161	\$29,803
110 Fuel	\$548,493	\$1,882	\$90,937	\$2,500
111 Rent of power and heat	\$135,509	\$000	\$5,980	\$530
112 Mill supplies	\$994,769	\$8,684	\$155,982	\$1,624
113 All other materials	\$2,406,123	\$8,371	\$427,544	\$23,230
114 Freight	\$228,522	\$3,472	\$21,334	
Raw silk thrown under contract:				
115 Organzine, pounds	2,331,456		184,270	
116 Tram, pounds	1,967,203		69,538	
Products:				
117 Total value	\$107,256,258	\$255,902	\$12,378,981	\$421,088
Organzine and tram made for sale, pounds.				
118 Value	2,468,337	2,000	92,000	
119 Spun silk yarn made for sale, pounds	\$11,167,191	\$5,000	\$502,520	
120 Value	437,459		166,265	
121 Machine twist, pounds	\$1,026,227		\$398,671	
122 Value	987,917	22,742	545,423	
123 Sewing, embroidery, and wash silks, pounds	\$5,997,974	\$163,742	\$3,364,546	
124 Value	477,633	5,200	145,032	
125 Fringe and floss silks, pounds	\$3,276,826	\$47,400	\$977,213	
126 Value	261,643		95,806	
127 Broad silk goods—	\$971,390		\$217,043	
Plain and fancies—				
128 All silk, yards	53,573,488	800	1,435,439	
129 Value	\$33,852,111	\$800	\$1,075,166	
130 Silk mixed, yards	3,963,315		415,648	
131 Value	\$5,450,710		\$269,937	
Jacquard—				
132 All silk, yards	7,532,229	800	7,563	
133 Value	\$5,379,001	\$800	\$3,905	
134 Silk mixed, yards	1,677,466		98,264	
135 Value	\$1,260,321		\$63,117	
Piece-dyed—				
136 All silk, yards	7,331,501		3,371,127	
137 Value	\$3,342,167		\$1,534,724	
138 Silk mixed, yards	8,568,834		147,833	
139 Value	\$2,868,506		\$98,720	
Other broad goods—				
140 Velvets, yards	5,122,249		4,261,208	
141 Value	\$2,479,003		\$2,087,639	
142 Plushes, yards	3,848,684		1,011,437	
143 Value	\$2,480,068		\$687,079	
144 Tapestries, yards	321,973		69,978	
145 Value	\$180,503		\$84,503	
146 Upholstery, yards	1,011,141			
147 Value	\$829,332			
Ribbons and laces—				
148 Ribbons, value	\$18,467,179		\$655,807	
149 Laces, nets, veils, veiling, etc., value	\$803,104			
150 Embroideries, value	\$57,625	\$1,000		\$46,477
151 Fringes and gimps, value	\$444,737	\$4,000		\$249,062
152 Braids and bindings, value	\$1,522,565	\$6,500	\$38,685	
Trimming—				
153 Tailors', value	\$26,624			\$6,000
154 Ladies', value	\$912,361	\$8,000		\$643,461
155 Cloak, value	\$241,500	\$3,200		\$31,000
156 Milliners', value	\$615,012	\$5,000		\$35,000
157 Military, value	\$54,666	\$3,100		\$6,346
158 Other trimmings products, value	\$183,853	\$6,000		\$3,802
159 Other products, value	\$1,027,472	\$160	\$192,744	
160 Received for contract work	\$2,337,220	\$200	\$136,362	

BRAIDS AND TRIMMINGS, BY STATES: 1900—Continued.

Massachusetts.	New Jersey.	New York.	North Carolina.	Pennsylvania.	Rhode Island.	Virginia.	All other states. ¹	
449	3,180	501	34	1,587	20	131	151	79
1,186	6,722	2,070	73	6,481	151	216	504	80
158	813	206	54	3,370	2	101	21	81
\$382,745	\$4,896,595	\$1,601,527	\$5,159	\$2,461,820	\$103,454	\$15,300	\$123,635	82
\$13,537	\$241,853	\$182,323	\$2,000	\$96,547	\$13,925		\$905	83
\$29,583	\$97,005	\$27,537	\$86	\$36,330	\$3,013	\$1,168	\$3,524	84
\$179,306	\$1,120,458	\$512,228	\$1,878	\$610,872	\$7,916	\$12,697	\$44,214	85
\$160,019	\$3,436,634	\$879,389	\$1,200	\$1,708,071	\$78,600	\$1,435	\$74,932	86
\$3,823,963	\$21,631,118	\$6,570,037	\$99,403	\$19,884,869	\$818,561	\$720,525	\$1,326,448	87
720,485	3,155,334	914,265	20,200	3,238,285	102,691	164,200	254,924	88
\$2,898,545	\$13,514,501	\$3,814,768	\$90,282	\$13,534,337	\$490,750	\$653,045	\$1,073,994	89
40,136	178,735	263,200	1,100	477,543	51,516		90,533	90
\$96,583	\$533,612	\$562,322	\$3,080	\$979,506	\$136,404		\$30,832	91
170		5,350		526				92
\$420		\$0,790		\$3,115				93
418,355		287,880		186,424	25,000		500	94
\$177,480		\$80,900		\$62,476	\$3,000		\$500	95
480,220	757,486	1,556,545		1,759,759	409,936		28,652	96
\$144,520	\$304,451	\$359,716		\$465,812	\$122,800		\$1,700	97
4,768	122,053	51,500		30,070	2,000			98
\$3,733	\$90,013	\$42,432		\$23,121	\$1,200			99
96,337	16,940	45,327		3,717	2,067		3,002	100
\$69,600	\$15,042	\$36,647		\$5,743	\$2,000		\$2,504	101
17,405		29,637		47,000			1,500	102
\$27,832		\$28,776		\$35,645			\$3,000	103
1,971	480	24,107		31,323			41,178	104
\$12,991	\$170	\$14,364		\$24,067			\$68,708	105
17,681	1,209,012	197,781		871,235	5,711		310	106
\$81,010	\$5,702,506	\$339,657		\$3,701,340	\$29,730		\$1,539	107
675		20,066		34,727	1,000			108
\$3,287	\$1,518	\$88,313		\$137,333	\$3,000			109
\$35,205	\$176,230	\$58,335	\$2,382	\$158,409	\$4,676	\$5,417	\$12,670	110
\$3,467	\$66,932	\$40,653		\$15,979	\$1,500	\$1,200	\$1,610	111
\$78,435	\$257,824	\$168,119	\$766	\$277,693	\$1,787	\$37,811	\$16,539	112
\$179,947	\$909,191	\$412,922	\$933	\$304,891	\$14,137	\$17,000	\$33,437	113
\$11,448	\$58,750	\$21,532	\$1,910	\$94,812	\$2,577	\$0,492	\$6,195	114
	585,722	117,931		1,332,758	16,599	67,220	26,906	115
8,000	651,900	204,400	73,000	926,915		27,710	5,630	116
\$5,957,532	\$39,906,662	\$12,706,246	\$135,354	\$31,072,926	\$1,311,333	\$931,650	\$2,068,554	117
1,855	315,646	48,263	7,800	1,723,791		277,032		118
\$7,765	\$1,500,060	\$207,500	\$38,062	\$8,011,155		\$392,129		119
104,000		92,046		75,148				120
\$270,400		\$216,503		\$140,653				121
269,241		46,500		43,476			60,535	122
\$1,413,004		\$240,405		\$285,288			\$540,939	123
170,423		18,528		74,475			64,000	124
\$1,246,445		\$113,468		\$451,800			\$440,500	125
20,964	16,611			128,262				126
\$147,773	\$64,444			\$542,130				127
665,153	28,268,970	3,859,029	105,000	17,887,478			1,351,619	128
\$766,054	\$18,871,825	\$2,616,445	\$31,000	\$10,002,648			\$538,673	129
2,020,101	2,231,433	1,047,130		639,377	2,367,437		112,129	130
\$1,437,799	\$1,680,091	\$553,361		\$310,200	\$1,119,159		\$75,133	131
	6,451,655	108,410		908,001			60,800	132
	\$4,722,532	\$115,250		\$505,714			\$30,800	133
	1,466,355	61,426		56,421				134
	\$1,154,365	\$19,008		\$23,831				135
	1,694,675	22,000		1,775,265		59,760	408,634	136
	\$905,942	\$34,561		\$536,448		\$40,904	\$139,533	137
20,384	331,000	2,447,570		5,582,097				138
\$12,434	\$154,500	\$1,039,489		\$1,563,363				139
	111,077	9,515		740,449				140
	\$62,935	\$4,757		\$324,572				141
	555,842	528,795		1,752,590				142
	\$315,540	\$362,191		\$1,114,658				143
	2,000			250,000				144
	\$9,000			\$37,000				145
	231,037	623,843		166,261				146
	\$396,850	\$222,105		\$210,377				147
\$92,000	\$3,341,721	\$4,883,011		\$4,368,399			\$126,241	148
\$33,533	\$423,257	\$377,047		\$2,800				149
\$28,037		\$23,092						150
\$358,339	\$162,595	\$195,528		\$170,695				151
		\$388,391		\$119,573	\$169,480			152
\$8,124							\$12,500	153
\$68,385		\$359,510		\$397,505			\$7,500	154
\$339		\$21,000		\$181,521			\$4,000	155
		\$231,000		\$344,012				156
\$220		\$30,000		\$15,000				157
\$6,000	\$160	\$95,784		\$72,107				158
\$21,053	\$434,501	\$133,622	\$39,893	\$171,349	\$8,400		\$25,750	159
\$9,278	\$766,344	\$238,218	\$26,399	\$1,070,133	\$14,294	\$48,647	\$26,345	160

¹ Includes establishments distributed as follows: Delaware, 2; Maine, 1; Maryland, 2; Michigan, 2; New Hampshire, 2; Utah, 2.

TABLE 23.—SILK AND SILK GOODS, INCLUDING

	United States.	California.	Connecticut.	Illinois.
161 Machinery:				
Spindles, total number	1,987,404	8,380	160,743	
Organzine—				
First time over, number	582,180		15,686	
Second time over, number	845,145		8,720	
Tram, number	117,979	88	5,256	
Cleaning or polishing, number	6,523	44	2,102	
Doubling, number	185,075	456	14,048	
Quilling, number	87,742	50	7,361	
Reeling, number	52,153	84	4,340	
Spinning and twisting, number	108,189	1,050	66,753	
Winding, number	442,410	1,008	36,477	
Looms—				
Power—				
Total number	44,257	2	2,975	27
Plain—				
36 inches or over reed space, number	13,077		1,660	
Under 36 inches reed space, number	16,161		777	27
German (warps on top) ribbons, number	4,471		95	
High-speed ribbons, number	2,105		194	
Jacquards—				
Ribbons, number	856		5	
Broad silks, number	7,587	2	244	
Hand—				
Total number	178			7
Plain—				
36 inches or over reed space, number	32			
Under 36 inches reed space, number	127			7
Jacquards—				
Ribbons, number	9			
Broad silks, number	5			
Other machines—				
Power—				
Knitting—				
Warp, number	108			8
Knitting or crochet, number	127	1		7
Roundhead, number	21			
Swiss-ribbed, number	5			
Milanese or traverse, number	5			
Beamers, number	343		54	
Braiders, number	15,305	21	1,005	3,809
Chenille, number	180	3	1	9
Curtain, number	1			
Embroidery—				
Shiffle or power, number	104			
Hand-stitched, number	29			
Gimp mills, number	122		1	7
Levers or lace, number	64		15	
Sewing, number	550	2		10
Slide cord, number	152	3		18
Spooling tables, number	743	18	238	16
Twist, number	64	5		2
Warping, number	3,589	2	187	
Other power machines, number	99		1	
Hand—				
Beamers, number	6	1		
Braiders, number	19			
Chenille, number	30	12		
Embroidery—				
Hand-stitched, number	2			
Levers or lace, number	1			
Sewing, number	79	2	3	6
Slide cord, number	8	8		
Spooling tables, number	144		81	
Twist, number	16			5
Warping, number	796	2	7	5
Other hand machines, number	61		15	
Dyeing, finishing, and printing:				
Skein dyeing—				
Silk—				
Colors, pounds	1,799,955	750	511,298	
Black, pounds	1,641,785	26,972	445,999	
Spun—				
Colors, pounds	425,216		203,181	
Black, pounds	176,014		62,957	
Cotton—				
Colors, pounds	925,255		118,890	
Black, pounds	981,659		450,069	
Wool—				
Colors, pounds	52,658			
Black, pounds	55,949			
Piece dyeing—				
All silk, yards	1,224,329		177,891	
Silk and spun, yards	459,693		349,693	
Silk and cotton, yards	2,780,156		1,077,064	
Silk and wool, yards	350			
Finishing—				
All silk, pieces	472,584	40	71,986	
Silk and cotton, pieces	289,382		168,776	
Silk and wool, pieces	116			
Printing—				
Printed in warps, yards	16,355		8,855	
Printed in pieces—				
All silk, yards	846,704		777,618	
Silk and spun, yards	1,684,524		1,084,524	
Silk and cotton, yards	687,228		537,228	

BRAIDS AND TRIMMINGS, BY STATES: 1900—Continued.

Massachusetts.	New Jersey.	New York.	North Carolina.	Pennsylvania.	Rhode Island.	Virginia.	All other states. ¹	
107,812	586,065	186,708	18,790	942,545	4,212	41,798	35,856	161
20,088	153,312	25,208	5,000	840,298		16,696	5,892	162
9,682	92,190	14,852	2,000	205,781		3,400	4,070	163
1,586	80,014	3,404	2,680	65,591		3,276	1,084	164
467	1,023	1,889		799	102		600	165
11,040	50,587	12,977	2,900	85,535	660	4,498	2,474	166
1,910	35,961	9,282	2,000	30,458	60		710	167
3,524	13,367	4,102	158	24,956	80	404	1,143	168
36,782	6,074	15,622		27,181	1,890	1,556	10,781	169
22,283	153,587	45,517	4,052	161,946	1,520	6,968	9,102	170
1,017	20,557	5,175	125	12,920	593	147	779	171
451	4,573	1,510	125	3,709	465	147	437	172
422	7,282	1,175		6,165	68		244	173
144	1,601	1,594		980			51	174
	882	425		604				175
	488	223		195				176
	5,786	248		1,260			47	177
28	15	98		29			6	178
	7	4		18			3	179
28	8	81		8				180
		6		8				181
		2					3	182
		54		46				188
17		39		63				184
		9		12				185
14		5						186
6	97	52	1	123			5	187
2,876	744	8,889		1,331	1,400		180	188
4	1	50		62				189
				1				190
								191
20		84						192
5		24						193
4	44	38		28				194
	14	50						195
9	112	295		103			4	196
81		31		19				197
108	51	49		132	4		82	198
5	7	26		7			12	199
97	1,700	410	8	1,102	37	9	37	200
	40	41		17				201
	1	1		2			1	202
	2	17						203
		18						204
		1		2				205
	35	17		15			1	206
	16	28		19				207
	2	5		1				208
6	304	253		206			3	209
83	1	12						210
								211
								212
263,700	338,582	98,910		29,320			51,395	213
350,033	257,844	54,431		63,023		210,000	123,433	214
71,157	2,139	26,788		110,100	9,912		1,950	215
22,498	90	8,000		78,515	3,304		650	216
122,109	25,640	261,322		400,354			2,000	217
224,642	83,050	25,475		196,723			1,000	218
45,658		5,000					2,000	219
50,949		4,000					1,000	220
	1,046,933							221
	110,000							222
	471,893	533,310		622,289				223
	350							224
	268,128	67,240		57,161	180		7,899	225
	29,767	15,052		65,046	10,721			226
	54			62				227
	7,500							228
	69,086							229
								230
								231

¹Includes establishments distributed as follows: Delaware, 2; Maine, 1; Maryland, 2; Michigan, 2; New Hampshire, 2; Utah, 2.

TABLE 23.—SILK AND SILK GOODS, INCLUDING

	United States.	California.	Connecticut.	Illinois.	
Comparison of products:					
232	Number of establishments reporting for both years.....	378	5	35	3
233	Value for census year.....	\$101,474,146	\$255,902	\$12,209,415	\$419,088
234	Value for preceding business year.....	\$90,107,761	\$237,451	\$9,640,107	\$364,896
Power:					
235	Number of establishments reporting.....	475	5	38	4
236	Total horsepower.....	61,395	89	5,490	122
Owned—					
Engines—					
237	Steam, number.....	421	2	56	2
238	Horsepower.....	45,959	82	4,364	100
239	Gas or gasoline, number.....	19		2	
240	Horsepower.....	323		88	
241	Water wheels, number.....	117		18	
242	Horsepower.....	6,666		813	
243	Electric motors, number.....	135		6	
244	Horsepower.....	3,998		75	
245	Other power, horsepower.....	8			
Rented—					
246	Electric, horsepower.....	609	7	85	
247	Other kind, horsepower.....	8,892		65	22
248	Furnished to other establishments, horsepower.....	508		7	
Establishments classified by number of persons employed, not including proprietors and firm members:					
249	Total number of establishments.....	488	5	38	4
250	No employees.....	2	1		
251	Under 5.....	20			1
252	5 to 20.....	66	2	6	
253	21 to 50.....	83	1	7	
254	51 to 100.....	85	1	5	
255	101 to 250.....	123		14	8
256	251 to 500.....	60		3	
257	501 to 1,000.....	28		2	
258	Over 1,000.....	6		1	

BRAIDS AND TRIMMINGS, BY STATES: 1900—Continued.

Massachusetts.	New Jersey.	New York.	North Carolina.	Pennsylvania.	Rhode Island.	Virginia.	All other states. ¹	
17	142	80	1	81	5	2	7	232
\$5,874,830	\$38,364,902	\$12,264,525	\$26,399	\$23,129,885	\$1,226,588	\$940,776	\$1,761,836	233
\$4,605,423	\$36,205,469	\$11,543,103	\$16,723	\$24,872,339	\$532,246	\$855,305	\$1,234,693	234
19	180	87	3	121	6	3	9	235
4,536	17,122	5,246	455	25,227	250	1,683	1,175	236
24	111	45	8	152	3	10	7	237
2,206	12,471	3,118	455	21,670	190	580	723	238
4	4	7	.....	6	.....	.....	.....	239
28	46	56	.....	133	.....	.....	.....	240
2,039	38	15	.....	5	1	5	7	241
5	1,245	852	.....	620	30	695	872	242
205	85	17	.....	54	.....	18	.....	243
.....	1,158	135	.....	2,017	.....	408	.....	244
.....	.....	.....	.....	8	.....	.....	.....	245
86	244	73	.....	180	.....	.....	20	246
1	1,958	1,012	.....	599	30	.....	60	247
.....	210	80	.....	110	.....	.....	100	248
20	180	92	3	121	6	3	11	249
3	1	.....	.....	.....	.....	.....	.....	250
2	7	6	.....	2	.....	.....	1	251
5	27	17	.....	9	1	1	1	252
2	85	15	1	16	2	.....	1	253
3	36	20	.....	26	2	.....	3	254
2	39	24	2	34	.....	1	3	255
2	19	10	.....	22	1	1	2	256
3	14	.....	.....	9	.....	.....	.....	257
.....	2	.....	.....	3	.....	.....	.....	258

¹Includes establishments distributed as follows: Delaware, 2; Maine, 1; Maryland, 2; Michigan, 2; New Hampshire, 2; Utah, 2.