

CENSUS BULLETIN.

No. 344.

WASHINGTON, D. C.

January 13, 1893.

STATISTICS OF MANUFACTURES: 1890.

CITY OF YORK, PENNSYLVANIA.

DEPARTMENT OF THE INTERIOR,

CENSUS OFFICE,

WASHINGTON, D. C., January 9, 1893.

The act of Congress approved March 1, 1889, providing for the Eleventh Census, directs the Superintendent of Census to investigate and ascertain the statistics of the manufacturing industries of the country. By virtue of the authority conferred by section 18 of the said act, the collection of statistics of all establishments of productive industry located in certain cities and towns was withdrawn from enumerators and assigned to special agents, who were appointed and entered upon their duties as soon after the completion of the work assigned to the general enumerators as was practicable.

Herewith is presented a preliminary report on the mechanical and manufacturing industries of the city of York for the year ended May 31, 1890, prepared under direction of Mr. FRANK R. WILLIAMS, special agent in charge of statistics of manufactures. The statements contained in this bulletin are preliminary and subject to modification for final report, therefore fair criticism and suggestions are invited, with a view to such revision and correction as may appear necessary.

It is proposed to promptly publish bulletins in a form similar to this for principal cities not separately reported in 1880, to be followed by final reports containing data in detail respecting all industries for each city. The totals presented in the complete reports will not, however, be less, and may, in a number of cases, be considerably increased. A statement is presented for 1890 in Table 1, showing the totals under general heads of the inquiry. The statements presented therewith include only establishments which reported a product of \$500 or more in value during the census year, and, so far as practicable, only those establishments operating works located within the corporate limits of the city.

In 1880 the data relating to the manufactures of York were included in the totals published for York county, therefore it is not practicable to present a comparative statement indicating the growth of manufacturing industry in the city during the decade, but the totals for the entire county at that date were as follows:

YORK COUNTY: 1880.

Number of establishments reported	559
Capital invested.....	\$3,537,375
Number of hands employed.....	3,555
Wages paid.....	\$893,920
Value of materials used.....	\$3,922,183
Value of product.....	\$5,879,565

TABLE 1.—STATEMENT OF TOTALS UNDER GENERAL HEADS OF INQUIRY.

INDUSTRIES.	Number industries reported.	Number establishments reporting.	Capital.	Hands employed.	Wages paid.	Cost of materials used.	
All industries (a).....	{ 1880 1890	63	348	\$3,737,785	4,112	\$1,622,261	\$3,196,703

INDUSTRIES.	Miscellaneous expenses.	Value of product.	MUNICIPAL DATA.			
			Population.	Assessed valuation.	Municipal debt. (b)	
All industries (a).....	{ 1880 1890	\$399,167	\$6,002,902	13,940 20,793	\$5,832,987 12,255,454	\$33,000 116,618

^a Statistics of manufactures for 1880 were included in totals published for York county.

^b The amount stated represents the "net debt", or the total amount of municipal debt less sinking fund.

Table 2 exhibits for important industries, under the general heads of "Capital employed", "Miscellaneous expenses", "Wages paid", "Materials used", and "Goods manufactured", all essential details of the inquiry for 1890, excepting wage statistics for the various classes of labor employed in the respective industries. To avoid disclosure of the operations of individual establishments, only such important or characteristic industries as have 3 or more establishments engaged therein are included in this table. Among other important industries, in which less than 3 establishments are reported, may be mentioned cars, steam railroad, 1 establishment; iron and steel, manufactured from ore or blooms, 1 establishment; iron and steel, nails and spikes, cut and wrought, 1 establishment; leather, tanned and curried, 1 establishment; musical instruments, organs and materials, 1 establishment; paper, 1 establishment. The 6 establishments referred to report invested capital, \$976,136; hands employed, 629, and value of products, \$1,670,692.

In the form of inquiry used in the Eleventh Census respecting labor and wages the classified occupation and wage system was adopted. Officers or firm members engaged in productive labor or supervision of the business constitute one class, for which the wages reported are those which would be paid to employes performing similar service. Clerical labor is embraced by distinct classification, also piecework.

Wage workers proper are divided into two classes, as follows:

First. Operatives, engineers, and other skilled workmen, overseers, and foremen or superintendents (not general superintendents or managers).

Second. Watchmen, laborers, teamsters, and other unskilled workmen.

A statement was requested showing the various rates of wages per week, the average number of men, women, and children, respectively, employed at each rate in each class, exclusive of those reported as employed on piecework, and the actual term of operation for the establishment reporting. The wage statistics compiled from the reports obtained will be stated in detail for each class in the final reports to be published for each city. In this bulletin only the aggregate wages paid is given.

Against the caption "Materials used" is presented the reported cost at the place of consumption of all materials used, and against "Goods manufactured" is the reported market value at the factory of the total product, not including any allowance for commissions or expenses of selling.

In this connection it must be considered that the difference between apparent cost and value of manufactured product as presented can not be taken as a correct indication of manufacturers' net profits, because many other items of expense enter into the mercantile portion of the business not within the scope of the census inquiry.

Expenses of selling are excluded, because the reported value of product is its selling value "at the shop or factory". The cost of depreciation of plant in excess of the expense for ordinary repairs is not included, because the information obtained by the inquiry is not sufficient to form a basis for accurate computation for the respective industries.

TABLE 2.—DETAILED STATEMENT FOR 1890 BY IMPORTANT INDUSTRIES.

CLASSIFICATION OF INQUIRIES.	Agricultural implements.	Boxes—cigar.	Carpets—rag.	Carriages and wagons.	Confectionery.
	(3 establish- ments.)	(5 establish- ments.)	(4 establish- ments.)	(8 establish- ments.)	(7 establish- ments.)
CAPITAL EMPLOYED—Aggregate.....	\$534,700	\$58,026	\$61,925	\$150,845	\$22,847
HIRED PROPERTY—Total.....			7,100	15,500	5,130
PLANT—Total.....	266,800	20,895	7,150	36,950	16,120
Land.....	55,500	5,300	1,400	15,500	1,600
Buildings.....	51,300	7,375	2,250	11,700	7,200
Machinery, tools, and implements.....	160,000	8,220	3,500	9,750	7,320
LIVE ASSETS—Total.....	267,900	37,131	47,675	98,395	1,597
Raw materials.....	69,300	21,971	9,975	33,165	800
Stock in process and finished product.....	62,300	1,660	13,100	30,460	
Cash, bills and accounts receivable, and all sundries not elsewhere reported.....	136,300	13,500	24,600	34,750	797
WAGES PAID—Aggregate.....	\$133,722	\$27,720	\$29,932	\$73,362	\$8,349
Average number of hands employed during the year.....	367	106	100	196	37
Males above 16 years.....	367	57	15	194	20
Females above 15 years.....		4			
Children.....			1		2
Pieceworkers.....		45	84	2	15
MATERIALS USED—Aggregate cost.....	\$276,733	\$84,268	\$59,251	\$252,574	\$26,555
Principal materials.....	197,313	35,312	58,133	222,085	19,243
Fuel.....	18,860	860	118	1,314	241
Mill supplies.....					
All other materials.....	60,560	48,096	1,000	28,675	7,071
MISCELLANEOUS EXPENSES—Aggregate.....	\$21,325	\$1,126	\$1,693	\$7,076	\$4,362
Amount paid for contract work.....					
Rent.....			546	1,190	428
Power and heat.....			60		
Taxes.....	988	64	187	377	63
Insurance.....	3,932	354	187	909	90
Repairs, ordinary, of buildings and machinery.....	6,065	25	500	2,275	2,550
Interest on cash used in the business.....	625		200	475	
All sundries not elsewhere reported.....	9,715	683	13	1,850	1,231
GOODS MANUFACTURED—Aggregate value.....	\$468,846	\$148,470	\$109,175	\$452,030	\$51,060
Principal product.....	465,366	53,520	109,175	437,455	51,060
All other products, including receipts from custom work and repairing.....	3,480	94,950		14,575	

TABLE 2.—DETAILED STATEMENT FOR 1890 BY IMPORTANT INDUSTRIES—Continued.

CLASSIFICATION OF INQUIRIES.	Foundry and machine shop products. (6 establish- ments.)	Lumber— planing mill products. (6 establish- ments.)	Printing and publishing. (a) (18 establish- ments.)	Tobacco— cigars and cigarettes. (33 establish- ments.)
CAPITAL EMPLOYED—Aggregate.....	\$427,140	\$133,250	\$237,855	\$309,527
HIRED PROPERTY—Total.....	53,000	15,750	33,000	26,400
PLANT—Total.....	149,750	74,100	153,650	83,475
Land.....	50,000	16,500	27,000	22,025
Buildings.....	35,450	23,000	22,000	37,475
Machinery, tools, and implements.....	64,300	34,600	104,650	23,975
LIVE ASSETS—Total.....	224,390	43,400	51,205	199,652
Raw materials.....	45,015	9,000	6,250	79,858
Stock in process and finished product.....	48,375	5,000	4,330	41,823
Cash, bills and accounts receivable, and all sundries not elsewhere reported.....	131,000	29,400	40,625	77,971
WAGES PAID—Aggregate.....	\$205,404	\$92,071	\$69,677	\$161,439
Average number of hands employed during the year.....	387	161	212	546
Males above 16 years.....	387	160	181	58
Females above 15 years.....			7	12
Children.....		1	52	3
Pieceworkers.....			22	473
MATERIALS USED—Aggregate cost.....	\$219,029	\$186,117	\$36,064	\$137,653
Principal materials.....	179,002	173,257	30,397	105,409
Fuel.....	11,946	5,035	2,652	656
Mill supplies.....	1,800	800		
All other materials.....	26,281	7,025	3,015	31,588
MISCELLANEOUS EXPENSES—Aggregate.....	\$25,135	\$7,533	\$29,341	\$97,717
Amount paid for contract work.....				
Rent.....	4,375	1,300	2,681	2,032
Power and heat.....	100		590	445
Taxes.....	1,285	353	414	685,108
Insurance.....	793	1,195	551	925
Repairs, ordinary, of buildings and machinery.....	3,152	850	1,785	680
Interest on cash used in the business.....	1,500	180	650	3,627
All sundries not elsewhere reported.....	13,930	3,650	22,640	4,900
GOODS MANUFACTURED—Aggregate value.....	\$506,813	\$308,604	\$172,112	\$446,221
Principal product.....	325,013	287,104	161,437	446,221
All other products, including receipts from custom work and repairing.....	181,800	21,500	10,675	

^a Includes several branches of this industry, which will be specifically stated in final reports.
^b Includes internal revenue taxes.

ROBERT P. PORTER,
Superintendent of Census.

CENSUS BULLETIN.

No. 345.

WASHINGTON, D. C.

January 13, 1893.

STATISTICS OF MANUFACTURES: 1890.

CITY OF OSHKOSH, WISCONSIN.

DEPARTMENT OF THE INTERIOR,

CENSUS OFFICE,

WASHINGTON, D. C., January 9, 1893.

The act of Congress approved March 1, 1889, providing for the Eleventh Census, directs the Superintendent of Census to investigate and ascertain the statistics of the manufacturing industries of the country. By virtue of the authority conferred by section 18 of the said act, the collection of statistics of all establishments of productive industry located in certain cities and towns was withdrawn from enumerators and assigned to special agents, who were appointed and entered upon their duties as soon after the completion of the work assigned to the general enumerators as was practicable.

Herewith is presented a preliminary report on the mechanical and manufacturing industries of the city of Oshkosh for the year ended May 31, 1890, prepared under direction of Mr. FRANK R. WILLIAMS, special agent in charge of statistics of manufactures. The statements contained in this bulletin are preliminary and subject to modification for final report, therefore fair criticism and suggestions are invited, with a view to such revision and correction as may appear necessary.

It is proposed to promptly publish bulletins in a form similar to this for principal cities not separately reported in 1880, to be followed by final reports containing data in detail respecting all industries for each city. The totals presented in the complete reports will not, however, be less, and may, in a number of cases, be considerably increased. A statement is presented for 1890 in Table 1, showing the totals under general heads of the inquiry. The statements presented therewith include only establishments which reported a product of \$500 or more in value during the census year, and, so far as practicable, only those establishments operating works located within the corporate limits of the city.

In 1880 the data relating to the manufactures of Oshkosh were included in the totals published for Winnebago county, therefore it is not practicable to present a comparative statement indicating the growth of manufacturing industry in the city during the decade, but the totals for the entire county at that date were as follows:

WINNEBAGO COUNTY: 1880.

Number of establishments reported	321
Capital invested	\$3,963,441
Number of hands employed	3,442
Wages paid	\$1,066,121
Value of materials used	\$5,735,595
Value of product	\$7,923,002

TABLE 1.—STATEMENT OF TOTALS UNDER GENERAL HEADS OF INQUIRY.

INDUSTRIES.	Number industries reported.	Number establishments reporting.	Capital.	Hands employed.	Wages paid.	Cost of materials used.	
All industries (a).....	{ 1880 1890	71	423	\$6,531,213	5,397	\$2,017,267	\$4,663,510

INDUSTRIES.	Miscellaneous expenses.	Value of product.	MUNICIPAL DATA.			
			Population.	Assessed valuation.	Municipal debt. (b)	
All industries (a).....	{ 1880 1890	\$526,983	\$8,619,219	15,748 22,836	\$4,444,000 7,033,837	\$143,500 114,000

a Statistics of manufactures for 1880 were included in totals published for Winnebago county. The totals stated for 1890 do not include returns from those manufacturers of "timber products not made in mill" having offices in Oshkosh. This industry is reported as of the place where the office of the establishment is located, because it is not practicable to exactly locate its operations within the limits of a county or municipality. The totals of such reports obtained in Oshkosh are as follows:

Number of establishments reported.....	10
Capital invested.....	\$544,345
Number of hands employed.....	434
Wages paid.....	\$71,379.
Cost of materials used.....	\$57,921
Miscellaneous expenses.....	\$18,393
Value of product at works.....	\$182,042

b The amount stated represents the "net debt", or the total amount of municipal debt less sinking fund.

Table 2 exhibits for important industries, under the general heads of "Capital employed", "Miscellaneous expenses", "Wages paid", "Materials used", and "Goods manufactured", all essential details of the inquiry for 1890, excepting wage statistics for the various classes of labor employed in the respective industries. To avoid disclosure of the operations of individual establishments, only such important or characteristic industries as have 3 or more establishments engaged therein are included in this table. Among other important industries in which less than 3 establishments are reported, may be mentioned matches, 1 establishment; paving and paving materials, 2 establishments; trunks and valises, 2 establishments. The 5 establishments referred to report invested capital, \$473,064; hands employed, 321, and value of products, \$566,236.

In the form of inquiry used in the Eleventh Census respecting labor and wages the classified occupation and wage system was adopted. Officers or firm members engaged in productive labor or supervision of the business constitute one class, for which the wages reported are those which would be paid to employes performing similar service. Clerical labor is embraced by distinct classification, also piecework.

Wage workers proper are divided into two classes, as follows:

First. Operatives, engineers, and other skilled workmen, overseers, and foremen or superintendents (not general superintendents or managers).

Second. Watchmen, laborers, teamsters, and other unskilled workmen.

A statement was requested showing the various rates of wages per week, the average number of men, women, and children, respectively, employed at each rate in each class, exclusive of those reported as employed on piecework, and the actual term of operation for the establishment reporting. The wage statistics compiled from the reports obtained will be stated in detail for each class in the final reports to be published for each city. In this bulletin only the aggregate wages paid is given.

Against the caption "Materials used" is presented the reported cost at the place of consumption of all materials used, and against "Goods manufactured" is the reported market value at the factory of the total product, not including any allowance for commissions or expenses of selling.

In this connection it must be considered that the difference between apparent cost and value of manufactured product as presented can not be taken as a correct indication of manufacturers' net profits, because many other items of expense enter into the mercantile portion of the business not within the scope of the census inquiry.

Expenses of selling are excluded, because the reported value of product is its selling value "at the shop or factory". The cost of depreciation of plant in excess of the expense for ordinary repairs is not included, because the information obtained by the inquiry is not sufficient to form a basis for accurate computation for the respective industries.

TABLE 2.—DETAILED STATEMENT FOR 1890 BY IMPORTANT INDUSTRIES.

CLASSIFICATION OF INQUIRIES.	Carriages and wagons.	Flouring and grist mill products.	Foundry and machine shop products.	Furniture. (a)	Liquors— malt.
	(10 establish- ments.)	(5 establish- ments.)	(12 establish- ments.)	(4 establish- ments.)	(4 establish- ments.)
CAPITAL EMPLOYED—Aggregate.....	\$378,702	\$116,655	\$313,960	\$556,464	\$151,838
Hired property—Total.....	14,500	500	16,800	13,500	1,050
PLANT—Total.....	168,200	92,600	167,836	193,100	98,500
Land.....	35,500	10,000	31,000	22,500	16,500
Buildings.....	84,600	31,600	23,700	96,000	50,500
Machinery, tools, and implements.....	48,100	51,000	113,136	74,600	31,500
LIVE ASSETS—Total.....	196,002	23,555	129,324	349,864	52,238
Raw materials.....	47,858	8,980	19,830	69,708	7,212
Stock in process and finished product.....	54,683	2,375	46,616	140,718	14,895
Cash, bills and accounts receivable, and all sundries not elsewhere reported.....	93,461	12,200	62,878	139,438	30,180
WAGES PAID—Aggregate.....	\$121,420	\$11,420	\$90,269	\$133,217	\$18,456
Average number of hands employed during the year.....	260	22	142	511	34
Males above 16 years.....	222	22	139	226	34
Females above 15 years.....	15		1	11	
Children.....				7	
Pieceworkers.....	23		2	267	
MATERIALS USED—Aggregate cost.....	\$199,237	\$226,317	\$31,607	\$231,038	\$36,479
Principal materials.....	171,653	214,987	72,752	208,791	30,994
Fuel.....	3,759	4,910	5,070	3,350	3,300
Mill supplies.....		220	744	2,325	757
All other materials.....	23,825	6,200	3,041	21,572	1,428
MISCELLANEOUS EXPENSES—Aggregate.....	\$19,473	\$6,490	\$23,884	\$48,708	\$21,634
Amount paid for contract work.....					
Rent.....	1,175	50	1,372	1,100	100
Power and heat.....					
Taxes.....	3,198	898	1,124	1,802	615,116
Insurance.....	3,150	2,932	1,521	7,264	866
Repairs, ordinary, of buildings and machinery.....	3,100	1,600	1,965	4,450	1,662
Interest on cash used in the business.....	2,200	1,010	3,627	12,868	
All sundries not elsewhere reported.....	6,650		14,275	21,224	3,890
GOODS MANUFACTURED—Aggregate value.....	\$394,512	\$266,100	\$223,825	\$585,712	\$96,240
Principal product.....	351,136	234,552	172,764	585,712	93,540
All other products, including receipts from custom work and repairing.....	43,376	31,548	51,061		2,700

a Includes several branches of this industry, which will be specifically stated in final reports.
b Includes internal revenue taxes.

TABLE 2.—DETAILED STATEMENT FOR 1890 BY IMPORTANT INDUSTRIES—Continued.

CLASSIFICATION OF INQUIRIES.	Lumber. (a) (15 establish- ments.)	Printing and publishing. (a) (10 establish- ments.)	Slaughtering and meat packing. (3 establish- ments.)	Tobacco— cigars and cigarettes. (18 establish- ments.)
CAPITAL EMPLOYED—Aggregate.....	\$3,354,598	\$97,951	\$38,300	\$107,771
HIRED PROPERTY—Total.....	16,500	36,500	7,000	37,500
PLANT—Total.....	934,883	45,586	23,300	16,360
Land.....	309,956		10,000	6,700
Buildings.....	172,880		8,500	7,800
Machinery, tools, and implements.....	451,947	45,586	4,800	1,860
LIVE ASSETS—Total.....	2,403,215	15,865	8,000	53,911
Raw materials.....	336,132	5,181		17,006
Stock in process and finished product.....	1,271,313	1,154		9,705
Cash, bills and accounts receivable, and all sundries not elsewhere reported.....	795,770	9,530	8,000	27,200
WAGES PAID—Aggregate.....	\$717,310	\$43,240	\$6,044	\$40,520
Average number of hands employed during the year.....	2,214	119	9	90
Males above 16 years.....	2,045	65	9	29
Females above 15 years.....	61	13		11
Children.....	74	24		9
Pieceworkers.....	34	17		41
MATERIALS USED—Aggregate cost.....	\$2,700,816	\$16,791	\$94,921	\$45,125
Principal materials.....	2,635,852	14,586	90,196	40,013
Fuel.....		1,130	225	344
Mill supplies.....	49,964	214		
All other materials.....	15,000	861	4,500	4,768
MISCELLANEOUS EXPENSES—Aggregate.....	\$262,826	\$9,906	\$1,462	\$15,390
Amount paid for contract work.....				
Rent.....	1,780	3,033	600	3,081
Power and heat.....				
Taxes.....	37,582	430	662	68,800
Insurance.....	56,386	423	95	340
Repairs, ordinary, of buildings and machinery.....	30,789	315	105	
Interest on cash used in the business.....	49,311	275		159
All sundries not elsewhere reported.....	86,978	5,430		3,010
GOODS MANUFACTURED—Aggregate value.....	\$4,208,400	\$86,989	\$112,870	\$111,450
Principal product.....	4,156,578	86,989	111,970	110,873
All other products, including receipts from custom work and repairing.....	51,822		900	577

aIncludes several branches of this industry, which will be specifically stated in final reports.

bIncludes internal revenue taxes.

ROBERT P. PORTER,
Superintendent of Census.

CENSUS BULLETIN.

No. 346.

WASHINGTON, D. C.

January 13, 1893.

STATISTICS OF MANUFACTURES: 1890.

CITY OF ELIZABETH, NEW JERSEY.

DEPARTMENT OF THE INTERIOR,
CENSUS OFFICE,

WASHINGTON, D. C., January 10, 1893.

Herewith is presented a preliminary report on the mechanical and manufacturing industries of the city of Elizabeth for the year ended May 31, 1890, prepared under the direction of Mr. FRANK R. WILLIAMS, special agent in charge of statistics of manufactures. The statements contained in this bulletin are preliminary and subject to modification for final report, therefore fair criticism and suggestions are invited, with a view to such revision and correction as may appear necessary.

It is proposed to promptly publish bulletins for all principal cities in a form similar to this, to be followed by final reports containing data in detail respecting all industries for each city at the earliest date practicable. The totals presented in the complete reports will not, however, be less, and may, in a number of cases, be considerably increased. A comparative statement is presented for 1880 and 1890 in Table 1, showing the totals under such general heads of the inquiry as are common to both census periods. Table 2 exhibits for important industries, under the general heads of "Capital employed", "Miscellaneous expenses", "Wages paid", "Materials used", and "Goods manufactured", all essential details of the inquiry for 1890, excepting wage statistics for the various classes of labor employed in the respective industries.

In comparing results of the current inquiry with the returns of 1880 it will be observed that the item of "Miscellaneous expenses" is given for 1890 only. No previous census inquiry has embraced the cost incurred in manufacturing operations other than wages paid and materials used. Differences in method of inquiry, as explained in this report, and the inclusion in the Eleventh Census of certain industries omitted in the Tenth Census account in part for the increases shown.

The following classes of industry were omitted in the census reports of 1880: cars, and general shop construction and repairs by steam railroad companies; druggists' preparations, not including prescriptions; illuminating gas; millinery, custom work; women's dressmaking, custom work.

The totals stated for 1890, in Table 1, are increased as follows by the inclusion of the industries referred to:

TOTALS FOR INDUSTRIES OMITTED IN 1880, BUT INCLUDED IN 1890.

Number of establishments reported.....	14
Capital invested.....	\$469,533
Number of hands employed.....	708
Wages paid.....	\$357,605
Cost of materials used.....	\$339,448
Miscellaneous expenses.....	\$6,331
Value of product at works.....	\$759,570

To ascertain the amounts for comparison with the totals for 1880, the foregoing figures should be subtracted from the totals stated in Table 1 for 1890, and the percentages of increase would then appear as follows:

PERCENTAGES OF INCREASE.

Number of establishments reported.....	16.11
Capital invested.....	197.62
Number of hands employed.....	51.31
Wages paid.....	92.26
Cost of materials used.....	42.36
Value of product at works.....	41.88
Population of city.....	33.78
Assessed valuation of city.....	25.68

Decrease in municipal debt less sinking fund, 35.13 per cent.

A striking feature of these returns is the satisfactory increase in the number of establishments reported. Still more gratifying is the increase during the decade in the number of hands employed and the amount of wages paid; the wages have increased not only actually but relatively, the average wages per hand increasing from \$452 in 1880 to \$575 in 1890, or 27.21 per cent.

Part of this increase is undoubtedly due to the fact that in many industries relatively more men were employed in 1890 and less children; also to the fact that in 10 years many branches of industry have improved the grades of their products, and for this reason require more skilled and higher paid employes. After making all possible allowance for these changes, for the more thorough enumeration of 1890, and for the advance in quantity of manufactured product, we have a decided relative increase in the amount paid in wages between 1880 and 1890.

Attention is called to the presentation of labor and wage statistics. The "average wages" paid to all classes employed has always proved a stumbling block in census reports. It is believed the Eleventh Census, in obtaining data to show the classification of labor employed, the average term of employment, the various rates of wages per week, and the average number of men, women, and children, respectively, employed at each rate in the various classes, has taken a step in advance, which will be shown in detail in final reports, and appreciated by students of these data.

Robert S. Porter
Superintendent of Census.

STATISTICS OF MANUFACTURES: 1890.

CITY OF ELIZABETH, NEW JERSEY.

The act of Congress approved March 1, 1889, providing for the Eleventh Census, directs the Superintendent of Census to investigate and ascertain the statistics of the manufacturing industries of the country. By virtue of the authority conferred by section 18 of the said act, the collection of statistics of all establishments of productive industry located in certain cities and towns was withdrawn from enumerators and assigned to special agents, who were appointed and entered upon their duties as soon after the completion of the work assigned the general enumerators as was practicable.

The instructions issued by this office to enumerators and special agents relating to the collection of statistics of manufactures were as follows:

It shall be their duty personally to visit every establishment of productive industry in their respective districts (except as noted) and to obtain the required information in the case of each manufacturing establishment.

The term "establishment of productive industry" must be understood in its broadest sense to embrace not only mills and factories but also the operation of all small establishments and the mechanical trades.

Restaurants, saloons, barber shops, the compounding of individual prescriptions by druggists and apothecaries, the operations of mercantile establishments, transportation corporations and lines, and professional services (except mechanical dentistry) are not considered as coming within the meaning of the law in this connection.

Great care must be taken by special agents and enumerators to guard against the omission from their returns of any establishment that comes properly within the scope of this investigation. * * * They should have their eyes open to every indication of the presence of productive industry and should supplement personal observation by frequent and persistent inquiry.

The tabulated statements presented herewith include only establishments which reported a product of \$500 or more in value during the census year, and, so far as practicable, only those establishments operating works located within the corporate limits of the city.

TABLE 1.—COMPARATIVE STATEMENT OF TOTALS UNDER GENERAL HEADS OF INQUIRY: 1880 AND 1890.

INDUSTRIES.		Number industries reported.	Number establishments reporting.	Capital. (a)	Hands employed.	Wages paid.	Cost of materials used.

INDUSTRIES.		Miscellaneous expenses. (b)	Value of product.	MUNICIPAL DATA.		
				Population.	Assessed valuation.	Municipal debt. (c)
All industries.....	{ 1880 1890	\$370,022	\$6,828,027 10,446,864	28,229 37,764	\$11,540,835 14,504,618	\$5,512,698 3,576,181

a The value of hired property is not included for 1890, because it was not reported in 1880.

b No inquiry in 1880 relating to "Miscellaneous expenses".

c The amount stated represents the "net debt", or the total amount of municipal debt less sinking fund.

For the purpose of ready comparison, Table 1 presents the statistics of 1880 and 1890 in the form of publication used in the reports for 1880. In comparing industrial statistics for 1880 and 1890 it should be borne in mind, as stated by the Superintendent of Census, that radical changes have been made in 1890 as well in the form and scope of inquiry as in the method of presentation.

The form of question respecting capital used at the census of 1880 was as follows: "Capital (real and personal) invested in the business". It became evident from the results then obtained that this question was neither sufficiently comprehensive nor properly understood, and therefore the full

amount of capital employed in productive industry was not reported, thus forming an erroneous basis for deductions.

The present census inquiry respecting capital is intended to comprehend all the property or assets strictly pertaining to a manufacturing business, whether such property is owned, borrowed, or hired. The value of hired property is not included in the amount stated for 1890 in Table 1, because it was not reported in 1880, and its inclusion would therefore render the comparison misleading. It will, however, be specifically stated for each industry in final reports.

TABULAR STATEMENTS FOR 1890.

The various subheads into which the inquiry of 1890 is divided, excepting wage statistics by classes, will be found in Table 2 for important industries. The statements for each industry are intended to present the true amount of capital employed, the amount paid in wages, and the number of hands employed in the respective industries, the cost of materials used, miscellaneous expenses, and the value at the works of goods manufactured, as compiled from individual reports of manufacturers.

LABOR EMPLOYED AND WAGES PAID.

In the form of inquiry used in the Eleventh Census respecting labor and wages the classified occupation and wage system was adopted. Officers or firm members engaged in productive labor or supervision of the business constitute one class, for which the wages reported are those which would be paid to employes performing similar service. Clerical labor is embraced by distinct classification, also piecework.

Wage workers proper are divided into two classes, as follows:

First. Operatives, engineers, and other skilled workmen, overseers, and foremen or superintendents (not general superintendents or managers).

Second. Watchmen, laborers, teamsters, and other unskilled workmen.

It should be noted that the first class includes all operatives, that is, those directly engaged in productive labor as well as skilled mechanics, while the second class includes all unskilled workmen other than operatives. The questions required a statement of the average number of men, women, and children, respectively, employed during the year in each class, also the actual amount of wages paid to each number.

A statement was requested showing the various rates of wages per week, the average number of men, women, and children, respectively, employed at each rate, exclusive of those reported as employed on piecework, and the actual term of operation for the establishment reporting. The wage statistics compiled from the reports obtained will be stated in detail for each class in the final reports to be published for each city. In this bulletin only the aggregate wages paid is given.

MATERIALS USED AND GOODS MANUFACTURED.

Against the caption "Materials used" is presented the reported cost at the place of consumption of all materials used, and against "Goods manufactured" is the reported market value at the factory of the total product, not including any allowance for commissions or expenses of selling.

In this connection it must be considered that the difference between apparent cost and value of manufactured product as presented can not be taken as a correct indication of manufacturers' net profits, because many other items of expense enter into the mercantile portion of the business not within the scope of the census inquiry.

Expenses of selling are excluded, because the reported value of product is its selling value "at the shop or factory". The cost of depreciation of plant in excess of the expense for ordinary repairs is not included, because the information obtained by the inquiry is not sufficient to form a basis for accurate computation for the respective industries.

TABLE 2.—DETAILED STATEMENT FOR 1890 BY IMPORTANT INDUSTRIES. (a)

CLASSIFICATION OF INQUIRIES.	Building trades. (b)	Carriages and wagons.	Clay and pottery products. (b)	Foundry and machine shop products. (c)	Lumber—planing mill products.	Printing and publishing. (b)
	(39 establishments.)	(7 establishments.)	(4 establishments.)	(11 establishments.)	(4 establishments.)	(6 establishments.)
CAPITAL EMPLOYED—Aggregate.....	\$380,593	\$62,325	\$171,000	\$4,523,505	\$54,200	\$66,475
HIRED PROPERTY—Total.....	42,500	7,300		119,500	8,500	32,500
PLANT—Total.....	170,850	23,600	135,000	2,184,565	29,900	23,050
Land.....	70,650	13,300	56,000	168,300	650	400
Buildings.....	61,750	10,500	52,000	814,500	13,850	600
Machinery, tools, and implements.....	38,450	4,800	27,000	1,201,765	15,400	21,050
LIVE ASSETS—Total.....	167,243	26,425	36,000	2,219,440	15,800	11,925
Raw materials.....	45,045	10,200	5,000	447,192	5,550	2,700
Stock in process and finished product.....	45,400	6,200	19,500	1,129,628	4,250	975
Cash, bills and accounts receivable, and all sundries not elsewhere reported.....	76,798	10,025	11,500	642,620	6,000	8,250
WAGES PAID—Aggregate.....	\$370,553	\$34,049	\$73,160	\$2,174,479	\$33,830	\$48,470
Average number of hands employed during the year.....	454	45	171	3,930	47	86
Males above 16 years.....	453	45	78	3,508	47	52
Females above 15 years.....			13	226		13
Children.....	1			150		14
Pieceworkers.....			80	46		7
MATERIALS USED—Aggregate cost.....	\$321,565	\$41,760	\$39,761	\$1,079,390	\$73,620	\$24,587
Principal materials.....	319,535	40,782	20,894	1,008,115	72,570	23,637
Fuel.....	1,835	978	14,317	69,850	240	800
Mill supplies.....	95			1,175	810	150
All other materials.....	100		4,550	250		
MISCELLANEOUS EXPENSES—Aggregate.....	\$19,734	\$1,801	\$9,384	\$120,761	\$2,726	\$6,113
Amount paid for contract work.....	4,900					
Rent.....	3,541	585		9,200	670	2,500
Power and heat.....	308				120	
Taxes.....	2,190	329	759	27,016	454	398
Insurance.....	1,153	182	575	13,233	302	240
Repairs, ordinary, of buildings and machinery.....	190	210	1,600	40,815	680	870
Interest on cash used in the business.....	72	120	600	5,070	500	355
All sundries not elsewhere reported.....	7,380	375	5,850	25,425		1,750
GOODS MANUFACTURED—Aggregate value.....	\$794,720	\$81,025	\$133,140	\$4,645,408	\$122,200	\$87,832
Principal product.....	777,970	72,425	133,140	4,547,173	119,800	87,832
All other products, including receipts from custom work and repairing.....	16,750	8,600		98,230	2,400	

a To avoid disclosure of operations of individual establishments, only such industries as have 3 or more establishments engaged therein are included.

b Includes several branches of this industry, which will be specifically stated in final reports.

c Includes the manufacture of "Sewing machines and attachments".

CENSUS BULLETIN.

No. 347.

WASHINGTON, D. C.

January 17, 1893.

IRON AND STEEL INDUSTRIES OF THE SOUTHERN STATES.

DEPARTMENT OF THE INTERIOR,

CENSUS OFFICE,

WASHINGTON, D. C., December 30, 1892.

Herewith is presented a report on the manufacture of iron and steel in the southern states, comprising the operations of this industry for the states of Alabama, Delaware, Georgia, Kentucky, Maryland, North Carolina, Tennessee, Texas, Virginia, and West Virginia, prepared by Dr. WILLIAM M. SWEET, special agent, under the direction of Mr. FRANK R. WILLIAMS, special agent in charge of statistics relating to all branches of manufactures. This report is the second in the series of reports with reference to geographical groups of states to be issued on the manufacture of iron and steel, the first having been published in Bulletin No. 156, January 18, 1892, comprising the operations of the industry for the 6 New England states.

The report shows that during the past decade remarkable progress has been made in the erection of iron-making plants in the southern states, which evidences an increased development of the extensive mineral resources of that section. The tendency toward concentration of the industry is indicated by the decrease in the number of establishments and the increase in value of plant, as well as in the number of furnaces and the daily capacity of product.

The report is divided into the 3 general heads of "Blast furnaces", "Rolling mills and steel works", and "Forges and bloomeries", in which the operations of blast furnaces, iron and steel rolling mills, bessemer, open-hearth, and crucible steel works, and pig and scrap iron bloomeries are separately exhibited in detail.

The amount of capital invested in the blast furnace branch of the industry has increased from \$16,964,207 in 1880 to \$33,207,370 in 1890, an increase of \$16,243,163, or 95.75 per cent, while the tonnage quantity of production increased from 350,436 net tons in 1880 to 1,834,586 net tons in 1890, an increase of 1,484,150 net tons, or 423.52 per cent.

The capital invested in rolling mills and steel works has increased from \$11,665,260 in 1880 to \$17,528,096 in 1890, an increase of \$5,862,836, or 50.26 per cent, while the production of these works increased from 290,324 net tons in 1880 to 515,775 net tons in 1890, an increase of 225,451 net tons, or 77.65 per cent. This increase of tonnage is confined exclusively to the manufacture of steel products. Radical changes have occurred in the composition and value of the products of this branch of the industry, which are fully explained in the report. It appears, however, that a marked decline has ensued in the forge and bloomery branch of the iron manufacture in the southern states, consequent upon changed conditions caused by the development of the rolling mill industry and its improved processes, together with the extension of transportation facilities. Hence the manufacture of bar iron from the ore by the direct process has become practically an extinct industry in the south.

The report shows decreases since 1880 in the forge and bloomery industry of the southern states as follows: in number of establishments, from 49 to 4; in capital invested, from \$516,363 to \$110,200; in average number of hands employed, from 494 to 60; in wages paid, from \$109,877 to \$34,000; in cost of materials, from \$248,712 to \$133,785, and in value of products, from \$521,614 to \$175,000.

The general facts attending the increases, as indicated in the accompanying tables, are shown in the following comparative statement:

COMPARATIVE STATEMENT OF THE IRON AND STEEL MANUFACTURE: 1880 AND 1890.

BRANCHES OF THE INDUSTRY.		Number of establishments.	Capital invested.	Hands employed.	Wages paid.	Cost of materials.	Value of products.	Tons of products.
Blast furnaces.....	{ 1880	121	\$16,964,207	9,486	\$2,186,855	\$4,452,864	\$7,769,050	350,436
	{ 1890	92	33,207,370	a7,932	a2,917,158	15,410,982	22,494,870	1,834,586
Rolling mills and steel works.....	{ 1880	48	11,665,260	10,615	3,964,612	10,252,098	17,062,587	290,324
	{ 1890	49	17,528,096	a10,696	a4,677,185	13,036,029	b19,920,952	515,775

a Excludes officers or firm members, clerks or salesmen, and their salaries.

b The decline in prices of products accounts for the apparently small increase in value, notwithstanding the great increase in quantity of production.

In making comparisons between the two census periods it must be borne in mind that the statistics of blast furnaces for 1880 refer not only to the blast furnace industry but also embrace the capital invested, hands employed, and wages paid in the mining and other operations conducted in direct connection with these works. Notwithstanding this fact, the cost of the materials reported at the Tenth Census was apparently the cost at the furnace. To this extent there is a duplication in the cost of production, which accounts for the discrepancies appearing in the figures for the Tenth Census and renders true comparison impracticable. In compiling the statistics for 1890 special effort was made to exclude as far as possible the data relating to iron ore mining and other industries dependent on the manufacture of pig iron, this information being covered by other branches of census investigation. A material increase, however, is shown in 1890 in the annual per capita earnings. In 1880 the average number of hands employed in the entire industry, including those engaged in mining and other operations conducted in direct connection with these works, was 20,595, receiving the sum of \$6,261,344 in wages, or an annual per capita earning of \$304.02. In 1890, excluding the hands employed in mining and allied operations reported in other branches of census investigation, the average number of hands employed is 18,688, receiving the sum of \$7,628,343 in wages, or an annual per capita earning of \$408.19, an increase of \$104.17, or 34.26 per cent.

It should be considered that the values reported for 1870 are expressed in a currency which was at a great discount, and for this reason they should be reduced one-fifth for purposes of comparison with the gold values of succeeding census years.

Robert T. Porter

Superintendent of Census.

IRON AND STEEL INDUSTRIES OF THE SOUTHERN STATES.

BY DR. WILLIAM M. SWEET.

One of the most notable features of the growth of the iron and steel industries of the United States during the past decade is the activity displayed by the southern states in the erection of iron-making plants, particularly large coke blast furnaces. In direct connection with this work there has been an advance almost equally great in the development of the extensive mineral resources necessary to the operation of these iron-making establishments. Steel making, although not wholly neglected, has not formed a prominent feature of this metallurgical development.

The progress made by the southern states in the manufacture of iron and steel during the past 20 years is shown in Table 1, the statistics being for the census years 1890, 1880, and 1870. In compiling the figures of this table the geographical division of the southern states is considered as comprising the iron-making states of Alabama, Delaware, Georgia, Kentucky, Maryland, North Carolina, Tennessee, Texas, Virginia, and West Virginia. These statistics include only the operations of blast furnaces, iron and steel rolling mills, bessemer, open-hearth, and crucible steel works, iron ore forges, and pig and scrap iron bloomeries.

TABLE 1.—COMPARATIVE STATEMENT: 1890, 1880, AND 1870.

IRON AND STEEL WORKS.

GENERAL HEADS.	1890	1880	1870
Number of establishments	145	5218	175
Capital invested	\$30,845,666	\$29,145,830	\$13,372,085
Average number of hands employed	a18,688	20,595	11,159
Amount of wages paid.....	a\$7,628,343	\$6,261,344	\$4,846,159
Cost of materials used.....	\$28,590,796	\$14,953,674	\$11,375,953
Value of products	\$42,590,822	\$25,353,251	\$21,472,665

a Excludes officers or firm members, clerks or salesmen, and their salaries.

b Includes 1 establishment in the District of Columbia.

The decrease in the number of establishments in 1890, as compared with 1880, is due to the fact that a large number of charcoal furnaces of small size and unfavorably situated for securing cheap materials and distribution of their product have been abandoned during the past decade, while many of the furnaces, operated in 1880 by separate firms or companies or built in succeeding years by distinct organizations, have since been consolidated under one management and appear in the tabulations for 1890 as single establishments. The totals for capital invested, hands employed, and wages paid in 1880 and 1890 do not accurately show the growth of the industry in the 10 years intervening, owing to the different methods pursued in compiling the data for the two census periods. The totals for 1880 included not only the capital invested, hands employed, and wages paid at the iron and steel works of southern states but also the same items for ore mining, coal mining, coke burning, and other similar branches of industry operated in direct connection with these works. The totals for 1890 relating to the latter branches of industry, dependent on the manufacture of iron and steel, are covered by other census inquiries, and are therefore not embraced in this report.

It is proper to add in this connection that with the economy secured by modern machinery and better furnace and mill practice the selling price of the products of iron and steel establishments has been greatly reduced during the past decade; consequently the total value of finished products as shown in the foregoing table does not exhibit the increase in the iron industry of the south so graphically as will the tables showing the quantities of actual production, to be presented later.

The following table shows the leading items embraced under the head of capital invested in 1890 and 1880, with the percentages of increase in 1890 :

TABLE 2.—ITEMS OF INCREASE IN INVESTED CAPITAL: 1890 AND 1880.

CLASSIFICATION.	INVESTED CAPITAL.		Percentages of increase.
	1890	1880	
Total	\$50,845,666	\$29,145,830	74.45
Buildings, machinery, tools, etc.....	32,072,788	13,342,191	140.39
Land	4,939,972	15,803,639	18.79
Cash and stock on hand.....	13,832,906		

The value of land and amount of cash assets were not separately returned at the census of 1880. The increase in the value of buildings, machinery, tools, etc., is 140.39 per cent; this item embraces the investment in iron and steel plants at both census periods; hence, a fairly accurate showing of the growth of the southern iron industry is possible by comparison of these figures. The apparent percentage of increase in the remaining items of investment is small, because the value of land reported in 1880 included that belonging to other closely allied branches of industry.

The amount of capital stated includes that invested in both active and idle plants. Of the 145 establishments reporting in 1890, 33 were idle during the entire year. The investment in the works in operation and those idle but not considered by their owners as abandoned iron-making plants is separately shown in the following table, together with the amount actually expended at the close of the census year on 25 establishments then in course of construction.

TABLE 3.—DISTRIBUTION OF CAPITAL INVESTED IN ACTIVE AND IDLE PLANTS AND THOSE IN COURSE OF CONSTRUCTION: 1890.

CLASSIFICATION.	Aggregate.	Works in operation.	Idle works.	Works building at close of census year.
Total	\$50,845,666	\$45,340,517	\$2,337,550	\$3,167,599
Land	4,939,972	4,036,072	290,500	613,400
Buildings, machinery, tools, etc.....	32,072,788	27,719,539	1,849,050	2,504,199
Cash and stock on hand.....	13,832,906	13,584,906	198,000	50,000

The following table exhibits a comparison, by states, of totals reported for 1890 and 1880, and indicates the changes which have taken place in the iron and steel industries of the southern states during the decade :

TABLE 4.—COMPARATIVE STATEMENT, BY TOTALS, FOR THE SOUTHERN STATES: 1890 AND 1880.

IRON AND STEEL WORKS.

STATES.	Number of establishments.		Capital invested.		Average number of hands employed.		Wages paid.		Cost of materials.		Value of products.	
	1890	1880	1890	1880	1890	1880	1890	1880	1890	1880	1890	1880
Total	145	218	\$50,845,666	\$29,145,830	18,688	20,595	\$7,628,343	\$6,261,344	\$28,580,796	\$14,953,674	\$42,590,822	\$25,353,251
Alabama	38	14	19,070,976	3,309,196	5,685	1,626	2,202,964	571,713	7,425,344	601,073	12,544,227	1,452,856
Delaware	9	9	2,960,722	1,431,469	1,637	867	765,158	344,476	1,549,539	1,214,050	2,608,670	2,347,177
Georgia.....	6	14	991,243	1,135,900	339	1,303	89,045	185,489	321,728	631,707	471,757	990,850
Kentucky.....	13	29	3,044,655	5,493,035	1,435	4,095	670,489	1,344,400	1,703,144	3,223,799	2,725,603	5,090,029
Maryland.....	13	23	5,170,574	4,962,125	1,247	2,763	371,993	905,090	2,217,173	2,888,574	2,869,208	4,470,050
North Carolina.....	5	21	559,325	799,400	106	203	19,403	35,627	126,219	35,372	240,540	77,085
Texas.....												
Tennessee.....	18	43	5,051,154	3,651,776	1,472	3,077	657,075	659,773	2,943,671	1,376,059	4,247,868	2,274,203
Virginia.....	30	44	7,508,093	4,329,713	3,010	2,522	1,117,452	665,432	4,387,942	1,496,151	6,326,084	2,585,999
West Virginia.....	13	20	6,488,924	3,913,616	3,757	4,121	1,734,764	1,541,816	7,906,036	3,484,625	10,556,865	6,054,032
District of Columbia.....	1			89,600		16		7,528		2,264		10,970

Examination of the foregoing table shows that from 1880 to 1890 many changes have taken place in the relative positions of the states as iron-making districts. In the matter of capital invested, Alabama is now far in the lead of all the other southern states, with Virginia and West Virginia second and third, respectively, in rank. In value of products, West Virginia is second in 1890, closely approaching Alabama. The important position thus occupied by West Virginia is due to the fact that a much larger proportion of the iron and steel produced there is worked into the higher forms of finished products than is done in other southern states.

BLAST FURNACES.

It is in the manufacture of pig iron that the progress and activity of the iron industry of the southern states has been particularly marked during the decade from 1880 to 1890. This section has been long noted for the excellent character of the charcoal pig iron produced within its borders, but prior to 1880 attention was not especially directed to its extensive and easily worked deposits of iron ore, nor to the advantages which the close proximity of coking coal and limestone to these deposits afforded as a producer of coke pig iron at low cost. During 1880 the south produced a little over 9 per cent of the aggregate pig iron yield of the United States, but in 1890 the southern furnaces contributed over 19 per cent of the total output of the United States in that year, the increase over 1880 from this section being 423.52 per cent.

The growth of the blast furnace industry in the southern states is indicated by the following table, which presents the totals for capital invested, labor and wages, cost of materials, and value of products for 1890, 1880, and 1870:

TABLE 5.—COMPARATIVE STATEMENT: 1890, 1880, AND 1870.

BLAST FURNACES.

GENERAL HEADS.	1890	1880	1870
Number of establishments.....	92	121	91
Capital invested.....	\$33,207,370	\$16,964,207	\$7,897,325
Average number of hands employed.....	7,932	9,486	5,488
Amount of wages paid.....	\$2,917,158	\$2,136,855	\$1,668,160
Cost of materials used.....	\$15,410,982	\$4,452,864	\$3,562,955
Value of products.....	\$22,494,870	\$7,769,050	\$7,008,137

^a Excludes officers or firm members, clerks or salesmen, and their salaries.

As the data for 1880 represent not only the operation of blast furnaces but also the capital invested, hands employed, and wages paid in other branches of industry operated in direct connection with these works, a more accurate comparison of the growth in capital invested during the decade of 1880 to 1890 is shown in the following table, in which the figures of plant and equipment for 1880 more nearly represent the direct investment in the blast furnace industry:

TABLE 6.—ITEMS OF INCREASE AND DECREASE IN INVESTED CAPITAL: 1890 AND 1880.

CLASSIFICATION.	INVESTED CAPITAL.		PERCENTAGE OF INCREASE OR DECREASE.	
	1890	1880	Increase.	Decrease.
Total.....	\$33,207,370	\$16,964,207	95.75	.....
Buildings, machinery, tools, etc.....	22,592,812	6,016,941	275.49	.....
Land.....	2,724,549	10,947,266	.....	3.04
Cash and stock on hand.....	7,890,009			

The increase in the total capital invested in blast furnaces is 95.75 per cent, while the investment in buildings and machinery has increased 275.49 per cent. There is a decrease of 3.04 per cent in the remaining items, the causes of this apparent decline having been previously explained.

Of the 92 blast furnace establishments in 1890, 23 were not in operation at any time during the year, almost the entire number being charcoal plants. The total capital invested includes the value of these idle plants, and also the amount actually expended at the close of the census year on 20 plants in course of construction on that date.

The following table exhibits separately the investment in active and idle works and those building at the close of the census year:

TABLE 7.—DISTRIBUTION OF CAPITAL INVESTED IN ACTIVE AND IDLE PLANTS AND THOSE IN COURSE OF CONSTRUCTION: 1890.

CLASSIFICATION.	Aggregate.	Works in operation.	Works idle.	Works building at close of census year.
Total.....	\$33,207,370	\$29,704,471	\$1,309,300	\$2,193,599
Land.....	2,724,549	2,236,349	165,500	322,700
Buildings, machinery, tools, etc.....	22,592,812	19,826,113	945,800	1,820,899
Cash and stock on hand.....	7,890,009	7,642,009	198,000	50,000

As previously explained, the decrease in the number of establishments in 1890, compared with 1880, is due to the erection of more modern furnaces of large capacity, replacing the many small charcoal plants abandoned, and also to the consolidation of a number of firms or companies under one management. Most of the furnaces abandoned during the decade were of small capacity, and, owing to antiquated machinery or unfavorable location for supply of materials and marketing products, were unable to compete with the furnaces constructed during recent years.

While the number of establishments has decreased during the past decade from 121 to 92, a falling off has also occurred in the number of furnaces in this section. The census of 1880 showed a total of 140 blast furnace stacks in the southern states, while in 1890 there were 132 stacks that were in operation or considered by their owners as likely to again produce pig iron, a net decrease in the 10 years of 8 furnaces.

The following comparative tabular statement shows the number and total daily capacity of the blast furnaces in each state as reported in 1890 and 1880:

COMPARATIVE STATEMENT OF DAILY CAPACITY: 1890 AND 1880.

STATES.	NUMBER OF COMPLETED FURNACE STACKS.		TOTAL DAILY CAPACITY (TONS OF 2,000 POUNDS).	
	1890	1880	1890	1880
Total.....	132	140	8,511	2,199
Alabama.....	48	15	4,237	339
Georgia.....	5	10	259	144
Kentucky.....	6	22	323	392
Maryland.....	14	22	713	281
North Carolina.....	1	7	15	39
Tennessee.....	19	21	1,109	388
Texas.....	3	1	130	10
Virginia.....	31	31	1,200	287
West Virginia.....	5	11	525	319

It appears from the foregoing statement that the increase during the decade in the total daily capacity in tons of the blast furnaces in the southern states has been 6,312 tons, or 287.04 per cent.

LABOR AND WAGES AT BLAST FURNACES.

The summary of hands employed and wages paid for 1890, as presented in the preceding tables, includes only the skilled and unskilled labor directly employed at the furnaces of the south and the

total wages paid for this class of work, officers and clerks being omitted from the figures for 1890, as was probably done in previous census reports. It is impossible, however, to make accurate comparison of the statistics of labor and wages between 1880 and 1890, because the figures for 1880 include not only the direct blast furnace labor but also the hands employed and wages paid in mining and other operations conducted in direct connection with these works. As previously explained, statistics relating to labor thus employed are excluded from the presentation for 1890, being embraced in other branches of census investigation.

The following table shows the number and salaries of officers or firm members and clerks or salesmen and the average number and wages of skilled and unskilled workmen engaged in the manufacture of pig iron in the southern states in 1890:

TABLE 8.—CLASSIFICATION OF LABOR EMPLOYED AND WAGES PAID IN 1890.

CLASSES.	AGGREGATE.		MALES ABOVE 16 YEARS.		FEMALES ABOVE 15 YEARS.		CHILDREN.	
	Average number employed.	Wages paid.						
Total (a).....	8,264	\$8,416,278	8,225	\$8,410,628	1	\$360	38	\$5,290
Officers or firm members.....	164	366,731	164	366,731				
Clerks or salesmen.....	168	132,389	167	132,029	1	360		
Skilled workmen.....	1,426	829,887	1,426	829,887				
Unskilled workmen.....	6,506	2,087,271	6,468	2,081,981			38	5,290

a Includes convict laborers at the Texas penitentiary, receiving an average of 50 cents a day.

The following tabular statement exhibits the weekly rates of wages paid and the average number of hands employed at each rate during 1890, excluding officers or firm members and clerks or salesmen:

WEEKLY RATES OF WAGES AND AVERAGE NUMBER OF HANDS EMPLOYED AT EACH RATE: 1890.

RATES PER WEEK.	AVERAGE NUMBER OF HANDS EMPLOYED. (a)	
	Males above 16 years.	Children.
Total.....	7,894	38
Under \$5.....	106	29
\$5 and over but under \$6.....	150	9
\$6 and over but under \$7.....	437	
\$7 and over but under \$8.....	2,232	
\$8 and over but under \$9.....	1,928	
\$9 and over but under \$10.....	942	
\$10 and over but under \$12.....	881	
\$12 and over but under \$15.....	735	
\$15 and over but under \$20.....	296	
\$20 and over but under \$25.....	111	
\$25 and over.....	76	

a Includes convict laborers at the Texas penitentiary, receiving an average of 50 cents a day.

The average length of time during which the blast furnaces of the southern states were in operation in 1890 was 8.70 months. Furnace hands were employed 12 hours per day, 7 days each week, yard hands working 10 hours daily for 6 days a week. In 1880 the blast furnaces of the south were in operation an average of 7.52 months.

The daily rates of wages of blast furnace labor in the south do not differ materially from the wages paid at most northern establishments. At the southern furnaces colored labor is almost

exclusively employed, except in positions where judgment and prompt action in emergencies are required, such as those of founders, stovesmen, engineers, and head iron grader. In the cast house the iron breakers, helpers, keepers, cinder men, and scrap men are colored, one or two white men occasionally working on the shift with them. In the stock house all the work, from unloading the stock to the filling in at the top of the furnace, is performed by colored labor, the employment of white labor being exceptional.

One of the difficulties encountered by the managers of southern furnaces in the employment of colored laborers is to secure continuous service. For this reason it is found necessary to divide the force into gangs with a "boss", whose duty it is to provide sufficient men to fill the places of those temporarily idle and keep the work moving smoothly. One "boss" looks after the men on the floor of the stock house, another after those engaged in unloading material, another after the cinder men, while still another takes charge of any laborers employed for extra work around the furnace.

MATERIALS USED BY BLAST FURNACES.

The following comparative tabular statement shows the quantities and cost of the materials consumed by the blast furnaces of the southern states during the census years 1890 and 1880. The quantities are in tons of 2,000 pounds, except in the case of charcoal, which is stated in bushels.

COMPARATIVE STATEMENT OF QUANTITY AND COST OF MATERIALS USED:
1890 AND 1880.

MATERIALS.	1890		1880	
	Quantity.	Cost.	Quantity.	Cost.
Total.....		\$15,410,982		\$4,452,864
Domestic iron ore (tons).....	3,837,409	6,042,537	724,136	2,003,250
Foreign iron ore (tons).....	136,769	663,422		
Limestone (tons).....	1,154,006	766,938	259,564	208,114
Anthracite coal (tons).....			32,600	139,000
Bituminous coal (tons).....	148,823	223,326	79,262	119,156
Coke (tons).....	2,228,915	5,939,150	334,458	1,034,213
Charcoal (bushels).....	23,409,733	1,413,452	14,961,937	824,842
Mill cinder, etc. (tons).....	79,612	152,440		
All other materials.....		209,717		124,289

With the exception of a few plants in Maryland, West Virginia, and Kentucky, the furnaces of the south draw their ore from local sources of supply, and almost the entire output of the mines is consumed by furnaces situated but a short distance away. In Maryland a number of furnaces use foreign ores, and in West Virginia almost all the pig iron is produced from Lake Superior ores. Kentucky also uses some ore from the Lake Superior district.

Coke constitutes the principal fuel used in the blast furnaces of the south, although the manufacture of charcoal pig iron continues to occupy an important position in the iron industry of this section. A few of the Kentucky furnaces still use a mixture of raw coal and coke, but in all the other states where coke is used as a blast furnace fuel it is employed alone. The Virginia furnaces draw their supply of coke from the Flat Top and New River districts in Virginia and West Virginia. Those of Alabama and Tennessee depend largely on the coke made from coal mined in those states, although obtaining a part of their supply from the Flat Top district.

PRODUCTS OF BLAST FURNACES.

The quantities and values of the products made by the blast furnaces of the south during the census years 1880 and 1890 are shown in the following comparative tabular statement, arranged according to fuels used, the unit of quantity employed being the ton of 2,000 pounds. The tons and values of castings produced direct from the furnaces are included in the statistics of pig iron production for the two periods.

COMPARATIVE STATEMENT OF QUANTITY AND VALUE OF PRODUCTS: 1890 AND 1880.

PRODUCTS.	1890		1880	
	Tons.	Value.	Tons.	Value.
Total	1,834,586	\$22,494,870	350,436	\$7,769,050
Mixed anthracite and coke pig iron			28,600	654,500
Coke and bituminous pig iron.....	1,629,033	18,966,980	214,861	4,117,635
Charcoal pig iron.....	205,553	3,527,890	106,975	2,910,750
Other products				86,165

While the furnaces of the south are advantageously located for the production of pig iron at low cost, the local development of industries consuming pig iron has not kept pace with the erection of furnaces, so that at present a large part of the iron must seek purchasers in northern and western markets. The rolling mill industry is, however, steadily growing in the south, and increased activity is shown from year to year in the erection of foundries, so that the future will exhibit a continually increasing proportion of the product of southern furnaces consumed by industries established in that section.

The leading statistics relating to the blast furnace industry of the southern states in 1890 and 1880 are shown in the following table, arranged by states:

TABLE 9.—COMPARATIVE STATEMENT, BY TOTALS, FOR THE SOUTHERN STATES: 1890 AND 1880.
BLAST FURNACES.

STATES.	NUMBER OF ESTABLISHMENTS.		CAPITAL INVESTED.		AVERAGE NUMBER OF HANDS EMPLOYED.		WAGES PAID.		COST OF MATERIALS.		VALUE OF PRODUCTS.	
	1890	1880	1890	1880	1890 (a)	1880	1890 (a)	1880	1890	1880	1890	1880
Total	92	121	\$33,207,370	\$16,964,207	7,932	9,486	\$2,917,158	\$2,186,855	\$15,410,982	\$4,452,864	\$22,494,870	\$7,769,050
Alabama.....	29	12	16,338,786	3,106,196	3,989	1,566	1,521,304	553,713	6,493,884	575,673	10,315,691	1,405,356
Georgia.....	5	9	831,845	819,100	254	754	45,501	77,415	237,836	241,796	339,422	466,890
Kentucky.....	6	19	1,420,199	2,681,035	262	1,890	83,482	429,988	461,608	801,410	665,763	1,243,652
Maryland.....	7	16	3,433,222	2,707,125	630	1,443	143,812	339,978	1,315,539	956,806	1,632,004	1,700,339
North Carolina.....	4	6	494,325	510,000	106	140	19,403	27,720	126,219	23,580	240,540	36,000
Texas.....												
Tennessee.....	13	18	3,898,605	2,204,326	1,012	1,579	433,376	261,897	2,450,882	489,440	3,366,464	840,022
Virginia.....	23	29	5,314,306	3,413,000	1,268	1,221	473,105	255,986	2,320,167	205,543	3,925,481	440,695
West Virginia.....	5	12	1,476,032	1,523,425	411	893	182,175	240,158	1,503,847	1,153,611	2,009,505	1,631,096

^a Excludes officers or firm members, clerks or salesmen, and their salaries.

It will be observed from the foregoing table that the state of Alabama shows the greatest increase in the blast furnace industry during the past decade. Jefferson county, in that state, in which the city of Birmingham is located, is now the most important iron-making center in the south. In 1880 there were but 2 establishments in the county, operating 3 blast furnaces, with an invested capital of \$1,080,800, but in 1890 this district contained 10 blast furnace establishments, with 24 furnaces, the total capital directly invested in the manufacture of pig iron being \$8,938,110. Virginia has long occupied an important position among the iron producing states of the country. In 1880 more than half of the pig iron made in that state was produced with charcoal as fuel, but with the development of the Flat Top coke fields an important advance has taken place in the erection of coke furnaces, and Virginia is now second in rank among the southern pig iron producing states. Tennessee has shown considerable progress in the erection of both coke and charcoal furnaces, and is now the third leading producer of pig iron in the southern section. While West Virginia is classed among the southern states, its pig iron industry at the present time partakes largely of the characteristics of the

establishments located in the northern and western sections of the country. During the past decade the manufacture of charcoal pig iron in West Virginia has been abandoned, and by far the larger part of the coke pig iron is produced from Lake Superior ores, the furnaces being located in Ohio and Marshall counties, at Wheeling and in its vicinity. The only furnace in the state using local ores exclusively is situated in Preston county.

While Maryland shows an increase in capital invested during the past 10 years, a slight decrease ensued in the value of products, owing to the decline in the manufacture of charcoal pig iron, and also to the reduction in the prices of all kinds of pig iron. The building of 4 large coke furnaces at Sparrow's Point, Baltimore, in 1890 has brought this state more prominently forward as a manufacturer of pig iron. Only 2 of these stacks were put in operation toward the close of the census year.

The pig iron industry of Kentucky has shown a marked decline during the past decade. In 1880 the state contained 22 blast furnaces, of which number 18 were small charcoal stacks, located principally in Greenup, Boyd, Carter, Estill, and Trigg counties. With the exception of 1 furnace in Greenup county, all these charcoal stacks have been abandoned. During 1890 a number of coke furnaces were under construction, only 1 of which, however, was completed, but not blown in at the close of the year.

The pig iron industry of Georgia has remained practically stationary during the decade from 1880 to 1890, and prior to 1890 little progress had been made in Texas. In that year 2 charcoal furnaces were completed in the latter state, but not blown in.

The 7 charcoal furnaces in North Carolina in 1880 were idle in that year, and all have since been considered by their owners as abandoned or classed as long inactive furnaces. The only active furnace in the state was built in 1884 to smelt Cranberry ores, using charcoal as fuel, but during the latter part of the present census year it was run on coke. In order to avoid disclosing the operations of this establishment and the 1 establishment in operation in Texas in 1890, the statistics for these states have been grouped in the foregoing table.

ROLLING MILLS AND STEEL WORKS.

In 1880 44 iron rolling mills, 2 open-hearth steel works, and 2 crucible steel works were situated in the southern states. In 1890 there were 41 iron and steel rolling mills not connected with steel producing works; 7 establishments with bessemer and open-hearth steel plants, 5 of which works contained trains of rolls for the production of rolled iron and steel; and 2 crucible steel works, only 1 of which contained trains of rolls. The growth of the manufacture of rolled iron and steel in the south during the years 1890, 1880, and 1870 is shown in the following comparative table, the figures including the operations of iron and steel rolling mills and bessemer, open-hearth, and crucible steel works:

TABLE 10.—COMPARATIVE STATEMENT: 1890, 1880, AND 1870.
ROLLING MILLS AND STEEL WORKS.

GENERAL HEADS.	1890	1880	1870
Number of establishments.....	49	48	71
Capital invested.....	\$17,528,096	\$11,665,260	\$5,104,510
Average number of hands employed.....	a10,696	10,615	5,425
Amount of wages paid.....	a\$4,677,185	\$3,964,612	\$3,100,009
Cost of materials used.....	\$13,036,029	\$10,252,098	\$7,602,346
Value of products.....	\$19,920,952	\$17,062,587	\$14,108,071

a Excludes officers or firm members, clerks or salesmen, and their salaries.

In the decade from 1880 to 1890 14 iron and steel establishments have been built in this section, and during the same period 12 were abandoned for iron-making purposes, showing a net increase of 2 establishments in 10 years. The apparent discrepancy in the number of establishments given is due to the different methods pursued in tabulating the figures for the 2 periods. In 1880, where a rolling mill was operated in connection with a steel plant, the works were tabulated as 2 separate and distinct

establishments. In 1890, owing to the impossibility of accurately separating the capital invested, labor and wages, and materials and products of establishments producing both iron and steel, a plant comprising both a rolling mill and steel works has been counted as a single establishment.

The southern states have made but little progress in the production of steel since 1880, the character of the iron ores of this section being generally unsuitable for use in the older and well-tried processes of steel manufacture. During 1890 steel was produced experimentally by the basic process at an open-hearth plant in Alabama, and since the close of the census year an establishment in Chattanooga has engaged in the manufacture of steel by the same method. Since 1880 5 bessemer steel plants have been erected in the south, 4 of which were added to existing iron rolling mills. Of this number 1 is in Virginia, 2 in West Virginia, and 2 in Tennessee. At the close of 1890 large steel works were in course of erection at Sparrow's Point, Baltimore, Maryland, for the manufacture of steel by the bessemer process. This plant has since been completed and put in operation.

In 1880 the south was credited with 2 open-hearth and 2 crucible steel works, but in 1890 the open-hearth steel plants had increased to 3, the number of crucible steel works remaining unchanged.

Of the 49 rolling mills and steel works reported in 1890, 7 were idle during the entire year. In the preceding table the total of capital invested includes the investment in these idle works, and also the amount actually expended on 5 establishments building at the close of that year. The capital invested in these various works is classified in the following table:

TABLE 11.—DISTRIBUTION OF CAPITAL INVESTED IN ACTIVE AND IDLE PLANTS AND THOSE IN COURSE OF CONSTRUCTION: 1890.

CLASSIFICATION.	Aggregate.	Works in operation.	Works idle.	Works building at close of census year.
Total.....	\$17,528,096	\$15,598,046	\$956,050	\$974,000
Land.....	2,200,923	1,797,723	112,500	290,700
Buildings.....	2,551,387	2,185,594	237,993	127,800
Machinery.....	6,838,889	5,677,832	605,557	555,500
Cash and stock on hand.....	5,936,897	5,936,897		

Of the aggregate capital invested in rolling mills and steel works in 1880 \$7,051,700 was credited to buildings and machinery, and the remaining \$4,613,560 to land and cash capital. In the 10 years under consideration the increase in aggregate capital was 50.26 per cent, while the value of buildings and machinery had increased 33.16 per cent and the investment in land and cash capital 76.39 per cent.

LABOR AND WAGES AT ROLLING MILLS AND STEEL WORKS.

The following table exhibits the number and salaries of officers or firm members and clerks or salesmen and the average number and wages of skilled and unskilled workmen engaged at rolling mills and steel works in the southern states in 1890:

TABLE 12.—CLASSIFICATION OF LABOR EMPLOYED AND WAGES PAID IN 1890.

CLASSES.	AGGREGATE.		MALES ABOVE 16 YEARS.		FEMALES ABOVE 15 YEARS.		CHILDREN.	
	Average number employed.	Wages paid.						
Total.....	10,967	\$5,062,541	10,556	\$4,997,930	3	\$1,350	408	\$63,261
Officers or firm members.....	127	276,651	127	276,651				
Clerks or salesmen.....	144	108,705	141	107,355	3	1,350		
Skilled workmen.....	6,042	3,364,749	6,042	3,364,749				
Unskilled workmen.....	4,654	1,312,436	4,246	1,249,175			408	63,261

The following tabular statement shows the weekly rates of wages paid and the average number employed at each rate during the census year 1890, excluding officers or firm members and clerks or salesmen :

WEEKLY RATES OF WAGES AND AVERAGE NUMBER
OF HANDS EMPLOYED AT EACH RATE: 1890.

RATES PER WEEK.	AVERAGE NUMBER EMPLOYED. (a)	
	Males.	Children.
Total	10,288	408
Under \$5.....	156	283
\$5 and over but under \$6.....	511	109
\$6 and over but under \$7.....	915	16
\$7 and over but under \$8.....	1,342	
\$8 and over but under \$9.....	1,348	
\$9 and over but under \$10.....	1,122	
\$10 and over but under \$12.....	1,245	
\$12 and over but under \$15.....	1,193	
\$15 and over but under \$20.....	1,392	
\$20 and over but under \$25.....	690	
\$25 and over.....	374	

a Excludes officers or firm members and clerks or salesmen.

During 1890 the rolling mills and steel works of the southern states were in operation an average of 8.72 months each, while the average term of employment for men was 9.34 months and for children 8.72 months. The excess of the average term of employment over the average term of mill operation is due to the fact that the establishments reporting the greater number of hands also report the maximum periods of operation. In rolling mills and steel works, with but few exceptions, the workmen are employed 10 hours a day for 6 days of the week. In 1880 the rolling mills and steel works of the south employed 10,615 hands, and were in operation an average of 9.06 months each.

MATERIALS CONSUMED BY ROLLING MILLS AND STEEL WORKS.

The total quantity and cost of the various materials consumed by the rolling mills and steel works of the southern states in the census years 1890 and 1880 are given in the following tabular statement. With the exception of charcoal, which is stated in bushels, the unit of quantity is the ton of 2,000 pounds.

COMPARATIVE STATEMENT OF QUANTITY AND COST OF MATERIALS
USED: 1890 AND 1880.

MATERIALS.	1890		1880	
	Quantity.	Cost.	Quantity.	Cost.
Total		\$13,036,029		\$10,252,098
Iron ore (tons).....	39,065	252,108	33,973	240,281
Spiegeleisen, etc. (tons).....	1,709	93,097	110	9,500
Pig iron (tons).....	302,936	5,372,404	163,886	3,869,046
Old iron rails (tons).....	56,771	1,356,157	98,403	2,759,493
Other old or scrap iron (tons).....	65,790	1,201,892	56,190	1,466,460
Old steel rails (tons).....			250	7,500
Other old or scrap steel (tons).....	2,488	45,587	75	2,750
Hammered iron ore blooms (tons).....	203	8,850	3,286	167,240
Hammered pig or scrap blooms (tons).....			9,767	440,858
Purchased rails (tons).....	6,072	180,593	1,107	52,946
Purchased bessemer steel (tons).....	73,627	2,018,910		
Purchased open-hearth steel (tons).....	8,870	272,378		
Anthracite coal (tons).....	8,694	35,301	7,909	34,445
Bituminous coal (tons).....	622,537	949,752	489,441	955,408
Coke (tons).....	20,725	58,981	1,160	6,065
Charcoal (bushels).....	114,102	10,551	220,639	19,690
All other materials (a).....		1,179,468		220,416

PRODUCTS OF ROLLING MILLS AND STEEL WORKS.

The following is a comparative statement of the total tonnage of rolled and hammered products made by the southern rolling mills and steel works in 1890 and 1880, the figures being given in tons of 2,000 pounds.

COMPARATIVE STATEMENT OF TONNAGE OF PRODUCTS: 1890 AND 1880.

PRODUCTS.	1890	1880
	Tons.	Tons.
Total	515,775	290,324
Iron	266,850	287,229
Bessemer steel	241,745	
Open-hearth steel	6,050	3,020
Crucible steel.....	1,130	75

The increase in tonnage during the 10 years is entirely in steel products, and amounts to 225,451 tons, or 77.65 per cent. No bessemer steel was made in 1880, and the larger part of that produced in 1890 was converted into finished forms at works in West Virginia. Many of the rolling mill establishments in the south in 1890 rolled products from purchased bessemer and open-hearth steel.

The quantities and values of the products of the rolling mills and steel works in 1890 and 1880 have been classified in the following table. The quantities are given in tons of 2,000 pounds, except nails, which are stated in kegs of 100 pounds.

TABLE 13.—QUANTITY AND VALUE OF CLASSIFIED PRODUCTS: 1890 AND 1880.

CLASSIFICATION OF PRODUCTS.	1890		1880	
	Quantity.	Value.	Quantity.	Value.
Total		\$19,920,952		\$17,062,587
Iron:				
Bar and rod (tons).....	99,309	3,752,111	85,240	4,465,239
Rails (tons).....	4,314	168,081	52,086	2,371,770
Plates, except nail plate (tons)	16,582	789,061	22,605	1,672,259
Sheets (tons).....	24,234	1,487,847	17,545	1,464,519
Muck bar produced for sale (tons)	38,582	951,654	1,991	55,796
Car axles, rolled and hammered (tons)	10,900	507,182	300	21,000
Hoop (tons)	2,923	131,244	1,537	102,855
Cut nails (kegs of 100 pounds).....	184,341	437,566	1,471,720	4,633,960
All other finished products (tons).....	60,789	2,792,901	32,339	2,025,188
Steel—Bessemer:				
Bar (tons).....	5,265	214,985		
Rails (tons).....	536	20,000		
Sheets (tons).....	5,359	311,757		
Plates, except nail plate (tons).....	15,229	538,924		
Cut nails (kegs of 100 pounds)	1,178,082	2,479,135		
All other finished products (tons).....	156,452	4,696,136		
Steel—Open-hearth:				
Bar (tons).....	2,504	100,458		
Rails (tons).....			2,745	137,250
Sheets (tons).....	257	9,180		
Plates (tons).....	2,989	158,466		
All other finished products (tons).....	300	8,100	275	24,750
Steel—Crucible:				
Finished products (tons).....	1,130	115,500	75	9,000
Value of all other products.....		250,664		79,001

The quantities of bars and rods include the bars and rods sold only in those forms. Where such material is converted into bolts, nuts, horseshoes, or other products by the same establishment, the

quantities and values of these finished products are tabulated under the item of "All other finished products". Under the same heading are included the quantities and values of several important products made only by a single concern, the presentation of which under their proper classifications would disclose the operations of individual establishments. In the final tabulations for the whole country these products will be entered under the proper headings with similar products for other establishments.

The quantities and values of steel products include all manufactures either made from steel produced in this section or obtained from outside sources in the form of billets, slabs, or bars.

The most notable decline in the tonnage and values of iron products since 1880 has occurred in cut nails and rails. Wheeling, West Virginia, has long been an important center of the nail industry of the United States, and the quantity of nails reported as made in the south in 1880 and 1890 was produced almost entirely at works located in this district. In 1890 bessemer steel formed the principal material used in the manufacture of cut nails and spikes, the aggregate quantity of iron and steel nails made in that year not being much below the total tonnage of iron nails made in 1880.

The changes in the total value of the iron and steel products of the rolling mills and steel works of the southern states, and the proportion which the value of iron, steel, and miscellaneous allied products bears to the total value of all products, are shown in the following tabular statement:

PROPORTIONS IN VALUE OF PRODUCTS OF ROLLING MILLS AND STEEL WORKS: 1890 AND 1880.

PRODUCTS.	VALUES.		PERCENTAGES.	
	1890	1880	1890	1880
Total	\$19,920,952	\$17,062,587	100.00	100.00
Manufactures of iron.....	11,017,647	16,812,586	55.31	98.54
Manufactures of steel.....	8,652,641	171,000	43.43	1.00
Miscellaneous products	250,664	79,001	1.26	0.46

The increase in total value is \$2,858,365, or 16.75 per cent.

The percentage of decrease in the value of iron products in the 10 years was 34.47 per cent, the percentage of increase in the value of products classed as steel was 4,960.02 per cent, and the percentage of increase in the value of miscellaneous products was 217.29 per cent.

The growth in the manufacture of rolled iron and steel in each of the southern states is shown in the following comparative table for 1890 and 1880. The figures for Georgia, Tennessee, and Texas have been grouped together, in order not to disclose the operations of individual plants.

TABLE 14.—COMPARATIVE STATEMENT, BY TOTALS, FOR THE SOUTHERN STATES: 1890 AND 1880.
ROLLING MILLS AND STEEL WORKS.

STATES.	NUMBER OF ESTABLISHMENTS.		CAPITAL INVESTED.		AVERAGE NUMBER OF HANDS EMPLOYED.		WAGES PAID.		COST OF MATERIALS.		VALUE OF PRODUCTS.	
	1890	1880	1890	1880	1890	1880	1890	1880	1890	1880	1890	1880
Total	49	48	\$17,528,096	\$11,665,260	10,696	10,615	\$4,677,185	\$3,964,612	\$13,036,029	\$10,252,098	\$19,920,952	\$17,062,587
Alabama	8	2	2,723,990	203,000	1,696	60	681,660	18,000	931,460	25,400	2,228,536	47,500
Delaware.....	9	9	2,960,722	1,431,469	1,637	867	765,158	344,476	1,549,539	1,214,050	2,608,670	2,347,177
Georgia.....	7	7	1,376,947	1,706,000	545	1,850	262,243	479,025	576,681	1,233,241	1,018,739	1,856,160
Tennessee.....												
Texas.....												
Kentucky	7	10	1,624,456	2,812,000	1,173	2,205	582,007	914,412	1,241,536	2,422,389	2,059,840	3,841,377
Maryland.....	4	6	1,639,352	2,195,000	557	1,253	194,181	546,974	766,819	1,829,042	1,062,204	2,550,051
Virginia.....	6	5	2,189,787	838,000	1,742	1,134	639,347	352,539	1,567,775	1,199,698	2,400,603	1,986,416
West Virginia.....	8	8	5,012,842	2,390,191	3,346	3,228	1,552,589	1,301,658	6,402,189	2,326,014	8,547,360	4,422,936
District of Columbia.....	1			89,600		18		7,528		2,264		10,970

The state of West Virginia occupies the leading position both as regards capital invested and value of products, Delaware being second. The prominence of the state of Delaware in the manufacture of iron and steel is due entirely to its rolling mill industry, the state containing neither blast furnaces nor steel works. The returns show that Alabama has more capital invested in rolling mills and steel works than Virginia, although the total value of products of the Virginia works in 1890 slightly exceeded the aggregate of Alabama. Texas had no rolling mill industry in 1880, but in 1890 contained one completed rolling mill and one in course of erection. In the remaining states a decrease in the amount of capital invested and in value of products is noted during the decade.

FORGES AND BLOOMARIES.

In 1880 the southern states contained 49 establishments engaged in the production of pig and scrap blooms and blooms and bar iron direct from the ore. Most of these works produced bar iron, and were located in the mountainous districts of eastern Tennessee and western North Carolina. They were operated only at irregular intervals, depending upon the wants of the neighboring blacksmiths and also upon the supply of water in the mountain streams, which furnished the power for both the trompes (or water blasts) and the hammer. The aggregate annual production of the works was therefore small. With the development of the rolling mill industry in the south and the extension of transportation facilities these primitive iron-making establishments have one by one been abandoned, so that at the present time the manufacture of bar iron direct from the ore by the old-fashioned Catalan process is practically an extinct industry in the southern states. There is a possibility, however, that one or two of these works may again make a small quantity of iron.

The 4 establishments reporting in 1890 were equipped for the production of blooms from pig and scrap iron, 2 of these works being located in Maryland, 1 in Virginia, and 1 in Alabama. The manufacture of blooms from pig and scrap iron is also declining in the south.

The following table is a comparative statement showing the condition of iron ore forges and pig and scrap iron bloomaries in 1890, 1880, and 1870:

TABLE 15.—COMPARATIVE STATEMENT: 1890, 1880, AND 1870.

FORGES AND BLOOMARIES.

GENERAL HEADS.	1890	1880	1870
Number of establishments.....	4	49	13
Capital invested.....	\$110,200	\$516,363	\$370,250
Average number of hands employed.....	60	494	246
Wages paid	\$34,000	\$109,877	\$77,990
Cost of materials used	\$133,785	\$248,712	\$210,652
Value of products.....	\$175,000	\$521,614	\$356,457

^a Excludes officers or firm members, clerks or salesmen, and their salaries.

In 1880 the forges and bloomaries of the south produced 1,355 tons of bar iron direct from the ore, valued at \$104,016; 7,038 tons of blooms from pig and scrap iron, valued at \$414,460, and other products valued at \$3,138. The establishments in 1890 produced 5,320 tons of pig and scrap blooms, valued at \$175,000, in the manufacture of which there were consumed 4,645 tons of pig iron, costing \$73,289; 1,540 tons of old or scrap iron, costing \$28,610, and coke, charcoal, and other materials, costing \$31,886.

CENSUS BULLETIN.

No. 348.

WASHINGTON, D. C.

January 26, 1893.

MANUFACTURES—THE SILK INDUSTRY.

DEPARTMENT OF THE INTERIOR,
CENSUS OFFICE,

WASHINGTON, D. C., December 23, 1892.

Herewith is presented a report on the manufacture of silk in the United States. The inquiry made for the Eleventh Census respecting this industry has been more comprehensive in various details than at any previous census, and the results will be found particularly interesting and instructive.

While the report of the silk industry for the census of 1880 showed remarkable progress, the advance in the state of this art for the past decade has been wonderful not only in the quantity and character of production but in the invention and development of improved machinery, through the operation of which silk fabrics of all description have been brought within the reach of the masses and, to considerable extent, translated from the category of luxuries to that of necessities. The success attending the industry of silk manufacture in the United States has naturally given birth to healthy home competition, with the result that production has been stimulated and American made silk goods now find abundant demand within our own markets.

The classification of silk goods of American manufacture is now practically without limit, embracing every article made in the older silk manufacturing countries, and fully equal to the foreign product in quality of weave, beauty of design, and excellence of finish.

The value of the net or finished production of silk goods manufactured during the census year 1890 was \$69,154,599, against \$34,519,723 for the census year 1880, an increase of \$34,634,876, or 100.33 per cent.

The general facts attending the various items of increase, as indicated by the accompanying tables, are shown in the following comparative statement:

COMPARATIVE STATEMENT OF THE SILK MANUFACTURE.

GENERAL HEADS.	1890	1880	Percent- age of increase.
Number of establishments reported.....	472	382	23.56
Capital invested (a).....	\$51,007,537	\$19,125,300	166.70
Number of hands employed.....	50,913	31,337	62.47
Amount of wages paid.....	\$19,680,318	\$9,146,705	115.16
Miscellaneous expenses.....	\$4,345,032	(b)	.....
Cost of materials used.....	\$50,919,016	\$22,467,701	126.63
Value of product.....	\$87,298,454	\$41,033,045	112.75
Number of spindles.....	1,254,798	508,137	146.94
Number of looms.....	22,569	8,474	166.33

^a This does not include the sum of \$10,355,160, value of "Property hired", as this item was not reported at the census of 1880.

^b This item was not reported prior to the census of 1890.

These figures do not include the operations of 52 establishments engaged in dyeing and finishing silk goods, with an invested capital of \$2,368,157, employing 1,745 hands, and paying \$1,013,325 in wages.

Although the increase in the number of adult male and female employés has been marked, being 102.65 per cent for males and 77.17 per cent for females, a satisfactory decrease is shown in the number of children employed. The number of children employed in this industry in 1880 was 5,566 as against 2,866 in 1890, a decrease of 2,700, or 48.51 per cent.

The average annual per capita earnings for all classes of employés in 1890 was \$387.00 as against \$292.00 in 1880, an increase of \$95.00, or 32.53 per cent.

In considering the figures, however, the fact should be taken into account that, although a very marked decline in prices ensued in 1890, estimated to average fully 25 per cent, the amount of production in quantities, nevertheless, largely increased, thus augmenting the gross value of product. This demonstrates that the true measure of progress in the industry is the quantity rather than the value of the product.

The more thorough system of inquiry adopted at the present census may have measurably affected the increase shown in the amount of capital employed, since "Invested capital", as returned at the census of 1880, did not take cognizance of all items which are properly embraced in the current census inquiry under the head of "Live assets". "Miscellaneous expenses" are reported for 1890 only. No previous census inquiry has embraced the cost incurred in manufacturing operations other than that of "Wages paid" and "Materials used", and this fact should be borne in mind when comparing the industrial statistics of 1890 with those of previous census periods.

The number of spindles employed in silk manufacture has increased from 508,137 in 1880 to 1,254,798 in 1890, an increase of 746,661, or 146.94 per cent.

Even more noteworthy than this great increase in the number of spindles is the rapid disappearance of the old-time cumbersome hand looms, which are being superseded by the power looms, the inventive genius of the age having produced marvelous improvements in both mechanism, speed, and artistic effects. At the census of 1880 3,153 hand looms were employed as against 1,747 in 1890, a decrease of 1,406, or 44.59 per cent. In 1890 20,822 power looms were employed as against 5,321 in 1880, an increase of 15,501, or 291.32 per cent. The total number of all looms employed in 1890 was 22,569 as against 8,474 in 1880, an increase of 14,095, or 166.33 per cent.

This report was prepared under the general directions of the division of manufactures of the Census Office by Mr. BYRON ROSE, special agent, assisted by Mr. PETER T. WOOD, to both of whom the office is indebted for this valuable report.



Superintendent of Census.

SILK MANUFACTURE.

BY BYRON ROSE.

The very full and comprehensive report prepared by the late WILLIAM C. WYCKOFF, special agent in charge of the inquiry into silk and silk goods at the Tenth Census, which covered the entire period from the earliest introduction of silk on the American continent to the decennial period of 1880, precludes the necessity in this report for any extended reference to the rise and progress of silk manufacture in the United States preceding the latter date beyond such as may be necessary for purposes of comparison.

PRODUCTION.

The growth of the silk industry during the past decade, both in amount and value of production, may justly be considered as one of leading interest. The value of finished products of silk manufacture in 1890 was \$69,154,599, an increase in value over that of 1880 of \$34,634,876, or 100.33 per cent. Table 1 exhibits the leading general facts regarding silk manufacture for the census years of 1880 and 1890. The table shows the number of establishments, capital invested, machinery used, miscellaneous expenses, number of hands employed, amount of wages paid, gross and net cost of materials used, and gross and net value of product.

TABLE 1.—COMPARATIVE STATEMENT: 1880 AND 1890.

STATES AND YEARS.	Number of establishments.	CAPITAL.				MACHINERY.						
		Aggregate capital. (a)	Value of land and buildings.	Value of machinery.	Total of live assets. (b)	Looms.						
						Hand.		Power.				
						Broad goods.	Narrow goods.	Broad goods.	Ribbons.	Other narrow goods.	Total for ribbons and other narrow goods.	
Total.....	1890 1880	472 382	\$51,007,537 19,125,300	\$6,904,628 3,836,600	\$14,181,680 5,227,500	\$29,921,229 10,061,200	413 1,629	1,334 1,524	14,866 8,103	4,389	1,567	5,956 2,218
California.....	1890 1880	9 5	112,283 164,300	..... 16,400	30,409 62,000	81,874 85,900	..... .....	35 24	..... .....	..... .....	1 .....	..... 1
Connecticut.....	1890 1880	35 28	9,037,042 4,436,500	1,295,789 746,000	1,617,538 1,247,550	6,123,715 2,442,950	6 2	..... 10	1,053 448	290	29	310 155
Illinois.....	1890 1880	10 5	422,096 82,000	93,000 25,000	106,200 30,000	222,896 27,000	..... .....	82 51	..... .....	..... .....	44	44 13
Maryland.....	1890 1880	4 4	50,400 20,900	7,500 3,500	12,400 10,000	30,500 7,400	..... .....	..... 39	..... .....	14 .....	..... .....	14
Massachusetts.....	1890 1880	20 22	3,353,296 1,306,900	364,800 194,100	591,908 308,950	2,396,588 808,850	41 62	55 91	354 .....	..... .....	90	90 88
New Jersey.....	1890 1880	132 106	16,809,927 6,952,325	2,170,079 984,100	5,039,564 2,290,000	9,600,234 3,678,225	218 1,444	19 153	9,146 2,017	2,112	229	2,341 939
New York.....	1890 1880	185 151	11,165,918 4,696,775	1,376,242 1,433,000	3,612,758 966,000	6,176,918 2,297,775	80 85	972 906	1,838 543	1,478	572	2,050 552
Ohio.....	1890 1880	3 6	37,830 24,700	15,000 4,000	1,750 12,000	21,080 8,700	8	8 22	..........	..........	..........	..........
Pennsylvania.....	1890 1880	66 49	9,362,063 1,379,900	1,462,502 422,000	2,941,679 287,000	4,957,882 670,900	60 36	163 226	2,306 95	451	603	1,054 471
Rhode Island.....	1890 (c) 1880	3	122,256 .....	..... .....	70,364	51,892 .....	..... .....	..... .....	..... .....	43 .....	..... .....	43
All other states..(d)	1890 (e) 1880	5 6	534,426 61,000	119,716 8,500	157,110 19,000	257,600 33,500	..... .....	..... 2	169.....	..........	..........	..........

^a For comparative purposes, hired property to the amount of \$10,355,160 is omitted in 1890, this item not being reported at the census of 1880.

^b This item was not fully reported in 1880.

^c Included in group "All other states, 1880".

^d Includes states having less than 3 establishments in operation during the census year 1890, in order that the operations of individual establishments may not be disclosed. These establishments were distributed as follows: Maine, 1; Michigan, 1; Missouri, 1; North Carolina, 1; Virginia, 1.

^e Includes states having less than 3 establishments in operation during the census year 1880, in order that the operations of individual establishments may not be disclosed. These establishments were distributed as follows: Kansas, 1; Maine, 1; Missouri, 1; New Hampshire, 1; Rhode Island, 1; Vermont, 1.

TABLE 1.—COMPARATIVE STATEMENT: 1880 AND 1890—Continued.

STATES AND YEARS.	Number of establishments.	MACHINERY—continued.			AVERAGE NUMBER OF HANDS EMPLOYED.				Total amount paid in wages.	Miscellaneous expenses, including rent. (a)
		Spindles.			Aggregate.	Males above 16 years.	Females above 15 years.	Children.		
		Winding, cleaning, and doubling.	Spinning and twisting.	Braiding.						
Total.....1890	472	369,035	718,360	167,403	50,913	18,998	29,049	2,866	\$19,680,318	\$4,345,032
.....1880	382	164,218	262,312	81,607	31,837	9,375	16,396	5,566	9,146,705	
California.....1890	9	799	2,018	29	214	56	156	2	83,566	12,172
.....1880	5	200	150	754	151	20	106	25	41,400	
Connecticut.....1890	35	45,402	84,262	11,492	5,081	1,649	3,309	123	2,006,804	273,826
.....1880	28	35,353	53,472		3,428	735	1,990	653	1,026,530	
Illinois.....1890	10	363	369	221	805	198	597	10	295,636	37,501
.....1880	5				259	67	135	57	72,195	
Maryland.....1890	4	6			75	31	44		24,233	3,798
.....1880	4				82	12	56	14	11,000	
Massachusetts.....1890	20	26,235	55,200	30,403	3,216	1,192	1,936	88	1,296,399	485,260
.....1880	22	13,514	16,936	11,000	1,826	353	1,285	188	521,725	
New Jersey.....1890	132	135,160	224,204	19,366	17,917	8,184	8,834	899	7,176,180	1,389,590
.....1880	106	76,037	134,746	33,429	12,549	4,696	5,360	2,493	4,177,745	
New York.....1890	185	62,197	92,772	72,635	13,151	4,857	8,014	280	5,584,399	1,157,410
.....1880	151	27,707	39,564	22,734	9,633	2,405	5,459	1,769	2,590,025	
Ohio.....1890	3	96			40	10	30		13,685	2,662
.....1880	6				135	21	73	41	12,550	
Pennsylvania.....1890	66	89,429	228,736	30,217	9,522	2,604	5,625	1,293	2,981,334	948,524
.....1880	49	9,497	15,744	6,864	3,189	1,000	1,870	319	673,120	
Rhode Island.....1890	3	930	2,463	40	194	55	109	30	61,978	18,427
.....1880										
All other states.....1890	5	3,418	28,236	3,000	698	162	395	141	156,104	15,862
.....1880	6	1,910	1,700	6,776	85	16	62	7	15,415	

STATES AND YEARS.	Number of establishments.	COST OF MATERIALS.							VALUE OF PRODUCT.			
		Raw silk and silk materials.	Other textile materials.	Dye-stuffs and chemicals.	Fuel.	All other materials.	Gross cost of materials.	Silk material, twice included.	Net cost of materials.	Gross value of product.	Silk product, twice included.	Net value of product.
Total.....1890	472	\$46,351,200	\$2,327,684	\$717,111	\$400,107	\$1,122,914	\$50,919,016	\$15,537,520	\$35,381,496	\$87,298,454	\$18,143,855	\$69,154,599
.....1880	382	19,208,683	1,400,480	828,314	173,283	856,941	22,467,701	3,898,535	18,569,166	41,033,045	6,513,322	34,519,723
California.....1890	9	123,406	13,303	458	102	7,403	144,672	3,500	141,172	271,912	5,600	266,312
.....1880	5	66,418	3,500	3,552	2,355	5,170	80,995	14,595	66,400	159,175	28,470	130,705
Connecticut.....1890	35	5,723,323	78,485	204,864	73,134	118,665	6,198,476	889,756	5,308,720	9,788,951	1,665,390	8,123,561
.....1880	28	3,025,325	12,000	115,040	41,693	117,148	3,311,206	295,190	3,016,016	5,881,000	442,925	5,438,075
Illinois.....1890	10	155,931	111,978	4,727	1,725	38,754	313,115		313,115	785,845		785,845
.....1880	5	73,820	9,500			42,575	125,895		125,895	244,150		244,150
Maryland.....1890	4	29,530	2,799	6	205	1,765	34,305		34,305	100,361		100,361
.....1880	4	11,630	2,980	1,150			15,760		15,760	35,415		35,415
Massachusetts.....1890	20	2,861,697	156,120	69,976	43,149	115,081	3,251,023	746,175	2,504,848	5,557,569	945,610	4,611,959
.....1880	22	1,730,870	161,815	64,725	15,775	17,330	1,990,515	121,000	1,869,515	3,764,260	273,167	3,491,093
New Jersey.....1890	132	17,191,845	228,811	155,650	143,132	155,992	17,875,430	5,205,501	12,669,929	30,760,371	5,354,389	25,405,982
.....1880	106	8,664,335	33,400	432,472	73,548	369,281	9,678,536	2,502,400	7,176,136	17,122,230	4,271,185	12,851,045
New York.....1890	185	8,571,281	936,243	117,735	63,990	451,825	10,141,079	1,318,742	8,822,337	19,417,796	1,681,481	17,736,315
.....1880	151	4,333,485	730,530	109,430	24,167	134,192	5,331,804	533,600	4,798,204	10,170,140	802,115	9,368,025
Ohio.....1890	3	8,335	5,488			160	13,983		13,983	33,927		33,927
.....1880	6	14,845	2,075			2,575	19,495		19,495	53,110		53,110
Pennsylvania.....1890	66	10,375,625	794,350	137,347	63,502	214,092	12,084,916	7,017,604	5,067,312	19,357,546	7,953,323	11,404,223
.....1880	49	1,207,795	394,680	50,975	10,265	167,270	1,830,985	404,000	1,426,985	3,491,840	638,675	2,853,165
Rhode Island.....1890	3	147,015		998		750	148,763	68,242	80,521	229,062	94,062	135,000
.....1880												
All other states.....1890	5	663,207	102	25,350	6,168	18,427	713,254	288,000	425,254	995,114	444,000	551,114
.....1880	6	79,660		970	480	1,400	82,510	27,750	54,760	111,725	56,785	54,940

a This item was not reported in 1880 and does not include selling expenses.

The following summaries show the value of net production in the various classes of goods manufactured at the census periods of 1880 and 1890:

FINISHED GOODS FOR THE CENSUS YEAR 1880.

Sewing silk	\$776,120
Machine twist.....	6,007,735
Floss silk.....	225,025
Dress goods	4,115,205
Satins	1,101,875
Tie silks and scarfs.....	606,675
Millinery silks	891,955
Other broad goods	627,595
Handkerchiefs	3,881,590
Ribbons	6,023,100
Laces.....	437,000
Braids and bindings.....	999,685
Fringes and dress trimmings.....	4,950,275
Cords, tassels, passementeries, and millinery trimmings.....	1,866,575
Upholstery and military trimmings.....	1,392,355
Coach laces and carriage trimmings.....	37,510
Undertakers', hatters', and fur trimmings.....	59,805
Mixed goods and silk values therein.....	519,643
Total.....	34,519,723

FINISHED GOODS FOR THE CENSUS YEAR 1890.

Machine twist and sewing silk	\$7,068,213
Fringe, knitting, embroidery, and floss silk	1,849,631
Dress goods, figured and plain	15,183,134
Tailors' linings.....	3,011,437
Tie silks and scarfs.....	919,919
Other broad goods.....	1,928,036
Handkerchiefs.....	1,913,224
Ribbons.....	17,081,447
Laces.....	261,750
Braid and bindings	2,771,382
Velvets and plushes.....	3,141,026
Upholstery goods :	
Curtains.....	471,324
Tapestries.....	1,330,287
Other upholstery broad goods	1,910,721
Gimps and trimmings.....	3,918,209
Dress and cloak trimmings	4,403,757
Military trimmings	232,600
Hosiery and knit goods :	
Shirts and drawers.....	26,421
Hosiery.....	141,183
Mittens, gloves, etc.....	897,904
Jersey cloth.....	90,664
Other products.....	602,330
Total.....	69,154,599

The values stated in the foregoing summaries represent the value of the product at the factory, without subtracting expenses of selling. The term "net production" signifies the quantity and value of finished goods after allowance has been made for materials "twice included", which is fully explained hereafter in this report.

From the foregoing summaries it will be seen that the value of net production increased from \$34,519,723 in 1880 to \$69,154,599 in 1890, an increase of \$34,634,876, or 100.33 per cent. In

considering these figures, however, the fact should be borne in mind that, although values had declined, estimated by competent authorities to be not less than 25 per cent, the amount of production in quantities shows a very marked increase.

The following tables, 2 and 3, show the "quantities" of silk goods produced in 1880 and 1890, but in this respect the report for the census of 1880 furnished but small basis for comparison with the more comprehensive report prepared for the census of 1890:

TABLE 2.—QUANTITIES OF SILK IN PRODUCTS: 1880.

STATES.	Sewings and twist.	Broad goods and handkerchiefs.	Ribbons and laces.	Trim-mings and small goods.
	Pounds.	Yards.	Yards.	Pounds.
Total	821,523	10,856,284	30,129,951	710,149
California	9,500			4,650
Connecticut	394,981	2,253,070	8,541,235	695
Illinois				12,220
Kansas			3,600	
Maine	4,225			
Maryland				1,784
Massachusetts	273,816	99,120	573,320	39,789
Missouri				65
New Hampshire	1,300			300
New Jersey	25,580	6,975,655	8,794,100	50,405
New York	88,765	1,427,439	10,302,696	403,330
Ohio				2,187
Pennsylvania	23,110	101,000	1,915,000	192,824
Rhode Island				1,900
Vermont	251			

TABLE 3.—QUANTITIES OF SILK IN PRODUCTS: 1890.

STATES.	Number of establishments.	Sewings and twist. (a)	Broad goods and handkerchiefs. (b)					Ribbons and laces.	Trim-mings and small goods. (c)				
			Pounds.	Yards.	Sq. yards.	Pairs.	Dozens.		Pieces.	Pieces.	Yards.	Dozens.	Gross.	Pairs.	Pounds.
Total	472	1,449,462	30,171,673	4,642,820	71,049	393,902	25,737,211	5,201,128	217,444	491,512	190,984	2,000	1,140
California	9	18,829						64,060	7,944	1,105	160		
Connecticut	35	770,428	2,747,420	675,117	1,904	5,717	872,783	64,942		3,750	18,341		
Illinois	10			1,000				265,024	75,000		1,000	2,000	
Maryland	4						33,290	11,600					
Massachusetts	20	390,683	744,383					331,727		11,395	1,698		1,140
New Jersey	132	44,568	18,180,072	514,295	13,820	386,520	14,629,214	164,036		45,936	62,000		
New York	185	44,168	4,795,552	726,474	44	1,665	8,447,441	3,276,284	94,500	408,577	106,618		
Ohio	3							11,260					
Pennsylvania	66	144,173	3,431,093	2,725,934	55,281		1,664,608	983,915		20,749	1,167		
Rhode Island	3						89,875		40,000				
All other states (d) ..	5	36,613	273,153					28,280					

a Includes 329,637 pounds of "Fringe, knitting, embroidery, and floss silk", divided as follows: California, 4,515; Connecticut, 121,177; Massachusetts, 75,658; New Jersey, 27,593; New York, 3,779; Pennsylvania, 81,915; "All other states", 15,000.

b Includes in "Broad goods" the following, viz., dress goods, figured and plain; tailors' linings, tie silks and scarfs, "Other broad goods", tapestries, curtains, velvets and plushes, and "Other upholstery broad goods".

c Includes gimps and trimmings, braids and bindings, dress and cloak trimmings, military trimmings, hosiery and knit goods, and Jersey cloth. (Jersey cloth as follows: United States, 75,444 yards, viz., California, 444, and New York, 75,000.)

d Includes states having less than 3 establishments, in order that the operations of individual establishments may not be disclosed. These establishments were distributed as follows: Maine, 1; Michigan, 1; Missouri, 1; North Carolina, 1; Virginia, 1.

DEVELOPMENT OF SILK MANUFACTURES.

In addition to what has been shown regarding the increase in both value and quantity of production during the past decade, a very great advance has ensued in the development of the manufacture through the production of classes of goods never before attempted, as well as the consequent increased employment of silk fabrics for many uses previously unknown.

In the meantime the great improvement and increased beauty and variety of designs in our figured silk fabrics attest the rapid advance made in the domestic industry, while qualities have steadily improved in nearly every direction, notwithstanding the decline in prices, through which, owing to a growing home competition, our consuming classes have been largely benefited. Among other noteworthy features distinguishing the past decade may be mentioned the spread of the industry through the establishment of mills at numerous points outside the recognized seats of the industry in 1880; also the almost absolute retirement of the hand loom in weaving broad goods and ribbons, the marked decline in the price of raw silk, and the great improvement in nearly every department of machinery and appliances. The latter feature has led to increased economy in manufacture and larger diversification of product, there being in fact scarcely any class of silk goods required by American consumers not now produced in this country and upon American looms.

Last, but not least, may be mentioned the ascendancy in volume of domestic silk fabrics over imported goods achieved by our home industry. The percentages of silk goods made in the United States, as compared with the whole consumption of such goods in the country for the past four decades, are as follows:

1860.....	13 per cent.
1870.....	23 per cent.
1880.....	38 per cent.
1890.....	55 per cent.

Each of the features above noted is of sufficient importance to merit more extended reference, since all are factors in the history of the past decade. Further allusion will be made to these features elsewhere in this report.

SEWING SILK AND MACHINE TWIST.—Taking up in detail the more important lines of the manufacture, consideration may properly be first given to the oldest, that of sewing silk. Previous to 1810 this production, as well as such other manipulation of silk as then existed in the United States, was a household industry. The erection in that year at Mansfield, Connecticut, of a small one-story frame building, twelve feet square (still standing), and the employment of a water wheel as the motive power for the single crude spinning frame which it contained, may justly be considered the inauguration of silk manufacture as a factory industry in this country. At the census of 1850 the value of sewing silk production had grown to \$1,209,426 out of a total value of \$1,809,476 for all silk goods manufactured. The adaptation of silk thread or twist for use on the sewing machine, occurring in 1852, created the new classification of "machine twist", and gave immense impetus to this branch of silk industry. At the census of 1880 its production amounted in value to \$6,783,855, sewing silk being credited with \$776,120 and machine twist with \$6,007,735. At the census of 1890 the returns for the two items were consolidated, the total value produced in that year being \$7,068,213, an increase of \$284,358, or 4.19 per cent. That this increase in value of production was not larger resulted from a decided falling off in price during the past decade, which is evidenced by the fact that the amount in weight produced in 1880 was 791,525 pounds (*a*), while in 1890 it was 1,119,825 pounds (*b*), an increase of 328,300 pounds, or 41.48 per cent. The ever increasing use of the sewing machine has fully sustained this industry, so that the manufacture of machine twist is at present one of paramount importance, and doubtless will so continue in the future. There is no competition whatever in this branch from abroad, home manufacturers having kept fully abreast of the growing requirements of the

a The total quantity of sewings and twist produced in 1880, reported at the Tenth Census, was 821,528 pounds, but in this amount was included floss silk (which also embraced fringe, knitting, and embroidery silk) to the value of \$225,025. The average value of this latter product in that year may be placed at \$7.50 per pound, which would give 30,003 pounds as the amount of production, leaving 791,525 pounds as the amount of machine twist and sewing silk produced.

b It will be seen by reference to footnote *a* in Table 3, showing "quantities of silk in products, 1890", that from the total of 1,449,462 pounds given for sewings and twist, 329,637 pounds of fringe, knitting, embroidery, and floss silk should be deducted, leaving 1,119,825 pounds as the production of machine twist and sewing silks.

trade, and while distancing all foreign rivals, have maintained low prices through the keenest competition between themselves. The manufacture of this class of goods is now, as in 1880, more extensively carried on in the states of Massachusetts and Connecticut than elsewhere.

FRINGE, KNITTING, EMBROIDERY, AND FLOSS SILKS.—Goods of this character are produced by the manufacturers of spun silk and machine twist and sewing silks, and the product has been developed largely since the Tenth Census. The returns for 1880 showed a value in product of floss silk of \$225,025, including fringe, knitting, and embroidery silks. In 1890 the value of the combined production aggregated \$1,849,631, an increase of \$1,624,606, or 721.97 per cent, having kept pace with the largely increased demand for this class of goods for use in art decoration and other purposes.

BROAD SILKS.—In considering this class of production it may be stated that the generic or commercial term of "broad silks" is applied in this report to all silk-woven fabrics other than handkerchiefs, ribbons, velvets and plushes, upholstery goods, and trimmings of the character designated in the classification hereinafter shown. To better illustrate the growth of this branch of the industry historical reference becomes necessary. Previous to 1840 little if anything had been accomplished therein save as a household industry. In that year a start in a small way was made at Paterson, New Jersey, but the insignificant growth of broad silk weaving in the decade following is shown by the returns for the census of 1850, which reported the value of "silk cloth" produced at \$17,050. At the census of 1860 no mention whatever was made of this class of production. The enactment of the "Morrill" tariff of 1861, at the outbreak of the late civil war, by which an import duty of 60 per cent ad valorem was imposed upon silk manufactured goods and raw silk put on the free list, was the first step toward placing the industry upon a solid foundation. During the war the production was greatly stimulated, owing in part to frequent deficiencies in the foreign supply, and in part to the excessive cost due to the high price of gold, which greatly checked importation. At the close of the war (in 1865) the weaving of broad silks had attained considerable importance and may be regarded as having become firmly established. Hence very nearly all that has been achieved in this branch of the industry has been accomplished within the past 25 years. The returns of the Ninth Census reported an annual production of 1,026,422 yards, the value not being given. The value of production reported at both the Tenth and Eleventh Census periods is shown herewith :

MATERIALS.	1880	1890
Total.....	\$7,348,305	\$21,042,526
Dress goods.....	4,115,205	15,183,134
Satins.....	1,101,875	
Tailors' linings.....		3,011,437
Tie silks and scarfs.....	606,675	919,919
Millinery silks.....	891,955	
Other broad goods.....	627,595	1,928,036

It will thus be observed that the total value of production in this branch of silk industry in 1890 amounted to \$21,042,526, an increase over 1880 of \$13,699,221, or 186.55 per cent. Allusion has already been made to the great progress within the past decade in the whole industry in a more extended range of production, and nowhere does this more aptly apply than in the domain of broad silk weaving. The classification is now, in fact, almost illimitable, practically embracing everything made in other and older silk manufacturing countries, while in quality of weave, combination of colors, beauty of design, and excellence of finish American manufacturers keep fully aligned with foreign rivals, maintaining the standard necessary to the extensive and ever growing domestic competition as well as that from abroad. In the meantime, also, values have experienced a great decline and prices to consumers are much below those prevailing at the period of the Tenth Census.

HANDKERCHIEFS.—The handkerchief production stands almost singly in showing a decline of value in the amount of goods manufactured, having decreased from \$3,881,590 in 1880 to \$1,913,224 in 1890, a difference of \$1,968,366, or 50.71 per cent. This results from the decided change which has occurred during the decade, especially within the past 4 or 5 years, in the requirements of

the purchasing trade, the tendency being adverse to the class of goods made on American looms, particularly figured effects, and favoring those of oriental production, of which the importation into this country, especially from Japan, has recently grown to formidable proportions. It may be remarked in this connection that the competition developed in this line from that country, which is rapidly adopting the latest improved mechanical methods and appliances and possesses such cheap and abundant supply of skillful, patient, and industrious labor, is well calculated to excite even graver apprehension in the minds of many American silk manufacturers and other interested parties as to her possible competition with us in other lines of the industry than exists at the present time.

RIBBONS.—The development of this branch during the past decade has been exceedingly rapid. Its production of \$17,081,447 in 1890 stands second in value to that of broad silks, while it exceeds that of dress silks by the sum of \$1,898,313. In 1880 the value of ribbons manufactured was reported at \$6,023,100. The increase shown by the Eleventh Census is \$11,058,347, or 183.60 per cent. Previous to 1861 a few feeble and insignificant efforts were made at various points toward producing this class of goods, but it was not until after the enactment of the Morrill tariff in that year and through the commercial exigencies created by the civil war that, similarly to broad silks, ribbon production obtained as a permanent domestic industry, the first mill of real importance having been established at Williamsburg, Long Island, in 1863. In 1870 the Ninth Census showed a production of 3,224,264 yards, and from that date the progress of this branch of the industry has been upward and onward. The remarks made concerning broad silks apply with equal force to ribbons in both diversification and excellence of product. Goods of a character and beauty the production of which 10 years ago the most sanguine American manufacturer would have hardly ventured to predict would be attempted within that period now constitute a large portion of the regular output, while the exceedingly low prices at which they are offered to consumers, resulting from home competition, has created a demand for their use for many purposes never before contemplated.

LACES.—The production of laces for dress and millinery purposes shows a falling off from \$437,000 in 1880 to \$261,750 in 1890, a decrease of \$175,250, or 40.10 per cent. A considerable portion of the decrease can be attributed to the fact that under the Tenth Census lace mitts were classified as laces, while under the present census they are included with mittens and gloves; but by far the most important check to the manufacture of this class of goods during the latter part of the past decade undoubtedly resulted from the question which arose as to the construction of the clause in Schedule N of the tariff act of 1883. The inadvertent omission of the word "vegetable" in said clause led to large importations of laces being entered as "hat trimmings", and consequently, as claimed by the importers, liable to a duty of but 20 per cent ad valorem instead of 50 per cent as silk goods, to which classification American manufacturers claimed they properly belonged. The resulting law suits of importers for a refund of duties naturally placed American manufacturers at a disadvantage. A final decision of the Supreme Court of the United States in 1889 sustained the claims of the importers, and as a result during the present census year American lace machinery remained largely idle, it being estimated by one of the principal manufacturers in this line that not more than one-third of the machinery was in operation during that year. Early in 1890 this matter was rectified by an act of Congress amending the tariff law, so that all imported laces composed of silk, or of which silk is the component material of chief value, became subject to a duty of 60 per cent.

BRAIDS AND BINDINGS.—In this department the returns show a value in production of \$2,771,382 in 1890 against \$999,685 in 1880, an increase of \$1,771,697, or 177.23 per cent. In 1880 (fiscal year) the invoice value of this class of goods imported into the port of New York amounted to \$1,707,114, and in 1890 it was \$1,707,154. It will thus be seen that American manufacturers have made good progress in competing with foreign importations in this line.

VELVETS AND PLUSHES.—This branch of the industry, with a product in 1890 of \$3,141,026, has come into existence since the Tenth Census. No separate classification of the two items is made in the summary showing the value of production, but the value of the output of plushes largely exceeds that of velvets. The velvets produced here have been mostly utilized for millinery and dress trimming purposes, while the plushes, among other uses, are largely employed in the upholstery line and have

measurably superseded foreign plushes in that direction, American made goods of this character having become very popular with the trade. So far only plain goods, made of "schappe" or spun silk with cotton backs, have been manufactured here, no production having been attempted of the high figured effects in both lines, such as are seen among the artistic creations of the Lyons weavers or of the foreign rich all-silk plain velvets. The demand for both the latter, however, is comparatively limited, being mainly restricted to the wealthier classes, while the larger proportion of the class of goods made here is consumed by the masses, home competition having effected great reduction in prices.

UPHOLSTERY GOODS.—Under this general head the summary for 1890 shows the following values of goods produced composed of silk, or of which silk was the component material of chief value: curtains, \$471,324; tapestries, \$1,330,287, and other upholstery broad goods, \$1,910,721; a total of \$3,712,332. At the Tenth Census no mention was made of goods of this character, but as a matter of fact the industry has developed and made rapid progress within the past decade, especially in the city of Philadelphia, the chief center for this class of silk goods. The benefit accruing to consumers from home production in the whole line of silk manufacture is nowhere better illustrated than in this branch. Curtains largely made of silk, but with some admixture of cotton, are now offered to consumers at a less price than were "all cotton" goods 10 years ago, while tapestries, principally used in furniture coverings, are fully 30 per cent cheaper and of much better design and quality. With the exception of the most expensive grades, American made goods have largely replaced those of foreign production. Equally in "Other upholstery broad goods", such as brocatelles, light silk damasks for draperies, silk chenilles, etc., the improvement has been exceedingly rapid. The goods produced here are fully equal to those of foreign manufacture in both quality and design, the latter being largely original with the home manufacturers, while they are sold at lower prices than ever before, thus placing them within the purchasing power of the masses. The industry promises a bright future, and is capable, under favorable conditions, of much larger expansion and diversification of product.

TRIMMINGS.—The variance in classification in the summaries of finished production between the Tenth and Eleventh Censuses renders it somewhat difficult to make correct detailed comparisons between the two periods. The following tabular statement, however, is presented:

MATERIALS.	1880	1890
Upholstery and military trimmings.....	\$1,392,355	.....
Coach laces and carriage trimmings.....	87,510	.....
Total.....	1,429,865	.....
Upholstery gimps and trimmings.....	.....	\$3,918,209
Military trimmings.....	.....	232,600
Total.....	.....	4,150,809
Fringes and dress trimmings.....	4,950,275	.....
Cords, tassels, passementerie, and millinery trimmings.....	1,866,575	.....
Undertakers' (a), hatters', and fur trimmings.....	59,805	.....
Total.....	6,876,655	.....
Dress and cloak trimmings.....	.....	4,403,757

a Undertakers' trimmings should properly be classed with "Upholstery trimmings", but in 1880 were classed with "Hatters' and fur trimmings".

This statement shows that the value of the entire production of trimmings in 1880 was \$8,306,520, while in 1890 it was \$8,554,566, an increase of \$248,046, or 2.99 per cent, and that while the production of upholstery and military trimmings combined increased in the sum of \$2,720,944, or 190.29 per cent, that of dress and cloak trimmings decreased \$2,472,898, or 35.96 per cent. The decrease in the latter item can be attributed only to adverse fashions in the use of both dress and cloak trimmings, ribbons having largely taken their place for dress garniture, while plainer styles of cloaks were in favor.

This class of goods is perhaps more at the mercy of the ever changing whims of fashion than any other line of the industry.

HOSIERY AND KNT GOODS.—This branch of the manufacture, with its total production of \$1,156,172, is also practically a development of the past 10 years, no separate mention of goods of this character having been made at the census of 1880. The industry is thriving and rapidly assuming importance, the goods produced being of the highest possible grade.

ESTABLISHMENTS.

The census of 1880 reported 382 establishments engaged in the silk industry in that year, which included some of those employed exclusively in silk dyeing, finishing, etc., the number of which was less than in 1890. The number of establishments reported in 1890 was 472, being all silk manufacturing concerns, an increase of 90, or 23.56 per cent. To these should be added 52 establishments engaged exclusively in silk dyeing, finishing, etc., making a total for the whole industry of 524 establishments, a net increase over 1880 of 142 establishments, or 37.17 per cent.

The following comparative statement for 1880-1890 shows, by states, the number of establishments engaged in the industry (including dyeing and finishing) and the increase or decrease in each:

STATES.	NUMBER OF ESTABLISHMENTS.		Increase.	Decrease.
	1880	1890		
Total	382	524	142	.....
California.....	5	9	4	.....
Connecticut.....	28	36	8	.....
Illinois.....	5	11	6	.....
Kansas.....	1	.....	.....	1
Maine.....	1	1	.....	.....
Maryland.....	4	4	.....	.....
Massachusetts.....	22	20	.....	2
Michigan.....	.....	1	1	.....
Missouri.....	1	1	.....	.....
New Hampshire.....	1	.....	.....	1
New Jersey.....	106	156	50	.....
New York.....	151	206	55	.....
North Carolina.....	.....	1	1	.....
Ohio.....	6	3	.....	3
Pennsylvania.....	49	71	22	.....
Rhode Island.....	1	3	2	.....
Vermont.....	1	.....	.....	1
Virginia.....	.....	1	1	.....

The statement on the following page, reproduced from the report on "The Dyeing and Finishing of Textiles", shows the number of establishments, capital invested, miscellaneous expenses, average number of hands employed by classes, total amount paid for wages, power used, cost of materials, and total value of work done in establishments devoted exclusively to dyeing and finishing silk goods and yarns.

ESTABLISHMENTS ENGAGED EXCLUSIVELY IN DYEING AND FINISHING SILK GOODS AND YARNS.

STATES.	Number of establishments.	Aggregate capital.	Miscellaneous expenses.	LABOR AND WAGES.				
				Average number of hands employed.				Total amount paid in wages.
				Total.	Males.	Females.	Children.	
Total	52	\$2,368,157	\$182,608	1,745	1,639	102	4	\$1,013,325
New Jersey	24	1,507,106	124,207	1,292	1,233	57	2	744,059
New York	21	751,638	51,781	391	344	45	2	230,034
All other states (a)	7	109,413	6,620	62	62			39,232

STATES.	Number of establishments.	POWER.			MATERIALS.				Total value of work done.
		Steam.	Water.	All other.	Total cost of all materials.	Chemicals and dyestuffs.	Fuel.	All other materials.	
Total	52	1,513	21	10	\$1,272,251	\$1,092,192	\$83,475	\$96,584	\$2,935,101
New Jersey	24	777		10	1,126,746	987,957	70,582	68,207	2,333,716
New York	21	545			107,054	75,012	9,498	22,544	478,637
All other states (a)	7	191	21		38,451	29,223	3,395	5,833	122,748

a Includes states having less than 3 establishments, in order that the operations of individual establishments may not be disclosed. These establishments were distributed as follows: Connecticut, 1; Illinois, 1; Pennsylvania, 5. The 5 establishments reported in Pennsylvania are grouped with the two reported in Connecticut and Illinois to avoid disclosing the operations of these establishments.

LOCATION OF SILK MILLS.

Allusion has been made to "the spread of the industry" during the past decade through the establishment of mills at numerous points outside the recognized centers of the industry in 1880. The following list, substantially complete, indicates the location of silk mills, with the year of their establishment, at points where none existed prior to 1880. At a number of the locations named additional mills have also been erected within the last census decade, but only the first one established is referred to in this list.

1880. Poughkeepsie, New York. Boonton, New Jersey. Hawley, Pennsylvania.	1886. Becket, Massachusetts. Newton Upper Falls, Massachusetts. Guilford, Connecticut. Fultonville, New York. Phillipsburg, New Jersey. Bethlehem, Pennsylvania. Catasauqua, Pennsylvania. East Mauch Chunk, Pennsylvania. Harrisburg, Pennsylvania. Stroudsburg, Pennsylvania. Wilkesbarre, Pennsylvania.	1888. Jamestown, New York. Bayonne, New Jersey. Midland Park, New Jersey. Port Oram, New Jersey. Altoona, Pennsylvania. Bloomsburg, Pennsylvania. Pottsville, Pennsylvania. Tobyhanna, Pennsylvania. Weatherly, Pennsylvania. Petersburg, Virginia. Wadesboro, North Carolina.
1881. Dover, New Jersey. Linden, New Jersey. Allentown, Pennsylvania. Darby, Pennsylvania.	1887. Hopedale, Massachusetts. Mapleville, Rhode Island. Glenn, New York. Middletown, New York. Norwich, New York. Whitehall, New York. Hackettstown, New Jersey. Honesdale, Pennsylvania. Hagerstown, Maryland. Pittston, Pennsylvania. Reading, Pennsylvania. Belding, Michigan.	1889. Argusville, New York. Hillburn, New York. Hornellsville, New York. Kinderhook, New York. Matteawan, New York. Spring Valley, New York. Steinway, Long Island, New York. Oakland, New Jersey. Pompton, New Jersey.
1882. Bridgeport, Connecticut. Preston, Connecticut. Tariffville, Connecticut. Oswego, New York.		1890. Sandwich, Massachusetts. Monroe, New York.
1883. Athol, Massachusetts. Auburn, New York. Easton, Pennsylvania.		
1884. Woonsocket, Rhode Island. Marlboro, Connecticut.		
1885. Stirling, New Jersey. South Bethlehem, Pennsylvania.		

A large portion of the spread of the industry to new points has resulted from the location, by manufacturers elsewhere engaged therein, of "annex" establishments devoted mainly to the "throwing" branch, in which women and children are principally employed, the work being of the lightest kind. This has occurred notably in the state of Pennsylvania, where, in addition to a plentiful supply of otherwise unemployed labor of the character mentioned, fuel is comparatively cheap. The location of mills in this state, as well as in some instances in other states, has, furthermore, been greatly facilitated by the financial inducements offered by various towns, the citizens of which have hastened to recognize the value of establishing an industry in their locality furnishing light, agreeable, and remunerative employment to labor of the class referred to. Hence liberal subscriptions have been made toward the erection of mills on mutually advantageous terms. While these isolated establishments, as a rule, were at the first mere "annexes" devoted to the "throwing" of material to be woven at the parent establishment in one or another of the chief centers of the manufacture, weaving was later on also entered upon, while especially among those established in the latter half of the past decade are a number of well equipped factories, embracing all the branches from the spindle to the loom.

The advantage, or otherwise, of an isolated location presents a problem which has been widely discussed. On the one side are cheaper fuel, cheaper help, lower taxes, less expense for factory space, etc., while on the other there are the advantages of proximity to market, to expert textile machinists, and to depots for all manner of supplies, and also of having trained employes, who can hardly be induced to remove to country towns, where the operatives must first be instructed almost en masse in their several tasks. But whatever the advantages or disadvantages of a remote location, the "throwsters" at the principal centers have found it difficult to compete with these outside establishments, the difference in wages alone being a most important factor.

CAPITAL.

The returns for capital employed are far more complete at the present census than any previously obtained, embracing in detail the "Live assets" and also the "Value of property hired", while at the Tenth Census they were largely confined to the actual investments of manufacturers, and did not include the "Value of property hired", which under the present census aggregates \$10,355,160, making a total capital employed of \$61,362,697. (a) Hence, for purposes of comparison with the Tenth Census, it becomes necessary to deduct this amount of \$10,355,160 from the total of \$61,362,697, which leaves the sum of \$51,007,537 in 1890, as against \$19,125,300 in 1880, an increase of \$31,882,237, or 166.70 per cent. The items of "Value of land and buildings" and "Total value of machinery" are the only ones with which the returns of 1880 can be compared. The value of land and buildings increased from \$3,836,600 in 1880 to \$6,904,628 in 1890, an increase of \$3,068,028, or 79.97 per cent, while the value of the machinery employed increased from \$5,227,500 in 1880 to \$14,181,680 in 1890, an increase of \$8,954,180, or 171.29 per cent. In 1880 the combined value of land and buildings and machinery was \$9,064,100, leaving \$10,061,200 as the amount otherwise included as capital, the respective percentages of the above to the whole sum of \$19,125,300 being 47.39 and 52.61. In 1890 the combined value of the same items was \$21,086,308, leaving \$29,921,229 as the amount otherwise included as capital, the respective percentages to the whole sum of \$51,007,537 being 41.34 and 58.66. In 1880 the net value of finished goods produced for each dollar of capital invested was \$1.80, and in 1890 it was \$1.36. Although these figures apparently show that the producing capacity of capital was smaller in 1890 than in 1880, the fact that "Live assets" were more fully reported under the Eleventh than under the Tenth Census, and the great decline in values of products, already alluded to, should be considered in this connection. A careful analysis of these two items will demonstrate that the ratio of production to capital in 1890 was considerably larger than in 1880.

^a To this sum of \$61,362,697 should be added the sum of \$2,368,157, the amount of capital invested in 52 establishments engaged exclusively in dyeing and finishing silk goods and yarns, thus making the total capital invested in the silk industry in 1890 \$63,730,854.

LABOR AND WAGES.

The returns show that the average number of hands employed in 1890 was 50,913 (a), while in 1880 it was 31,337, the increase amounting to 19,576, or 62.47 per cent.

The following tabular statement shows the increase or decrease in number and percentage of males, females, and children employed in 1890 as compared with 1880:

EMPLOYÉS.	1890	1880	INCREASE.		DECREASE.	
			Number.	Per cent.	Number.	Per cent.
Males above 16 years.....	18,998	9,375	9,623	102.65		
Females above 15 years.....	29,049	16,396	12,653	77.17		
Children.....	2,866	5,566			2,700	48.51

Notwithstanding the growth of the industry the decrease in the number of children employed is very noticeable, being largely due to the stringent laws which have been enacted during the decade in several states regulating the employment of children in factories.

The total amount paid in wages in 1890 was \$19,680,318 (a) as against \$9,146,705 in 1880, an increase of \$10,533,613, or 115.16 per cent. The amount of wages paid per capita in 1880 was \$292.00; in 1890 it was \$387.00, an increase of \$95.00, or 32.53 per cent.

The following comparative statements show the rates of wages paid per week to classified operatives in 1890 and 1880. It is proper to mention, however, that only 65 per cent of the establishments made detailed reports on this subject in 1890.

RATES OF WAGES PER WEEK TO CLASSIFIED OPERATIVES: 1890.

CLASSES OF OPERATIVES.	Number of establishments reporting.	Males.	Females.	Children.
Raw silk winder.....	126		\$5.24	\$3.10
Raw silk cleaner.....	18		4.71	2.93
Raw silk doubler.....	111		5.07	3.03
Raw silk spinner.....	96	\$6.70	4.85	3.58
Raw silk twister.....	68	7.52	5.25	3.15
Soft silk winder.....	193		6.31	3.34
Soft silk spooler.....	123	6.09	5.71	3.56
Soft silk warper.....	142	13.60	8.74	3.25
Soft silk beamer.....	56	11.26	9.40	
Soft silk warp twister.....	91	13.35	10.00	
Hand loom weaver.....	59	14.09	8.52	
Power loom weaver:				
Broad goods.....	108	11.16	9.04	
Ribbons.....	79	15.74	11.28	
Braiding machine operative.....	30	8.48	6.00	
Knitting machine operative.....	14	16.00	8.00	
Lace machine operative.....	4	13.00		
Designer.....	17	23.18	16.50	
Card cutter.....	25	15.05	8.50	
Dyer.....	16	16.00		
Finisher.....	58	13.87	10.12	
Laborer.....	10	9.29	4.50	
Other operatives.....	82	12.34	6.89	3.95

a To these amounts should be added 1,745 hands and \$1,013,325 wages, reported by 52 establishments engaged in dyeing and finishing silk goods and yarns, making the total number of hands employed in the silk industry 52,658, to whom \$20,693,643 was paid in wages.

RATES OF WAGES PER WEEK TO CLASSIFIED OPERATIVES: 1880.

CLASSES OF OPERATIVES.	Males.	Females.	CLASSES OF OPERATIVES.	Males.	Females.
Raw silk winder.....		\$5.25	Lace machine operator.....	\$14.75	
Raw silk cleaner.....		3.37	Braid machine operator.....	16.00	
Raw silk doubler.....		5.18	Braider.....		\$5.41
Raw silk spinner.....	\$5.57	4.87	Passementerie spinner.....	17.73	12.00
Raw silk twister.....	5.98	5.67	Fringe knotter.....		5.30
Raw silk reeler.....		4.50	Tassel maker.....		5.29
Soft silk doubler.....		4.00	Finisher.....	13.50	
Soft silk winder.....		6.35	Designer (b).....	24.71	
Soft silk spooler.....		4.96	Card cutter (c).....	11.68	
Soft silk warper.....	10.71	7.62	Dyer (d).....	12.77	
Quiller and quill winder.....		4.00	Engineer.....	12.33	
Soft silk beamer.....	12.11	7.72	Machinist.....	12.40	
Soft silk warp twister.....	13.96		Loom fixer.....	15.87	
Hand loom weaver (a).....	14.15	8.44	Laborer.....	8.73	
Power loom weaver (a).....	11.43	7.94			

a There is a very great difference in the size of looms for different kinds of goods. The highest rates to power loom weavers are paid to those employed on the large looms used in fringe and trimming manufactures.

b The designer is sometimes also the superintendent.

c The card cutter is sometimes also the designer.

d The chief dyer receives from \$20 to \$30.

MACHINERY.

BROAD GOODS LOOMS.—Allusion has heretofore been made to the decrease in the employment of hand looms within the past census decade. In 1880 the total number of looms reported in use for weaving broad goods was 4,732; of this number 1,629 were hand looms and 3,103 power looms. In 1890 but 413 hand looms were reported in use, the decrease being 1,216, or 74.65 per cent. In 1880 the respective percentages of hand and power looms employed in this branch were 34.43 and 65.57. In 1890 the total number of broad looms employed was reported at 15,279, of which 413 were hand looms and 14,866 power looms, the total increase over 1880 being 10,547, or 222.89 per cent; of this number 14,866 were power looms, the increase in these being 11,763, or 379.08 per cent. In 1890 the respective percentages of hand and power looms employed in this branch were 2.70 and 97.30.

NARROW GOODS LOOMS.—In 1880 the total number of looms employed in the combined production of ribbon and other narrow goods (no separate classification being made) was 3,742; of this number 1,524 were hand looms and 2,218 power looms. In 1890 1,334 hand looms were reported in use, the decrease being 190, or 12.47 per cent. In 1880 the respective percentages of hand and power looms employed in this branch were 40.73 and 59.27. In 1890 the total number of looms engaged in this branch was reported at 7,290, of which 1,334 were hand looms and 5,956 power looms, the total increase over 1880 being 3,548, or 94.82 per cent. Of the total number 5,956 were power looms, the increase being 3,738, or 168.53 per cent. Of these 5,956 power looms, 4,389 were reported as engaged in the production of ribbons and 1,567 on "Other narrow goods". In 1890 the respective percentages of hand and power looms employed in this branch were 18.30 and 81.70.

Adding together the looms for broad goods and narrow goods it is found that the total number of hand looms employed in 1880 was 3,153 and of power looms 5,321, making an aggregate of 8,474, while in 1890 there were 1,747 hand looms and 20,822 power looms, an aggregate of 22,569, showing an increase in the latter year of 14,095 looms, or 166.33 per cent. The respective percentages of hand and power looms employed in 1880 were 37.21 and 62.79; in 1890 they were 7.74 and 92.26.

These figures furnish ample warrant for the statement that the hand loom is now a factor of but little importance in silk manufacture. In fact, for weaving broad goods and ribbons but few were in operation at the present census period. A comparatively small number are employed in making patterns, book marks, badges, etc., while others are engaged in weaving fine veilings, tissues, or other special productions, but the larger proportion is employed in the trimmings branch. This falling into desuetude of the hand loom has been a natural result of the progress of the decade, high speed and the most economical methods having become matters of paramount importance, while the marvelous

advance in perfected power driven machinery, on which the most difficult classes of work, including even swiveled effects, can now be executed, has rendered it obsolete and useless except for the few special purposes indicated.

Referring to the great advance in machinery and appliances employed in silk manufacture, it should be stated that while considerable progress had been made in this department prior to the period of the Tenth Census great and vitally important improvements have since been achieved in all classes of silk machinery. Especially is this the case in power looms for weaving both broad and narrow goods, which have been brought to a high degree of perfection, the natural effect of which has not only lessened the cost of production but resulted in the manufacture of a higher class of fabrics of a character in many instances never before attempted in this country.

Among the most important improvements in this direction is the adaptation of the swivel loom attachment to the power loom. This loom is a perfect piece of mechanism, which produces swivel or embroidered effects even more satisfactorily than was formerly achieved by the hand loom, which had been regarded hitherto as the only loom on which swivel work could be performed. The capacity of production by the power swivel loom is, of course, many times greater.

SPINDLES.—The following tabular statement shows the increase in the number of spindles of the various kinds employed in 1890 over 1880, together with percentages of such increase:

SPINDLES.	1890	1880	INCREASE.	
			Number.	Per cent.
Total	1,234,798	508,137	746,661	146.94
Winding, cleaning, and doubling.....	369,035	164,218	204,817	124.72
Spinning and twisting.....	718,360	262,312	456,048	173.86
Braiding.....	167,403	81,607	85,796	105.13

The speed of the modern spinning frame has also been accelerated to an extent which some years since would have seemed almost impracticable. But a short time before the census period of 1880 throwing machinery was introduced, the spindles of which made 10,000 revolutions per minute, which was almost double the speed previously attained. Subsequently, 12,000, 15,000, and even more revolutions were achieved, but in time it was ascertained that there was a point beyond which no advantage was gained by increasing the speed, and hence the tendency of late has been rather toward reducing it, the results being generally more satisfactory. At present about 10,000 revolutions per minute for the "first time over" and about 7,500 revolutions for the "second time over" is the average speed at which spindles are operated on the latest improved machinery, while on frames of less modern construction the speed is very much lower, often not exceeding 5,000 or even 4,000 revolutions.

Equally, as in looms and spinning machinery, has there been a great improvement in all other mechanical appliances, such as winders, doublers, warpers, quillers, jacquard dobbies, etc., the running speed of all of which has undergone large increase. The number and kinds of other mechanical accessories reported in use at the Eleventh Census are as follows: jacquard attachments, 5,905; sewing machines, 1,032; knitting machines, 245; lace machines, 78.

MATERIALS.

The gross value of all materials and supplies consumed in 1880 was \$22,467,701. In 1890 it was \$50,919,016, an increase of \$28,451,315, or 126.63 per cent. In 1890 the value of the raw silk and silk materials consumed constituted 91.03 per cent of the value of all materials used; in 1880 it was 85.49 per cent. In 1890 the gross value of manufactured products was \$87,298,454, the percentage of the gross value of materials and supplies being 58.33, while in 1880 the percentage was 54.76. The value of raw silk and silk material consumed in 1890 was \$46,351,200. From this amount should be deducted the sum of \$15,537,520 for silk material "twice included".

Silk material is "twice included" when it appears, first, as "raw silk" in the returns of a "throwster", and, secondly, as "thrown silk" or "fringe silk" reported as raw material in the return of a weaver or fringemaker. The values of silk products thus twice included are deducted from the gross value of production, leaving a result, which, it will be noticed, exactly agrees with the value of finished goods as shown by the returns. The reasons for this deduction are similar to those which apply to the values of the raw materials. While the gross value of production amounts to \$87,298,454, it covers only a real value of product amounting to \$69,154,599. It should be noted that the products of partial manufacture go for the most part to be finished at points other than those where they originate. Hence, in many cases, the gross production of a state more nearly represents its industry than would the value of its finished goods. For instance, the gross production of Pennsylvania, amounting to \$19,357,546, is much nearer the total value of its silk manufactures than the sum of \$11,404,223, the value of its completed goods, because a large portion of the thrown silk produced in that state is not made into goods there, but goes elsewhere for manufacture.

The reference to "thrown silks" justifies some allusion to the throwing branch of the manufacture. Raw silk, as reeled from the cocoon, differs from the fiber or filament forming the material for other textiles in that, while it is necessary to spin the latter down to a thread of sufficient fineness to weave, it becomes necessary in the use of raw silk to twist or "throw" together a number of the filaments sufficient to form a thread coarse enough to weave. Hence comes the word "throwster", an old English term by which those engaged in this preparatory process of the manufacture are designated, the warp and weft produced by them being known respectively as "organzine" and "tram", words derived from the French "organzin", meaning a double-twisted silk, and "tram", meaning weft. In establishments exclusively engaged in this branch the work is generally done on commission for other establishments engaged in weaving, the latter furnishing the raw stock. The returns for 1890 show about 44 establishments of this character, while, in addition, many weaving concerns possess their own throwing plants.

IMPORTS OF RAW SILK.

The following tabular statement exhibits the imports of raw silk, by fiscal years, from 1880 to 1890, inclusive, as reported by the bureau of statistics, Treasury Department, with number of pounds and value. The receipt of raw silk at the ports of New York and the Pacific coast are likewise presented in number of bales and cases since 1880, according to the records of the Silk Association of America. For purposes of comparison, the imports in the decades of 1850, 1860, 1870, and 1880 are also presented. Attention is directed to the marked increase in importation of raw silk.

IMPORTS OF RAW SILK.

[From reports of the bureau of statistics, Treasury Department.]

YEARS.	Pounds.	Value.	Number of bales and cases received at the ports of New York and the Pacific coast.
1850.....	a120,010	\$401,385	.....
1860.....	a297,877	1,340,676	.....
1870.....	583,589	3,017,958	.....
1880.....	2,562,236	12,024,699	21,741
1881.....	2,550,103	10,888,264	20,198
1882.....	2,879,402	12,890,392	21,682
1883.....	3,253,370	14,043,340	23,927
1884.....	3,222,546	12,481,496	23,067
1885.....	3,424,076	12,421,739	23,914
1886.....	4,754,626	17,232,505	32,997
1887.....	4,599,574	18,687,245	31,974
1888.....	5,173,840	19,151,208	36,108
1889.....	5,329,646	18,544,025	37,583
1890.....	5,943,360	23,285,099	43,766

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

The tendency of the period embraced within the last census decade has been toward increased use of finer grades of raw silk as a consequence of the better qualities of goods manufactured. This is demonstrated by the following comparative tabular statement, which gives the valuation of imports of the different classes at the ports of New York and the Pacific coast, as shown by the records of the Silk Association of America (*a*) for the fiscal years of 1882-1883 and 1889-1890. The first period at which this classification was kept was in 1882-1883, and hence is the first classification that can be presented for comparison.

CLASSES.	1889-1890	1882-1883	Increase.	
				<i>Per cent.</i>
Strictly European.....	\$6,060,776	\$3,716,609	\$2,344,167	63.07
Japan.....	12,499,498	6,379,115	6,120,383	95.94
Shanghai.....	3,491,579	2,768,323	723,256	26.13
Hongkong.....	2,603,108	1,823,537	779,571	42.75

Reference has been made to the decline which has taken place in the prices of raw silk. This decline may be estimated from the average of prices current at the two fiscal periods of 1880 and 1890 as amounting to from 15 to 20 per cent, which is largely the result of the increased demand consequent upon the development of American manufacture and the stimulation of raw silk production thereby engendered in other countries.

WASTE SILK, ETC.

In addition to the imports of raw silk, the following tabular statement, showing the imports of waste silk, pierced cocoons, and noils from 1880 to 1890, is herewith presented. The manipulation of spun silk was in its infancy in this country 10 years ago, but it has kept pace in the development of the industry with the use of reeled silk, and is a factor of no small importance.

IMPORTS OF WASTE SILK, PIERCED COCOONS, AND NOILS.

[From reports of the bureau of statistics, Treasury Department.]

YEARS.	Pounds.	Value.
1881.....		\$559,914
1882.....		672,384
1883.....	1,477,736	1,099,812
1884.....	1,062,342	744,633
1885.....	884,832	464,490
1886.....	2,063,434	1,021,763
1887.....	1,428,517	950,840
1888.....	1,196,482	778,934
1889.....	1,315,478	787,885
1890.....	1,567,080	1,040,432

IMPORTATIONS OF GOODS.

The following comparative tabular statement shows the value of silk goods, by classes, imported at the port of New York, by fiscal years, from 1881 to 1890, inclusive. The imports at New York comprise fully 95 per cent of the total value of silk imports. The largest importation in any year previous to 1881 was in 1872, amounting to \$36,448,618. A study of this table is particularly interesting, exhibiting, as it does, the classes and invoice value of silk goods of foreign manufacture consumed in the United States.

^a It will be observed that the valuation of the imports as given by the Silk Association of America in both the years mentioned somewhat exceeds that of the bureau of statistics, although the former does not include ports of entry other than those specified above. The amount brought in at other ports, however, is infinitesimal, while the figures of the bureau of statistics simply relate to the value of the raw silk at the place of export and do not include the expenses of shipping charges, commissions, freight, marine insurance, and the Japanese export duties, as do the estimates of the Silk Association of America.

TABLE 4.—COMPARATIVE TABLE SHOWING THE INVOICE VALUE OF SILK GOODS, BY CLASSES, IMPORTED AT THE PORT OF NEW YORK, BY FISCAL YEARS, FROM 1881 TO 1890, INCLUSIVE.

[Compiled by Mr. BRITON RICHARDSON, secretary of the Silk Association of America.]

ARTICLES.	1889-1890	1888-1889	1887-1888	1886-1887	1885-1886	1884-1885	1883-1884	1882-1883	1881-1882	1880-1881
Total	\$36,766,090	\$34,057,170	\$31,455,215	\$29,366,924	\$26,147,635	\$26,108,190	\$34,039,697	\$33,967,171	\$36,432,706	\$30,501,851
Silk piece goods.....	13,589,511	10,648,570	11,465,076	11,263,296	11,431,840	12,423,750	18,432,599	18,585,896	19,429,606	16,167,056
Satins.....	436,268	535,414	568,281	534,051	432,789	291,317	173,734	109,666	200,763	272,641
Crapes.....	126,452	160,472	230,689	247,174	403,763	404,730	473,568	479,962	536,277	489,560
Pongees.....	11,217	49,761	87,234	16,624	82,374	35,497	24,667	30,938	8,651	16,477
Plushes.....	2,774,728	4,110,335	3,516,248	2,153,209	1,414,727	1,485,902	1,260,706	875,785	1,121,990	495,496
Velvets.....	2,482,401	1,883,403	2,746,729	3,527,953	2,747,736	2,786,045	2,831,410	1,940,015	1,402,663	1,575,715
Ribbons.....	1,692,611	1,617,401	1,194,458	1,240,846	1,253,717	1,243,974	2,618,463	2,229,226	2,707,693	3,103,564
Laces.....	2,972,655	3,320,131	2,361,735	2,135,398	1,820,692	1,614,374	2,126,979	3,126,597	4,073,891	1,883,236
Shawls.....	172,854	180,215	193,669	184,606	106,590	138,495	63,654	6,810	7,790	17,466
Gloves.....	399,425	345,950	379,064	478,153	503,823	610,950	652,942	333,716	170,151	204,703
Cravats.....	87,144	98,840	83,989	62,971	33,015	18,763	21,095	69,455	60,341	69,914
Handkerchiefs.....	99,227	146,297	231,015	163,851	169,948	158,298	120,743	59,786	75,671	53,727
Hose.....	395,096	292,500	317,897	350,169	270,735	327,649	317,861	297,960	179,254	110,277
Threads and yarns.....	461,311	308,797	162,506	190,445	159,189	129,996	193,782	155,232	123,790	175,627
Braids and bindings.....	1,707,154	2,396,708	1,559,456	1,350,936	697,938	697,327	1,334,692	1,087,416	1,191,140	1,323,437
Silk and worsted.....	1,478,252	1,877,522	969,998	727,423	357,800	253,202	180,801	90,786	123,939	174,390
Silk and cotton.....	7,808,892	6,080,914	5,334,961	4,731,877	4,259,052	3,486,258	3,207,943	4,436,836	5,011,843	4,366,921
Silk and linen.....	20,892	3,945	2,210	8,547	1,907	1,663	4,008	1,039	2,253	1,644

Table 5 presents, by state totals, detailed information reported at the Eleventh Census, under the general heads of "Capital invested", "Miscellaneous expenses", "Labor and wages", "Machinery", "Materials used", and "Goods manufactured".

Tables 6 and 7 present the statistics of labor employed and wages paid to the various classes of employes.

TABLE 5.—DETAILED STATEMENT: 1890.

STATES.	Number of establishments (a)	CAPITAL INVESTED.									Value of property hired.
		Aggregate capital.	Value of plant.				Live assets.				
			Total.	Land.	Buildings.	Machinery, tools, and implements.	Total.	Raw materials.	Stock in process and finished products.	Cash, bills receivable, accounts receivable, and all sundries not elsewhere reported.	
Total	472	\$61,362,697	\$21,086,308	\$1,691,660	\$5,212,968	\$14,181,680	\$29,921,229	\$6,525,692	\$15,879,617	\$7,515,920	\$10,355,160
California.....	9	211,543	30,409			30,409	81,874	23,300	15,642	37,932	99,260
Connecticut.....	35	9,265,883	2,913,327	152,589	1,143,200	1,617,538	6,123,715	1,168,840	3,033,256	1,921,619	228,841
Illinois.....	10	743,260	199,200	33,000	60,000	106,200	222,896	84,950	39,000	98,946	326,164
Maryland.....	4	83,544	19,900	6,000	1,500	12,400	30,500	6,400	15,700	8,400	33,144
Massachusetts.....	20	3,659,838	956,708	77,300	287,500	591,908	2,396,588	277,583	1,019,195	1,099,810	306,542
New Jersey.....	132	19,035,241	7,209,643	590,919	1,579,160	5,039,564	9,600,284	2,110,441	5,892,607	1,597,236	2,225,314
New York.....	185	16,685,455	4,989,000	544,002	832,240	3,612,758	6,176,918	1,502,202	3,265,119	1,409,597	5,519,537
Ohio.....	3	48,830	16,750	10,000	5,000	1,750	21,080	6,800	4,100	10,180	11,000
Pennsylvania.....	66	10,844,294	4,404,181	236,850	1,225,652	2,941,679	4,957,882	1,286,296	2,417,660	1,253,926	1,482,231
Rhode Island.....	3	231,023	70,364			70,364	51,892	20,629	15,369	15,894	108,767
All other states (b)	5	548,786	276,826	41,000	78,716	157,110	257,600	33,251	161,969	62,380	14,360

a This table only embraces active establishments which reported goods manufactured to the amount of \$500 or over.

b Includes states having less than 3 establishments, in order that the operations of individual establishments may not be disclosed. These establishments were distributed as follows: Maine, 1; Michigan, 1; Missouri, 1; North Carolina, 1; Virginia, 1.

TABLE 5.—DETAILED STATEMENT: 1890—Continued.

STATES.	Number of establishments.	MISCELLANEOUS EXPENSE ITEMS.								SUMMARY OF LABOR AND WAGES.	
		Total.	Rent.	Power and heat.	Taxes.	Insurance.	Repairs, ordinary, of buildings and machinery.	Interest on cash used in business.	Amount paid for sundries not elsewhere reported.	Average number of hands employed.	Aggregate wages paid.
Total	472	\$4,345,032	\$734,268	\$85,409	\$156,444	\$220,849	\$552,818	\$661,663	\$1,933,581	50,913	\$19,680,318
California.....	9	12,172	7,246	1,734	397	1,251	661	210	673	214	83,566
Connecticut.....	35	273,826	21,630	3,400	19,799	19,841	73,438	39,783	95,935	5,081	2,006,804
Illinois.....	10	37,501	17,035	1,740	1,885	6,511	5,245	85	5,000	805	295,636
Maryland.....	4	3,798	2,435		237	211	85	730	100	75	24,233
Massachusetts.....	20	485,260	35,838	870	21,889	12,908	23,676	91,989	298,090	3,216	1,296,399
New Jersey.....	132	1,339,590	182,148	33,453	67,307	67,264	170,074	252,621	616,223	17,917	7,176,180
New York.....	185	1,157,410	359,777	33,739	19,815	63,177	88,594	171,422	420,386	13,151	5,584,399
Ohio.....	3	2,662	780		595	327	260		700	40	13,685
Pennsylvania.....	66	948,524	98,089	9,473	22,502	46,588	184,449	97,319	490,104	9,522	2,981,334
Rhode Island.....	3	18,427	7,940	1,000	114	629	1,392	1,482	5,870	194	61,973
All other states.....	5	15,862	1,350		1,404	2,142	4,944	6,022		698	156,104

STATES.	Number of establishments.	LABOR AND WAGES.										
		Officers and clerks.			Operatives and skilled labor (including pieceworkers).				Unskilled labor.			
		Males.	Females.	Wages.	Males above 16 years.	Females above 15 years.	Children.	Wages.	Males above 16 years.	Females above 15 years.	Children.	Wages.
Total	472	1,396	135	\$1,917,877	16,718	28,702	2,773	\$17,290,315	884	212	93	\$472,126
California.....	9	7	4	15,276	41	139	2	64,548	8	13		3,742
Connecticut.....	35	109	8	159,273	1,331	3,136	123	1,716,659	209	115		130,872
Illinois.....	10	41	8	54,314	154	589	10	239,624	3			1,698
Maryland.....	4	3		3,600	27	44		20,568	1			65
Massachusetts.....	20	215	8	258,115	892	1,927	56	993,400	85	1	32	44,884
New Jersey.....	132	411	61	541,570	7,460	8,763	894	6,481,155	313	10	5	153,455
New York.....	185	401	31	601,336	4,306	7,920	264	4,903,590	150	63	16	79,473
Ohio.....	3	2	2	2,512	8	28		11,173				
Pennsylvania.....	66	184	8	256,049	2,318	5,607	1,254	2,671,333	102	10	39	53,952
Rhode Island.....	3	6	2	8,507	46	107	29	52,357	3		1	1,114
All other states.....	5	17	3	17,325	135	392	141	135,908	10			2,871

TABLE 5.—DETAILED STATEMENT: 1890—Continued.

		MACHINERY.											
STATES.	Number of establishments.	Number of spindles.			Number of looms.					Number of machines.			
					Hand.		Power.						
		Winding, cleaning, and doubling.	Spinning and twisting.	Braiding.	For broad goods.	For narrow goods.	For broad goods.	For ribbons.	For other narrow goods.	Jacquard.	Knitting.	Lace.	Sewing.
Total.....	472	369,035	718,360	167,403	413	1,334	14,866	4,389	1,567	5,905	245	78	1,032
California.....	9	799	2,018	29		35		1		3	5	1	3
Connecticut.....	35	45,402	84,262	11,492	6		1,053	290	29	230	1		16
Illinois.....	10	363	369	221		82			44	6	10		3
Maryland.....	4	6						14					
Massachusetts.....	20	26,235	55,200	30,403	41	55	354		90	42	68		11
New Jersey.....	132	135,160	224,204	19,366	218	19	9,146	2,112	229	4,195	1	3	187
New York.....	185	62,197	92,772	72,635	80	972	1,838	1,478	572	846	139	74	712
Ohio.....	3	96			8	8							
Pennsylvania.....	66	89,429	228,786	30,217	60	163	2,306	451	603	540	20		100
Rhode Island.....	3	930	2,463	40				43		43	1		
All other states.....	5	8,418	28,286	3,000			169						

		MATERIALS USED.									
STATES.	Number of establishments.	Total cost of all materials.	Raw silk.		Waste silk.		Organzine and tram.		Other silk materials.		
			Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.	
			Total.....	472	\$50,919,016	6,376,881	\$26,087,371	1,357,618	\$1,106,608	3,305,372	\$16,518,979	744,223	$2,638,242
California.....	9	144,672	20,575	71,012	200	500	3,718	31,326	3,071	20,568	
Connecticut.....	35	6,198,476	1,142,802	4,560,968	648,823	515,738	113,978	584,442	15,527	62,180	
Illinois.....	10	313,115	5,225	23,500			7,095	34,776	21,798	97,655	
Maryland.....	4	34,305					4,645	27,705	350	1,825	
Massachusetts.....	20	3,251,023	558,493	2,128,772	191,909	155,494	97,278	485,995	23,608	91,436	
New Jersey.....	132	17,875,430	1,845,242	7,691,253	61,420	56,523	1,858,517	9,093,692	97,793	350,377	
New York.....	185	10,141,079	715,003	3,117,515	59,598	57,003	912,782	4,680,369	159,138	716,394	
Ohio.....	3	13,983					920	7,473	112	862	
Pennsylvania.....	66	12,084,916	1,932,396	7,843,624	310,668	250,457	287,159	1,484,599	422,826	1,296,945	
Rhode Island.....	3	148,763			73,000	53,413	19,280	88,602			
All other states.....	5	713,254	157,145	650,727	12,000	12,480					

TABLE 5.—DETAILED STATEMENT: 1890—Continued.

STATES.	Number of establishments.	MATERIALS USED—continued.									
		Other textile materials.		Oil.		Soap.		Chemicals and dye-stuffs.	Fuel.		
		Pounds.	Cost.	Gallons.	Cost.	Pounds.	Cost.	Cost.	Total cost.	Coal.	
Total	472	5,624,900	\$2,327,684	76,348	\$32,514	2,340,098	\$126,065	\$558,532	\$400,107	99,835	\$372,916
California	9	16,920	13,303	94	59	2,900	249	150	102	3	30
Connecticut	35	118,474	78,485	6,977	3,173	589,827	31,055	170,636	73,134	14,753	68,382
Illinois	10	274,135	111,978	182	107	400	20	4,600	1,725	482	1,485
Maryland	4	7,800	2,799	20	6				205	60	205
Massachusetts	20	212,357	156,120	3,430	1,104	333,724	17,847	51,025	48,149	10,185	41,524
New Jersey	132	313,990	238,811	25,103	10,666	682,315	32,994	111,990	143,132	34,963	143,123
New York	185	2,176,847	936,248	10,354	4,611	220,554	13,042	100,082	63,990	14,759	50,945
Ohio	3	7,975	5,488								
Pennsylvania	66	2,495,909	794,350	29,223	12,429	297,744	16,906	108,012	63,502	23,248	62,372
Rhode Island	3					16,650	998				
All other states	5	493	102	965	359	195,984	12,954	12,037	6,168	1,332	4,845

STATES.	Number of establishments.	MATERIALS USED—continued.				GOODS MANUFACTURED.					
		Fuel—Continued.		Cost of all other materials.	Total value of product.	Organzine and tram.	Spun silk yarn.	Machine twist and sewing silk.	Fringe knitting, embroidery, and floss silk.	Dress goods, figured and plain.	
		Wood.	Other fuel.								
Total	472	Cords.	Cost.								
Total	472	5,315	\$11,353	\$15,838	\$1,122,914	\$87,298,454	\$16,880,366	\$1,263,489	\$7,068,213	\$1,849,631	\$15,183,134
California	9			72	7,408	271,912	5,600		81,590	24,540	
Connecticut	35	1,135	3,260	1,492	118,665	9,788,951	1,356,854	308,536	3,820,463	704,945	1,099,284
Illinois	10			240	38,754						
Maryland	4				1,765	100,361					
Massachusetts	20	3,250	6,575	50	115,081	5,557,569	688,359	257,251	2,216,213	499,131	
New Jersey	132			4	155,992	30,760,371	5,285,389	89,000	102,750	119,956	9,297,792
New York	185	10	65	12,980	451,825	19,417,796	1,474,841	206,640	254,000	21,259	2,592,508
Ohio	3				160	33,927					
Pennsylvania	66	20	130	1,000	214,092	19,357,546	7,645,323	308,000	446,197	389,500	1,940,836
Rhode Island	3				750	229,062		94,062			
All other states	5	900	1,323		13,427	995,114	444,000		147,000	90,000	252,714

STATES.	Number of establishments.	GOODS MANUFACTURED—continued.								
		Other broad goods.	Tapestries, curtains, and other upholstery broad goods.	Gimps and trimmings.	Handkerchiefs.	Ribbons and laces.	Braids and bindings.	Dress, cloak, and military trimmings.	Hosiery and knit goods.	All other products, including amounts received for custom work and repairing.
Total	472	\$9,000,418	\$3,712,332	\$3,918,209	\$1,913,224	\$17,343,197	\$2,771,382	\$4,636,357	\$1,156,172	\$602,330
California	9			120,360			6,000	23,840	7,346	2,336
Connecticut	35	1,384,619	62,163	112,319	31,300	736,642	139,216		15,125	17,485
Illinois	10		2,000	465,500			65,000	228,745	23,900	700
Maryland	4			24,000		70,361			6,000	
Massachusetts	20	784,719		127,000			660,938	160,000	135,958	28,000
New Jersey	132	3,517,343	572,842	185,949	1,872,559	9,229,387	359,902	54,000	79,212	14,290
New York	185	679,356	665,604	1,984,531	9,365	6,031,576	1,154,326	3,199,709	872,800	271,281
Ohio	3			8,767					25,160	
Pennsylvania	66	2,634,381	2,409,723	889,783		1,195,231	293,000	933,903	21,831	244,838
Rhode Island	3					80,000	55,000			
All other states	5						88,000			23,400

TABLE 6.—CLASSIFICATION OF LABOR AND WAGES: 1890.

STATES.	Number of establishments reporting.	SUMMARY.		AVERAGE NUMBER EMPLOYED IN EACH CLASS AND AVERAGE WEEKLY WAGES PAID.									
		Aggregate of hands employed.	Aggregate of wages paid.	Officers or firm members (actively engaged in the industry or in its supervision).									
				Males above 16 years.				Females above 15 years.					
				Number.	Average number of weeks employed.	Average weekly wages per hand.	Total wages.	Number.	Average number of weeks employed.	Average weekly wages per hand.	Total wages.		
Total	472	50,913	\$19,680,318	644			\$1,137,043	21				\$17,836	
California.....	9	214	83,566	6	50	\$36.73	11,020	1	50	\$30.00		1,500	
Connecticut.....	35	5,081	2,006,804	48	50	36.66	87,800						
Illinois.....	10	805	295,636	19	48	31.92	29,060						
Maryland.....	4	75	24,233	3	50	24.00	3,600						
Massachusetts.....	20	3,216	1,296,399	44	49	46.28	99,950	1	46	21.82		1,000	
New Jersey.....	132	17,917	7,176,180	201	49	33.57	330,814	3	50	20.00		3,000	
New York.....	185	13,151	5,584,399	220	49	36.82	394,758	13	47	14.99		9,120	
Ohio.....	3	40	13,685	1	50	20.00	1,000						
Pennsylvania.....	66	9,522	2,981,334	88	46	40.17	163,066	3	49	21.74		3,216	
Rhode Island.....	3	194	61,978	6	49	26.81	7,675						
All other states (a)...	5	698	156,104	8	46	22.45	8,300						

STATES.	Number of establishments reporting.	AVERAGE NUMBER EMPLOYED IN EACH CLASS AND AVERAGE WEEKLY WAGES PAID—continued.											
		Clerks or salesmen.						Operatives and skilled labor.					
		Males above 16 years.			Females above 15 years.			Males above 16 years.					
		Number.	Average number of weeks employed.	Average weekly wages per hand.	Total wages.	Number.	Average number of weeks employed.	Average weekly wages per hand.	Total wages.	Number.	Average number of weeks employed.	Average weekly wages per hand.	Total wages.
Total	472	752		\$715,192	114		\$47,806	10,594			\$5,847,457		
California.....	9	1	44	\$35.66	1,560	3	46	\$8.70	1,196	39	47	\$13.12	24,266
Connecticut.....	35	61	50	22.33	68,095	8	50	8.45	3,378	986	50	12.03	592,705
Illinois.....	10	22	47	20.51	21,324	8	43	11.50	3,930	136	44	11.88	70,522
Maryland.....	4									27	50	8.96	11,980
Massachusetts.....	20	171	50	18.13	153,665	7	50	10.00	3,500	808	50	9.97	399,194
New Jersey.....	132	210	49	18.55	189,828	58	49	6.27	17,928	3,697	48	11.36	2,016,165
New York.....	185	181	49	20.65	184,454	18	47	15.41	13,004	2,965	49	12.80	1,865,914
Ohio.....	3	1	50	12.00	600	2	47	9.73	912	8	47	9.68	3,649
Pennsylvania.....	66	96	48	18.97	87,677	5	47	8.96	2,090	1,777	48	9.23	792,477
Rhode Island.....	3					2	46	9.08	832	41	50	9.84	20,006
All other states.....	5	9	49	13.26	7,989	3	47	7.31	1,036	110	49	9.42	50,579

a States having less than 3 establishments in this branch of industry are grouped, in order that the operations of individual establishments may not be disclosed. These establishments were distributed as follows: Maine, 1; Michigan, 1; Missouri, 1; North Carolina, 1; Virginia, 1.

TABLE 6.—CLASSIFICATION OF LABOR AND WAGES: 1890—Continued.

STATES.	Number of establishments reporting.	AVERAGE NUMBER EMPLOYED IN EACH CLASS AND AVERAGE WEEKLY WAGES PAID—continued.											
		Operatives and skilled labor—Continued.								Unskilled labor.			
		Females above 15 years.				Children.				Males above 16 years.			
		Number.	Average number of weeks employed.	Average weekly wages per hand.	Total wages.	Number.	Average number of weeks employed.	Average weekly wages per hand.	Total wages.	Number.	Average number of weeks employed.	Average weekly wages per hand.	Total wages.
Total	472	19,695		\$5,475,613	2,573			\$390,029	834			\$406,657	
California	9	137	48	\$5.67	37,318	2	50	\$4.70	470	8	17	\$10.50	1,454
Connecticut	35	2,499	50	5.60	700,109	123	50	3.91	24,076	209	50	10.20	106,575
Illinois	10	535	46	5.88	143,392	10	48	3.26	1,560	3	49	11.48	1,698
Maryland	4	44	50	3.93	8,588					1	10	6.25	65
Massachusetts	20	1,549	49	5.54	424,363	48	49	4.31	10,075	85	50	8.75	37,064
New Jersey	132	5,951	47	6.39	1,798,259	858	49	3.07	128,973	313	49	9.73	149,663
New York	185	4,825	49	5.88	1,398,206	249	49	3.10	37,500	150	49	8.22	60,877
Ohio	3	28	48	5.64	7,524								
Pennsylvania	66	3,767	48	4.93	898,188	1,124	49	3.10	171,220	102	48	9.22	45,432
Rhode Island	3	54	48	5.13	13,427	18	50	3.11	2,796	3	49	6.57	958
All other states	5	306	48	3.16	46,237	141	49	1.95	13,359	10	50	5.74	2,871

STATES.	Number of establishments reporting.	AVERAGE NUMBER EMPLOYED IN EACH CLASS AND AVERAGE WEEKLY WAGES PAID—continued.							
		Unskilled labor—Continued.							
		Females above 15 years.				Children.			
Number.	Average number of weeks employed.	Average weekly wages per hand.	Total wages.	Number.	Average number of weeks employed.	Average weekly wages per hand.	Total wages.	Total wages.	
Total	472	212		\$48,177	93			\$17,292	
California	9	13	27	\$6.64	2,288				
Connecticut	35	115	50	4.23	24,297				
Illinois	10								
Maryland	4								
Massachusetts	20	1	44	6.86	300	32	50	\$4.70	7,520
New Jersey	132	10	50	6.37	3,186	5	50	2.42	606
New York	185	63	49	4.99	15,562	16	50	3.79	3,034
Ohio	3								
Pennsylvania	66	10	48	5.32	2,544	39	48	3.19	5,976
Rhode Island	3					1	46	3.40	156
All other states	5								

TABLE 6.—CLASSIFICATION OF LABOR AND WAGES: 1890—Continued.

STATES.	Number of establishments reporting.	PIECEWORK—AVERAGE NUMBER EMPLOYED AND TOTAL WAGES PAID.							
		Total number.	Total wages.	Males above 16 years.		Females above 15 years.		Children.	
				Number.	Wages.	Number.	Wages.	Number.	Wages.
Total.....	472	15,381	\$5,577,216	6,124	\$3,095,417	9,007	\$2,446,275	200	\$35,524
California.....	9	4	2,494	2	1,870	2	624		
Connecticut.....	35	1,032	399,769	345	197,740	687	202,029		
Illinois.....	10	72	24,150	18	10,110	54	14,040		
Maryland.....	4								
Massachusetts.....	20	470	159,768	84	49,155	378	109,038	8	1,575
New Jersey.....	132	6,611	2,537,758	3,763	1,663,655	2,812	862,160	36	11,943
New York.....	185	4,451	1,601,968	1,341	846,237	3,095	753,806	15	1,875
Ohio.....	3								
Pennsylvania.....	66	2,511	809,448	541	317,327	1,840	474,300	130	17,821
Rhode Island.....	3	69	16,128	5	1,434	53	12,384	11	2,310
All other states.....	5	111	25,733	25	7,839	86	17,894		

TABLE 7.—LABOR AND WAGES: 1890.

STATES.	Number of establishments reporting.	AVERAGE NUMBER OF HOURS IN ORDINARY DAY OF LABOR.		SUMMARY.		WEEKLY RATES OF WAGES PAID AND AVERAGE NUMBER OF HANDS EMPLOYED AT EACH RATE, NOT INCLUDING THOSE EMPLOYED ON PIECEWORK.					
		May to November.	November to May.	Aggregate number of hands employed.	Aggregate amount of wages paid.	Males above 16 years.					
						Total number.	Under \$5.	\$5 and over but under \$6.	\$6 and over but under \$7.	\$7 and over but under \$8.	\$8 and over but under \$9.
Total.....	472			50,913	\$19,680,318	12,874	1,308	473	870	669	698
California.....	9	9.56	9.56	214	83,566	54	3	4		4	
Connecticut.....	35	10.03	10.01	5,081	2,006,304	1,304	44	49	87	113	64
Illinois.....	10	9.28	8.88	805	295,636	180	16		2		
Maryland.....	4	9.75	9.75	75	24,233	31	1	7	10	1	
Massachusetts.....	20	9.90	9.75	3,216	1,296,399	1,108	63	80	136	82	35
New Jersey.....	132	9.99	9.96	17,917	7,176,180	4,421	268	177	317	270	257
New York.....	185	9.74	9.74	13,151	5,584,399	3,516	353	111	138	89	214
Ohio.....	3	9.33	9.17	40	13,685	10	3				
Pennsylvania.....	66	9.97	9.94	9,522	2,931,334	2,063	539	41	143	80	100
Rhode Island.....	3	10.25	10.25	194	61,978	50	6		14	7	
All other states (a)...	5	10.20	10.20	698	156,104	137	12	4	23	23	18

^a States having less than 3 establishments in this branch of industry are grouped, in order that the operations of individual establishments may not be disclosed. These establishments were distributed as follows: Maine, 1; Michigan, 1; Missouri, 1; North Carolina, 1; Virginia, 1.

TABLE 7.—LABOR AND WAGES: 1890—Continued.

STATES.	Number of establishments reporting.	WEEKLY RATES OF WAGES PAID AND AVERAGE NUMBER OF HANDS EMPLOYED AT EACH RATE, NOT INCLUDING THOSE EMPLOYED ON PIECEWORK—continued.								
		Males above 16 years—Continued.						Females above 15 years.		
		\$9 and over but under \$10.	\$10 and over but under \$12.	\$12 and over but under \$15.	\$15 and over but under \$20.	\$20 and over but under \$25.	\$25 and over.	Total number.	Under \$5.	\$5 and over but under \$6.
Total	472	1,342	1,593	2,175	2,151	688	917	20,042	6,523	5,072
California	9		12	8	13	3	7	154	26	63
Connecticut	35	281	153	192	166	57	98	2,622	529	948
Illinois	10	32	36	27	29	25	13	543	116	186
Maryland	4			10			2	44	39	
Massachusetts	20	110	66	232	175	62	47	1,558	364	682
New Jersey	132	512	679	737	677	274	253	6,022	1,370	1,526
New York	185	160	453	605	846	175	372	4,919	1,493	1,109
Ohio	3		3	2	1	1		30	10	2
Pennsylvania	66	247	172	316	233	78	114	3,785	2,280	531
Rhode Island	3		2	10	3	3	5	56	25	24
All other states	5		17	16	8	10	6	309	271	1

STATES.	Number of establishments reporting.	WEEKLY RATES OF WAGES PAID AND AVERAGE NUMBER OF HANDS EMPLOYED AT EACH RATE, NOT INCLUDING THOSE EMPLOYED ON PIECEWORK—continued.								
		Females above 15 years—Continued.								
		\$6 and over but under \$7.	\$7 and over but under \$8.	\$8 and over but under \$9.	\$9 and over but under \$10.	\$10 and over but under \$12.	\$12 and over but under \$15.	\$15 and over but under \$20.	\$20 and over but under \$25.	\$25 and over.
Total	472	4,376	1,371	995	485	885	263	37	21	14
California	9	29	16	8	7	4				1
Connecticut	35	975	75	29	45	7	9	1	2	2
Illinois	10	175	4	51	1	6				1
Maryland	4	5								
Massachusetts	20	300	95	22	30	13	51		1	
New Jersey	132	1,487	505	284	254	483	102	5	5	1
New York	185	951	455	544	122	102	95	30	11	7
Ohio	3	15	2				1			
Pennsylvania	66	407	212	53	24	269	4	1	2	2
Rhode Island	3		5		2					
All other states	5	32	2	1		1	1			

TABLE 7.—LABOR AND WAGES: 1890—Continued.

STATES.	Number of establishments reporting.	WEEKLY RATES OF WAGES PAID AND AVERAGE NUMBER OF HANDS EMPLOYED AT EACH RATE, NOT INCLUDING THOSE EMPLOYED ON PIECEWORK—continued.						PIECEWORK.	
		Children.						Average number.	Total wages.
		Total number.	Under \$5.	\$5 and over but under \$6.	\$6 and over but under \$7.	\$7 and over but under \$8.	\$8 and over but under \$9.		
Total.....	472	2,666	2,561	105				15,331	\$5,577,216
California.....	9	2	1	1				4	2,494
Connecticut.....	35	123	121	2				1,032	399,769
Illinois.....	10	10	10					72	24,150
Maryland.....	4								
Massachusetts.....	20	80	67	13				470	159,768
New Jersey.....	132	863	801	62				6,611	2,537,758
New York.....	185	265	260	5				4,451	1,601,963
Ohio.....	3								
Pennsylvania.....	66	1,163	1,141	22				2,511	809,448
Rhode Island.....	3	19	19					69	16,128
All other states.....	5	141	141					111	25,733

CENSUS BULLETIN.

No. 349.

WASHINGTON, D. C.

January 27, 1893.

STATISTICS OF CHURCHES.

DEPARTMENT OF THE INTERIOR,

CENSUS OFFICE,

WASHINGTON, D. C., January 5, 1893.

This bulletin, containing the statistics of the Methodist Protestant and four other Methodist bodies, with those of the Universalists, Unitarians, and Social Brethren, is the twelfth in the series prepared by HENRY K. CARROLL, LL. D.

The Methodist Protestant is the oldest and largest of the non-Episcopal Methodist branches. It was organized in 1830 by ministers and members who had been connected with the Methodist Episcopal Church. It was divided into two distinct bodies before the war on the slavery question and was reunited in 1877. It is represented in 33 states and territories. The Free Methodists date from 1860. They are plain in dress, prohibit membership in secret societies, and pledge their ministers and members to avoid the use of tobacco, as well as intoxicants. Two of the smaller Methodist branches are colored.

The Universalists and the Unitarians, while they differ widely on some doctrinal points, are in sympathy in their demand for large liberty in religious thought and in their opposition to some of the features of the orthodox beliefs. Their peculiarities are brought out in the introductory statements accompanying the statistical tables, which show where their organizations are to be found, how many communicants each body has, the value of its church property, etc.

The following is a summary of the statistics of the bodies represented in this bulletin:

SUMMARY BY CHURCHES.

CHURCHES.	Organiza- tions.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church prop- erty.	Communi- cants or members.
Methodist Protestant.....	2,529	1,923 $\frac{3}{4}$	571,266	575	80,025	\$3,683,337	141,989
Free Methodist.....	1,102	620	165,004	439	48,285	805,085	22,110
Independent Methodists.....	15	14	7,725	3	100	266,975	2,569
Zion Union Apostolic.....	32	27	10,100	1	100	15,000	2,346
Evangelist Missionary Church in America.....	11	3	1,050	9	2,650	2,000	951
Universalists.....	956	832 $\frac{3}{10}$	244,565	61	7,605	8,054,333	49,194
Unitarians.....	421	424	165,090	55	10,370	10,335,100	67,749
Social Brethren Church.....	20	11 $\frac{1}{2}$	8,700	6	600	8,700	913

Robert P. Porter
Superintendent of Census.

STATISTICS OF CHURCHES.

BY HENRY K. CARROLL.

This bulletin contains the statistics of the Methodist Protestant, Free Methodist, Independent Methodist, Zion Union Apostolic, Evangelist Missionary Church in America, Universalist, Unitarian, and Social Brethren denominations.

THE METHODIST PROTESTANT CHURCH.

This branch of Methodism was organized in 1830 by ministers and members who had been expelled, or had seceded from the Methodist Episcopal Church. It was the outcome of a movement for a change in certain features of the government of the Methodist Episcopal Church. In 1824 a Union Society was formed in Baltimore having this object in view, and a periodical called "The Mutual Rights" was established to advocate it. The chief reform insisted upon was the admission of the laity to a share in the government of the church. The annual and general conferences were composed entirely of ministers, and the laymen had no place or voice in either. A convention, held in 1827, resolved to present a petition to the General Conference of 1828 asking for lay representation. The conference returned an unfavorable reply to the petitioners. This only served to intensify the feeling. The Union Society entered into a campaign for "equal rights", and so great an agitation resulted that the leaders of the movement came to be regarded as disturbers of the peace. Some of them were brought to trial and expelled from the church. All efforts to have them restored having failed, many sympathizers withdrew from the church, and in 1828 a convention of the disaffected was held in Baltimore, and a provisional organization formed. 2 years later (November 2, 1830) another convention was held and the Methodist Protestant Church was constituted. It began its separate existence with 83 ministers and about 5,000 members. In the first 4 years it increased its membership enormously. While equal rights were insisted upon in the new constitution, as between ministers and laymen, the right of suffrage and eligibility to office was restricted to the whites. When the anti-slavery agitation began in the new branch some years later, the northern and western conferences raised an objection to the retention of the word "white" in the constitution. They also protested against any toleration of slavery by the church. Failing to secure such changes as they desired they held a convention in Springfield, Illinois, in 1858, and resolved to suspend all relations with the Methodist Protestant Church. Later they united with a number of Wesleyan Methodists and formed the Methodist Church. After the close of the war negotiations for a reunion were begun, and in 1877 the two branches—the Methodist and the Methodist Protestant—were made one under the old title.

The Methodist Protestant Church is strongest numerically in the states of Ohio, North Carolina, Maryland, and West Virginia. It is represented in most of the border and southern states, but is not widely diffused among the northern and western states. At the reunion in 1877 there were in the Methodist branch 58,072 communicants; in the Methodist Protestant branch 58,470, making a total of 116,542. The increase since then has amounted to 25,447, the membership in 1890 aggregating 141,989.

In doctrine, the Methodist Protestant does not differ from the Methodist Episcopal Church, except that it has 29 instead of 26 Articles of Religion. The General Conference of 1888 appointed a committee to revise the doctrinal symbol. The committee made the revision in 1890 adding 5 new articles, with the following titles: "Free Grace", "Freedom of the Will", "Regeneration", "Sanctification", and "Witness of the Spirit". The revised articles were submitted to the annual conferences for amendment and approval. Few of the conferences, however, took action, and the revision failed by default.

I.—METHODIST PROTESTANT CHURCH.
BY COUNTIES.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
ALABAMA:								GEORGIA—Cont'd.							
Blount	1	1	250			\$75	12	Clay	2	1	400	sh1	100	\$300	43
Butler	3	3	600			400	128	Cobb	2	2	300			500	51
Chambers	1	1	150			150	6	Coweta	2	2	500			900	77
Chilton	7	7	2,300			2,300	346	Dekalb	2	2	700			1,800	170
Clay	3	3	820			900	66	Fayette	3	2	1,100	sh1	50	1,800	298
Conecuh	5	4	1,000	sh1	300	1,450	119	Floyd	2	1	300	h1	200	150	30
Coosa	2	2	900			2,350	245	Fulton	10	9	1,900	sh1	100	4,425	542
Crenshaw	1	1	300	h1	200	500	200	Gordon	3	3	750			700	130
Cullman	1	1	300			1,850	42	Haralson	3	3	1,000			1,600	180
Dallas	6	6	1,600			2,900	644	Hart	1	1	200			50	30
Elmore	2	2	900			4,000	229	Henry	4	4	2,150			2,600	301
Escambia	2	1	200	sh1	100	300	77	Jackson	5	5	1,800			2,950	371
Lee	4	4	1,050			1,550	347	Liberty	3	3	500			1,000	96
Lowndes	4	4	1,300			1,650	243	Lowndes	3	3	500			1,000	15
Macon	4	4	900			1,850	300	McIntosh	1	1	200			100	51
Monroe	1	1	200			300	35	Meriwether	1	1	300			200	28
Montgomery	6	6	1,725			41,300	365	Newton	3	3	950			1,250	157
Pickens	1	1	200			200	15	Pike	2	2	300			600	92
Pike	5	5	1,750			6,300	374	Randolph	2	2	800			700	91
St. Clair	3	3	900			875	121	Walton	4	4	1,600			2,800	395
Shelby	2	2	700			900	145	Ware	1	1	200			400	15
Sumter	1	1	350			5,000	80	Wayne	1	1	400			900	76
Talladega	2	2	350			300	91	Wilkinson	2	1	400	sh1	100	600	194
Tuscaloosa	1	1	300			500	20								
Wilcox	6	4½	850	sh1	100	2,450	182	Total	80	73	21,050	7	950	33,475	4,390
Total	77	72½	19,895	4	700	79,850	4,432	ILLINOIS:							
ARKANSAS:								Adams	4	3	650	sh1	50	3,300	89
Boone	1	1	150			200	50	Bond	1	1	300			800	7
Clay	3	3	1,200			900	151	Bureau	4	4	1,300			21,000	228
Columbia	12	9	3,150	sh3	650	4,750	623	Cass	2	0½	450			1,250	31
Crawford	3			sh3	400		86	Champaign	4	3	375	sh1	75	3,200	296
Franklin	8			sh8	1,410		203	Clark	6	3½	1,050	sh2	300	3,200	200
Fulton	8			sh8	1,450		260	Clay	4	1	250	h1	425	800	79
Howard	4	2	300	sh2	200	700	164	Coles	1	1	350			1,200	100
Independence	3	3	900			900	167	Crawford	1			sh1	80	23	
Johnson	6			h1	1,100		215	Cumberland	2	1	300	sh1	80	1,500	45
Madison	3			sh3	950	200	95	Dewitt	4	3	800	sh1	125	3,300	154
Marion	3			sh3	375		60	Edgar	6	6	2,150			12,900	300
Miller	5	3½	650	sh1	50	400	96	Effingham	2			h2	550	125	
Nevada	5	4½	1,000			1,500	300	Fayette	3	2	550	sh1	75	1,500	74
Onachita	7	6	1,675	sh1	150	875	256	Ford	1	1	180			1,100	100
Polk	5	2½	550	sh2	400	500	96	Fulton	7	5	1,160	h1	200	9,000	249
Pope	5			sh5	680		150	Gallatin	1	1	250	sh1		500	10
Saline	4	4	1,500			800	76	Hancock	5	4	1,300	ph1		10,000	366
Scott	5	2	550	sh3	750	550	226	Jasper	8	4	1,400	sh4	360	3,400	436
Searcy	1	1	175			500	55	Jefferson	1			sh1	100		3
Sebastian	3	0½	150	sh2	460	50	110	Johnson	3	3	600			500	185
Union	6	4½	1,200	sh1	75	1,000	70	Lawrence	8	5½	1,700	sh1	75	5,600	367
Washington	18	4½	1,500	sh12	2,275	1,535	437	Livingston	3	2½	750	ph1		3,100	132
Total	118	51	14,650	63	11,375	15,360	3,946	McLean	3	3	950			5,600	95
CONNECTICUT:								Marion	8	4¾	1,000	sh3	270	1,350	150
Fairfield	2	2	350			3,000	91	Mason	1	1	300			1,850	15
Windham	1	1	180			2,000	63	Massac	3	2	650	h1	200	300	85
Total	3	3	530			5,000	154	Montgomery	1	1	300			500	5
DELAWARE:								Morgan	6	6	1,075			6,000	242
Kent	10	10	1,990			20,500	654	Piatt	1	0½	250			900	57
Newcastle	1	1	250			8,500	81	Pulaski	2	1	200	h1	100	250	26
Sussex	11	11	2,775			22,600	816	Richland	2	1	250	h1	250	800	63
Total	22	22	5,015			51,600	1,551	Saline	2	2	550			800	118
DISTRICT OF COLUMBIA:								Schuyler	5	2½	650	sh2	350	650	92
Washington	9	8	3,225	h1	50	168,825	831	Scott	1	1	200			1,000	44
FLORIDA:								Shelby	1			sh1	80	54	
Columbia	3	1	400	sh2	200	1,000	102	Stark	3	2	450	sh1	100	2,300	81
Madison	3			sh3	300	100	33	Union	1	1	400			200	2F
Suwannee	2	2	300			600	23	Warren	2	2	375			2,500	167
Taylor	3	2	600	sh1	100	700	126	Wayne	5	3	1,025	sh2	275	1,675	298
Total	11	5	1,300	6	600	2,400	350	White	1			h1	200	21	
GEORGIA:								Whiteside	1			sh1	100	2	
Campbell	5	5	1,100			2,500	436	Williamson	5	5	1,250			1,850	251
Carroll	10	9	2,200	h1	300	2,750	400	Total	135	93½	25,840	37	4,420	115,765	5,501
Catoosa	1	1	300			300	74	INDIANA:							
Chatham	1	1	200			600	39	Adams	1	1	450			1,200	50
Chattooga	1			sh1	100		8	Allen	2	2	900			3,500	101
								Blackford	4	2	550	sh1	100	1,600	111
								Boone	8	8	2,190	ph1		10,100	53
								Carroll	4	2	600	sh2	200	1,700	20
								Clinton	6	5	1,950	sh1	100	4,300	30
								Dearborn	3	3	550			2,400	11
								Dekalb	5	5	1,800			0,000	31

I.—METHODIST PROTESTANT CHURCH—CONTINUED.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
MISSISSIPPI:								NEW JERSEY—Con.							
Alcorn	2	2	650			\$900	160	Middlesex	2	2	600			\$5,500	103
Amite	1	1	500			500	100	Monmouth	6	6	1,900			26,000	670
Attala	1	1	2,050			1,550	281	Ocean	1	1	200			1,000	50
Benton	2	2	700			750	83	Passaic	2	2	900			24,000	115
Bolivar	1	1	250			300	80	Salem	1	1	375			4,000	125
Claiborne	3	3	575			250	131	Total	39	39	12,025			181,950	3,459
Copiah	2	2	300	sh1	150	500	131	NEW YORK:							
Covington	2	1	200	sh1	150	400	77	Allegany	3	3	470	sh2	150	3,300	66
Holmes	2	2	700			850	113	Cayuga	2	2	1,000			11,000	188
Jones	2	2	435			450	50	Chautauqua	3	3	700			6,100	98
Kemper	1	1	400			300	50	Chemung	2	2	750			6,000	102
Lafayette	2	2	435			450	50	Columbia	2	1	250	sh1	200	2,100	83
Lauderdale	3	3	500			500	100	Genesee	2	2	480	sh2	150	7,500	128
Lincoln	4	4	1,200			1,600	130	Herkimer	7	6½	2,650			19,000	356
Marshall	2	2	300			350	90	Jefferson	8	7½	2,700			12,600	218
Neshoba	1	1	200			75	30	Kings	4	4	3,400			88,000	386
Perry	1	1	200			200	120	Lewis	6	4½	1,200	ph1		5,800	117
Prentiss	1	1	200			200	183	Livingston	2	2	450			6,000	107
Scott	5	5	1,000			500	104	Monroe	2	2	360			6,500	145
Simpson	2	2	350			500	103	Niagara	1	1	250			2,500	85
Smith	2	2	350			1,300	360	Onondaga	3	3	1,200			17,500	111
Tippah	4	4	1,400			3,000	334	Orleans	1	1	300			4,000	27
Tishomingo	11	11	3,050			75	25	Oswego	12	6½	2,700	sh1½ sh4½	1,225	17,300	667
Washington	1	1	300			600	237	Otsego	3	2½	1,000			6,000	80
Wayne	6	6	750			75	25	Queens	7	7	1,950			22,200	697
Winston	1	1	300			75	25	Rockland	3	3	730			10,500	171
Total	75	73	17,095	2	300	16,175	3,147	Schoharie	1	1	200			2,500	140
MISSOURI:								NEW YORK:							
Barry	10	2	550	sh8	1,175	1,000	381	Seneca	2	2	900			6,500	68
Barton	4	2	500	sh2	200	2,300	146	Steuben	3	2½	925	sh2	150	8,000	230
Benton	2	2	500			1,800	150	Wayne	7	6	2,500	sh1	175	15,600	314
Camden	2	2	500			1,000	60	Westchester	3	3	625			6,500	125
Cass	1	1	250			3,000	115	Wyoming	1	1		sh1	60		50
Cedar	1	1	200			600	50	Total	90	78	27,690	15	2,110	293,000	4,759
Christian	3	1	300	sh2	250	200	195	NORTH CAROLINA:							
Clark	4	3½	1,100			4,200	190	Alamance	11	11	5,125			8,350	1,249
Daviess	2	0½	300	sh1	100	500	61	Anson	3	3	750			450	132
Gentry	3	2	650	ph1		1,200	68	Buncombe	7	5	2,250	sh1	300	4,550	498
Greene	6	4	1,200	sh2	400	3,500	284	Burke	4	4	900			1,300	130
Grundy	2	1½	550			900	70	Cabarrus	1	1	375			600	81
Hickory	3			sh3	550		95	Chatham	8	8	3,525			4,075	537
Jasper	3	1	200	sh1½	400	1,000	118	Cleveland	5	5	2,350			2,600	473
Johnson	1	1	275			500	23	Davidson	15	11½	5,400	sh1½ sh1½	1,150	7,525	987
Lawrence	1			sh1	250		28	Davie	6	6	1,500			2,825	321
Livingston	1			sh1	75		24	Edgecombe	2	2	850			1,400	104
Mercer	1	1	300			500	130	Forsyth	9	9	3,550			9,900	566
Newton	4	1	200	sh3	450	300	64	Granville	1	1	400			550	65
Nodaway	5	3½	1,100	sh1	75	1,900	180	Greene	1	0½	300			500	36
Oregon	8			sh8	1,500	130	215	Guilford	17	17	6,400			12,300	1,391
Polk	4	2	700	sh2	300	1,200	150	Halifax	13	13	3,400			8,750	862
Putnam	3	3	1,050			3,300	215	Lenoir	2	2	600			3,800	96
St. Clair	2			sh2	200		70	Lincoln	6	6	1,800			4,800	359
Sullivan	7	1	150	sh6	510	200	189	Madison	2	1½	680			900	133
Taney	2			sh2	500		100	Mecklenburg	4	4	1,350			2,300	278
Texas	3	1	250	sh2	350	300	30	Montgomery	3	3	1,150			2,100	231
Vernon	1	1	200			500	31	Nash	2	2	775			2,100	101
Worth	1			sh1	100		12	Orange	2	2	925			1,400	266
Total	90	37½	11,025	50	7,385	29,900	3,359	Pitt	1	1	200			300	34
NEBRASKA:								NEW YORK:							
Clay	1			sh1	75		15	Randolph	25	23½	8,775	sh1	100	12,425	1,956
Custer	3	2	275	sh1	50	1,450	85	Richmond	5	5	1,750			3,200	217
Dawes	3			sh3	300		68	Robeson	4	4	1,400			2,000	407
Frontier	3			sh3	400		47	Rockingham	6	5½	1,700			3,500	455
Furnas	4			sh1½	850		75	Rutherford	1	1	200			50	68
Gosper	6	1	150	sh3			75	Stanly	5	5	1,700			3,400	367
Harlan	1			sh1½	810	1,400	79	Stokes	3	3	1,400			2,050	255
Lancaster	1			sh4	150		9	Surry	4	4	1,500			1,150	169
Nemaha	2			sh1	100		66	Union	5	5	1,300			1,600	378
Phelps	1	2	200			1,500	48	Vance	6	6	2,225			8,800	648
Saline	1			sh1	150		24	Warren	2	2	600			1,000	102
Sarpy	1	1	200	sh1	75	1,300	26	Washington	3	3	1,400			1,600	175
Seward	1	1	125			800	50	Yadkin	4	3	1,400	sh1	100	1,850	188
Sheridan	4						37	Yancy	1	1	300			800	36
York	2	2	200	sh4	300		22	Total	190	189½	70,205	5	1,650	126,800	14,351
Total	34	9	1,150	25	3,260	8,450	686	OHIO:							
NEW JERSEY:								Adams	4	4	1,100			5,000	400
Atlantic	6	6	1,950			20,350	485	Allen	4	4	1,050			2,750	85
Burlington	1	1	200			8,000	77	Athens	5	5	2,175			4,600	340
Camden	5	5	1,450			10,500	356	Auglaize	6	6	1,425			5,100	315
Cumberland	6	6	2,050			21,900	602	Belmont	3	3	900			2,800	121
Essex	2	2	950			32,500	316	Brown	2	2	500			2,500	178
Gloucester	7	7	2,050			28,200	560	Butler	1	1	500			6,000	150
								Carroll	7	7	2,100			8,800	775
								Champaign	3	3	1,400			18,500	477

I.—METHODIST PROTESTANT CHURCH—CONTINUED.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
OHIO—Cont'd								SOUTH CAROLINA— Continued.							
Clark	5	5	1,475			\$22,000	365	Florence	4	4	1,500			\$1,500	200
Clermont	1	1	225			1,000	60	Marlboro	1	1	350			140	65
Clinton	11	11	2,950			26,700	898	Pickens	7	7	2,000			3,500	530
Columbiana	2	2	1,000			12,500	500	Richland	5	5	800			2,000	200
Coshocton	9	9	2,150	sh2	150	11,400	805	Spartanburg	1	1	400			4,000	160
Crawford	4	3	950	sh1	75	4,650	68	Sumter	6	6	1,600			1,100	165
Cuyahoga	3	3	600			3,000	78								
Delaware	1	1	200			300	6								
Fayette	16	16	5,200			22,050	1,012	Total	42	42	11,495			21,095	2,665
Greene	9	9	2,600			15,250	826	TENNESSEE:							
Guernsey	6	6	1,900			11,100	686	Bedford	4	4	1,300			2,950	246
Hamilton	4	4	1,475			13,500	235	Carroll	4	4	1,100			1,100	116
Hancock	13	11	2,650	sh2	200	20,800	824	Carter	5	4	800	sh1	75	1,000	188
Hardin	5	5	1,550			5,200	250	Coffee	1	1	350			500	52
Henry	1	1	200			750	30	Davidson	1	1	300			1,100	41
Highland	1	1	300			1,500	77	Greene	5	4	1,500	sh1	100	8,800	991
Holmes	1	1	200			500	50	Henry	2	2	800			900	89
Jefferson	6	6	2,700			49,500	926	Johnson	1	1		sh1	100		65
Knox	5	5	1,600			11,600	534	McNairy	3	3	750			850	248
Lawrence	3	3	900			3,000	191	Marshall	2	2	700			1,850	141
Licking	3	3	1,280			5,000	383	Obion	4	4	1,250			2,100	245
Logan	2	2	2,075			7,700	615	Robertson	2	2	600			700	95
Lucas	7	7	400			2,250	150	Rutherford	1	1	300			600	82
Mahoning	1	1	300			10,000	91	Weakley	3	3	1,000			1,500	125
Marion	1	1	350			2,500	40	Wilson	2	2	600			2,000	56
Medina	1	1	300			1,000	100								
Meigs	5	5	1,050			1,950	185	Total	40	36 1/2	11,360	3	275	25,950	2,880
Mercer	1	1		sh1	150		54	TEXAS:							
Morgan	9	9	2,550			12,100	867	Bell	2			sh2	175		14
Morrow	3	3	1,100			5,500	163	Bosque	2			sh2	300		45
Muskingum	10	10	3,500			19,100	1,108	Burnet	3			sh3	450		49
Noble	12	12	3,800			12,800	1,026	Coke	1			sh1	300		108
Ottawa	3	2	400	h1	100	1,400	125	Coleman	2			sh2	150		37
Paulding	1	1	250			600	35	Collin	1			sh1	200		118
Pike	2	2	340			300	87	Comanche	1			sh1	250		3
Putnam	4	4	1,300			5,500	249	Cooke	5	0 1/2	400	sh4	800	200	190
Ross	2	2	500			1,300	127	Coryell	10	1	800	sh9	1,800	500	212
Scioto	1	1	125			150	50	Delta	4	4	1,100			3,000	250
Seneca	3	3	1,300			35,000	668	Ellis	1			sh1	300		20
Tuscarawas	7	7	2,250			11,000	680	Erath	10	2	450	sh8	1,600	800	202
Union	6	6	1,750			9,500	604	Faunin	1			sh1	100		56
Vinton	3	2 1/2	750			1,500	114	Franklin	4	4	800			1,100	138
Washington	1	1	300			500	26	Freestone	4	1	200	sh3	480		173
Wood	3	3	950			2,400	122	Grayson	1	1	250			500	17
Total	234	226 1/2	68,945	7	675	441,000	18,931	Hamilton	2			sh2	600		29
OREGON:								Henderson	1			sh1	150		70
Marion	1	1	200			1,200	15	Hill	5			sh5	1,075		104
PENNSYLVANIA:								Hood	5			sh5	625		113
Allegheny	19	16 1/2	7,385	h2	400	391,900	2,263	Hopkins	3	3	900			1,600	256
Armstrong	1	1	300			2,000	63	Howard	1			sh1	300		20
Beaver	3	3	1,400			23,500	559	Hunt	1	1	300			500	169
Bedford	4	4	700			6,550	172	Jack	2			sh2	400		50
Bradford	14	4	1,150	h2	10	5,900	340	Johnson	3	0 1/2	300	sh2	400		80
Clearfield	9	6	2,400	sh8	400	12,450	440	Lamar	2	1 1/2	300			600	175
Columbia	5	1 R } 2 1/2 } 2 1/2 }	1,100	sh1	100	2,500	83	Lampass	3	1	200	sh2	400		350
Crawford	1	1	300			3,000	72	Leon	2	1 1/4	1,000			1,000	200
Fayette	10	10	3,672			33,000	1,207	Limestone	6			sh5	770		210
Franklin	4	4	1,200			9,000	170	Llano	6			sh6	1,025		127
Greene	25	22 1/2	6,920	sh2	200	36,300	1,297	McLennan	1			sh1	400		15
Huntingdon	4	3	1,200	sh1	100	2,250	128	Mason	1			sh1	300		21
Indiana	5	5	1,400			5,000	113	Milam	4			sh4	750		36
Jefferson	7	5	2,500	h1 } sh1 } sh1 }	2	6,000	266	Mills	5	1	200	sh4	565	250	59
Lackawanna	8	1 R } 3 1/2 }	1,200	sh3	300	8,800	235	Montague	9			sh9	1,500		379
Lawrence	2	2	440			1,900	87	Navarro	8	2	900	sh6	700	1,800	287
Luzerne	15	7	2,200	sh8	950	16,900	358	Parker	3	1	300	sh2	450	1,000	75
Lycoming	1	1	250			1,000	27	Red River	2	1	200	sh1	100	500	248
Philadelphia	1	1	600			7,000	127	Robertson	1			sh1	150		25
Pike	1	1		sh1	100		15	San Saba	10			h1 } sh9 }	920		293
Sullivan	2	2	700			3,000	70	Scurry	1			sh1	100		10
Susquehanna	2	1	300	sh1	100	1,500	40	Smith	2	2	700			700	80
Washington	4	4	1,650			19,150	819	Stonewall	1			sh1	100		9
Wayne	6	6	1,800			9,775	336	Tarrant	6			sh6	1,225		208
Westmoreland	2	2	400			3,500	139	Titus	1	1	300			150	154
Wyoming	8	1 1/4	700	sh6	750	2,900	142	Upshur	1	1	200			150	101
York	9	9	2,750			26,800	806	Van Zandt	1			sh1	200		117
Total	172	129 1/4	44,567	40	5,450	641,575	10,081	Williamson	3			sh3	375		53
SOUTH CAROLINA:								Wise	5			sh5	1,000		83
Berkeley	9	9	2,670			1,730	819	Total	158	30 7/8	9,800	125	21,485	16,700	5,536
Charleston	2	2	650			4,950	245	VIRGINIA:							
Chesterfield	6	6	1,350			2,100	267	Accomac	9	9	1,800			14,000	645
Clarendon	1	1	175			75	14	Alexandria	5	5	1,700			24,200	248
								Annela	3	3	750			2,000	185
								Campbell	8	8	2,400			19,650	594
								Greensville	2	2	900			2,100	122

I.—METHODIST PROTESTANT CHURCH—CONTINUED.

CONFERENCES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	CONFERENCES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
CENTRAL TEXAS— Continued.								GEORGIA, COLORED:							
Parker, Tex.	3	1	300	sh2	450	\$1,000	75	Campbell, Ga.	4	4	700			\$1,300	275
Robertson, Tex.	1			sh1	150		25	Chatham, Ga.	1	1	200			600	39
Tarrant, Tex.	6			sh6	1,225		208	Cobb, Ga.	2	2	300			500	51
Wise, Tex.	5			sh5	1,000		83	Coweta, Ga.	1	1	200			650	46
Total	62	6 1/2	3,100	54	10,050	6,000	2,163	Fayette, Ga.	1	1		sh1	60		6
COLORADO-TEXAS:								INDIANA:							
Bell, Tex.	2			sh2	175		14	Adams, Ind.	1	1	450			1,200	50
Bosque, Tex.	3			sh1	100		21	Allen, Ind.	2	2	900			3,500	105
Burnet, Tex.	1			sh3	450		49	Blackford, Ind.	4	2	550	sh1,2 ph1,2	100	1,600	110
Coke, Tex.	1			sh1	300		108	Boone, Ind.	8	8	2,190			10,100	534
Coleman, Tex.	2			sh2	150		37	Carroll, Ind.	4	2	600	sh2	200	1,700	200
Comanche, Tex.	1			sh1	250		3	Clinton, Ind.	6	5	1,950	sh1	100	4,300	302
Coryell, Tex.	10	1	800	sh9	1,800	500	212	Dearborn, Ind.	3	3	550			2,400	119
Erath, Tex.	10	2	450	sh8	1,600	800	202	Dekalb, Ind.	5	5	1,800			10,000	312
Hamilton, Tex.	2			sh2	600		29	Delaware, Ind.	6	4	1,475	sh2	600	7,800	205
Hood, Tex.	4			sh4	425	350	73	Franklin, Ind.	2	2	460			1,100	241
Howard, Tex.	1			sh1	300		20	Fulton, Ind.	2	1	250	sh1	60	1,400	62
Lampasas, Tex.	3	1	200	sh2	400		48	Gibson, Ind.	2	1	400	sh1	150	500	23
Llano, Tex.	6			sh6	1,025		127	Grant, Ind.	14	12	3,650	sh2	250	14,000	755
Mason, Tex.	1			sh1	300		21	Hancock, Ind.	5	5	1,700			12,500	475
Milam, Tex.	4			sh4	750		36	Hendricks, Ind.	2	2	700			2,000	116
Mills, Tex.	5	1	200	sh4	505	250	59	Henry, Ind.	2	2	650			2,500	100
San Saba, Tex.	10			sh9,10	920		293	Howard, Ind.	3	3	900			3,200	161
Scurry, Tex.	1			sh1	100		10	Jasper, Ind.	3	1	350	sh2	210	1,300	125
Stonewall, Tex.	1			sh1	100		9	Jay, Ind.	3	3	900			2,900	90
Williamson, Tex.	3			sh3	375		53	Johnson, Ind.	3	3	1,300			11,600	352
Total	71	5	1,650	66	10,685	1,900	1,424	Kosciusko, Ind.	1	1	325			1,500	65
FLORIDA MISSION:								INDIAN MISSION:							
Columbia, Fla.	3	1	400	sh2	200	1,000	102	Cherokee nation, I. T.	10			sh10	1,050		168
Madison, Fla.	3			sh3	300	100	93	Choctaw nation, I. T.	6	1	200	sh5	1,050	300	110
Suwannee, Fla.	2	2	300			600	29	Total	16	1	200	15	2,100	300	278
Taylor, Fla.	3	2	600	sh1	100	700	126	IOWA:							
Total	11	5	1,300	6	600	2,400	350	Cass, Iowa	1	1	200			2,000	100
FORT SMITH MIS- SION:								INDIAN MISSION:							
Crawford, Ark.	3			sh3	400		86	Cedar, Iowa	7	6	1,250	sh1	100	11,000	325
Franklin, Ark.	8			sh8	1,410		203	Clarke, Iowa	3	3	600			5,500	600
Johnson, Ark.	6			sh5,6	1,100		215	Davis, Iowa	3	3	600			2,500	150
Madison, Ark.	3			sh3	950	200	95	Decatur, Iowa	3			sh3	300	150	
Pope, Ark.	5			sh5	680		150	Hardin, Iowa	1	1	150			800	80
Scott, Ark.	5	2	550	sh3	750	550	226	Henry, Iowa	5	5	1,100			10,500	500
Sebastian, Ark.	3	0 1/2	150	sh2	460	50	110	Iowa, Iowa	8	8	1,600			10,200	950
Washington, Ark.	18	4 1/2	1,500	sh12	2,275	1,535	437	Jasper, Iowa	5	5	1,250			8,300	860
Total	51	7	2,200	42	8,025	2,335	1,522	Jones, Iowa	1	1		sh1	100		25
GENESEE:								INDIAN MISSION:							
Alleghany, N. Y.	3	3	470	sh2	150	3,300	66	Keokuk, Iowa	3	3	600			3,300	150
Chautauqua, N. Y.	3	3	700			0,100	98	Lee, Iowa	1	1	150			500	75
Genesee, N. Y.	2	2	480	sh2	150	7,500	128	Linn, Iowa	1	1	150			1,500	125
Livingston, N. Y.	2	2	450			6,000	107	Louisa, Iowa	2	2	300			2,500	100
Monroe, N. Y.	2	2	360			6,500	145	Mahaska, Iowa	1	1	200			1,000	75
Niagara, N. Y.	1	1	250			2,500	85	Marion, Iowa	4	4	1,000			10,000	400
Orleans, N. Y.	1	1	300			4,000	27	Marshall, Iowa	1	1	125			800	80
Steuben, N. Y.	3	2 1/2	925	sh2	150	8,000	230	Mills, Iowa	1	1	250			2,500	125
Wyoming, N. Y.	1			sh1	60		50	Monona, Iowa	1			sh1	100		45
Total	18	16 1/2	3,985	7	510	43,900	936	Polk, Iowa	2	2	375			3,900	115
GEORGIA:								INDIAN MISSION:							
Campbell, Ga.	1	1	400			1,200	161	Poweshiek, Iowa	2	2	450			2,500	200
Carroll, Ga.	10	9	2,200	hl1	300	2,750	400	Story, Iowa	2	2	400			2,800	125
Catoosa, Ga.	1	1	300			800	74	Van Buren, Iowa	3	3	525			2,800	290
Chattooga, Ga.	1			sh1	100		8	Total	61	55	11,325	6	600	84,900	5,645
Clay, Ga.	2	1	400	sh1	100	300	43	MISSOURI:							
Coweta, Ga.	1	1	300			250	31	Adair, Mo.	1	1	200			1,000	50
Dekalb, Ga.	2	2	700			1,800	170	Andrew, Mo.	1	1	200			1,000	50
Fayette, Ga.	2	2	1,100			1,800	292	Barren, Mo.	1	1	200			1,000	50
Floyd, Ga.	2	1	300	hl1	200		30	Boone, Mo.	1	1	200			1,000	50
Fulton, Ga.	1	1	200			150	11	Callaway, Mo.	1	1	200			1,000	50
Gordon, Ga.	3	3	750			700	130	Carroll, Mo.	1	1	200			1,000	50
Haralson, Ga.	3	3	1,000			1,600	180	Cherokee, Mo.	1	1	200			1,000	50
Henry, Ga.	4	4	2,150			2,600	301	Clinton, Mo.	1	1	200			1,000	50
Jackson, Ga.	5	5	1,800			2,950	371	Columbia, Mo.	1	1	200			1,000	50
Meriwether, Ga.	1	1	300			200	28	Daviess, Mo.	1	1	200			1,000	50
Newton, Ga.	3	3	950			1,250	157	DeKalb, Mo.	1	1	200			1,000	50
Randolph, Ga.	2	2	800			700	91	Douglas, Mo.	1	1	200			1,000	50
Walton, Ga.	4	4	1,600			2,800	395	Franklin, Mo.	1	1	200			1,000	50
Wilkinson, Ga.	2	1	400	sh1	100	600	194	Gasconade, Mo.	1	1	200			1,000	50
Total	50	45	15,650	5	800	22,100	3,067	Greene, Mo.	1	1	200			1,000	50

I.—METHODIST PROTESTANT CHURCH—CONTINUED.

CONFERENCES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	CONFERENCES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
MUSKINGUM—Con.								NORTH CAROLINA— Continued.							
Noble, Ohio	12	12	3,800			\$12,800	1,026	Union, N. C.	5	5	1,300			\$1,600	378
Seneca, Ohio	3	3	1,300			35,000	668	Vance, N. C.	6	6	2,225			5,800	648
Tuscarawas, Ohio	7	7	2,250			11,000	680	Warren, N. C.	2	2	600			1,000	102
Vinton, Ohio	3	2 1/2	750			1,500	114	Washington, N. C.	3	3	1,400			1,600	175
Washington, Ohio	1	1	300			500	26	Yadkin, N. C.	4	4	1,400	sh1	100	1,850	188
Total	109	105 1/2	34,255	3	225	216,800	9,996	Nancy, N. C.	1	1	300			800	84
NEBRASKA:								Greensville, Va.	2	2	900			2,100	122
Clay, Neb.	1			sb1	75		15	Total	193	183 1/4	68,205	5	1,650	124,100	13,876
Custer, Neb.	3	2	275	sh1	50	1,450	85	NORTH ILLINOIS:							
Dawes, Neb.	3			sh3	300		67	Adams, Ill.	4	3	650	sh1	50	3,300	89
Frontier, Neb.	3			sh3	400		48	Bureau, Ill.	4	4	1,300			21,000	228
Furnas, Neb.	4			sh3 1/2	850		75	Cass, Ill.	2	0 1/2	450			1,250	31
Gosper, Neb.	6	1	150	sh1 1/2	810	1,400	79	Champaign, Ill.	4	3	475	sh1	75	3,200	290
Harlan, Neb.	1			sh1	150		9	Dewitt, Ill.	4	3	800	sh1	125	3,300	154
Lancaster, Neb.	1			sh1	100		56	Ford, Ill.	1	1	180			1,100	100
Nemaha, Neb.	2	2	200			1,500	48	Fulton, Ill.	7	5	1,160	sh1 1/2	200	9,000	249
Phelps, Neb.	1			sh1	150		24	Hancock, Ill.	5	4	1,300	ph1		10,000	366
Saline, Neb.	1			sh1	75		26	Livingston, Ill.	3	2 1/2	750			3,100	132
Sarpy, Neb.	1	1	200			1,300	50	McLean, Ill.	3	3	950			5,600	95
Seward, Neb.	1	1	125			800	37	Mason, Ill.	1	1	300			1,850	15
Sheridan, Neb.	4			sh4	300		22	Morgan, Ill.	6	6	1,075			6,000	242
York, Neb.	2	2	200			2,000	45	Platt, Ill.	1	0 1/2	250			900	57
Total	34	9	1,150	25	3,260	8,450	686	Schuyler, Ill.	5	2 1/2	650	sh2	350	650	92
NEW JERSEY:								Scott, Ill.	1	1	200			1,000	44
Atlantic, N. J.	6	6	1,950			20,350	485	Stark, Ill.	3	2	450	sh1	100	2,300	81
Burlington, N. J.	1	1	200			8,000	77	Warren, Ill.	2	2	375			2,500	167
Camden, N. J.	5	5	1,450			10,500	356	Whiteside, Ill.	1	1	150	sh1	100	400	20
Cumberland, N. J.	6	6	2,050			21,900	602	Sauk, Wis.	1	1				400	12
Gloucester, N. J.	7	7	2,050			28,200	580	Total	58	45 1/2	11,465	10	1,000	76,450	2,470
Middlesex, N. J.	2	2	600			5,500	103	NORTH MISSISSIPPI:							
Monmouth, N. J.	6	6	1,900			28,000	670	Alcorn, Miss.	2	2	650			900	160
Ocean, N. J.	1	1	200			1,000	50	Benton, Miss.	2	2	700			750	83
Salem, N. J.	1	1	375			4,000	125	Lafayette, Miss.	1	1	400			300	50
Total	35	35	10,775			125,450	3,028	Marshall, Miss.	4	4	1,200			1,600	130
NEW YORK:								Prentiss, Miss.	1	1	200			200	120
Fairfield, Conn.	2	2	350			3,000	91	Tippah, Miss.	4	4	1,400			1,300	360
Windham, Conn.	1	1	150			2,000	63	Tishomingo, Miss.	11	11	3,050			3,000	334
Essex, N. J.	1	1	250			2,500	91	McNairy, Tenn.	2	1 1/2	550			350	98
Passaic, N. J.	2	2	900			24,000	115	Total	27	26 1/2	8,150			8,400	1,335
Kings, N. Y.	4	4	3,400			83,000	386	NORTH MISSOURI:							
Queens, N. Y.	7	7	1,950			22,200	697	Clark, Mo.	4	3 1/2	1,100			4,200	190
Rockland, N. Y.	3	3	730			10,500	171	Davies, Mo.	2	2	300	sh1	100	500	61
Schoharie, N. Y.	1	1	200			2,500	140	Gentry, Mo.	3	2	650	ph1		1,200	68
Westchester, N. Y.	3	3	625			6,500	125	Grundy, Mo.	2	1 1/2	550			900	70
Lackawanna, Pa.	1	1	200			5,000	80	Livingston, Mo.	1	1		sh1	75	24	
Luzerne, Pa.	1	1	250			5,000	60	Mercer, Mo.	1	1	300			500	130
Wayne, Pa.	1	1	500			1,275	160	Nodaway, Mo.	5	3 1/2	1,100	sh1	75	1,900	180
Total	27	27	9,635			172,475	2,179	Putnam, Mo.	3	3	1,050			3,300	150
NORTH CAROLINA:								Sullivan, Mo.	7	1	150	sh6	510	200	189
Alamance, N. C.	11	11	5,125			8,350	1,249	Worth, Mo.	1	1		sh1	100	100	12
Anson, N. C.	3	3	750			450	132	Total	29	15 3/4	5,200	11	860	12,700	1,074
Buncombe, N. C.	7	5	2,250	sh1	300	4,550	498	OHIO:							
Burke, N. C.	4	4	900			1,300	130	Adams, Ohio	4	4	1,100			5,000	400
Cabarrus, N. C.	1	1	375			600	81	Allen, Ohio	4	4	1,050			2,750	85
Chatham, N. C.	8	8	3,525			4,075	537	Anglaize, Ohio	6	6	1,425			5,100	315
Cleveland, N. C.	5	5	2,350			2,600	473	Brown, Ohio	2	2	550			2,500	178
Davidson, N. C.	15	11 1/2	5,400	sh1 1/2	1,150	7,525	987	Butler, Ohio	1	1	500			6,000	150
Davie, N. C.	6	6	1,500	sh1		2,825	321	Champaign, Ohio	3	3	1,400			18,500	477
Edgecombe, N. C.	2	2	850			1,400	104	Clark, Ohio	5	5	1,475			22,000	365
Forsyth, N. C.	9	9	3,550			9,900	566	Clermont, Ohio	1	1	225			1,000	60
Granville, N. C.	1	1	400			550	65	Clinton, Ohio	11	11	2,950			26,700	898
Greene, N. C.	1	0 1/2	300			500	36	Delaware, Ohio	1	1	200			300	6
Guilford, N. C.	17	17	6,400			12,300	1,391	Fayette, Ohio	16	16	5,200			22,050	1,012
Halifax, N. C.	13	13	3,400			8,750	862	Greene, Ohio	9	9	2,600			15,250	826
Lenoir, N. C.	2	2	600			3,800	96	Hamilton, Ohio	4	4	1,475			13,500	235
Lincoln, N. C.	6	6	1,800			4,800	359	Hancock, Ohio	10	8	1,900	sh2	200	14,000	601
Madison, N. C.	2	2	680			900	133	Hardin, Ohio	5	5	1,550			5,200	250
Mecklenburg, N. C.	4	4	1,350			2,300	278	Henry, Ohio	1	1	200			750	30
Montgomery, N. C.	3	3	1,150			2,100	231	Highland, Ohio	1	1	300			1,500	77
Nash, N. C.	2	2	775			2,100	101	Logan, Ohio	7	7	2,075			7,700	615
Orange, N. C.	2	2	925			1,400	286	Lucas, Ohio	2	2	400			2,250	150
Pitt, N. C.	1	1	200			800	34	Marion, Ohio	1	1	350			2,500	40
Randolph, N. C.	25	23 1/4	8,775	sh1	100	12,425	1,956	Ottawa, Ohio	3	2	400	h1	100	1,400	125
Richmond, N. C.	1	1	250			400	27	Pike, Ohio	2	2	340			300	87
Rockingham, N. C.	6	5 1/2	1,700			3,500	455	Putnam, Ohio	4	4	1,300			5,500	249
Rutherford, N. C.	1	1	200			50	68	Ross, Ohio	2	2	500			1,300	127
Stanly, N. C.	5	5	1,700			3,400	367	Scioto, Ohio	1	1	125			150	50
Stokes, N. C.	3	3	1,400			2,050	255	Union, Ohio	6	6	1,750			9,500	604
Surry, N. C.	4	4	1,600			1,150	169	Wood, Ohio	3	3	950			2,400	122
Total	115	112	32,290	3	300	195,100	8,134	Total	115	112	32,290	3	300	195,100	8,134

I.—METHODIST PROTESTANT CHURCH—CONTINUED.

CONFERENCES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	CONFERENCES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
ONONDAGA.								SOUTH ILLINOIS:							
Cayuga, N. Y.	2	2	1,000			\$11,000	188	Bond, Ill.	1	1	300			\$800	7
Chemung, N. Y.	2	2	750			6,000	102	Clark, Ill.	6	3 1/4	1,050	sh2	300	3,200	200
Cortland, N. Y.	2	1	250	sh1	200	2,100	83	Clay, Ill.	4	1	250	sh1, sh2, sh3	425	800	79
Herkimer, N. Y.	7	6 1/2	2,650			19,000	356	Coles, Ill.	1	1	350			1,200	100
Jefferson, N. Y.	8	7 1/2	2,700			12,600	218	Crawford, Ill.	1	1		sh1	80	23	45
Lewis, N. Y.	6	4 1/2	1,200	ph1		5,800	117	Cumberland, Ill.	2	1	300	sh1	80	1,500	25
Onondaga, N. Y.	3	3	1,200			17,500	111	Edgar, Ill.	6	6	2,150			12,900	300
Oswego, N. Y.	12	6 1/2	2,700	h1, sh4, sh5	1,225	17,300	697	Effingham, Ill.	2	2		h2	550	125	100
Otsego, N. Y.	3	2 1/2	1,000			6,000	80	Fayette, Ill.	3	2	550	sh1	75	1,500	74
Seneca, N. Y.	2	2	900			6,500	68	Gallatin, Ill.	1	1	250			500	10
Wayne, N. Y.	7	6	2,500	sh1	175	15,600	314	Jasper, Ill.	8	4	1,400	sh4	360	3,400	436
								Jefferson, Ill.	1	1		sh1	100	100	3
								Johnson, Ill.	3	3	600			500	185
Total	54	43 1/2	16,850	8	1,600	119,400	2,304	Lawrence, Ill.	8	5 1/2	1,700	sh1, sh2, sh3	75	5,600	367
								Marion, Ill.	8	4 3/4	1,000	sh3	270	1,350	150
OREGON:								MISSOURI:							
Marion, Ore.	1	1	200			1,200	15	Massac, Ill.	3	2 1/4	650	h1	200	390	85
King, Wash.	5	5	2,350			61,800	295	Montgomery, Ill.	1	1	300			500	5
Pacific, Wash.	1	1	200			1,000	20	Pulaski, Ill.	2	1	200	h1	100	250	20
Total	7	7	2,750			64,000	330	Richland, Ill.	2	1	250	h1	250	800	63
								Saline, Ill.	2	2	550			800	118
								Shelby, Ill.	1	1		sh1	80	54	54
								Union, Ill.	1	1	400			200	25
PENNSYLVANIA:								ILLINOIS:							
Bradford, Pa.	14	4	1,150	h2, sh8	10	1,750	340	Wayne, Ill.	5	3	1,025	sh2	275	1,675	298
Columbia, Pa.	5	5	1,100	sh1	100	2,500	83	White, Ill.	1	1		h1	200	200	21
Lackawanna, Pa.	7	7	1,000	sh3	300	3,800	155	Williamson, Ill.	5	5	1,250			1,850	251
Luzerne, Pa.	14	6	1,950	sh8	950	11,900	298	Total	78	49 1/2	14,525	27	3,420	39,715	3,044
Lycoming, Pa.	1	1	250			1,000	27	TENNESSEE:							
Pike, Pa.	2	2	700	sh1	100	3,000	70	Butler, Ky.	3	3	500			700	206
Sullivan, Pa.	2	2	700			3,000	70	Ohio, Ky.	1	1	300			600	77
Susquehanna, Pa.	2	1	300	sh1	100	1,500	40	Warren, Ky.	2	2	450			900	29
Wayne, Pa.	5	5	1,300			8,500	176	Bedford, Tenn.	4	4	1,300			2,950	246
Wyoming, Pa.	8	1 1/2	700	sh6	750	2,900	142	Carroll, Tenn.	4	4	1,100			1,100	116
Total	59	27 1/4	8,450	30	4,050	41,000	1,846	Coffee, Tenn.	1	1	350			600	52
								Davidson, Tenn.	1	1	300			1,100	41
								Henry, Tenn.	2	2	800			900	89
PITTSBURG:								MISSOURI:							
Columbiana, Ohio.	1	1	500			9,000	320	McNairy, Tenn.	1	1	200			500	150
Cuyahoga, Ohio.	3	3	600			3,000	78	Marshall, Tenn.	2	2	700			1,850	141
Hancock, Ohio.	3	3	750			6,500	223	Obion, Tenn.	4	4	1,250			2,100	245
Mahoning, Ohio.	1	1	300			10,000	91	Robertson, Tenn.	2	2	600			700	95
Allegheny, Pa.	19	16 1/2	7,335	h2	400	391,900	2,263	Rutherford, Tenn.	1	1	300			600	82
Armstrong, Pa.	1	1	300			2,000	63	Weakley, Tenn.	3	3	1,000			1,500	225
Beaver, Pa.	3	3	1,400			23,500	559	Wilson, Tenn.	2	2	600			2,000	56
Clearfield, Pa.	9	6	2,400	h1, sh2, sh3	400	12,450	440	Total	33	33	9,750			18,000	1,850
Crawford, Pa.	1	1	300			3,000	72	TEXAS:							
Fayette, Pa.	9	9	3,472			32,000	1,084	Collin, Tex.	1	1		sh1	200	118	
Greene, Pa.	19	16 1/2	5,200	sh2	200	28,000	946	Delta, Tex.	4	4	1,100			3,000	250
Huntingdon, Pa.	4	3	1,200	sh1	100	2,250	128	Fannin, Tex.	1	1		sh1	100	56	
Indiana, Pa.	5	5	1,400			5,000	113	Franklin, Tex.	4	4	800			1,100	138
Jefferson, Pa.	7	5	2,500	h1, sh1, sh2	300	6,000	266	Grayson, Tex.	1	1	250			500	17
Lawrence, Pa.	2	2	440			1,900	87	Henderson, Tex.	1	1		sh1	150	70	
Washington, Pa.	4	4	1,650			19,150	526	Hopkins, Tex.	3	3	900			1,600	256
Westmoreland, Pa.	2	2	400			3,500	139	Hunt, Tex.	1	1	300			500	175
Brooke, W. Va.	1	1	450			7,000	82	Lamar, Tex.	2	1 1/2	300			600	169
Hancock, W. Va.	1	1	400			5,000	118	Red River, Tex.	2	1	200	sh1	100	500	248
Harrison, W. Va.	1	1	260			4,500	219	Smith, Tex.	2	2	700			700	80
Total	96	85	31,257	10	1,400	575,650	7,817	Titus, Tex.	1	1	300			150	154
								Upshur, Tex.	1	1	200			150	101
								Van Zandt, Tex.	1	1		sh1	200	117	
								Total	25	19 1/2	5,050	5	750	8,800	1,949
SOUTH CAROLINA:								VIRGINIA:							
Hart, Ga.	1	1	200			50	30	Carter, Tenn.	5	4	800	sh1	75	1,000	138
Richmond, N. C.	4	4	1,500			2,800	190	Greene, Tenn.	5	4	1,500	sh1	100	8,800	991
Robeson, N. C.	4	4	1,400			2,000	407	Johnson, Tenn.	1	1		sh1	100	65	
Chesterfield, S. C.	5	5	1,150			2,000	250	Campbell, Va.	1	1	200			100	54
Florence, S. C.	4	4	1,500			1,500	200	Lee, Va.	2	2	400			700	175
Pickens, S. C.	7	7	2,000			3,500	530	Scott, Va.	17	17	3,700			6,250	1,192
Richland, S. C.	5	5	800			2,000	200	Washington, Va.	3	3	900			1,600	278
Spartanburg, S. C.	1	1	400			4,000	160	Total	34	31	7,500	3	275	18,450	2,943
Sumter, S. C.	6	6	1,600			1,100	165	WEST MICHIGAN:							
Total	37	37	10,550			18,950	2,132	Lagrange, Ind.	1	1	300			1,000	83
								Laporte, Ind.	3	3	700			2,250	58
								Barry, Mich.	3	3	750			4,000	158
SOUTH CAROLINA, COLORED:								MISSOURI:							
Berkeley, S. C.	9	9	2,670			1,730	819	Berrien, Mich.	3	2 1/4	600			1,900	92
Charleston, S. C.	2	2	650			4,950	245	Calhoun, Mich.	3	3	650			4,500	99
Chesterfield, S. C.	1	1	200			100	17	Cass, Mich.	1	1	300			4,075	163
Clarendon, S. C.	1	1	175			75	14	Crawford, Mich.	1	1	100			250	23
Marlboro, S. C.	1	1	350			140	65	Eaton, Mich.	4	4	1,000			6,350	175
Total	14	14	4,045			6,995	1,160	Hillsdale, Mich.	3	3	900			7,000	98
								Ingham, Mich.	1	1	400			3,000	16
								Jackson, Mich.	1	1	200			2,000	38

I.—METHODIST PROTESTANT CHURCH—CONTINUED.

CONFERENCES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	CONFERENCES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
WEST MICHIGAN— Continued.								Alabama Colored Mission.	4	4	1,000			\$1,000	500
Kalamazoo, Mich.	2	2	550			\$2,800	65	Arkansas	81	60	14,300	29	4,850	14,825	2,868
Oscola, Mich.	1			sh1	100		12	Baltimore Colored Mission.	7	5	1,300	2	50	16,125	230
Otsego, Mich.	1			sh1	100		43	Central Texas	62	6 1/2	3,100	54	10,050	6,000	2,163
St. Joseph, Mich.	3	3	700			3,050	143	Colorado-Texas	71	5	1,650	66	10,685	1,900	1,424
Van Buren, Mich.	1	1	250			1,000	35	Florida Mission	11	5	1,300	6	600	2,400	350
Total	32	29 1/2	7,400	2	200	43,175	1,301	Fort Smith Mis- sion.	51	7	2,200	42	8,025	2,335	1,622
WEST VIRGINIA:								Genesee	18	16 1/2	3,935	7	510	43,900	936
Fayette, Pa.	1	1	200			1,000	123	Georgia	50	45 1/2	15,650	5	800	22,100	3,067
Greene, Pa.	6	6	1,720			8,300	351	Georgia Colored	29	27	5,200	2	150	11,325	1,293
Barbour, W. Va.	8	7 1/2	2,050			4,250	349	Indiana	130	107 1/2	33,135	22	2,520	140,225	6,981
Braxton, W. Va.	20	8 1/2	2,600	sh11	940	3,500	784	Indiana Mission	16	1	200	15	2,100	300	278
Doddridge, W. Va.	2	2	500			1,000	63	Iowa	61	55	11,325	6	600	84,900	5,645
Gilmer, W. Va.	3	7	1,850	sh1	100	3,950	308	Kansas	32	19	4,550	13	1,450	33,770	1,890
Greenbrier, W. Va.	4	2	500	sh2	300	900	119	Kentucky	36	12	4,800	23	2,300	6,300	1,685
Harrison, W. Va.	12	11	3,475	sh1	100	13,600	578	Louisiana	20	17	5,700	2	100	5,050	917
Jackson, W. Va.	14	5 1/4	1,900	sh7 (8 ph1)	625	3,300	460	Maryland	254	250 1/2	68,183	3	100	1,031,025	19,473
Lewis, W. Va.	26	21 1/4	6,225	sh4	475	26,450	1,795	Michigan	92	68 1/2	16,635	23	2,400	121,777	3,352
Marion, W. Va.	12	8	2,500	sh2 (3 ph1)	200	8,750	757	Minnesota	5	5	1,000			3,000	137
Monongalia, W. Va.	15	13 1/2	3,326	sh1	100	15,000	898	Mississippi	50	48	9,495	2	300	8,125	1,910
Nicholas, W. Va.	4	3	1,400	sh4	350	2,800	99	Missouri	53	22	5,825	31	5,025	17,200	2,155
Pleasants, W. Va.	3	3	800	sh1	200	2,500	128	Muskingum	100	105 1/2	34,255	3	225	216,800	9,996
Pocahontas, W. Va.	10	3	900	sh7	655	1,000	213	Nebaska	34	9	1,150	25	3,260	8,450	686
Freston, W. Va.	7	5	950	sh2	200	1,600	127	New Jersey	35	35	10,775			125,450	3,028
Randolph, W. Va.	11	5 1/4	1,830	sh5	395	6,475	365	New York	27	27	9,535			172,475	2,179
Ritchie, W. Va.	14	10 1/2	3,535	sh3	300	10,420	679	North Carolina	193	183 1/2	68,205	5	1,650	124,100	13,876
Roane, W. Va.	8	6	1,800	sh2	250	13,600	679	North Illinois	58	45 1/2	11,485	10	1,000	76,450	2,470
Taylor, W. Va.	7	4	1,050	sh3	300	6,700	648	North Mississippi	27	26 1/2	8,150			8,400	1,335
Tucker, W. Va.	7	4	1,050	sh3	300	6,700	648	North Missouri	20	15 1/2	5,200	11	850	12,700	1,074
Upshur, W. Va.	14	8 1/2	3,400	sh3	300	6,700	648	Ohio	115	112	32,200	3	300	195,100	8,134
Webster, W. Va.	13	2	250	sh7 (11 ph3)	1,040	450	233	Onondaga	54	43 1/2	16,850	8	1,600	119,400	2,304
Wirt, W. Va.	1			sb1	100		26	Oregon	7	7	2,750			64,000	330
Total	227	143 1/2	42,736	76	7,720	136,845	10,427	Pennsylvania	50	27 1/4	8,450	30	4,050	41,000	1,346
SUMMARY BY CONFERENCES.								Pittsburg	96	85 1/4	31,257	10	1,400	575,650	7,817
Alabama	73	68 1/2	18,895	4	700	78,850	3,932	South Carolina	37	37	10,550			18,950	2,132
								South Carolina Colored.	14	14	4,045			6,995	1,160
								South Illinois	78	49 1/2	14,525	27	3,420	39,715	3,044
								Tennessee	33	33	9,750			18,000	1,850
								Texas	25	19 1/2	5,050	5	750	8,800	1,949
								Virginia	34	31 1/2	7,500	3	275	18,450	2,943
								West Michigan	32	29 1/2	7,400	2	200	43,175	1,301
								West Virginia	227	143 1/2	42,736	76	7,720	136,845	10,427
Total	2,529	1,923 1/2	571,266	575	80,025	3,683,337	141,989								

THE FREE METHODISTS.

This body was organized in 1860 at Pekin, New York, at a convention of ministers and members who had been expelled or had withdrawn from the Methodist Episcopal Church. The movement arose within the bounds of the Genesee Conference of the Methodist Episcopal Church over differences concerning membership in secret societies, other questions of discipline, and the emphasis to be placed in preaching on certain doctrines, particularly sanctification. In the course of the controversy several ministers were tried and expelled from the church on charges of contumacy. A number of laymen were also excluded.

The new organization adopted the discipline of the mother church with important changes. There are no bishops, but general superintendents are elected every 4 years. District chairmen take the place of presiding elders. Persons are not received on probation simply on the expression of "a desire to flee the wrath to come", but are required to give evidence of conversion. Members are required to "lay aside gold, pearls, and costly array" and dress plainly, and are forbidden to join secret societies or to indulge in the use of intoxicants and tobacco. Attendance at class meeting is a condition of membership. Church choirs and the pew system are not approved.

Two new numbers were added to the Articles of Religion, one setting forth the doctrine of entire sanctification, which is described as salvation "from all inward sin, from evil thoughts and evil tempers", and as taking place instantaneously subsequently to justification. The second pertains to future rewards and punishment.

The Free Methodists have quarterly, district, annual, and general conferences. Laymen are admitted to all on equal terms with ministers.

There are 27 annual conferences, with 1,102 organizations, which have 620 edifices, valued at \$805,085, and furnishing accommodations for 165,004 persons. Besides these edifices, 439 halls, etc., are occupied for worship, which have an aggregate seating capacity of 48,285. The stronghold of the church is in Michigan, where it has 4,592 communicants. In New York it has 3,751, and in Illinois it has 3,395. It is represented in 28 states, chiefly the northern and western. The aggregate of communicants is 22,110. The average seating capacity of the church edifices is 266, and the average of value \$1,299.

II.—FREE METHODIST CHURCH.

BY COUNTIES.

COUNTIES.	Number of organizations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organizations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	
ARKANSAS:								ILLINOIS—Cont'd.								
Boone	1						14	Mason	2	2	600			\$1,500	24	
Dallas	2	2	550			\$750	38	Menard	1	1	300			1,300	300	
Jefferson	1						9	Mercer	1	1	200			700	7	
Total	4	2	550			750	61	Montgomery	2	7	2,200			7,100	221	
CALIFORNIA:								Morgan	2	3	300	ph1		1,800	30	
Alameda	2	1	200	h1	75	4,000	48	Moultrie	3	3	800			2,800	63	
Amador	3	3	425			3,200	60	Ogle	1	1	250				7	
Contra Costa	1	1	150			500	11	Peoria	3	2	400	h1	200	5,200	57	
Los Angeles	5	2	375	h1 } 2 sh1 }	250	2,800	94	Pike	3	1	100	sh2	200	200	16	
Sacramento	3	2		sh3 }	180		19	Richland	4	1	400	sh3	300	800	70	
Santa Clara	2	2	350			2,200	100	St. Clair	4	4	1,075	h1	100	3,000	50	
Santa Cruz	1	1	150			800	59	Sangamon	3	3	400	h1	200		32	
Stanislaus	1	1		h1 }	50		12	Schuyler	4	2	800	sh1 }	150	1,500	103	
Tulare	1	1	125			500	7	Shelby	11	1	2,100	h1 } 3 sh2 }	425	7,300	336	
Total	19	11	1,775	7	555	14,000	410	Stephenson	2	2	750			3,500	24	
COLORADO:								Tazewell	3	3	550			2,200	46	
Arapahoe	2	1	200	ph1		2,000	72	Wabash	1	1	400			700	35	
Baca	5	5	850			500	15	Whiteside	1	1		sh1 }	150		4	
El Paso	7	4	775	h1 } 3 ph2 }	50	5,200	70	Winnebago	3	2	700	h1 }	100	4,000	49	
Fremont	7	7	1,200			1,900	38	Woodford	1	1		h1 }	125		24	
Pueblo	1	1	150			400	8	Total	152	112	32,675	39	4,156	156,050	3,395	
Total	22	18	3,175	4	50	10,000	203	INDIANA:								
DISTRICT OF COLUMBIA:								Adams	1			h1	300			7
Washington	1			h1	150		7	Allen	1	1	300			2,000	20	
ILLINOIS:								Benton	4	2	550	sh1 } 2 ph1 }	100	1,350	42	
Bond	8	1R } 6	1,675	sh1	80	4,300	161	Clay	1	1	250			500	16	
Boone	2	1	250	ph1		1,200	34	Dearborn	1	1	500			800	16	
Bureau	6	4	900	sh2	250	2,800	55	Elkhart	1	1	300			800	5	
Champaign	1	1	400			1,500	38	Fountain	2	2	800			3,700	40	
Christian	5	3	650	h1 } 2 sh1 }	250	2,500	115	Fulton	1	1		h1 }	250		6	
Clay	2	1	350	ph1		1,200	44	Gibson	2	1	250	sh1 }	50	700	20	
Clinton	1	1		h1	150		9	Grant	1	1		h1 }	200		12	
Cook	7	6	2,300	h1	200	32,600	321	Knox	2	1	400	h1	400	700	35	
Cumberland	2	2	600			1,400	49	Lake	1	1	300			1,200	25	
Dekalb	4	4	1,300			7,000	70	Laporte	2	1	250	h1	200	1,450	43	
Dewitt	1	1	300			1,000	9	Randolph	2	1	300	h1	200	1,600	19	
Douglas	4	3	1,050	ph1		3,350	74	St. Joseph	1	1	200			250	7	
Dupage	2	2	550			2,700	14	Spencer	2	1	450	sh1 }	100	800	15	
Edwards	2	2	600			1,100	23	Starke	4	3	800	h1 }	200	1,900	68	
Fayette	3	1R } 1	350	h1	200	50	74	Steuben	1	1		h1 }	300		15	
Ford	1	1	200			1,200	23	Tippecanoe	3	3	850			2,300	55	
Fulton	5	1R } 4	1,400			3,950	117	Vanderburg	1	1	500			1,500	40	
Grundy	1	1	250			2,300	30	Warren	2	2	550			1,600	60	
Henry	5	3	675	sh2	175	3,500	47	Warrick	2	2	500			1,000	17	
Kane	4	4	2,000			19,000	169	Whitley	4	3	900	h1	300	2,050	90	
LaSalle	1	1	300			1,800	25	Total	42	29	8,950	13	2,600	26,200	673	
Lawrence	6	2	700	h1 } 4 sh2 } ph1 }	400	1,500	81	INDIAN TER.:								
Lee	2	1R } 1	750			2,000	28	Chickasaw nation	1			sh1	75		12	
Livingston	1	1	300			1,800	40	IOWA:								
Logan	2	1	150	ph1		1,500	60	Appanoose	2			sh1 } 2 ph1 }	75		28	
McDonough	2	1	350	sh1	100	1,500	7	Blackhawk	3	3	800			4,700	75	
McHenry	8	6	2,150	h1 } 2 ph1 }	100	10,300	138	Boone	3	3	365			1,650	52	
Macoupin	3	1	300	h1 } 2 ph1 }	300	1,000	42	Bremer	1			sh1	100		14	
								Buchanan	2			sh1 } 2 ph1 }	100		16	
								Buena Vista	1			ph1 }			7	
								Calhoun	1			sh1 }	75		15	
								Carroll	2	2	280			1,600	69	
								Cerro Gordo	3	2	650	sh1	75	3,500	67	
								Clay	5	2	331	sh3	150	1,750	70	
								Clinton	2	2	650			2,050	208	
								Davis	2	2	350			350	16	
								Des Moines	2	2	850			4,800	72	

II.—FREE METHODIST CHURCH—CONTINUED.

COUNTIES.							COUNTIES.								
Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.		
IOWA—Continued.							KANSAS—Cont'd.								
1			sh1	60		16	1	1	200			\$250	43		
1			sh1	100		20	1	1	300			800	29		
4	2	340	sh2	160	\$2,200	57	1						21		
7	2	280	sh5	360	1,800	113	1			sh1	80		12		
1			sh1	80		6	Total								
2			sh2	150		30	78	19	5,500	48	6,305	18,750	1,300		
1			sh1	100		8	LOUISIANA:								
1			sh1	70		7	Caldwell	3	1	300	sh2	250	300	10	
4	2	315	sh2	175	1,800	85	Catahoula	5	3	850	sh2	300	900	35	
4	1	100	sh3	375	500	135	Franklin	2			sh2	300		17	
3	3	1,300			2,700	150	Total								
Jasper	3		h2, sh1	250		23	10	4	1,150	6	850	1,200	62		
Jefferson	3	750			2,150	60	MARYLAND:								
Keokuk	3	1,200	sh1	75	1,850	88	Cecil	1	1	200			700	31	
Kossuth	2	158	sh1	60	1,000	14	MASSACHUSETTS:								
Linn	6	800	sh3	300	3,500	98	Franklin	1			sh1	75		12	
Mahaska	2	600			1,600	50	MICHIGAN:								
Mitchell	1	300			2,000	16	Allegan	2	2	600			800	46	
Montgomery	1	200			1,500	4	Alpena	4	3	675	sh1	150	1,900	57	
Page	8	1,535			7,100	179	Antrim	1			h1	300		17	
Plymouth	4	335	sh1, ph1	75	1,800	59	Arenac	2			sh1, h1	200		27	
Pocahontas	1		sh1	75		6	Barry	4	1	300	h2, sh1	650	1,000	101	
Polk	1		sh1	70		7	Bay	4	4	1,050	sh1, sh2	100	3,750	101	
Pottawattamie	1		ph1			11	Berrien	8	5	775	h, sh1, ph1	225	2,650	109	
Poweshiek	1		sh1	75		7	Branch	5	2	450	h2, sh1	450	1,500	110	
Sac	2		sh1, ph1	75		27	Calhoun	1			h1	25		15	
Sioux	2	300			2,000	21	Chippewa	1			sh1	75		8	
Taylor	2	140	sh1	120	800	18	Clare	1	1	350			1,200	16	
Van Buren	2	500			1,400	40	Clinton	7	4	1,550	h1, sh2, sh3	550	5,700	172	
Wapello	3	400	h1	100	1,400	45	Eaton	7	3	1,000	sh3, ph1	600	4,135	112	
Woodbury	1		ph1			8	Genesee	8	5	2,200	h1	150	9,800	322	
Total	111	62	13,829	49	3,480	57,500	2,117	Gladwin	2			sh2	150		20
KANSAS:							Grand Traverse	2			sh1	80		35	
Anderson	1					31	Gratiot	8	6	1,800	sh1, ph1	200	4,900	146	
Barber	1		sh1	150		16	Hilledale	4	2	500	sh2	175	1,700	80	
Barton	1		h1	150		21	Huron	7	5	1,450	sh1, ph1	250	3,400	157	
Bourbon	1					20	Ingham	4	1	400	h1, sh2	550	1,300	108	
Chase	1					41	Ionia	3	2	450	sh1	150	2,300	62	
Clay	1	1	300		2,000	80	Iosco	1			h1	75		5	
Cloud	2		sh2	350		19	Isabella	7	2	600	h1, sh2, ph2	400	1,200	113	
Cowley	1	1	400		1,500	35	Jackson	4	4	1,400			5,300	177	
Crawford	1					20	Kalamazoo	1	1	250			1,000	25	
Dickinson	2		sh2	250		41	Kalkaska	1			sh1	100		22	
Douglas	1	1	250		1,000	20	Kent	6	6	2,200			6,100	187	
Ellis	1		sh1	100		10	Lapeer	5	2	300	sh2	300	1,000	64	
Ellsworth	1		sh1	150		14	Lenawee	9	8	1,900			8,000	201	
Ford	2		sh2	175		22	Livingston	4	1	350	sh3	450	1,000	51	
Geary	2		h1, sh1	250		17	Macomb	1	1	500			2,500	77	
Graham	1		sh1	125		6	Mason	1			sh1	100		64	
Greenwood	2		h1			25	Mecosta	4	3	1,200	sh1	100	2,000	145	
Jefferson	2	1	200		600	25	Midland	2	1	150	sh1	200	400	49	
Jewell	1		sh1	150		11	Monroe	8	8	2,000			8,000	159	
Johnson	1	1	500		1,000	29	Montcalm	6	4	1,050	sh1, ph1	200	2,000	92	
Kingman	1		sh1	100		4	Newaygo	4	3	1,200	h1	100	3,600	237	
Labette	2					38	Oakland	2	2	700			2,700	61	
Leavenworth	1		sh1	60		5	Oceana	1	1	350			800	28	
Lincoln	1	1	100		200	7	Ogemaw	1			sh1	100		27	
Lyon	5	2	600	h1, sh2	650	99	Osceola	3	2	500	sh1	90	700	104	
McPherson	1	1	300		500	51	Saginaw	6	3	650	sh2	300	1,600	95	
Marion	1					28	St. Clair	1					500	13	
Marshall	1		sh1	300		8	St. Joseph	2	1	150	h1	125		37	
Mitchell	2	1	300		500	33	Sauilac	8	1	200	sh6, ph1	700	1,000	194	
Morris	1		sh1	50		9	Shiawassee	4	4	1,350			4,500	105	
Neosho	1					4	Tuscola	6	2	500	sh4	385	1,100	83	
Ness	1		h1	100		25	Van Buren	7	4	900	sh1, ph1	250	2,600	133	
Norton	4	1	300	sh3	400	32	Wayne	3	2	500			1,000	70	
Osage	1		h1	300	1,100	36	Wexford	4	3	900	sh1	80	3,180	153	
Osborne	3	1	400	sh2	350	20	Total								
Ottawa	2	1	300	sh2	175	18	197	115	33,350	76	8,965	107,815	4,592		
Phillips	2		sh1	150	800	21									
Pratt	1		sh1	100		28									
Republic	1	1	300		1,000	12									
Rooks	2	1	200	sh1	75	10									
Russell	2		sh2	250		16									
Saline	1		sh1	150		10									
Shawnee	1	1	250		1,500	29									
Smith	2		sh2	350		29									
Stafford	8	1	300	sh6, ph1	465	100									

II.—FREE METHODIST CHURCH—CONTINUED.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
MINNESOTA:								NEW YORK—Con.							
Becker	1	1R	150				18	Chautauqua	7	{1R } 5	1,515	sh1	80	\$10,900	230
Blue Earth	5			sh4 } pb1 } sh3 }	200		38	Chemung	1	1	200			800	20
Crow Wing	3				225		30	Chenango	4	4	975			4,300	72
Douglas	1	1	150			\$400	34	Cortland	1	1		h1	125		31
Faribault	7			h1 } sh6 }	445		117	Delaware	3			sh3	250		35
Freeborn	1	1	250			1,500	15	Dutchess	1	1	100			600	20
Hennepin	2			sh1	60		25	Erie	11	11	3,025	ph1		28,900	341
Martin	1			sh1	100		20	Franklin	1	1		h1	60		12
Morrison	1	1	100			175	27	Fulton	1	1	240			1,000	22
Mower	1			sh1	50		5	Genesee	2	2	550			1,050	33
Nicollet	1	1	125			600	15	Greene	1	1	150			500	20
Ottertail	5			sh5	350		28	Herkimer	2	1	220	ph1		2,000	23
Polk	1						7	Jefferson	3	2	540	sh1	70	4,500	58
Redwood	1			sh1	50		6	Kings	1	1	300			10,000	56
Rice	1			ph1			7	Livingston	2	2	375			2,200	31
Sherburne	1			sh1	100		30	Monroe	12	12	3,380			24,500	319
Stearns	1	1R	200				20	New York	1	1		h1	200	18,000	32
Steele	3	1	250	ph2		1,500	15	Niagara	6	6	1,475			16,900	179
Todd	1	1	100			175	20	Oneida	7	7	1,870			20,100	246
Wadena	2			sh2	200		30	Onondaga	2	2	500			3,500	92
Wright	1	1R	100				22	Orange	1	1		sh1	100		16
Total	41	9	1,425	30	1,780	4,350	529	Orleans	5	4½	1,975			15,300	276
MISSISSIPPI:								Oswego	2	2	500			3,000	70
Harrison	1			sh1	150		29	Otsego	3	1	150	sh2	300	600	35
MISSOURI:								Putnam	1	1		sh1	100		18
Atchison	2	2	400			1,600	31	Queens	1	1	200			700	4
Clinton	1	1	150			650	12	Rensselaer	2	1	250	ph1		1,400	36
Gentry	2	1	225			1,950	29	Saratoga	3	1½	550			8,900	116
Harrison	1	1	125			700	34	Schoharie	3	3	800			2,800	33
Holt	1						3	Steuben	6	4	850	h1 } sh1 }	250	5,700	141
Jackson	1	1	70			70	15	Sullivan	1	1	200			1,000	18
Lincoln	1	1	250			600	25	Tioga	2	1	100	sh1	50	500	40
Newton	1						11	Tompkins	1	1	400			3,000	16
Nodaway	5	3	300			1,700	72	Ulster	2	1		h1	75		6
Pike	1	1	200			600	22	Warren	1	1	300	sh1	100	1,000	42
Polk	1						18	Wayne	4	4	1,075			5,400	179
St. Louis city	1						15	Wyoming	7	{1R } 4	1,050	h1 } sh1 }	150	7,200	114
Worth	1						16	Yates	1	1	100	sh1 }		600	20
Total	19	11	1,720			7,870	325	Total	142	114	29,495	29	2,590	243,950	3,751
NEBRASKA:								NORTH DAKOTA:							
Clay	1			sh1	100		11	Barnes	1			sh1	75		9
Custer	6			sh6	1,050		46	Cass	2			sh1 } ph1 }	85		40
Douglas	2	1	250	h1	50	3,000	48	Foster	1			sh1	85		14
Frontier	1			sh1	100		10	Kidder	1			sh1	125		5
Gage	2						35	Pembina	1			sh1	75		6
Hamilton	1			sh1	200	400	9	Ramsey	1			sh1	80		6
Harlan	5	2	1,200	h1 } sh1 } ph1 }	400	3,700	92	Richland	1			sh1	75		3
Johnson	1						14	Stutsman	1			h1	100		3
Kearney	1			sh1	150		3	Total	9			9	700		85
Keyapaha	1						31	OHIO:							
Loup	1			sh1	400		5	Ashland	1	1R	300				5
Merrick	1			sh1	200		6	Ashtabula	2			h2	500	800	33
Otoe	2						7	Athens	3	2	450	ph1		1,400	43
Phelps	1			sh2	175		14	Cuyahoga	1	1	400			3,000	50
Pierce	1						21	DeFrance	1	1	250			600	18
Redwillow	1			sh1	100		13	Franklin	1	1R	250				25
Saline	2						19	Fulton	4	2½	1,100	sh1	100	3,700	48
Sarpy	1	1	250			1,000	16	Geauga	1	1		h1	200		5
Saunders	1	1	75			600	19	Guernsey	1	0½	600			500	21
Sherman	1	1	200			125	10	Henry	1	1	250			500	25
Washington	4	4	950			4,200	57	Hocking	2	1	250	h1	150	800	45
Total	37	10	2,925	19	2,925	13,025	486	Huron	1	1	400			1,500	8
NEW JERSEY:								Knox	1	1	300			1,000	5
Cumberland	1	1	200	h1	200	1,700	42	Lake	1			ph1			10
Essex	1	1	175			3,500	42	Logan	1						4
Morris	1	1	500			5,000	24	Lorain	1	1	400			1,500	25
Sussex	2			sh2	500		14	Lucas	3	1	300	h1 } sh1 }	300	1,500	27
Union	1			ph1		75	16	Mahoning	2	2	400			1,600	20
Warren	2	1	250	ph1		1,000	23	Medina	2	1	300	sh1	300	800	35
Total	8	4	1,125	5	700	11,275	161	Meigs	4	1	300	sh3	500	700	63
NEW YORK:								Monroe	1						5
Allegany	5	3	800	sh3	225	3,000	129	Morgan	3	2	650	sh1	100	1,700	53
Broome	4	3	900	sh1	100	12,000	190	Noble	7	4	1,900	h1 } sh1 }	400	3,800	211
Cattaraugus	15	{1R } 12 }	3,360	sh3	355	18,100	337	Sandusky	1			sh1	200		8
Cayuga	3	3	550			3,000	40	Trumbull	2	{1R } 1 }	800			1,500	38

II.—FREE METHODIST CHURCH—CONTINUED.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
OHIO—Cont'd.								WASHINGTON :							
Wayne	1	1	450			\$1,500	25	King	1	1	300			\$8,000	100
Williams	3	1	250	sh2	400	500	28	Pierce	2	2	500			2,000	50
Wood	2			hl	200		14	Skagit	1	1	300			1,300	20
				ph1				Snohomish	1	1	350			1,500	17
Total	54	29	10,300		3,350	28,900	897	Wallawalla	1			sh1	200		5
OREGON:								Whitcom							
Clackamas	3	2	500	sh1	100	1,400	39	Whitman	1	1	400			3,000	35
Lane	1			sh1	100		16	Total	8	6	1,850	2	400	15,700	240
Linn	1			sh1	100		8	WISCONSIN :							
Marion	1	1R	300				39	Barron	4	1	200	sh3	380	700	96
Multnomah	2	1	400	sh1	100	2,000	38	Clark	1	1	250			1,000	27
Umatilla	1			h1	250		6	Columbia	3	3	700			2,600	85
Washington	1			sh1	150		10	Dane	2	1	250	sh1	130	1,300	56
Yamhill	3	2	600	sh1	100	2,000	37	Dodge	1	1	125			450	37
Total	13	6	1,800		700	5,400	188	Dunn	3	1R	450	sh2	210		39
PENNSYLVANIA :								Eau Claire							
Allegheny	4	2	400	h2	300	3,150	75	Fond du Lac	1			sh1	100		19
Armstrong	1			h1	125	300	20	Grant	5	4	770	h1	300	4,300	139
Beaver	1	1	200			1,200	22	Green	1	1	200			1,200	17
Center	1			sh1	50		8	Jefferson	1	1	125			450	21
Clarion	1						7	Juneau	1			sh1	100		11
Clearfield	1			sh1	100		42	Lafayette	1	1	150			500	10
Crawford	2			h1	125	200	25	Milwaukee	1	1	250			2,500	23
Delaware	1			h1	100		18	Oneida	1			sh1	100		4
Elk	1			sh1	50		14	Racine	1			sh1	30		11
Forest	1	1	300			2,000	40	Richland	1			sh1	100		33
Lackawanna	3	1	200	hl	105	800	22	Rock	1			h1	400		41
Lawrence	1	1	400	sh1		1,800	65	St. Croix	1			sh1	125		11
Lehigh	2	1	150	h1	150	2,000	42	Sauk	4	1	350	hl	580	2,000	82
Luzerne	4	4	1,025			9,300	64	Vernon	1			sh1	85		9
McKean	1	1	200			800	44	Walworth	2	2	500			2,000	24
Mercer	1	1	250	h2	200	1,500	88	Waukesha	1			h1	200		5
Philadelphia	2	1	250	ph1		7,000	54	Winnebago	1	1	150			2,500	44
Potter	1			sh1	50		17	Total	40	20	4,480	20	3,340	21,500	864
Susquehanna	5	2	350	hl	350	600	78	SUMMARY BY STATES AND TERRITORIES.							
Venango	2	2	600	sh2		4,500	82	Arkansas	4	2	550			750	61
Warren	1	1	400			2,500	50	California	19	11	1,775	7	555	14,000	410
Washington	1	1	300			2,000	84	Colorado	22	18	3,175	4	51	10,000	203
Wayne	3	2	475	h1	100	2,400	107	District of Columbia	1			1	150		7
Westmoreland	1	2	600			4,400	30	Illinois	162	112	32,675	39	4,155	156,050	3,395
Wyoming	4	1R	850			3,600	60	Indiana	42	29	8,950	13	2,600	26,200	673
Total	46	28	6,950		1,805	50,050	1,158	Indian territory	1			1	75		12
SOUTH DAKOTA :								Iowa							
Charles Mix	1			h1	60		7	Kansas	111	62	18,829	49	3,480	57,500	2,117
Davison	3	1	200	sh1	40	600	43	Louisiana	78	19	5,500	48	6,305	18,750	1,300
Faulk	2			sh2	85		12	Maryland	10	4	1,150	0	850	1,200	62
Hutchinson	3	1	200	sh2	70	600	63	Massachusetts	1	1	200			700	31
Jerauld	2			sh1	425		26	Michigan	197	115	33,350	76	8,965	107,815	4,592
Miner	2			sh2	100		15	Minnesota	41	9	1,425	30	1,780	4,350	529
Minnehaha	3	1	200	sh2	100	2,400	38	Mississippi	1			1	150		29
Potter	2			sh2	100		9	Missouri	19	11	1,720			7,870	325
Sanborn	6			sh6	390		53	Nebraska	37	10	2,925	19	2,925	13,025	486
Turner	2			sh2	75		8	New Jersey	8	4	1,125	5	700	11,275	161
Union	1			sh1	50		4	New York	142	114	29,495	29	2,500	243,950	3,751
Walworth	2			sh2	80		9	North Dakota	9			9	700		85
Total	29	3	600		1,575	3,600	287	Ohio	54	29	10,300	21	3,350	28,000	897
TEXAS :								Oregon							
Bexar	1	1	200			1,200	12	Oregon	13	6	1,800	7	900	5,400	188
Dallas	1	1	150			900	15	Pennsylvania	46	28	6,950	19	1,805	50,050	1,158
Ellis	1	1	200			800	15	South Dakota	29	3	600	26	1,575	3,600	287
Fannin	2			sh2	260		23	Texas	15	6	1,030	6	810	5,500	207
Kaufman	3	1	130	sh1	75	800	74	Virginia	1	1	150			1,000	28
Limestone	1	1	150			600	8	Washington	8	6	1,850	2	400	15,700	240
Milam	1						5	Wisconsin	40	20	4,480	20	3,340	21,500	864
Nacogdoches	1						8	Total	1,102	620	165,004	439	48,285	805,085	22,110
Navarro	1	1	200			1,200	6	BY CONFERENCES.							
San Augustine	2			sh2	350		22	CONFERENCES.							
Smith	1			sh1	125		19	CALIFORNIA :							
Total	15	6	1,030		610	5,500	207	Alameda, Cal.	2	1	200	h1	75	4,000	48
VIRGINIA :								Amador, Cal.							
Alexandria	1	1	150			1,000	28	Contra Costa, Cal.	3	3	425			3,200	60
								Los Angeles, Cal.	1	1	150			500	11
								Sacramento, Cal.	5	2	375	hl	250	2,800	94
												sh1			
												sh3	180		19

II.—FREE METHODIST CHURCH—CONTINUED.

CONFERENCES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	CONFERENCES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	
CALIFORNIA—Con.								EAST MICHIGAN— Continued.								
Santa Clara, Cal.	2	2	350			\$2,200	100	Oakland, Mich.	2	2	700			\$2,700	61	
Santa Cruz, Cal.	1	1	150			800	59	Ogemaw, Mich.	1			sh1	100		27	
Stanislaus, Cal.	1			h1	50		12	Saginaw, Mich.	6	3	650	sh2	300	1,600	95	
Tulare, Cal.	1	1	125			500	7	St. Clair, Mich.	1						13	
Total	19	11	1,775	7	555	14,000	410	Sauilac, Mich.	8	1	200	sh6 ph1	7 7	700	1,000	194
CENTRAL ILLINOIS:								GENESEE:								
Bond, Ill.	8	{1R 6}	1,675	sh1	80	4,300	161	Allegany, N. Y.	4	3	800	sh2	125	3,000	106	
Christian, Ill.	5	3	650	h1 sh1	2	2,500	115	Cattaraugus, N. Y.	15	{1R 12}	3,300	sh3	355	18,100	337	
Clay, Ill.	1			ph1			7	Chautauqua, N. Y.	7	{1R 5}	1,515	sh1	80	10,900	230	
Clinton, Ill.	1			h1		150	9	Chemung, N. Y.	1					800	20	
Dewitt, Ill.	1	1	300			1,000	9	Erie, N. Y.	11	11	3,025	ph1		29,900	341	
Fayette, Ill.	3	{1R 1}	350	h1	200	50	74	Genesee, N. Y.	2	2	550			1,050	33	
Fulton, Ill.	5	{1R 4}	1,400			3,950	117	Livingston, N. Y.	1	1	200			1,000	16	
Logan, Ill.	1			ph1			7	Monroe, N. Y.	2	2	2,900			22,300	273	
McDonough, Ill.	2	1	350	sh1	100	1,500	60	Niagara, N. Y.	6	6	1,475			16,900	179	
Macoupin, Ill.	3	1	300	h1 ph1	300	1,000	42	Orleans, N. Y.	5	5	1,975			15,300	276	
Mason, Ill.	2	2	600	ph1		1,500	24	Putnam, N. Y.	1						18	
Menard, Ill.	1	1	300	sh1		1,200	309	Wyoming, N. Y.	7	{1R 4}	1,050	h1 sh1	2 2	150	7,200	114
Montgomery, Ill.	8	7	2,200			7,100	221	Total	69	61 1/2	16,980	10	810	128,450	1,948	
Morgan, Ill.	2	1	300	ph1		1,800	30	ILLINOIS:								
Moutrie, Ill.	3	3	800			2,800	63	Boone, Ill.	2	1	250	ph1		1,200	34	
Pike, Ill.	3	1	100	sh2	200	200	16	Bureau, Ill.	6	4	600	sh2	250	2,800	55	
St. Clair, Ill.	5	4	1,075	h1	100	3,000	50	Cook, Ill.	7	6	2,300	h1	200	32,600	321	
Sangamon, Ill.	3	2R	400	h1	200		32	Dekalb, Ill.	2	2	1,300			7,000	74	
Schuyler, Ill.	4	{1R 2}	800	sh1	150	1,600	103	Dupage, Ill.	2	2	550			2,700	14	
Shelby, Ill.	11	{1R 7}	2,100	h1 sh2	3	7,800	336	Ford, Ill.	1	1	200			1,200	23	
Tazewell, Ill.	1	1	200	sh2		600	24	Grundy, Ill.	1	1	250			2,300	30	
Total	73	53	13,900	19	2,155	41,800	1,800	Henry, Ill.	5	4	675	sh2	175	3,500	47	
COLORADO:								IOWA:								
Arapahoe, Colo.	2	1	200	ph1		2,000	72	Appanoose, Iowa	2			sh1 ph1	2	75	28	
Baca, Colo.	5	5	850			500	15	Blackhawk, Iowa	3	3	800			4,700	75	
El Paso, Colo.	7	4	775	h1 ph2	8	5,200	70	Bremer, Iowa	1			sh1	100	14		
Fremont, Colo.	7	7	1,200			1,900	38	Buchanan, Iowa	2			sh1 ph1	2	100	16	
Pueblo, Colo.	1	1	150			400	8	Clinton, Iowa	2	2	650			2,050	208	
Total	22	18	3,175	4	50	10,000	203	Davis, Iowa	2	2	350			350	16	
DAKOTA:								KANSAS:								
Sioux, Iowa	2	2	300			2,000	21	Anderson, Kan.	1						31	
Charles Mix, S. D.	1			h1	60		7	Bourbon, Kan.	1						20	
Davison, S. D.	3	1	200	sh1 ph1	2	600	43	Chase, Kan.	1						41	
Faulk, S. D.	2			sh2	85		12	MISSOURI:								
Hutchinson, S. D.	3	1	200	sh2	70	600	63	Boone, Mo.	2	2	600			2,000	100	
Jerauld, S. D.	2			h1 sh1	2	425	26	Butte, Mo.	1					1,000	50	
Miner, S. D.	2			sh2	100		15	Callaway, Mo.	2	2	800			2,800	140	
Minnehaha, S. D.	3	1	200	sh2	100	2,400	38	Cherokee, Mo.	2	2	850			3,000	150	
Potter, S. D.	2			sh2	100		9	Clay, Mo.	2	2	850			3,000	150	
Sanborn, S. D.	6			sh6	300		53	Clinton, Mo.	1					80	6	
Turner, S. D.	2			sh2	75		8	Franklin, Mo.	1					70	7	
Union, S. D.	1			sh1	50		4	Gasconade, Mo.	3	3	1,300	h2 sh1	3	2,700	150	
Walworth, S. D.	2			sh2	80		9	Jasper, Iowa	3	3		sh1	3	250	23	
Total	31	5	900	26	1,575	5,600	308	Jefferson, Iowa	3	3	750			2,150	60	
EAST MICHIGAN:								MISSOURI (Cont.):								
Alpena, Mich.	4	3	675	sh1	150	1,900	57	Madison, Mo.	7	{2R 4}	1,200	sh1	75	1,850	88	
Arenac, Mich.	2			sh1 ph1	2	100	27	Marion, Mo.	6	3	800	sh3	300	3,500	98	
Bay, Mich.	4	4	1,050	sh2	100	3,750	101	Martinsburg, Mo.	2	2	600			1,600	50	
Clinton, Mich.	5	2	1,250	h1 sh1	2	350	146	Monroe, Mo.	1			sh1	75	1,600	7	
Genesee, Mich.	8	5	2,200	h1	150	3,800	322	Van Buren, Iowa	2	{1R 1}	500			1,400	40	
Gladwin, Mich.	2			sh2	150		20	Wapello, Iowa	3		400	h1	100	1,400	45	
Grand Traverse, Mich.	1						13	Total	46	30	8,200	16	1,225	26,500	1,008	
Gratiot, Mich.	4	2	600	sh1 ph1	2	200	60	MISSOURI (Cont.):								
Huron, Mich.	5	3	950	sh1 ph1	2	250	105	Boone, Mo.	2	2	600			2,000	100	
Ingham, Mich.	4	1	400	h1 sh2	3	550	108	Butte, Mo.	1					1,000	50	
Iosco, Mich.	1			h1	75		5	Callaway, Mo.	2	2	800			2,800	140	
Lapeer, Mich.	5	2	300	sh2	300	1,000	64	Cherokee, Mo.	2	2	850			3,000	150	
Livingston, Mich.	4	1	350	sh3	450	1,000	51	Clinton, Mo.	1					80	6	
Macomb, Mich.	1	1	500			2,500	77	Franklin, Mo.	1					70	7	
Midland, Mich.	2	1	150	sh1	200	400	49	Gasconade, Mo.	3	3	1,300	h2 sh1	3	2,700	150	

II.—FREE METHODIST CHURCH—CONTINUED.

CONFERENCES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	CONFERENCES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	
KANSAS—Cont'd.								MISSOURI:								
Clay, Kan	1	1	300			\$2,000	80	Atchison, Mo.	2	2	400			\$1,600	31	
Cowley, Kan	1	1	400			1,500	35	Clinton, Mo	1	1	150			650	12	
Crawford, Kan	1						20	Gentry, Mo	2	1	225			1,950	29	
Dickinson, Kan	2			sh2	250		41	Harrison, Mo	1	1	125			700	34	
Douglas, Kan	1	1	250			1,000	20	Holt, Mo	1	1					11	
Geary, Kan	2			hl, sh1	2	250	17	Jackson, Mo	1	1	70			70	15	
Greenwood, Kan	1						18	Lincoln, Mo	1	1	250			600	25	
Jefferson, Kan	1			hl	200		7	Nodaway, Mo	3	3	300			1,700	72	
Johnson, Kan	1	1	500			1,000	29	Pike, Mo	1	1	200			600	22	
Labette, Kan	2						38	Polk, Mo	1	1					18	
Leavenworth, Kan	1			sh1	60		5	St. Louis city, Mo	1	1					15	
Lyon, Kan	5	2	600	hl, sh2	3	650	99	Worth, Mo	1	1					16	
McPherson, Kan	1	1	300			500	51	Total	18	11	1,720			7,870	300	
Marion, Kan	1						28	NEBRASKA:								
Marshall, Kan	1			sh1	300		8	Greenwood, Kan	1						7	
Morris, Kan	1			sh1	50		9	Jefferson, Kan	1	1	200			600	18	
Neosho, Kan	1						4	Gage, Neb	2						35	
Osage, Kan	1			hl	300		36	Johnson, Neb	1						14	
Ottawa, Kan	2			sh2	175		21	Keyapaha, Neb	1						31	
Saline, Kan	1			sh1	150		19	Otoe, Neb	1						7	
Shawnee, Kan	1	1	250			1,500	40	Pierce, Neb	1						21	
Sumner, Kan	1	1	200			250	43	Saline, Neb	2						19	
Washington, Kan	1	1	300			800	29	Saunders, Neb	1	1	75			600	19	
Wilson, Kan	1						21	Total	11	2	275			1,200	171	
Wyandotte, Kan	1			sh1	80		12	NEW YORK:								
Newton, Mo	1						25	Washington, D. C.	1			hl	150		7	
Total	37	10	3,100	16	2,465	12,250	847	Cecil, Md	1	1	200			700	31	
LOUISIANA:								Cumberland, N. J.	1	1	200	hl	200	1,700	42	
Boone, Ark	1						14	Essex, N. J.	1	1	175			3,500	42	
Dallas, Ark	2	2	550			750	38	Morris, N. J.	1	1	500			5,000	24	
Jefferson, Ark	1						9	Sussex, N. J.	2			sh2	500		14	
Caldwell, La	3	1	300	sh2	250	300	10	Union, N. J.	1			ph1	75		16	
Catahoula, La	5	3	850	sh2	300	900	35	Warren, N. J.	2	1	250	ph1	1,000		23	
Franklin, La	2			sh2	300		17	Broome, N. Y.	2	1	400	sh1	100	3,000	78	
Harrison, Miss	1			sh1	150		29	Chenango, N. Y.	1	1	400			2,000	4	
Total	15	6	1,700	7	1,000	1,950	152	Delaware, N. Y.	3			sh3	250		35	
MICHIGAN:								Greene, N. Y.	1	1	150			500	20	
Berrien, Mich	8	5	775	hl, sh1, sh3	3	225	109	Kings, N. Y.	1	1	300			10,000	56	
Branch, Mich	5	2	450	hl, sh1, sh2	3	450	110	New York, N. Y.	1			hl	200	18,000	32	
Calhoun, Mich	1			hl	25		15	Orange, N. Y.	1			sh1	100		16	
Hilledale, Mich	4	2	500	sh2	175	1,700	80	Otsego, N. Y.	2			sh2	300		21	
Huron, Mich	2	2	500			1,600	52	Queens, N. Y.	1	1	200			700	4	
Jackson, Mich	4	4	1,400			5,300	177	Sullivan, N. Y.	1	1	200			1,000	18	
Kalamazoo, Mich	1	1	250			1,000	25	Ulster, N. Y.	1			hl	75		6	
Lenawee, Mich	9	8	1,900			8,000	201	Delaware, Pa.	1			hl	100		18	
Monroe, Mich	8	8	2,000			8,000	159	Lackawanna, Pa.	3	1	200	hl, sh1	105	800	22	
St. Joseph, Mich	2	1	150	hl	125	500	37	Lehigh, Pa.	2	1	150	hl	150	2,000	42	
Van Buren, Mich	7	4	900	hl, sh1, sh3	3	250	133	Luzerne, Pa.	4	4	1,025			9,300	64	
Wayne, Mich	3	2	500	hl, sh1		1,000	70	Philadelphia, Pa.	2	1	250	ph1		7,000	54	
Total	54	39	9,325	13	1,250	33,850	1,168	Susquehanna, Pa.	5	2	350	hl, sh2, sh3	350	600	78	
MINNESOTA AND NORTH IOWA:								Wayne, Pa.	3	2	475	hl	100	2,400	107	
Cerro Gordo, Iowa	3	2	650	sh1	75	3,500	67	Wyoming, Pa.	4	hl, sh1, sh3	850			3,600	60	
Clay, Iowa	5	2	331	sh3	150	1,750	70	Alexandria, Va.	1	1	150			1,000	28	
Bummet, Iowa	1			sh1	60		16	Total	50	27	6,425	24	2,680	73,875	962	
Franklin, Iowa	1			sh1	100		20	NORTH INDIANA:								
Hancock, Iowa	1			sh1	100		8	Adams, Ind.	1			hl	300		7	
Howard, Iowa	4	1	100	sh3	375	500	135	Allen, Ind.	1	1	300			2,000	20	
Kossuth, Iowa	2	1	158	sh1	60	1,000	14	Elkhart, Ind.	1	1	300			800	5	
Mitchell, Iowa	1	1	300			2,000	16	Fulton, Ind.	1			hl	250		6	
Blue Earth, Minn	5			sh4, sh5, sh6, sh7	5	200	38	Grant, Ind.	1			hl	200		12	
Faribault, Minn	7			hl, sh1, sh7	7	445	117	Lake, Ind.	1	1	300			1,200	25	
Freeborn, Minn	1	1	250			1,500	15	Laporte, Ind.	2	1	250	hl	200	1,450	43	
Hennepin, Minn	2			sh1	60		25	Randolph, Ind.	2	1	300	hl	200	1,600	19	
Martin, Minn	1			sh1	100		20	St. Joseph, Ind.	1	1	200			250	7	
Mower, Minn	1			sh1	50		5	Starke, Ind.	4	3	800	hl	200	1,900	68	
Nicollet, Minn	1	1	125			600	15	Stauben, Ind.	1			hl	300		15	
Redwood, Minn	1			sh1	50		7	Whitley, Ind.	4	3	900	hl	300	2,050	90	
Rice, Minn	1			ph1			6	Total	20	12	3,350	8	1,950	11,250	317	
Steele, Minn	3	1	250	ph2		1,500	15	NORTH MICHIGAN:								
Total	41	10	2,164	30	1,825	12,350	609	Allegan, Mich	2	2	600			800	46	
								Antrim, Mich	1			hl			17	
								Barry, Mich	4	1	300	hl, sh1, sh2, sh3	650	1,000	101	
								Chippewa, Mich	1			sh1	75		8	
								Clare, Mich	1	1	350			1,200	16	
								Clinton, Mich	2	1	300	sh1	200	1,000	26	
								Eaton, Mich	7	3	1,000	sh2, sh3, ph1	4	600	4,135	112

II.—FREE METHODIST CHURCH—CONTINUED.

CONFERENCES.							CONFERENCES.								
	Number of organ- izations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.		Number of organ- izations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
NORTH MICHIGAN Continued.							OREGON AND WASH- INGTON—Cont'd.								
Grand Traverse, Mich	1			sh1	80		22	Washington, Ore	1			sh1	150		10
Gronot, Mich	4	4	1,200			\$2,900	77	Yamhill, Ore	3	2	600	sh1	100	\$2,000	37
onia, Mich	3	2	450	sh1	150	2,300	62	Kiug, Wash	1	1	300			2,000	100
Isabella, Mich	7	2	600	h1	400	1,200	113	Pierce, Wash	2	2	500			1,200	50
Kalkaska, Mich	1			sh1	100		22	Skagit, Wash	1	1	300			1,500	20
Kent, Mich	6	6	2,200	ph2		6,100	187	Snohomish, Wash	1	1	350			1,500	17
Mason, Mich	1			sh1	100		64	Wallawalla, Wash	1			sh1	200		5
Mecosta, Mich	4	3	1,200	sh1	100	2,000	145	Whitcom, Wash	1	1	400			3,000	35
Montcalm, Mich	6	4	1,050	sh1	200	2,000	92	Whitman, Wash	1			sh1	200		13
Newaygo, Mich	4	3	1,200	ph1	100	3,600	237	Total	21	12	3,650	9	1,300	21,100	428
Oceana, Mich	1	1	350	sh1	80	800	28	PITTSBURG:							
Osceola, Mich	3	2	500	h1	100	700	104	Allegheny, Pa	4	2	400	h2	300	3,150	75
Wexford, Mich	4	3	900	sh1	80	3,180	153	Armstrong, Pa	1	1		h1	125	300	20
Total	63	38	12,200	25	3,225	32,915	1,632	Beaver, Pa	1	1	200			1,200	22
NORTH MINNESOTA:							SUSQUEHANNA:								
Becker, Minn	1	1R	150				18	Franklin, Mass	1			sh1	75		12
Crow Wing, Minn	3			sh3	225		30	Allegany, N. Y	1			sh1	100		23
Douglas, Minn	1	1	150			400	34	Broome, N. Y	2	2	500			9,000	112
Morrison, Minn	1	1	100			175	27	Cayuga, N. Y	3	3	580			3,000	40
Ottetail, Minn	6			sh5	350		25	Chenango, N. Y	3	3	575			2,300	68
Polk, Minn	1						7	Cortland, N. Y	1			h1	125		31
Sherburne, Minn	1			sh1	100		30	Dutchess, N. Y	1	1	100			600	20
Stearns, Minn	1	1R	200				20	Franklin, N. Y	1			h1	60		12
Todd, Minn	1	1	100			175	20	Fulton, N. Y	1					1,000	22
Wadena, Minn	2			sh2	200		30	Jefferson, N. Y	2	2	220	ph1		2,000	23
Wright, Minn	1	1R	100				20	Livingston, N. Y	1	1	175	sh1	70	4,500	58
Barnes, N. D	1			sh1	75		9	Monroe, N. Y	3	3	480			1,200	46
Cass, N. D	2			sh1	85		14	Oneida, N. Y	7	7	1,870			20,100	246
Foster, N. D	1			sh1	85		40	Ontondaga, N. Y	2	2	500			3,500	92
Kidder, N. D	1			sh1	125		5	Oswego, N. Y	2	2	500			3,000	70
Pembina, N. D	1			sh1	75		5	Otsego, N. Y	1	1	150			600	14
Ramsey, N. D	1			sh1	80		6	Rensselaer, N. Y	2	1	250	ph1		1,400	36
Richland, N. D	1			sh1	75		3	Saratoga, N. Y	3	1 1/2	550			8,900	116
Stutsman, N. D	1			h1	100		3	Schoharie, N. Y	3	3 1/2	800			2,800	33
Total	27	6	800	20	1,575	750	351	Steuben, N. Y	6	4	850	sh1	250	5,700	144
OHIO:							TEXAS:								
Ashland, Ohio	1	1R	300				5	Chickasaw nation, I. T.	1			sh1	75		12
Ashtabula, Ohio	2			h2	500	800	33	Bexar, Tex	1	1	200			1,200	12
Athens, Ohio	3	2	450	ph1		1,400	43	Dallas, Tex	1	1	150			900	15
Cuyahoga, Ohio	1	1	400			3,000	60	Ellis, Tex	1	1	200			800	15
Defiance, Ohio	1	1	250			600	18	Fannin, Tex	2			sh2	260		23
Franklin, Ohio	1	1R	250				25	Kaufman, Tex	3	1	130	sh1	75	800	74
Fulton, Ohio	4	2 1/2	1,100	sh1	100	3,700	48	Limestone, Tex	1	1	150			600	8
Geauga, Ohio	1			h1	200		21	Milam, Tex	1						5
Guernsey, Ohio	1	1 1/2	600			500	21	Nacogdoches, Tex	1						8
Henry, Ohio	1	1	250			500	25	Navarro, Tex	1	1	200			1,200	6
Hocking, Ohio	1	1	250	h1	150	800	45	San Augustine, Tex	2			sh2	350		22
Huron, Ohio	1	1	400			1,500	8	Smith, Tex	1			sh1	125		19
Knox, Ohio	1	1	300			1,000	5	Total	16	6	1,030	7	885	5,500	219
Lake, Ohio	1			ph1			10	WARASH:							
Logan, Ohio	1						4	Champaign, Ill	1	1	400			1,500	38
Lorain, Ohio	1	1	400			1,500	25	Clay, Ill	1	1	350			1,200	37
Lucas, Ohio	3	1	300	h1	300	1,500	27	Cumberland, Ill	2	2	600			1,400	49
Mahoning, Ohio	2	2	400	sh1		1,600	20	Douglas, Ill	4	3	1,050	ph1		3,350	74
Medina, Ohio	2	1	300	sh1	300	800	35	Edwards, Ill	2	2	600			1,100	23
Meigs, Ohio	4	1	300	sh3	500	700	63	Total	59	46 1/2	10,855	11	830	82,300	1,530
Monroe, Ohio	1			sh1	100	1,700	5	WARASH:							
Morgan, Ohio	3	2	650	sh1	100	1,700	53	Chickasaw nation, I. T.	1			sh1	75		12
Noble, Ohio	7	4	1,900	h1	400	3,800	211	Bexar, Tex	1	1	200			1,200	12
Sandusky, Ohio	1			sh1	200		8	Dallas, Tex	1	1	150			900	15
Trumbull, Ohio	2	1R	800			1,500	38	Ellis, Tex	1	1	200			800	15
Wayne, Ohio	1	1	450			1,500	25	Fannin, Tex	2			sh2	260		23
Williams, Ohio	3	1	250	sh2	400	500	28	Kaufman, Tex	3	1	130	sh1	75	800	74
Wood, Ohio	2			h1	200		14	Limestone, Tex	1	1	150			600	8
Total	54	29	10,300	21	3,350	28,900	897	Milam, Tex	1						5
OREGON AND WASH- INGTON:							WARASH:								
Clackamas, Ore	3	2	500	sh1	100	1,400	39	Champaign, Ill	1	1	400			1,500	38
Lane, Ore	1			sh1	100		30	Clay, Ill	1	1	350			1,200	37
Linn, Ore	1			sh1	100		3	Cumberland, Ill	2	2	600			1,400	49
Marion, Ore	1	1R	300				38	Douglas, Ill	4	3	1,050	ph1		3,350	74
Multnomah, Ore	2	1	400	sh1	100	2,000	38	Edwards, Ill	2	2	600			1,100	23
Umatilla, Ore	1			h1	250		6	Total	16	6	1,030	7	885	5,500	219

THE EVANGELIST MISSIONARY CHURCH.

This organization of Colored Methodists was formed in 1886 by ministers and members in Ohio who withdrew from the African Methodist Episcopal Zion Church for various reasons. It has no creed but the Bible; but, according to its bishop, it inclines in belief to the doctrine that there is but one divine person, Jesus Christ, "in whom dwells all the Godhead bodily". It has 11 organizations in the states of Ohio, Illinois, Michigan, and Wisconsin.

V.—EVANGELIST MISSIONARY CHURCH IN AMERICA.

BY COUNTIES.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
ILLINOIS :								OHIO—Continued.							
Cook.....	1			h2	800		180	Wood.....	1			h1	150		38
								Total.....	3	1	200	2	550	\$800	314
MICHIGAN :								WISCONSIN :							
Allegan.....	1			h1	50		22	Milwaukee.....	1			h1	200		48
Lenawee.....	1	1	350			\$700	50								
Mecosta.....	1			h1	250		65								
Saginaw.....	1	1	500			500	62								
Washtenaw.....	1			h1	500		60								
Wayne.....	1			h1	300		150								
Total.....	6	2	850	4	1,100	1,200	409								
								SUMMARY BY STATES.							
								STATES.							
								Illinois.....	1			2	800		180
								Michigan.....	6	2	850	4	1,100	1,200	409
								Ohio.....	3	1	200	2	550	800	314
								Wisconsin.....	1			1	200		48
OHIO :								Total.....	11	3	1,050	9	2,650	2,000	951
Cuyahoga.....	1			h1	400		181								
Lucas.....	1	1	200			800	95								

THE UNIVERSALISTS.

The first regular preacher in America of the distinctive doctrines of Universalism was Rev. John Murray, a disciple of James Rely, who had gathered a congregation of Universalists in London. As early as 1684, Joseph Gatchell, of Marblehead, Massachusetts, was sentenced by the Suffolk county court to have his "tongue drawn forth and pierced with a hot iron", for declaring that all men would be saved. The names of a number of ministers of different denominations are included in the list of those who held or published Universalist views before Murray arrived from England in 1770. Mr. Murray preached at various places, settling at Gloucester, Massachusetts, in 1774, and in Boston in 1793. By him and a few others a number of Universalist churches were established. At the close of the eighteenth century there were about a score of Universalist ministers.

Rev. Hosea Ballou, whose name is honored as the father of Universalism in its present form, became prominent in the movement at the beginning of the present century. His views differed radically from those of Mr. Murray. In a "Treatise on atonement", published in 1795, he denied the doctrine of the vicarious sacrifice, and insisted that punishment for the sins of mortality is confined to this life. If there were any punishment in the future life it would be, he contended, for sins committed in that life. Some years later he expressed the belief that there is no sin beyond the grave and consequently no punishment. Mr. Murray had held that Christ himself bore the punishment due the sins of mankind, and therefore there would be no further punishment. Of the early Universalists, Murray had been a Methodist, Winchester and Ballou, Baptists.

There being quite a number of Universalists who held, contrary to the views of Mr. Ballou, to a limited future punishment, a division occurred in 1830, and an association was organized in the interests of the doctrine of restoration. This association existed for about 11 years and then became extinct; some of its preachers returning to the Universalist denomination,

others becoming Unitarians. The Restorationists held that there would be a future retribution, but that God would, in his own time, "restore the whole family of mankind to holiness and happiness".

The symbol of the Universalist faith is the Winchester "Profession of Belief", which was adopted in 1803 by the New England Convention, held in Winchester, New Hampshire. It is as follows:

ARTICLE 1. We believe that the Holy Scriptures of the Old and New Testaments contain a revelation of the character of God, and of the duty, interest, and final destination of mankind.

ARTICLE 2. We believe that there is one God, whose nature is love, revealed in one Lord Jesus Christ, by one Holy Spirit of Grace, who will finally restore the whole family of mankind to holiness and happiness.

ARTICLE 3. We believe that holiness and true happiness are inseparably connected, and that believers ought to be careful to maintain order and practice good works; for these things are good and profitable unto men.

This profession of belief has remained unaltered since it was formulated. It is regarded as a sufficient general declaration of the fundamental doctrine of Universalists for the purpose of fellowship. A more particular knowledge of their general belief may be gathered from the utterances of leading Universalist writers.

Universalists believe that God is not only almighty, all-wise, and omniscient, but that he is perfectly holy. As a holy God he is hostile to sin. He forbade it at the first, has never consented to it, and can never be reconciled to it. His power, wisdom, goodness, and holiness are all pledges that there "shall be an end of it in the moral universe", and that "universal righteousness" shall be established. Sin is to be ended through the conversion and salvation of all sinners, who are to come ultimately into holiness and perfection. This is to be done by Jesus Christ, whose function it is to bring man into harmony with God. In Christ God has set forth in a single human life his great scheme of reconciliation. There was perfect harmony between this life and God; and Christ, the derived from the underived, most intimately shared the nature of God and represents him to man in complete fullness. There is no shadow of variance between Christ and God. Christ's work in the world is to bring men to light and strengthen the will in resolution against sin. He helps to overcome and destroy sin in the individual soul. Salvation is not from the demands of justice, nor from punishment, endless or otherwise. The demands of justice must be met, the consequences of sin can not be avoided. It is the bondage of present sin from which salvation is necessary. Salvation is not exemption from the consequences of sin, but redemption from the disposition to sin; also from imperfection. Beginning with repentance and receiving God's forgiveness for past sins, the soul must put off the old man with all his sins and put on the new man created in God's likeness. Punishment is a necessary penalty for violated law. Divine punishment is "not the manifestation of hatred but the sign and instrument of love". The punishment of sin is its inevitable consequences—"the wounds, the damage, the shame which sin impresses" upon the individual consciousness. It is wholly within the soul. The purpose of punishment is to deter from sin and to recover from sin. It is therefore beneficent, whence it follows that it can not be endless, for endless punishment would be vindictive and not beneficent. The soul is immortal. It survives death and enters upon the disembodied state in the same condition in which it quits the embodied. If it has been "dwarfed" in the present life "by neglect", or "weakened" by abuse, or "corrupted" by sin, then dwarfed, weakened, corrupt, it must enter the next life. Disciplinary processes will be continued in that life, and the soul that goes into it unrepentant must suffer the "thralldom or retribution" until the "will consents to the divine order". Even the penitent will be subject to "such discipline and chastening experiences as contribute to moral progress".

These are not to be taken as authoritative expressions of denominational belief. The Winchester Profession is the only acknowledged symbol. They simply represent the current teaching of the Universalist ministry. Probably some Universalists would differ from them in some respects.

The Universalist system of government is a modified presbyterianism. The parish manages its own financial and general interests, and calls or dismisses a pastor; but it "acknowledges

allegiance both to the state and general conventions and is bound to observe the laws they enact". No state conventions can be formed "without a constituency of at least 4 parishes". Such conventions exercise authority in their own territory under rules and limitations prescribed by the general convention. They are composed of all Universalist ministers in fellowship, and of lay delegates from the parishes. They meet every year.

The general convention, which is held in October annually, consists of clerical and lay delegates from each state convention, in the proportion of one of the former to two of the latter. Every convention is entitled to send at least 1 clerical and 2 lay delegates. If it has 50 parishes and clergymen it can send twice as many delegates, with an additional 3 for every additional 25 parishes and clergymen. The general convention "exercises ecclesiastical authority throughout the United States and Canada. It is the court of final appeal in cases of dispute between state conventions, and in all cases of discipline not provided for and settled by subordinate bodies", and has original jurisdiction in states and territories where subordinate conventions have not been organized. The general convention is an incorporated body and controls various denominational funds. Ministers are ordained by councils, consisting of 10 ordained ministers and lay delegates from 10 parishes, called by the parish desiring the ordination, with the consent of the convention (state) committee on fellowship, ordination, and discipline. There are also licentiates, both of the clerical and lay order.

Among the usages of the church is the observance of the second Sunday in June as "Children's Sunday". The churches are decorated with flowers and children are baptized. Christmas and Easter are generally observed, and a Sunday in October is set apart for services in memory of members who have died during the year. The sacraments observed are baptism and the Lord's Supper. The mode of baptism is left to the choice of the applicant.

There are 40 state conventions, besides those of Canada and Scotland, the oldest of which, that of New York, was organized in 1825. New York leads in the number of members, reporting 8,526, Massachusetts comes second, with 7,142, Ohio third, with 4,961, and Maine fourth, with 3,750. The total of members is 49,194, and the aggregate value of church property \$8,054,333. The average value of the church edifices is \$9,680, and the average seating capacity 294.

VI.—UNIVERSALIST CHURCH.

BY COUNTIES.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
ALABAMA:								CONNECTICUT—Con.							
Butler	3	2	170			\$800	82	Litchfield	1	1	200			\$2,000	30
Escambia	2	1	85			800	45	Middlesex	1	1	400			25,000	165
Jackson	1						23	New Haven	3	3	1,250			63,000	438
Macon	2	2	145			900	51	New London	2	2	850			45,000	265
Madison	1						14	Tolland	1	1	250			7,500	42
Tallahassee	1	1	225			1,000	150	Windham	2	2	525			11,000	100
Total	10	6	625			3,500	365	Total	18	18	6,325	1	75	367,000	2,129
ARKANSAS:								DISTRICT OF Co- LUMBIA:							
Benton	1			ph1			16	Washington	1	1	500			47,000	128
CALIFORNIA:								FLORIDA:							
Alameda	1	1	250			10,000	250	Hillsboro	1	1	150			2,000	21
Fresno	1			hl	500		250	Volusia	1						14
Los Angeles	3	2	1,050			53,000	362	Walton	1						10
Orange	1						20	Total	3	1	150			2,000	45
San Bernardino	1	1	300			25,000	200	GEORGIA:							
Santa Cruz	1			hl	200		100	Carroll	1						10
Ventura	1	1	350			8,000	200	Cherokee	2	2	350			600	95
Total	9	5	1,950	2	700	96,000	1,382	Cobb	1						5
COLORADO:								Coweta	1	1	150			40	42
Boulder	1			hl	125	500	15	Dekalb	1	1	450			350	40
CONNECTICUT:								Hart	1	1	200			300	49
Fairfield	4	4	1,250	sh1	75	120,500	715	Jackson	2	2	400			550	95
Hartford	4	4	1,600			93,000	374								

VI.—UNIVERSALIST CHURCH—CONTINUED.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
MICHIGAN :								NEW JERSEY—Con.							
Bay	1	1	225			\$20,500	140	Mercer	1	1	200			\$12,000	85
Berrien	1	1	75			300	20	Ocean	2	2	370			8,800	27
Calhoun	1	1	300			5,000	16	Total	6	6	1,720			112,300	641
Cass	1	1	300			2,000	95	NEW YORK:							
Eaton	1	1	350			12,000	80	Albany	1	1	400			16,000	51
Hillsdale	1	1	400			11,000	40	Allegany	4	4	1,000			13,500	155
Ingham	1	1	300			5,000	75	Broome	2	2	275	hl	150	1,500	60
Ionia	1	1	300			5,000	60	Cattaraugus	2	2	550			5,500	57
Jackson	2	2	350			20,000	110	Cayuga	4	4	1,350			33,000	270
Kent	1	1	500			5,000	80	Chautauqua	6	6	1,000			27,000	158
Lapeer	2	2	300			2,000	24	Cheungo	3	3	2,160			23,000	207
Lenawee	1	1	300			5,000	10	Columbia	1	1	300			40,000	77
Monroe	1	1	200			20,000	75	Cortland	1	1	225			13,000	60
Muskegon	1	1	300			2,000	10	Erie	4	4	1,450			120,000	135
Oakland	3	3	500			2,500	25	Franklin	1	1	300			2,500	29
Saginaw	1	1	500			3,000	50	Fulton	5	5	1,200			15,500	210
Shiawassee	1	1	150			5,000	52	Genesee	11	11	3,250	shl	100	77,000	589
Tuscola	1	1	150			3,000	25	Herkimer	6	6	1,880			44,700	399
Van Buren	1	1	200			5,000	52	Jefferson	3	3	2,322			248,250	880
Washtenaw	2	2	100			76,000	285	Kings	6	6	1,200			1,200	49
Wayne	2	2	500					Lewis	3	3	1,050			25,000	154
Total	27	26	6,600			221,800	1,549	Livingston	4	4	850			13,500	163
MINNESOTA:								NEW YORK—Cont.							
Anoka	1	1	300			7,000	18	Madison	7	7	1,900			80,500	625
Becker	1	1	100			1,000	30	Montgomery	2	2	1,200			21,000	252
Freshborn	2	1	200			1,200	35	New York	4	4	2,600			565,000	863
Hennepin	4	3	1,700			150,000	642	Niagara	4	4	1,500			31,000	263
Mower	1	1	200			1,500	40	Oneida	7	7	1,830			68,000	392
Olmsted	1	1	500			16,000	180	Ontario	4	4	1,050	hl	100	36,000	183
Ramsey	1	1	200			1,200	80	Orleans	4	4	1,650			32,000	243
Steele	1	1					57	Oswego	3	3	950			11,000	109
Washington	1	1	300			15,000	13	Otsego	10	10	2,070	hl	200	24,500	121
Total	13	10	3,500			192,900	1,093	Rensselaer	1	1	400			40,200	385
MISSISSIPPI :								NEW YORK—Cont.							
Jones	1	1	100			400	35	Rockland	2	2	420			35,000	131
Sharkey	1	1		shl	100	400	40	St. Lawrence	14	11 1/2	2,850	hl	150	35,800	433
Winston	1	1	100			400	45	Schenectady	1	1	200	shl		3,500	50
Total	3	2	200	1	100	800	120	Seneca	1	1	200			2,000	35
MISSOURI :								NEW YORK—Cont.							
Andrew	1	1					29	Steuens	2	2	700			8,000	64
Benton	1	1		shl	125		25	Suffolk	2	2	550			14,000	53
Caldwell	1	1		shl	100		35	Sullivan	1	1				3,000	22
Cape Girardeau	1	1	500			800	300	Tompkins	4	4	800			7,500	117
Carroll	1	1		hl	200		31	Washington	1	1	175			500	20
Cass	1	1					20	Wayne	2	2	500			22,000	137
Grundy	1	1	250			1,200	5	Westchester	2	2	700			18,000	70
Jackson	1	1					25	Wyoming	4	4	350	hl	100	13,500	237
Johnson	2	2					40	Yates	1	1	200			1,500	60
Linn	1	1		shl	60		14	Total	168	147 1/2	44,600	7	800	1,798,250	8,526
Macon	1	1	250			700	100	NORTH CAROLINA :							
Pike	1	1					18	Duplin	1	1	100			400	50
Putnam	1	1	200			600	27	Lenoir	1	1	175			200	92
Scotland	1	1		shl	60		16	Sampson	1	1	225			600	113
Scott	1	1	400			1,500	26	Total	3	3	500			1,200	255
Total	16	4	1,600	5	545	4,800	711	OHIO :							
NEBRASKA:								OHIO—Cont.							
Douglas	1	1	300			22,000	50	Ashabula	1	1	200			300	30
Johnson	1	1	100			3,500	15	Athens	1	1	250			1,000	33
Lancaster	1	1	150			10,000	50	Auglaize	1	1	300			2,500	20
Saunders	1	1	75			800	15	Butler	3	3	800			12,500	85
York	1	1	150			2,500	31	Champaign	3	3	950			6,500	176
Total	5	5	775			38,800	161	Clark	2	2	300			5,200	100
NEW HAMPSHIRE :								OHIO—Cont.							
Cheshire	10	11	2,650			36,250	242	Clermont	3	4	950			4,800	142
Cococ	2	2	650			10,000	38	Clinton	3	3	350			9,500	252
Grafton	5	4	1,150			8,575	72	Cuyahoga	1	2	500			1,700	80
Hillsboro	4	4	1,650			58,800	476	Darke	3	2	900	shl	50	2,200	196
Merrimack	3	3	900			25,400	83	Erie	2	2	550			5,000	85
Rockingham	6	6	1,550			35,500	166	Fayette	2	1	250	hl	150	2,000	45
Strafford	1	1	500			15,000	46	Franklin	3	4	1,200			49,200	233
Sullivan	2	2	550			12,500	81	Fulton	1	1	300			900	54
Total	33	34	9,600			203,025	1,204	Gallia	1	1	250			3,000	25
NEW JERSEY:								OHIO—Cont.							
Atlantic	1	1	150			4,500	40	Geauga	1	1	300			1,500	35
Essex	1	1	650			80,000	300	Hamilton	4	4	1,200			45,500	321
Hudson	1	1	350			7,000	89	Highland	3	3	900			6,500	101
								Huron	4	3	950			16,100	277
								Lake	1	1					17
								Licking	2	2	500			2,700	96
								Lorain	2	2	550			2,500	38
								Lucas	1	1	200			500	13
								Madison	3	4	900			12,900	221
								Marion	1	1	250			1,000	44
								Medina	2	2	600			4,200	118
								Meigs	2	2	400			1,700	65
								Miami	2	2	550			4,000	190

THE UNITARIANS.

Unitarianism, as its name indicates, is distinguished from other systems of Christian belief chiefly by its rejection of the doctrine of the Trinity and the deity of Jesus Christ. It denies that three persons—the Father, the Son, and the Holy Spirit—are united in one God, and holds that God is one, that he is *uni*, not *tri*-personal. This view is not modern. Arius, a presbyter of Alexandria, in the fourth century, held that Christ, though the greatest of created beings, was not equal in nature and dignity to God.

Unitarian organizations were formed in Poland and Hungary as early as the middle of the sixteenth century, and in the United States and England in the first quarter of the present century. King's chapel, Boston, a Protestant Episcopal congregation, adopted in 1785 a liturgy so revised as to exclude all recognition of the Trinity, and ordained in 1787, as its pastor, on the refusal of the bishop of the diocese to do so, James Freeman, who was Unitarian in his views. Arian ideas began to influence ministers and laymen in the Congregational churches in New England at the beginning of the present century. In 1805 a Unitarian, Dr. Henry Ware, was elected to the divinity chair in Harvard University, and in 1819 a separate divinity school was organized in connection with the university with a Unitarian faculty.

Those holding Arian views became generally known as Unitarians in 1815, which is usually given as the beginning of the Unitarian denomination in America. In 1819 a Unitarian congregation was formed in Baltimore. William Ellery Channing preached the installation sermon, in which he clearly defined the differences between Orthodox and Unitarian doctrines. Many Congregational churches in eastern Massachusetts, including the oldest, that at Plymouth, the church founded by the Pilgrims in 1620, became Unitarian without changing their covenants or names. In the course of the controversy, 120 Congregational churches in New England, founded before the War of the Revolution, went over to the Unitarians. In 1830 there were, in all, 193 churches of the Unitarian faith; in 1865, 340. The present number is 421.

The Unitarians acknowledge no binding creed. They contend for the fullest liberty in belief, and exclude no one from their fellowship for difference in doctrinal views. Unitarianism is declared to be "not a fixed dogmatic statement, but a movement of ever enlarging faith", welcoming "inquiry, progress, and diversity of individual thought in the unity of spiritual thought". In the denomination are included those who stand upon a simple basis of Theism, and are represented in the Western Unitarian Conference, for example, and those who accept the Messiahship of Jesus Christ. In general terms they believe in God as the All-in-All, "in eternal life as the great hope, in the inspiration of all truth, in man's great possibilities, and in the divineness of sanctified humanity".

The Unitarian churches are Congregational in polity, each congregation being independent in the management of its own affairs. There are societies for the conduct of missionary work, such as the American Unitarian Association, organized in 1825, the Western Unitarian Conference, which attends to the general interests of the societies represented in it, and the Western Unitarian Association, whose object is to "diffuse the knowledge and promote the interests of pure Christianity". There are also conferences, national and state and local. The National Conference, which is biennial, declares in its constitution its "allegiance to the Gospel of Jesus Christ" and its "desire to secure the largest unity of spirit and the widest practical co-operation" in the cause of Christian faith and work. It confines itself to recommending to existing Unitarian organizations "such undertakings and methods as it judges to be in the heart of the Unitarian denomination". It is composed of delegates from the churches and representatives of certain Unitarian organizations. The conference provides for a committee of fellowship, for the consideration of applications of persons not graduates of Unitarian schools to enter the Unitarian ministry.

The 421 organizations report 424 edifices, valued at \$10,335,100, and with an aggregate seating capacity of 165,090. Of the 67,749 communicants, or more properly, members, as the Unitarian custom is to admit any one to the communion, a little more than half are in Massachusetts. New York has the second largest number, 4,470, California is third, with 3,819, and New Hampshire

fourth, with 3,252. The denomination has organizations in 32 states and the District of Columbia. In the southern states it has scarcely half a dozen churches.

The average value of its church edifices is very high, reaching \$24,375; their average seating capacity, 389.

VII.—UNITARIAN CHURCH.
BY COUNTIES.

COUNTIES.	Number of organizations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organizations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
CALIFORNIA :								KENTUCKY :							
Alameda	3	2	1,200	h2	450	\$96,000	785	Jefferson	1	1	650			\$70,000	100
Fresno	1			hl	600		500	LOUISIANA :							
Los Angeles	2	1	850	hl	200	30,700	325	Orleans	1	1	400			40,000	110
Sacramento	1			hl	400	2,500	120	MAINE :							
San Bernardino	1			hl	400	1,000	275	Aroostook	2	2	450			14,700	185
San Diego	2	2	600	hl	150	20,000	200	Cumberland	5	{ 1R } 5	2,100			69,000	406
San Francisco	2	1	1,250	hl	300	150,000	682	Franklin	1	1	300			10,000	60
Santa Barbara	2	1	500	hl	200	45,000	202	Hancock	4	4	1,150			15,000	335
Santa Clara	2	1	700			20,840	200	Kennebec	3	4	1,250			28,000	250
Sonoma	1			hl	200		30	Oxford	1	1	250			2,000	100
Total	16	8	5,100	10	2,900	366,040	3,819	Penobscot	1	1	500			30,000	500
COLORADO :								MARYLAND :							
Arapahoe	1	1	1,000			150,000	455	Baltimore city	1	2	1,250			100,000	550
El Paso	1			hl	200		75	Worcester	1	1	200			7,000	53
Pueblo	1			phl			30	MASSACHUSETTS :							
Weld	1	1	300			7,500	84	Barnstable	3	3	1,000			18,000	230
Total	4	2	1,300	2	200	157,500	644	Berkshire	1	1	350			18,000	60
CONNECTICUT :								MICHIGAN :							
Hartford	1	1	750			35,000	159	Branch	1			shl	100		25
Windham	1	1	225			3,000	20	Isabella	1	1	400			3,000	50
Total	2	2	975			38,000	179	Jackson	1	1	300			12,000	100
DELAWARE :								MINNESOTA :							
Newcastle	1	1	250			14,000	60	Brown	1	1	200			2,000	70
DISTRICT OF COLUMBIA :								MISSOURI :							
Washington	1	1	850			80,000	600	Hennepin	3	2	1,100	hl	800	76,000	585
GEORGIA :								NEBRASKA :							
Fulton	1	1	300			10,000	75	Ottertail	1	1	150			700	50
ILLINOIS :								NEW YORK :							
Adams	1	1	300			40,000	150	Ramsey	3	{ 1R } 2	700			30,500	236
Bureau	1	1	225			2,500	82	Rock	1	1	300			5,000	75
Coles	1	1	400			8,000	25	St. Louis	1			shl	250	1,500	123
Cook	5	4	2,650	hl	200	300,000	995	Stearns	1			hl	125	3,000	100
Dupage	1	1	150			8,500	75	Winona	1	1	300			7,900	110
Henry	1	1	300			6,000	150	Total	12	13	4,850	1	100	168,500	1,904
Kane	1	1	250			2,000	50	MISSOURI :							
McLean	1	1	400			12,000	125	Buchanan	1	1	300			14,000	85
Madison	1	1	275			10,000	75	Jackson	1	1	600			35,000	500
Rock Island	1	1	350			12,000	90	St. Louis city	2	4	1,350			175,000	450
Tazewell	1	1	150			1,000	40	Shelby	2	2	600			6,800	100
Warren	1	1	200			4,000	75	Total	6	8	2,850			230,800	1,135
Total	16	15	5,650	1	200	406,000	1,932	MISSOURI :							
INDIANA :								MISSOURI :							
Lake	1	1	200			3,500	140	Buchanan	1	1	300			14,000	85
Laporte	1	1	250			5,000	80	Jackson	1	1	600			35,000	500
Porter	1	1R	650				100	St. Louis city	2	4	1,350			175,000	450
Total	3	3	1,100			8,500	320	Shelby	2	2	600			6,800	100
IOWA :								MISSOURI :							
Humboldt	1	1	350			2,000	300	Total	6	8	2,850			230,800	1,135
Johnson	1	1R	200				50	MISSOURI :							
Kossuth	1			hl	200	300	20	Buchanan	1	1	300			14,000	85
Lee	1	1	400			30,000	65	Jackson	1	1	600			35,000	500
Lyon	1			hl	200	800	50	St. Louis city	2	4	1,350			175,000	450
Polk	1	1	250			10,000	150	Shelby	2	2	600			6,800	100
Scott	1	1	300			5,000	175	Total	12	9	2,750	3	1,175	126,600	1,349
Winneshiek	1	1	200			4,000	100	MISSOURI :							
Woodbury	1	2	600			30,000	300	Buchanan	1	1	300			14,000	85
Worth	1	1	200			1,000	28	Jackson	1	1	600			35,000	500
Total	10	9	2,600	2	400	83,100	1,238	St. Louis city	2	4	1,350			175,000	450
KANSAS :								MISSOURI :							
Douglas	1	1	275			6,000	120	Shelby	2	2	600			6,800	100
Saline	2			h2	200	4,300	49	Total	6	8	2,850			230,800	1,135
Sedgwick	1			hl	100	200	64	MISSOURI :							
Shawnee	1	1	250			10,000	45	Buchanan	1	1	300			14,000	85
Total	5	2	525	3	300	20,500	278	Jackson	1	1	600			35,000	500

THE SOCIAL BRETHERN CHURCH.

This is a small body confined to 5 counties in Illinois and 3 in Arkansas. It was organized in 1867 by a number of persons who had become dissatisfied with certain teachings and practices in the denominations to which they belonged.

The Social Brethren baptize by sprinkling, pouring, or immersion, as the applicant may prefer; but accept only true believers as proper candidates, rejecting infant baptism. They have a confession of faith consisting of 10 articles. One of these pronounces against "political preaching", and another declares the right of all lay members to free speech and free suffrage in the church.

There are 3 annual associations, composed of ministers and delegates. Besides ordained ministers the church has licensed ministers and licensed exhorters.

There are 20 organizations with 11½ edifices, valued at \$8,700, and 913 members.

VIII.—SOCIAL BRETHERN CHURCH.

BY COUNTIES.

COUNTIES.								ASSOCIATIONS.							
	Number of organizations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.		Number of organizations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
ARKANSAS:								BY ASSOCIATIONS.							
Greene	1	0¼	200			\$100	15	NORTHWESTERN ARKANSAS:							
Howard	1	0½	200			100	23	Greene, Ark.	1	0¼	200			\$100	15
Madison	2	0½	400			800	45	Howard, Ark.	1	0½	200			100	23
Total	4	1½	800			1,000	83	Madison, Ark.	2	0½	400			800	45
ILLINOIS:								SOUTHERN ILLINOIS:							
Gallatin	3	2	2,000	ph1		1,800	110	Gallatin, Ill.	3	2	2,000	ph1		1,800	110
Hardin	2	1	1,000	ph1		1,000	135	Hardin, Ill.	2	1	1,000	ph1		1,000	135
Pope	2	2	1,800			1,800	200	Pope, Ill.	2	2	1,800			1,800	200
Saline	3	3	2,300			2,300	230	Saline, Ill.	3	3	2,300			2,300	230
White	6	2	800	sh4	600	800	155	Total	10	8	7,100	2		6,900	675
Total	16	10	7,900	6	600	7,700	830	WABASH:							
SUMMARY BY STATES.								SUMMARY BY ASSOCIATIONS.							
STATES.								North'n Arkansas.							
Arkansas	4	1½	800			1,000	83	Southern Illinois	10	8	7,100	2		6,900	675
Illinois	16	10	7,900	6	600	7,700	830	Wabash	6	2	800	sh4	600	800	155
Total	20	11½	8,700	6	600	8,700	913	Total	20	11½	8,700	6	600	8,700	913

CENSUS BULLETIN.

No. 350.

WASHINGTON, D. C.

January 27, 1893.

STATISTICS OF MANUFACTURES: 1890.

CITY OF PEORIA, ILLINOIS.

DEPARTMENT OF THE INTERIOR,

CENSUS OFFICE,

WASHINGTON, D. C., January 19, 1893.

Herewith is presented a preliminary report on the mechanical and manufacturing industries of the city of Peoria for the year ended May 31, 1890, prepared under the direction of Mr. FRANK R. WILLIAMS, special agent in charge of statistics of manufactures. The statements contained in this bulletin are preliminary and subject to modification for final report, therefore fair criticism and suggestions are invited, with a view to such revision and correction as may appear necessary.

It is proposed to promptly publish bulletins for all principal cities in a form similar to this, to be followed by final reports containing data in detail respecting all industries for each city at the earliest date practicable. The totals presented in the complete reports will not, however, be less, and may, in a number of cases, be considerably increased. A comparative statement is presented for 1880 and 1890 in Table 1, showing the totals under such general heads of the inquiry as are common to both census periods. Table 2 exhibits for important industries, under the general heads of "Capital employed", "Miscellaneous expenses", "Wages paid", "Materials used", and "Goods manufactured", all essential details of the inquiry for 1890, excepting wage statistics for the various classes of labor employed in the respective industries.

In comparing results of the current inquiry with the returns of 1880 it will be observed that the item of "Miscellaneous expenses" is given for 1890 only. No previous census inquiry has embraced the cost incurred in manufacturing operations other than wages paid and materials used. Differences in method of inquiry, as explained in this report, and the inclusion in the Eleventh Census of certain industries omitted in the Tenth Census account in part for the increases shown.

The following classes of industry were omitted in the census reports of 1880: cars, and general shop construction and repairs by steam railroad companies; druggists' preparations, not including prescriptions; illuminating gas; millinery, custom work; women's dressmaking, custom work.

The totals stated for 1890, in Table 1, are increased as follows by the inclusion of the industries referred to:

TOTALS FOR INDUSTRIES OMITTED IN 1880, BUT INCLUDED IN 1890.

Number of establishments reported.....	56
Capital invested.....	\$337,202
Number of hands employed.....	380
Wages paid.....	\$153,964
Cost of materials used.....	\$156,431
Miscellaneous expenses.....	\$27,431
Value of product at works.....	\$433,325

To ascertain the amounts for comparison with the totals for 1880, the foregoing figures should be subtracted from the totals stated in Table 1 for 1890, and the percentages of increase would then appear as follows:

PERCENTAGES OF INCREASE.

Number of establishments reported.....	68.24
Capital invested.....	254.16
Number of hands employed.....	79.89
Wages paid	176.83
Cost of materials used.....	2.79
Value of product at works.....	287.06
Population of city.....	40.21
Assessed valuation of city.....	7.30
Municipal debt less sinking fund.....	2.09

The small increase in cost of materials used is caused by the inclusion of internal revenue tax under this head in 1880. This item in 1890 is reported under the head of "Miscellaneous expenses".

A striking feature of these returns is the satisfactory increase in the number of establishments reported. Still more gratifying is the increase during the decade in the number of hands employed and the amount of wages paid; the wages have increased not only actually but relatively, the average wages per hand increasing from \$371 in 1880 to \$570 in 1890, or 53.64 per cent.

Part of this increase is undoubtedly due to the fact that in many industries relatively more men were employed in 1890 and less children; also to the fact that in 10 years many branches of industry have improved the grades of their products, and for this reason require more skilled and higher paid employes. After making all possible allowance for these changes, for the more thorough enumeration of 1890, and for the advance in quantity of manufactured product, we have a decided relative increase in the amount paid in wages between 1880 and 1890.

Attention is called to the presentation of labor and wage statistics. The "average wages" paid to all classes employed has always proved a stumbling block in census reports. It is believed the Eleventh Census, in obtaining data to show the classification of labor employed, the average term of employment, the various rates of wages per week, and the average number of men, women, and children, respectively, employed at each rate in the various classes, has taken a step in advance, which will be shown in detail in final reports, and appreciated by students of these data.

Robert T. Porter

Superintendent of Census.

STATISTICS OF MANUFACTURES: 1890.

CITY OF PEORIA, ILLINOIS.

The act of Congress approved March 1, 1889, providing for the Eleventh Census, directs the Superintendent of Census to investigate and ascertain the statistics of the manufacturing industries of the country. By virtue of the authority conferred by section 18 of the said act, the collection of statistics of all establishments of productive industry located in certain cities and towns was withdrawn from enumerators and assigned to special agents, who were appointed and entered upon their duties as soon after the completion of the work assigned the general enumerators as was practicable.

The instructions issued by this office to enumerators and special agents relating to the collection of statistics of manufactures were as follows:

It shall be their duty personally to visit every establishment of productive industry in their respective districts (except as noted) and to obtain the required information in the case of each manufacturing establishment.

The term "establishment of productive industry" must be understood in its broadest sense to embrace not only mills and factories but also the operation of all small establishments and the mechanical trades.

Restaurants, saloons, barber shops, the compounding of individual prescriptions by druggists and apothecaries, the operations of mercantile establishments, transportation corporations and lines, and professional services (except mechanical dentistry) are not considered as coming within the meaning of the law in this connection.

Great care must be taken by special agents and enumerators to guard against the omission from their returns of any establishment that comes properly within the scope of this investigation. * * * They should have their eyes open to every indication of the presence of productive industry and should supplement personal observation by frequent and persistent inquiry.

The tabulated statements presented herewith include only establishments which reported a product of \$500 or more in value during the census year, and, so far as practicable, only those establishments operating works located within the corporate limits of the city.

TABLE 1.—COMPARATIVE STATEMENT OF TOTALS UNDER GENERAL HEADS OF INQUIRY: 1880 AND 1890.

INDUSTRIES.	Number industries reported.	Number establishments reporting.	Capital. (a)	Hands employed.	Wages paid.	Cost of materials used.	
All industries.....	{ 1880 1890	{ 65 90	{ 296 554	{ \$4,160,707 15,072,567	{ 4,067 7,696	{ \$1,507,666 4,327,687	{ \$9,556,476 9,979,907

INDUSTRIES.	Miscellaneous expenses. (b)	Value of product.	MUNICIPAL DATA.		
			Population.	Assessed valuation.	Municipal debt. (c)
All industries.....	{ 1880 1890	{ \$14,228,184 55,504,523	{ 29,259 41,024	{ \$6,763,320 7,256,751	{ \$716,500 731,500

a The value of hired property is not included for 1890, because it was not reported in 1880.

b No inquiry in 1880 relating to "Miscellaneous expenses". The item of internal revenue taxes, which in 1880 was included in "Materials used" in 1890, is reported under this head.

c The amount stated represents the "net debt", or the total amount of municipal debt less sinking fund.

For the purpose of ready comparison, Table 1 presents the statistics of 1880 and 1890 in the form of publication used in the reports for 1880. In comparing industrial statistics for 1880 and 1890 it should be borne in mind, as stated by the Superintendent of Census, that radical changes have been made in 1890 as well in the form and scope of inquiry as in the method of presentation.

The form of question respecting capital used at the census of 1880 was as follows: "Capital (real and personal) invested in the business". It became evident from the results then obtained that this question was neither sufficiently comprehensive nor properly understood, and therefore the full

amount of capital employed in productive industry was not reported, thus forming an erroneous basis for deductions.

The present census inquiry respecting capital is intended to comprehend all the property or assets strictly pertaining to a manufacturing business, whether such property is owned, borrowed, or hired. The value of hired property is not included in the amount stated for 1890 in Table 1, because it was not reported in 1880, and its inclusion would therefore render the comparison misleading. It will, however, be specifically stated for each industry in final reports.

TABULAR STATEMENTS FOR 1890.

The various subheads into which the inquiry of 1890 is divided, excepting wage statistics by classes, will be found in Table 2 for important industries. The statements for each industry are intended to present the true amount of capital employed, the amount paid in wages, and the number of hands employed in the respective industries, the cost of materials used, miscellaneous expenses, and the value at the works of goods manufactured, as compiled from individual reports of manufacturers.

LABOR EMPLOYED AND WAGES PAID.

In the form of inquiry used in the Eleventh Census respecting labor and wages the classified occupation and wage system was adopted. Officers or firm members engaged in productive labor or supervision of the business constitute one class, for which the wages reported are those which would be paid to employés performing similar service. Clerical labor is embraced by distinct classification, also piecework.

Wage workers proper are divided into two classes, as follows:

First. Operatives, engineers, and other skilled workmen, overseers, and foremen or superintendents (not general superintendents or managers).

Second. Watchmen, laborers, teamsters, and other unskilled workmen.

It should be noted that the first class includes all operatives, that is, those directly engaged in productive labor as well as skilled mechanics, while the second class includes all unskilled workmen other than operatives. The questions required a statement of the average number of men, women, and children, respectively, employed during the year in each class, also the actual amount of wages paid to each number.

A statement was requested showing the various rates of wages per week, the average number of men, women, and children, respectively, employed at each rate, exclusive of those reported as employed on piecework, and the actual term of operation for the establishment reporting. The wage statistics compiled from the reports obtained will be stated in detail for each class in the final reports to be published for each city. In this bulletin only the aggregate wages paid is given.

MATERIALS USED AND GOODS MANUFACTURED.

Against the caption "Materials used" is presented the reported cost at the place of consumption of all materials used, and against "Goods manufactured" is the reported market value at the factory of the total product, not including any allowance for commissions or expenses of selling.

In this connection it must be considered that the difference between apparent cost and value of manufactured product as presented can not be taken as a correct indication of manufacturers' net profits, because many other items of expense enter into the mercantile portion of the business not within the scope of the census inquiry.

Expenses of selling are excluded, because the reported value of product is its selling value "at the shop or factory". The cost of depreciation of plant in excess of the expense for ordinary repairs is not included, because the information obtained by the inquiry is not sufficient to form a basis for accurate computation for the respective industries.

TABLE 2.—DETAILED STATEMENT FOR 1890 BY IMPORTANT INDUSTRIES. (a)

CLASSIFICATION OF INQUIRIES.	Agricultural implements. (7 establish- ments.)	Carriages and wagons. (17 establish- ments.)	Clothing— men's, wholesale. (3 establish- ments.)	Confectionery. (5 establish- ments.)	Cooperage. (8 establish- ments.)
CAPITAL EMPLOYED—Aggregate.....	\$967,866	\$193,058	\$154,200	\$156,257	\$388,200
Hired property—Total.....	18,000	33,750	37,900	48,500	29,000
PLANT—Total.....	228,582	88,880	18,800	17,985	110,650
Land.....	33,178	33,750			15,000
Buildings.....	99,590	35,400			39,500
Machinery, tools, and implements.....	95,764	19,730	18,800	17,985	56,150
LIVE ASSETS—Total.....	720,834	70,428	97,500	89,772	248,550
Raw materials.....	61,712	18,413	35,000	14,317	212,375
Stock in process and finished product.....	56,424	26,525	45,000	25,500	31,625
Cash, bills and accounts receivable, and all sundries not elsewhere reported.....	602,698	25,490	17,500	49,955	4,550
WAGES PAID—Aggregate.....	\$144,174	\$86,056	\$97,740	\$52,699	\$270,168
Average number of hands employed during the year.....	322	158	397	96	519
Males above 16 years.....	299	152	37	67	283
Females above 15 years.....	3		14	19	
Children.....	7	4		8	
Pieceworkers.....	13	2	346	2	236
MATERIALS USED—Aggregate cost.....	\$211,956	\$102,874	\$204,000	\$147,920	\$687,279
Principal materials.....	151,716	91,246	204,000	141,120	685,619
Fuel.....	4,792	1,958		1,250	1,660
Mill supplies.....	1,010				
All other materials.....	54,438	9,670		5,550	
MISCELLANEOUS EXPENSES—Aggregate.....	\$51,033	\$9,783	\$30,493	\$14,910	\$88,741
Amount paid for contract work.....					
Rent.....	1,726	3,361	3,980	4,700	3,075
Power and heat.....	700		1,800		
Taxes.....	2,823	822	395	365	2,532
Insurance.....	5,525	1,325	618	642	5,365
Repairs, ordinary, of buildings and machinery.....	1,223	80	1,000	275	10,550
Interest on cash used in the business.....	9,297	760		200	6,450
All sundries not elsewhere reported.....	29,739	3,435	22,700	8,728	10,769
GOODS MANUFACTURED—Aggregate value.....	\$519,611	\$235,598	\$367,200	\$264,103	\$1,102,550
Principal product.....	515,938	171,124	367,200	264,103	1,102,550
All other products, including receipts from custom work and repairing.....	3,673	64,474			

a To avoid disclosure of operations of individual establishments, only such industries as have 3 or more establishments engaged therein are included.

TABLE 2.—DETAILED STATEMENT FOR 1890 BY IMPORTANT INDUSTRIES—Continued.

CLASSIFICATION OF INQUIRIES.	Flouring and grist mill products. (8 establish- ments.)	Foundry and machine shop products. (14 establish- ments.)	Liquors— malt. (4 establish- ments.)	Lumber— planing mill products. (5 establish- ments.)	Printing and publishing. ^(a) (19 establish- ments.)
CAPITAL EMPLOYED—Aggregate.....	\$280,100	\$372,072	\$874,496	\$843,132	\$359,520
HIRED PROPERTY—Total.....	9,450	23,500	11,000	40,750	113,500
PLANT—Total.....	216,900	185,000	601,262	113,633	191,300
Land.....	30,000	47,000	152,000	23,080	3,000
Buildings.....	74,000	39,900	265,386	39,933	3,000
Machinery, tools, and implements.....	112,900	98,100	183,876	50,620	185,300
LIVE ASSETS—Total.....	53,750	163,572	262,234	188,749	54,720
Raw materials.....	21,400	27,610	19,282	54,018	21,220
Stock in process and finished product.....	13,950	39,288	49,788	22,625	10,920
Cash, bills and accounts receivable, and all sundries not elsewhere reported.....	18,400	96,674	193,164	112,106	22,580
WAGES PAID—Aggregate.....	\$46,402	\$187,321	\$65,628	\$102,859	\$205,904
Average number of hands employed during the year.....	78	291	86	158	324
Males above 16 years.....	73	248	86	152	203
Females above 15 years.....	5	4	1	1	49
Children.....		2		3	23
Pieceworkers.....		37		2	44
MATERIALS USED—Aggregate cost.....	\$666,779	\$127,347	\$115,177	\$230,839	\$99,682
Principal materials.....	634,104	80,164	94,463	223,472	89,925
Fuel.....	4,750	5,883	12,004	1,408	3,082
Mill supplies.....	500	1,200	5,617	350	
All other materials.....	27,425	40,100	3,093	5,109	6,675
MISCELLANEOUS EXPENSES—Aggregate.....	\$28,937	\$26,493	\$148,304	\$22,314	\$76,698
Amount paid for contract work.....		1,525			
Rent.....	950	2,331	1,094	4,240	11,153
Power and heat.....	1,300				1,356
Taxes.....	943	2,116	659,512	1,909	1,010
Insurance.....	4,015	2,749	2,629	3,000	2,158
Repairs, ordinary, of buildings and machinery.....	4,835	1,968	3,525	1,595	6,010
Interest on cash used in the business.....	1,349	8,067	12,271	3,681	691
All sundries not elsewhere reported.....	15,545	7,737	69,273	7,889	54,320
GOODS MANUFACTURED—Aggregate value.....	\$881,458	\$424,584	\$424,273	\$412,902	\$462,667
Principal product.....	847,053	403,679	423,067	412,902	412,667
All other products, including receipts from custom work and repairing.....	34,400	20,905	1,206		50,000

^a Includes several branches of this industry, which will be specifically stated in final reports.

^b Includes internal revenue taxes.