
THE STATISTICS OF MANUFACTURES.

REMARKS ON THE TABLES OF MANUFACTURING INDUSTRY.

THE SCOPE OF THESE STATISTICS.

The following tables purport to exhibit the production of every mill, factory, or shop in the United States in which any class of mechanical industry is carried on to the extent of producing the value of \$500 a year. Inasmuch as, with ruling prices of labor and materials, few able-bodied artisans working ten months in the year but produce to the value of \$500, these tables should comprise all the results of substantially all the manufacturing and mechanical industry in the country. Between this, the theory of the case, and the facts exposed to criticism in the following tables, will be found a difference so great as only to be accounted for by a full explanation of—

THE MODE OF COLLECTING THESE STATISTICS.

(1.) The enumeration of "establishments of productive industry" is, by the census law of 1850, charged upon the regular assistant marshals, each in his own subdivision. (2.) The schedules provided by law propose a limit of \$500, falling below which, the production of no establishment need be returned in the census. (3.) The law failing to provide for the use of "prior schedules," to be left in advance, filled up at leisure, and called for by the enumerator on his rounds, the assistant marshal has but one opportunity to reach the proprietor of any establishment, except by going back upon his track, and performing a second or a third time this the most tedious part of his duty, for which repeated visits the law allows him no extra compensation. (4.) It is also of the highest importance in this connection that the sum paid under the act of 1850 for the complete and satisfactory enumeration of an establishment of productive industry is 15 cents. Such, in brief, is the mode of collecting the statistics of manufactures.

HOW IT WORKS.

There is here occasion, and, indeed, provocation, for omissions in five or six distinct ways :

1st. The collection of manufacturing statistics is made merely an incident to the enumeration of population, and, like all other duties incidental, is certain to be neglected, more or less, in all but the rarest cases. The principal thing in the mind of the assistant marshal, and in the view of the community, is the enumeration of population. This is the subject upon which public attention is fixed, and the work of the enumerator in this respect is severely criticised. But there are few communities which take sufficient interest in the collection of their manufacturing statistics to secure that it shall be well done. So far is this indifference carried, that the Census Office has found it impossible to secure any assistance from boards of trade or chambers of commerce in some of the principal cities of the Union, for the revision and completion of the statistics of manufactures. Cities which resent bitterly the publication of the simple truth in respect to their population, will appear entirely indifferent to reports which seriously understate their wealth and productive industry.

Such being the condition of public sentiment, the assistant marshal, assuming that he is zealous and faithful in his general service, carries about the manufacturing schedule as a tedious and unwelcome duty—a duty to be discharged in the cheapest and easiest manner.

2d. Not one assistant marshal in five, probably not one in ten, has any considerable technical or even general acquaintance with manufactures. The appointments to this office are generally made from professional politicians, from lawyers, from agriculturists, or from clerks. The fact will be of more importance when we come to explain the failure to report intelligently and comprehensively the production of establishments which are actually returned in the census; but it is not without a decided bearing on the present question. Any one who stops to consider will see how easy it would be, in a considerable manufacturing town, for an assistant marshal visiting every inhabited dwelling, and enumerating thoroughly every family in the place, to omit many important establishments of pro-

ductive industry. There are instances in great cities like Philadelphia, where large industries are carried on below the sidewalk, and one might pass and repass frequently without receiving any intimation that hundreds of operatives, aided by steam-power, were working almost under his feet. The only entrance to many other establishments in such a city is from alleys or interior courts, where the work of enumerating families would not lead the assistant marshal; indeed, into which, with the best intention on his part, he would hardly find his way. Other establishments, in great numbers, are carried on beneath the same roof with more pretentious industries, or in lofts above stores. In numerous cases the most diverse industries not only occupy the same building, but take their power from the same wheel. Such are the difficulties which beset the enumeration of manufacturing industry. If every establishment occupied a distinct and an entire building, situated squarely upon a public street, and with some conspicuous blazon of what was going on within, it would then, beyond question, be the fault of an enumerator if a single one should be omitted from his returns; but when, instead, establishments of this nature are disposed about and hidden away with a promiscuousness and an intricacy of which the above will hardly convey an idea, it is not to be wondered at that an officer wholly unfamiliar with the manufacturing industry of his district, and perhaps unacquainted with the conditions of a single important industry, should make a very incomplete and partial return of production.

3d. Under the system of appointments to office, which prevails in the United States, scores and hundreds of assistant marshals, out of a body so large as that employed at the Ninth Census,* will perform their work with a purposed and even a defiant negligence. The rates of compensation being most inadequate in respect to the return of manufactures, this part of the census suffers most from this cause. The Superintendent has elsewhere and freely borne testimony to the zeal and patience with which the great body of assistant marshals at the Ninth Census encountered the difficulties and perplexities with which the ill-considered act of 1850 surrounded their work; but, it is nevertheless true that, in a sufficient number of cases seriously to affect the results of the census, assistant marshals performed their task in a manner which, were there proper facilities for inspection and supervision, and were the penal provisions of the census law more ample, would have brought them within the reach of criminal animadversion. The investigations of the Census Office, conducted at great disadvantage, discovered not a few cases where less than one-half of the establishments of productive industry, by law subject to enumeration, had been returned, or even visited by the assistant marshals. For such a degree of delinquency there is, of course, but one explanation possible.

4th. The temporary absence of some proprietors, the reluctance of more to return the production of their establishments, and the utter unpreparedness of others, in the absence of "prior schedules," as used in the census of all nations but this, cause numerous omissions of the character under discussion. For one or another of these reasons, assistant marshals are obliged to pass on in their enumeration without obtaining at a first visit the information required in respect to considerable numbers of establishments. In the majority of cases a second visit is successful, and a third round still further gleans the field;† but it often happens that the assistant marshal is obliged, in the course of his enumeration, to leave the neighborhood of such establishments, and go to remote localities, perhaps with a vague purpose of returning at some time to complete the work, or of obtaining the information by correspondence: a purpose, it is needless to say, which generally remains unaccomplished at the time when it becomes necessary to forward his returns to the Census Office.

5th. Perhaps the most simple of all the causes of omission in the Statistics of Manufactures is found in the fact that the necessities of enumerating the population of cities and large towns require their subdivision and the assignment of enumerators, according to lines of demarcation which, however natural or logical with respect to the population, do not correspond to the conditions of the manufacturing industry of the place. In no small proportion of the manufacturing establishments of cities and large towns, the factory where the hands are employed and the work is done is distinct from the office where the complete accounts of wages, labor, and materials are kept. The assistant marshal, in whose subdivision the former is situated, will probably not fail to visit it, inasmuch as the factory is, in the great majority of cases, a broad, staring fact which he can hardly overlook. He is told there, however, that the office of the concern is upon another street, perhaps in another ward, outside the territory assigned him. He assumes, therefore, that the assistant marshal who is charged with the enumeration of that section of the city in which the office is will embrace the establishment in his returns, and takes no more thought of it. That office, however, being, in all likelihood, in a room up two flights, surrounded by the offices of lawyers,

* Six thousand four hundred and fifty-one.

† Instances have been reported to the Census Office where the sixth visit failed to secure the desired results. Of course the natural suggestion is, "enforce the penalty of the law;" but, when serious crimes against the peace or against the revenue are so freely compromised or condoned, it is hardly to be expected that penalties for refusal to answer statistical inquiries will be very vindictively enforced. Moreover, assistant marshals shrink from encountering the odium incident to such a course.

engineers, banking, mining, and railroad companies, the assistant marshal of the subdivision sees nothing to indicate the presence of an "establishment of productive industry," and, in the best of good faith, passes it by.

This is not something which has occurred to the Superintendent as a possible source of error. It has been developed as the actual cause of omissions by the subsequent inquiries of the Census Office. It undoubtedly applies in fewer cases than most of the causes heretofore cited; but, on the other hand, the cases to which it does apply are likely to be of more than usual importance, as will appear from the fact of an office being maintained separately from the factory.

6th. All the foregoing reasons for the omission in fact from the census of establishments of productive industry which, by the census law, are subject to enumeration, apply in general to large as much as to small establishments. But the last reason which remains to be adduced, while it accounts for a larger aggregate loss from the total of manufacturing industry than any of the others, or all of them united, concerns only establishments of the smallest kind. The liability to omission, now to be noted, arises from the unfortunate exception in the census law, of all establishments not producing to the value of \$500 annually. As a matter of fact, as before remarked, few artisans working at their trade in these days fail to reach that limit of production; yet, this setting up of such a limit amounts almost to an invitation to the proprietors of establishments producing anywhere in the neighborhood of \$500 to escape enumeration through this form of exemption. Whenever the proprietor of such an establishment prefers for any reason not to return his business, or the assistant marshal reckons the trouble of a visit, perhaps of a journey as well as of a visit, at something higher than the 15 cents which the law allows him for the service, this unfortunate provision is made the excuse.

The experience of the census in 1860 and in 1870, with the production of four common and important mechanical trades, will give an idea of the scope of the omissions resulting from this cause. A comparison of the Tables of Manufactures with those of occupations for 1860, exhibits the fact that, of 51,695 painters, the production of only 913 is accounted for among the "products of industry;" of 242,958 carpenters, only 9,006 appear in the tables of manufactures; of 112,357 blacksmiths, only 15,720; and of 43,624 coopers, only 13,750; that is, of the first-named industry only 1.8 per cent. of the artisans contribute to the reported production of their craft; of the second, 3.7 per cent.; of the third, 14 per cent.; of the fourth, 32 per cent.; or, to aggregate these figures, out of 450,634 artisans of the most efficient and best-paid classes, only 39,389, or 9 per cent., are accounted for in the Statistics of Manufactures. Had the 411,245 artisans not returned produced as much, man for man, as those of the same trades who were embraced in the tables of production, the gross products of industry would, by the full representation of these four trades alone, have been increased \$475,755,951, or a little over 25 per cent. of what was actually reported; while the net production, deducting, that is, the cost of materials consumed, would have been increased in a still higher ratio, namely, by \$284,229,445, upon a total of \$854,256,584, or, as closely as possible, 33½ per cent.

Now, it is true that where there is an exact correspondence between the titles in the Statistics of Manufactures and those in the Tables of Occupations, the number in the former should always be less than those in the latter, by reason of many artisans being sick, out of employment, or for some other cause not included in the return of any establishment. This reasonable excess of the number in the Occupation tables has elsewhere been indicated as ranging from 6 to 16 per cent., according to the character and conditions of the different industries recognized. It is also true that a considerable part of this aggregate omission arises from the fact that the census law provides for the enumeration of productive industry only as it is found in distinct "establishments," thus omitting from account that large body of labor, skilled and unskilled, which is not so attached. But, after making all possible allowance for these considerations, it still remains true that a number of shops equaling, possibly exceeding, the whole number actually returned,* were omitted from the census of industry as presumably below the limit of production (\$500) fixed by the census law. When it is remembered that the value of materials as well as the cost of labor is embraced in the value of the products returned, it will scarcely be accepted that so many as one-half of the individual artisans thus excluded really failed, even at the prices of 1860, to produce to the value of \$500 a year.

The omissions at the census of 1870 have not been quite so wholesale. Of 344,596 carpenters, 67,864 are accounted for in the tables of manufactures; of 141,774 blacksmiths, 52,982; of 85,123 painters, 10,964; and of 41,789 coopers, 23,314. Allowing for a mean excess of 11 per cent. in the Tables of Occupations over the Tables of Manufactures, we should have the production of 269,267 carpenters, 72,964 blacksmiths, 72,953 painters, and 15,911 coopers unaccounted for.

The more general return of the production of these trades in 1870 is due, firstly, to a general advance in prices,

* The number of establishments embraced in the Tables of Manufactures for 1860 was 140,433; of these 5,000 were never returned to the Census Office, but were estimated for. Number actually returned, 135,433. It has already been shown that out of four trades only, 411,245 artisans were omitted from the Tables of Production. Allowing, with extreme liberality, for the effect of the two other causes recognized above, the assertion in the text will still be within bounds.

both of materials and labor, between 1860 and 1870, bringing many shops incontestably above the \$500 minimum limit; and, secondly, to stringent instructions to assistant marshals respecting establishments of this class. No efforts, however, will ever avail to secure the complete return of the production of these trades so long as this most unnecessary exception remains in the census law.

EFFORTS TO SUPPLY OMISSIONS IN RETURNS.

The power of the Census Office to discover and correct the errors in the Manufacturing Statistics arising from the liabilities to omission which have been indicated, is mainly confined to industries the operations of which are habitually carried on in large establishments, and in only such of these as, through trade organizations, or through trade publications, afford the means to the Census Office for testing the completeness of its returns without an actual re-canvass of the entire field for the purpose. To attempt to supply the omissions existing in the returns of the blacksmithing, carpentering, and coopering trades, or in a score of others, where industries are carried on in hundreds or thousands of small shops, scattered all over the face of the country, is not to be thought of. There are industries, however, in respect to which, though at great and almost undue trouble, the Census Office can reasonably satisfy itself of the degree of completeness attained in the returns of assistant marshals, and, even in an important measure, supply the deficiencies found to exist. Such are the cotton, the woolen, and the iron manufacturing interests, each of which maintains an association of proprietors of establishments, with more or less of central organization and of periodical correspondence. Such, in a less degree, are the boot and shoe, and the leather manufacturing interests.

Each of the industries named is carried on in from one thousand to twenty thousand establishments. There are a large number of other distinct industries which comprise from five to five hundred establishments each, in respect to the most of which it is practicable by extensive correspondence with leading manufacturers in each line, and with merchants dealing in goods of that general class, to obtain pretty complete lists of manufacturers, and, by a careful comparison, to detect omissions that may have occurred from any or all of the causes heretofore enumerated. There are others in respect to which, from the desultory way in which the industries are carried on, from the absence of organization within the trade, and even of mutual acquaintance among manufacturers, or from the want of a disposition on the part of those to whom the Census Office was obliged to appeal for assistance in this work, it has been found impossible to secure any adequate check upon the returns of assistant marshals; and the statistics are given, therefore, pretty much according to the original returns, without any means of verifying their completeness or accuracy.

Whenever it has been found practicable, through any or all the agencies indicated, to supply the omissions of the manufacturing returns, it has been done without regard to the amount of labor thereby devolved on the Census Office. Thousands of establishments have been added to the lists as the result of such inquiries. Whenever the manufacturing returns of any town or city have been found to be too grossly defective to be corrected by correspondence, a re-enumeration has been ordered, often with important results. The Census Office received valuable assistance in thus discovering and locating the omissions of the census in the woolen, cotton, paper, boot and shoe, leather and iron interests, from Messrs. R. W. Raymond, George William Bond, John L. Hayes, B. F. Nourse, C. O. Chapin, L. Blodget, Edward P. Bond, and Anton Eilers, gentlemen widely and honorably known for their connection with the practical or scientific parts of manufacturing industry in the United States; and, in respect to lesser branches of manufacture, or to the industry of individual localities, from a large number of gentlemen to whom the office has, from time to time, rendered acknowledgment.

The result of all these efforts has been to secure a degree of completeness, as proved by many and thorough tests, in the Manufacturing Statistics of the census, which surprises, as much as it gratifies, the Superintendent. Appreciating painfully the inadequacy of the machinery provided by law for this purpose, the Superintendent had anticipated being compelled, in candor and honesty, to make much larger admissions of error than, upon a careful review of the completed work, appears necessary. Whatever deficiencies local knowledge may detect in the following, will, it is believed, be amply excused, upon the explanations herein offered of the liability to omission on the part of assistant marshals, and the difficulty of applying a remedy at the Census Office.*

* The Superintendent desires to refer particularly to the note at the close of the present body of remarks, where will be found some very significant statements respecting the accuracy of the Manufacturing Statistics of the present census, so far as they relate to certain specific industries.

ACTUAL LOSS FROM THE TABLES OF MANUFACTURING PRODUCTION.

It has previously been admitted, in the course of these remarks, that omissions, in some trades very considerable, in some even portentous in extent, occur in the enumeration of the productive industry of the country, such omissions being due in some small measure to the liability to error which besets all statistical work conducted on a scale of any magnitude, but by far the larger portion being directly chargeable to the ill-advised provisions of the census act of 1850. The extent of these omissions in the most prominent instances, which happen also to be the instances where analysis is most easily and surely effected, has been previously shown. It is now proposed to inquire what is the aggregate amount of loss to the manufacturing production of the country through the failure of assistant marshals to reach all the establishments of productive industry lawfully and properly cognizable in the census. It must not be forgotten in this discussion that, while some trades, from peculiarities of industrial condition, are greatly understated in the census returns, the great majority of industries are known to be reported with substantial accuracy; while, in respect to a considerable number of industries, and those among the largest and most important, it can be demonstrated that the results reached by the census are of singular completeness and accuracy.

No attempt will be made to treat with anything approaching nicety of calculation the question, what is the aggregate amount of loss from the production of the country, through the omissions in the whole body of industries taken in the census. The conditions of the material do not allow of nice treatment, and it would be affectation to attempt fine distinctions or precise computations in dealing with the subject.

At once the most natural and most satisfactory means of testing the tables of manufactures is through the Tables of Occupations, when properly used and interpreted. Referring to the latter, we find the total number of persons engaged in manufacturing, mechanical, and mining industries, to be 2,707,421. From this number must be deducted 196,747, on account of persons engaged in mining, oil-boring, ice-cutting, quarrying, and fishing, (industries not represented in the Tables of Manufactures,) leaving 2,510,674 as the aggregate number with which comparison is to be made.

The tables of manufacturing industry account for the production of 2,053,996.

Increasing this number by 11 per cent., (the ratio used in the remarks prefacing the Tables of Occupations, as affording a fair general statement of the difference between a maximum and an average return of persons engaged in all branches of industry taken together,) we should have 2,279,936 persons accounted for by the Tables of Manufactures, against 2,510,674 by the Tables of Occupations. But a considerable further addition must be made on account of proprietors of establishments not working with their hands, and also on account of officials, clerks, and other persons connected with manufacturing industry in such a way as to be included under that head in the Tables of Occupations, but, by courtesy, not returned upon the schedule of manufactures as "Hands employed." The addition on this account cannot be reckoned at less than 75,000.* This would leave about 155,000 persons appearing under the general title of manufactures on the Occupation Tables, unaccounted for by the tables of productive industry. But the real loss is greater than this. Up to the present point in this discussion, the Tables of Occupations have been assumed to be authentic, and to present the true standard by which to criticise the Statistics of Manufactures; and, in respect to the adult male labor of the country, they are substantially complete and exact. But, in respect to the number of women and children employed in manufacturing industry, particularly in large mills and factories, the return of occupations is, for reasons to which attention was called in the remarks prefacing the Occupation Tables, decidedly deficient.† Thus, the latter tables show but 328,234 females, of sixteen years and upward, and but 70,735 children and youth, engaged in manufacturing industry: mining, quarrying, oil-boring, ice-cutting, and fishing being excluded, as is due. The Tables of Manufactures,‡ however, account for 323,770 females, of fifteen and upward, and 114,628 children and youth, employed in establishments of productive industry. Inceas-

* The number of persons reporting themselves as "manufacturers" is 42,877. The addition of the other classes indicated would easily carry the total up to 75,000.

† The reasons why the Occupation Tables may be taken as substantially exact as they respect the adult male labor of the country, but not as they respect the employment of women and children, are plain and simple. It is taken for granted that every man has an occupation, and the examination of tens of thousands of pages of the schedules returned in the present census has satisfied the Superintendent that only in rare cases, too inconsiderable to be taken into account in such a discussion, have assistant marshals failed to ask and obtain the occupation of men, or boys old enough to work with effect. It is precisely the other way with women and young children. The assumption is, as the fact generally is, that they are not engaged in remunerative employments. Those who are so engaged constitute the exception, and it follows, from a plain principle of human nature, that assistant marshals will not unfrequently forget or neglect to ask the question.

‡ At this point there fails to be an exact correspondence between the two classes of tables in one particular. The number of males appears in each table according to the same divisions of age. The females, however, are divided on the one table as under and over fifteen years, respectively, and, on the other, as under and over sixteen years. The difference caused hereby is small, and it has not been thought best to take it into account in the remarks following.

ing these numbers by 11 per cent., as in similar cases heretofore, we shall have at the least 359,385 women, and 127,237 children and youth, engaged in manufactures, without reference to the members of these classes who may be engaged in establishments wholly omitted from the census.* Here, then, we have an excess, not in the Tables of Occupations over the Tables of Manufactures, as we have heretofore found, but in the latter over the former. Of course, this makes the deficiency of the Manufacturing Tables, in respect to the adult males engaged in manufactures, just so much greater.

Turning, then, to the figures given for the males above sixteen, engaged in manufactures, we find, practically, all the deficiencies of the manufacturing returns located here. The total number of males above sixteen is given at 1,615,598. Increasing this by 11 per cent., we have 1,793,314, against 2,111,705 of the same class appearing on the Tables of Occupations, (deduction of certain occupations being made as heretofore,) leaving a difference in round numbers of 318,000. From this should be deducted 75,000 (as previously explained) on account of manufacturers, officials, clerks, &c., not working with their hands, and to the remainder should be added something like 25 per cent. of the total number of persons reported in the Tables of Occupations as "laborers," without further specification, and therefore placed under the title of "Personal and professional services."†

This last would involve a clear addition of 257,000, making the total sum of persons fairly to be charged to the department of manufactures, yet not accounted for in the tables of production, in excess of 500,000. Of this number it has been shown that 430,000 are from the four trades of blacksmith, carpenter, cooper, and painter.

The remaining seventy to seventy-five thousand are distributed in very unequal proportions among the other trades, which are carried on in small shops, and also among the larger industries, of which individual establishments have been overlooked in the enumeration.

PROBABLE EXTENT OF LOSS.

On the basis of the foregoing computations and estimates, as to the number of artisans omitted from the tables of industry, the loss to the total value of production may be rudely calculated as follows:

First. If the 431,095 artisans belonging to the four trades of blacksmith, carpenter, cooper, and painter, who, according to previous estimates, were omitted from the tables of production, had produced three-fourths as much, ‡ man for man, as the members of the same trades who are embraced in the tables, the addition to the gross product of the country, by their due return in the census, would have been \$502,188,330, and the addition to the net product, \$268,867,977.

Second. Assuming the aggregate number of persons of all other mechanical trades omitted from the tables of production to be 75,000, and assuming, further, that their average contribution to the gross and to the net product, respectively, of the country, was equal to three-fourths of that of the members of the fourth (mechanical and manufacturing) class, as the same is characterized on page 380 following, we should have a further addition to the gross product of the country of \$104,576,898, and to the net product of \$45,366,177, raising thus the gross product of manufacturing industry in the United States for the year ended May 31, 1870, to \$4,839,090,670, and the net product to \$2,058,132,354.

Enormous as these results appear, the Superintendent believes that they do not exaggerate the production of the United States, within the scope of the manufacturing schedule made a part of the act of 1850. Did that act provide agencies adequate to the thorough canvass of the manufacturing industry of the country, it is probable that the census of 1870 would have shown a gross product, exclusive of the mining and fishing industries, closely approaching \$5,000,000,000.

In reference to all the foregoing statements of net production, it should, perhaps, be said that the results were obtained by deducting from the value of the gross product the value of the materials consumed. The difference is, therefore, not made up solely of the profits of manufacture, but includes also the items of wages, rent, freights, interest on capital, and such general expenses as are not properly to be included under the head of materials and supplies.

* The number of these is not very considerable. The industries which suffer the main omissions of the census are those which do not largely employ women and children.

† Road-building, the construction of railways, the excavation of canals, the digging of cellars, and the grading of grounds, none of which branches of industrial activity are reported in the census of industry, as taken in the United States, absorb the greater part. Agriculture, in its season, engages many who are yet not so steadily employed as to be known as agricultural laborers. Trade, especially in the neighborhood of commercial centers, and along lines of land and water transportation, requires the services of large numbers of this class. Twenty-five per cent. is probably high enough to include all those who are engaged in manufacturing industry.

‡ It is probable that the artisans omitted were, as a body, assisted somewhat less by steam and water power, worked at a lower rate of wages, and used, as a rule, somewhat less expensive materials than the artisans who are reported, the latter being, to a considerable extent, employed in large establishments, and these situated in cities and important towns.

THE PERIOD COVERED BY THE RETURNS.

It needs to be borne carefully in mind, in the use of the following tables, that the period covered by the returns is the twelve months from June 1, 1869, to May 31, 1870, inclusive. The fluctuations of productive industry are so incessant and so extensive, that it is necessary to fix precisely the period covered by any statement before tests can be applied to ascertain its completeness and accuracy. Especially in the United States, where these fluctuations are far greater than in older manufacturing countries, is it essential to observe this caution. It often happens that the comparison of two twelve-months periods having so many as ten or eleven months in common, will exhibit important differences caused by the eleventh or twelfth month, or both.

Thus, the months of July and August, 1869, witnessed a general dullness in the cotton manufacture of this country, while the same months of 1870 witnessed an increase of production over the average of the months preceding. It follows that the statements of the Cotton Manufacturers' Association, which, from the voluntary character of the service, might be expected to fall somewhat short of compassing the entire field of the industry, exhibit a consumption of raw cotton to the amount of 411,000,000 of pounds for the year covered by the returns of the association, being from September 1, 1869, to August 31, 1870; while the returns of the census, covering the period from June 1, 1869, to May 31, 1870, show a consumption of only 398,000,000, or 3.1 per cent. less than the amount shown by the former returns. Allowing for the few establishments not returning their product to the Cotton Manufacturers' Association, the actual difference of consumption caused by substituting certain months of 1869 for the corresponding months of 1870, was probably not less than 5 per cent.

The same explanation needs to be borne in mind, in criticising the statements in the following tables relative to certain important industries, which have grown with astonishing rapidity during the two or three years preceding the present date of writing, (October, 1872,) notably the manufactures of silk, flax, and of hemp goods, of railroad iron, and of Bessemer steel. One familiar with the present proportions of these branches of manufactures will, at the first glance, receive an unfavorable impression of the census statistics, from the report therein made of the production of these industries. Yet, if he will distinguish the period for which the returns of the census are made, and carry his recollection carefully back to the beginning and the ending of that period, he will probably assent to the general correctness of the statements in question. Of course, with the great majority of industries, the fluctuations from month to month are not so extensive, nor is the total growth of six months so rapid, as to make this caution of very great importance.

INCREASE IN MANUFACTURING PRODUCTION FOR 1860 AND 1870.

The gross value of the total product of manufacturing industry in the United States, at the census of 1860, was published at \$1,885,861,676; the gross value of the total product of 1870 is here published at \$4,232,325,442. Before, however, comparison can be made to determine how much of this apparent gain of \$2,346,463,766 is due to the actual increase in manufacturing production, and how much to the mere enhancement of prices through the depreciation of the legal currency of the country, care must be taken to reduce the two statements as nearly as possible to the same form. Each statement, as published, includes elements that are not embraced in the other. Full account must be had of all such differences in scope.

The Manufacturing Tables of 1870, as has been previously noticed, exclude the industries of clover-hulling, cotton-ginning, cotton-picking and cleaning, grain-thrashing, ice-cutting, rectifying of liquors, and rice-cleaning. The total value of production under these heads, in the census of 1860, was \$10,847,441. The value returned in 1870 was \$65,753,323. The tables for 1870 also exclude all mining and quarrying industries. The total value of production reported under these several heads in 1870, was \$152,598,994. This exclusion of mining industry from the production of 1870 is, however, in part compensated by the separation effected in the present publication between the mining and the milling of ores, and the inclusion of the milling part in the Tables of Manufactures. As this separation was not effected in 1860, it is impossible to say how much the gross product of that year was increased by the strictly mining part of these compound industries. Instead, therefore, of making a deduction from the product of 1860, as would be most natural, we add to the product of 1870 an amount equal to the aggregate product of all the branches of pure mining industry, *i. e.*, those like coal-mining, placer-gold mining, &c., in which no reduction of ores is necessary, and consequently the value of the ores is not repeated in the product of reduction-works. The value of stone, slate, and marble quarried must also be included. The aggregate amount added on these accounts is \$93,876,683.

Again, the tables of 1870 include the product of butchering establishments, wherever butchering is carried on, not as an incident to merchant business, (as when a butcher, having a stall in a city market, or a small country

market of his own, kills for his own sales,) but as a separate industry, employing one or more hands habitually for the entire working-day. This element did not appear in the tables of 1860. The addition on this account to the production of 1870 is \$13,686,061.

Allowance must also be made for the different treatment of one other industry, viz, cloth-printing, in the present publication, from that adopted at the Eighth Census. At 1860, the value of the cloth printed would appear not to have been embraced, either in the value of materials or in the value of product; but, in the former, only the value of mill-supplies, coloring-matter, &c., and, in the latter, the value added to the goods by printing. At the present census, it has been thought best to include the value of the cloth in the statement both of materials and of product. By this means the net value created by the industry is as closely obtained as by the other method, while just so much additional information is given. Indeed, there seems to be no reason for making this one industry an exception to the entire list of kindred industries in this particular. The fact that the value of materials here becomes unusually great, as compared with the value to be added by the processes of printing, certainly constitutes no difference in principle as between this industry and any other. If the subject-matter of the industrial process is to be included in the account, when it amounts to three-fourths of the value of the ultimate product, there seems to be no good reason for excluding it, because it reaches five-sixths of that value.

The addition caused to the aggregate value of manufacturing production, by the different treatment of this industry in the compilations of the Ninth Census, is \$37,587,517.

Still further allowance must be made on account of the fuller return of the production of certain minor trades which have been repeatedly mentioned in the course of these remarks—blacksmithing, carpentering, coopering, painting, plumbing, plastering. These trades have not increased in the ten years in any such ratio as would appear by comparison of the number of establishments, or the number of hands employed at the two censuses. They have probably not increased in a ratio exceeding the ratio of increase in population, viz, 22½ per cent. If 30 per cent. be allowed, it will be all that could reasonably be claimed.

The difference between these industries, as returned in 1860, after being increased in this ratio, and the same as returned in 1870, is due to a more general and thorough return of these branches of mechanical industry, from causes previously noted, and not to the manufacturing growth of the country. In order, therefore, to a just comparison between 1860 and 1870, allowance must be made to the extent of this difference in favor of 1860, or, more properly, a deduction to that extent made from the aggregate product of 1870. The two censuses will then be on an equal footing in this particular.

Still another element remains to be treated before the results of the two censuses can be placed justly in comparison, to determine the increase in the value of production. Have any administrative measures special to the Ninth Census tended to increase the return of production, irrespective of any corresponding actual increase in production?

Allusion has heretofore been made in these remarks to special efforts, both through an extensive correspondence and through the re-enumeration of certain towns and cities, to supply the deficiencies existing in the returns of manufacturing industry, first rendered to the Census Office. Without asserting or assuming that no measures of the first kind were undertaken at the Eighth Census, the Superintendent is fully convinced that the extent to which these efforts have been carried at the Ninth Census has resulted in an addition to the gross product of the country vastly in excess of the amount so added in 1860. The re-enumerations of manufacturing industry in Philadelphia, Saint Louis, Chicago, and Indianapolis, alone, increased the gross product of these cities by \$200,000,000. In addition to these, and other cities and towns, which were either wholly or partially re-enumerated in the interest of the Statistics of Manufactures, many important industries were canvassed throughout the whole extent of country covered by them, and many millions added by that means. The Superintendent cannot estimate the increase from these causes (exclusive now of the more general return of the minor trades previously taken into account) at less than 6 per cent. of the gross product, say, in round numbers, \$250,000,000.

Upon the basis of the foregoing computations and estimates, the true statement of account as between the manufacturing product of 1860 and that of 1870 is exhibited in the following table:

Total production of the United States, 1870, as reported.....		\$4, 232, 325, 442
Add on account of cotton-ginning, &c.....	\$65, 753, 323	
Mining, pure.....	82, 016, 061	
Quarrying.....	11, 860, 622	
Fisheries.....	11, 096, 522	
		<hr/>
		170, 726, 528
		<hr/>
		4, 403, 051, 970

Deduct on account of butchering.....	\$13,686,061	
Value of cloth printed.....	36,833,007	
Increase in reported production of carpenters, coopers, &c.....	177,569,242	
Increase due to special administrative measures.....	250,000,000	
		478,093,310
		<hr/> 3,924,958,660
Total production of the United States, 1860, as published.....		1,885,861,676
		<hr/> <hr/> 2,039,096,984

Increase, per cent., 108, (exactly 108.12.)

It will be observed that the results reached do not purport to exhibit the true value of the manufacturing production of the country either at 1860 or at 1870, but merely to exhibit the statements of the two censuses, reduced to equal terms, as respects the inclusion or exclusion of certain industries, the administrative treatment of other industries common to both, and even the degree of error believed to exist in each. The object has been simply to obtain a fair and probable statement of the ratio of increase, *ceteris paribus*, from 1860 to 1870, prior to the consideration of the question what portion of that increase is due to enhancement of prices, and what to actual industrial growth. The ratio thus arrived at the Superintendent believes to be approximately correct; that is, if the reported gross product, \$1,885,861,676, at 1860, had been correct, (as it manifestly was not,) about 3,925 millions of dollars would have been the true expression for the gross product of 1870. On the other hand, were the reported gross product of 1870, \$4,232,325,442, correct, (and it is manifestly below the facts of the case,) about 2,030 millions of dollars would have been a just statement of the product of 1860. If, again, the product of 1870 were to be increased (as it clearly ought) by a sum exceeding \$600,000,000* on account of the omissions and deficiencies which have been previously noted, the product of 1860 would stand at about 2,325 millions of dollars, while the product of 1870 reached \$4,839,090,670.

The Manufacturing Statistics of the Eighth and the Ninth Censuses having thus been reduced to equal terms, there would appear to have been realized in the ten years intervening an increase in the value of the product to the extent of 108 per cent.

The question now arising is: How much of this increase is due to the general increase of prices; how much to actual increase of production? In computing the increase in the reported value of the manufacturing production of the country, due solely to an enhancement of prices, through currency inflation or other general causes, consideration requires to be had, not only of the separate ratio of increase in prices within each important industry and group of industries, but also of the amount produced under each such increased ratio, in order that a true average may be obtained.

After much thought and extensive inquiry on the subject, and the application of numerous tests, the Superintendent is disposed to regard 56 per cent. as a just statement of the increase in price for all classes of mechanical and manufacturing productions between 1860 and 1870; that is, that manufactured articles of the same quality, (averaging all branches of production,) which would have been \$1,000,000,000 in 1860, would have been worth \$1,560,000,000 in 1870. This would leave the increase of manufacturing production in the ten years to be represented by 52 per cent.

RELATION OF MATERIALS TO PRODUCT.

The relation of materials to product, in the Statistics of Industry, needs to be carefully borne in mind; otherwise the most mistaken views of the importance of the several branches of industry will result.

The manufacturing, mechanical, mining, and fishing industries may be grouped in respect of the value of materials into five classes:

First. Those industries in which the subject-matter of labor is taken as of no value, and the value of the "materials" reported is made up of the mechanical and chemical appliances with which that subject-matter is treated. This is true of pretty much the entire body of mining and fishing industries. The ores in the rock or in the soil, the fish in the sea, are taken, and properly so, as of no value for the purposes of these statistics. The royalty paid to the owner of the mine in the one case, the license taken out by the fisherman in the other, are not included in the value of materials. In some cases the appliances, chemical or mechanical, are of the simplest kind, and are consumed in very small quantities; in others, they become very extensive and costly; but, through all this

* \$606,765,228.

class, it remains true, as a rule, that it is labor, and the risk and use of capital, which make up the chief cost of production.

Second. Those industries in which the subject-matter is of a distinct and immediate commercial value, but the property does not reside in the person who treats it. In these cases, still, the value of the subject-matter treated is not embraced in the return of materials. A familiar illustration is that of horse-shoeing. It would be the height of absurdity for the smith, for example, to return the value of unshod horses among his "materials," and the value of the same, when shod, in his product. The census assigns as the materials of his industry, merely the coal, iron, steel, &c., used, and, as the value of his product, merely the price of the personal service he renders, plus the cost of those materials. In the same category are many of the trades. The returns in respect to the industries of painting, plastering, and plumbing, for example, do not take into account the value of the houses, stores, factories, &c., before and after these operations, but regard only the added value given as the product, and, in the same way, only the paints, the plaster and lime, the tubing, iron, and brass-ware, &c., used, as the "materials" of these industries.

Third. Those industries in which the entire value of the subject-matter is carried into the value of "materials," and appears again in the product enhanced by the value of labor, by the charges for the use of capital, for rent, freight, &c.; but in which the value of such subject-matter is small, compared to the cost of labor. The cabinet-maker takes a few dollars' worth of woods, coarse or fine, and works this material up into articles bearing ten times the value. The cutler takes a few pounds of steel, and produces edged or pointed instruments of high cost, because of the time and skill required in their fabrication. In all these cases the value of the product is not greatly enhanced by the fact that the entire subject-matter of the industry is included.

Fourth. Industries which are otherwise under the same conditions as those of the third class, but in which the value of the materials approaches, or even moderately exceeds, the value of the labor employed, and becomes thus an important element in the final value of the product as reported, enhancing the apparent production of the industry in a high degree. Here come in the great body of the industries known technically as the "manufactures" of the country, the mill and factory industries, whose productions appear oftentimes enormous, as compared with those of bodies of craftsmen more skilled, and receiving higher wages, and do so merely because of the high cost of the materials consumed in the former case.

Fifth. Industries in which the value of the materials far exceeds all the other elements in the cost of production combined, and thus carries up the apparent product of these industries to a very high point, although, in fact, comparatively little value has been added by these operations, and only a small number of artisans or laborers supported.

The reduction of gold and silver, calico-printing, bleaching and dyeing, the currying of leather, the packing of meat, the refining of sugar and molasses, and the production of flour and meal, are among the most important industries of this class.

The distribution of the industries embraced in Table VIII (B,) as nearly as possible, according to the classification just indicated,* yields the following instructive results:

Relation of Wages and Materials to Product in Manufacturing, Mechanical, Mining, and Fishing industry.

CLASS.	Number of hands.	Amount of wages.	Amount of materials.	Amount of product.	Excess of product over materials.	Excess of product over wages and materials.	Dollars of wages in \$100 of product.	Dollars of materials in \$100 of product.	Dollars of wages and materials in \$100 of product.	Product per capita, gross.	Product per capita, deducting materials.
I	100,691	\$73,438,952	\$14,418,908	\$143,136,692	\$128,717,784	\$55,278,832	\$51.30	\$10.07	\$61.37	\$243.51	\$753.54
II	110,504	35,080,883	67,850,482	154,692,177	86,841,695	51,151,812	23.07	43.86	66.93	1,400.00	785.87
III	388,924	167,118,533	183,543,034	535,467,704	351,944,670	184,836,137	31.20	34.28	65.48	1,376.84	904.92
IV	1,453,056	541,078,362	1,529,537,058	2,701,440,948	1,171,903,890	630,825,528	20.29	56.62	76.91	1,859.10	806.51
V	101,504	31,734,815	707,361,378	841,005,063	133,643,685	101,908,870	3.77	84.10	87.87	8,285.44	1,316.64
	2,223,679	849,060,545	2,502,710,860	4,375,762,584	1,873,051,724	1,023,991,179	19.40	57.19	76.59	1,967.80	842.32

* Two common trades, each of which belongs partly to the second and partly to some other class, were divided for this purpose, in such proportions as seemed due. All the other industries in Table VIII (B,) were assigned entire to one class or another, according to the principles indicated in the text. The lines of division taken for the third, fourth, and fifth classes were, 1st, where the value of the materials is less than two-fifths of that of the ultimate product; 2d, where the value of the materials is from two-fifths to four-fifths of that of the ultimate product; and, 3d, where the value of the materials is over four-fifths of that of the ultimate product.

Examination of this table shows that the first class of industries, with a reported gross product of \$143,000,000, yields a net product only \$5,000,000 less than that of the fifth class, which has a gross product of \$841,000,000, while the wages paid in the first class exceed those paid in the fifth by 131 per cent. Nothing, perhaps, could set in a stronger light the necessity of considering all statements of manufacturing production in connection with the value of materials consumed and the cost of labor. Here are two groups of industries, the one reaching the gigantic total of \$841,000,000, the other aggregating but one-sixth as much; yet, the latter makes a clear addition to the wealth of the country equal to 96 per cent. of the net production of the former, and actually pays more than twice as much in wages.

The calculations which have been added to show the number of dollars' worth of wages and of materials, separately and combined, in each hundred dollars of product, and also the average value of production, gross and net, to each hand employed, are well worth studying.

It appears that the value of the materials consumed in the several groups of industries range from \$10.07 to \$84.10 in each \$100 of product; that the amount of wages ranges (going, so to speak, in the opposite direction) from \$51.30 to \$3.77 in each \$100 of product, while the gross product per capita ranges from \$843.51 to \$8,285.44, and the net product ranges from \$758.54 to \$1,316.64. The reason for these astonishing differences is not found chiefly in any difference in the quality of labor, or in the more extensive application of machinery in one class than in another, but, almost wholly, in the treatment of this subject of the materials consumed in the successive industries and classes of industries.

THE RELATION OF WAGES TO PRODUCT.

In reference to certain of the common trades, it needs to be stated, in explanation, that the apparently inadequate amount of wages reported is due to the fact that a very large body of labor is included which is not represented in the wages column. Thus, the statistics of carpentering show that, for a total production of \$132,901,432, (the value of materials being \$65,943,115,) the amount of wages paid was only \$29,169,588. The consideration above noted is sufficient to account for the seeming deficiency, inasmuch as the labor of proprietors of establishments in this line (certainly not less than 17,142, and probably rising to twenty thousand) was compensated, not out of the wages paid, but out of the profits of the business. In some branches of industry the number of "hired hands" is even less than the number of artisans working in their own shops, and, hence, receiving no wages, but living off the profits of manufacture.

CAPITAL INVESTED IN MANUFACTURES.

The census returns of capital invested in manufactures are entirely untrustworthy and delusive. The inquiry is one of which it is not too much to say, that it ought never to be embraced in the schedules of the census; not merely for the reason that the results are, and must remain, wholly worthless, the inquiry occupying upon the schedules the place of some technical question which might be made to yield information of great value, but, also, because the inquiry in respect to capital creates more prejudice and arouses more opposition to the progress of the enumeration than all the other inquiries of the manufacturing schedule united. It is, in fact, the one question which manufacturers resent as needlessly obtrusive, while, at the same time, it is perhaps the one question in respect to their business which manufacturers, certainly the majority of them, could not answer to their own satisfaction, even if disposed. No man in business knows what he is worth—far less can say what portion of his estate is to be treated as capital. With respect, indeed, to corporations having a determinate capital stock, the difficulty of making a correct return in this particular becomes very much reduced; yet, even here, the difference caused by returning such capital stock at its nominal value on the one hand, or at its actual selling-price on the other, whether above or below par, might easily make a difference of 50 or 75 per cent. in the aggregate amount of capital stated for any branch of industry.

Where, however, business is carried on outside of incorporated companies, the difficulty of obtaining even an approximate return of capital, resulting from the nature of the inquiry itself, irrespective of the reluctance of manufacturers, becomes such as to render success hopeless. So numerous are the constructions, possible and even reasonable, in respect to what constitutes manufacturing capital, that anything like harmony or consistency of treatment is not to be expected of a large body of officials pursuing their work independently of each other. The Superintendent is free to confess that he would be puzzled to furnish a definition (fit for practical use by enumerators) of manufacturing capital, or, even in a single case, with complete access to the books of a manufacturing establishment conducted by two or more partners, and with the frankest exhibit of the assets, both of the firm and of the individuals thereof, to make up a statement of the capital of the concern, in respect to which he would feel any

assurance. When to such difficulties in the nature of the subject is added the reluctance of manufacturers to answer an inquiry of this character, it may fairly be assumed, in advance of any enumerations, that the results will be of the slightest possible value.

It is greatly to be regretted that the census should be incumbered by an inquiry yielding so little, yet provoking so much opposition to the progress of the general work.

The aggregate amount of capital invested in manufactures in the United States, as by the following tables, is \$2,118,208,769. It is doubtful whether this sum represents one-fourth of the capital actually contributing to the annual gross product of \$4,232,325,442.

It is a pity, and may almost be said to be a shame, that statistical information, in many respects, of high authority and accuracy, should be discredited by association with statements so flagrantly false, even to the least critical eye; yet, as the manufacturing schedule annexed to the act of 1850 requires this return, and as there is a vague popular notion that the statement of capital in this connection is of real and great importance, (instead of being, as it is, at the best, of the least consequence,) the Superintendent does not feel at liberty to withhold the results from publication; but he feels not only authorized but required by the facts of the case to brand them as he has here done, in order that no one may be deceived by the show of authority they present.

ESTABLISHMENTS CARRYING ON TWO OR MORE DISTINCT INDUSTRIES.

One of the first difficulties encountered in the compilation of Industrial Statistics is found in the fact, that in the same establishment are frequently carried on two or more industrial processes which are distinct in idea, and, in general practice, are separately pursued. At once the most familiar and the most important of the industries thus sometimes separated, and, in other cases, united under one management, are the tanning and the currying of leather. Each of these is a distinct and complete industry, and the members of each, whether employers or workmen, have important occasion to use the statistics, separate and entire, of their trade. Yet the two are, in hundreds of cases within the United States, carried on upon the same capital, under a single management, and without a separate account being kept of the expense or the profits of each part of the joint industry. In such cases the value of the materials consumed, as returned in the census, includes the value of the untanned hides, while the cost of the product embraces the selling-price of the curried leather.

In the embarrassment caused by this state of things, three modes of procedure are possible:

First. To report separately the number of establishments tanning leather, the number of establishments currying leather, and the number of establishments both tanning and currying leather.

Second. To aggregate all the three classes of establishments indicated above, and publish the gross number of establishments carrying on the manufacture of leather. This was the method pursued in the publication of the Statistics of Manufacturing Industry at the Eighth Census, 1860.

Third. To effect a separation, exact and by transcript, from actual accounts when possible, arbitrary and approximate when necessary, between the two kinds of work done in the third class of establishments described; and, after such separation, to add to each of the other classes that which by such analysis is found to belong to it; thus recognizing in the publication only the first two classes of establishments, and publishing each as complete and as distinct.

The objection to the first of these methods is, that it requires every person who has occasion to make use of the statistics of either of these industries to make for himself nice and difficult computations, for which he may have neither time nor technical knowledge.

The objection to the second method is, that it yields a positively false result as to the value, both of the gross and of the net production of the joint industry thus presented. In illustration of this, the statistics of a single county for 1870 will suffice.

From Middlesex County, Massachusetts, there were returned at the Ninth Census three establishments tanning leather; cost of materials, \$247,200; value of product, \$287,400; twenty establishments currying leather; cost of materials, \$1,081,718; value of product, \$1,443,473; and sixteen establishments, doing both tanning and currying; cost of materials, \$2,224,300; value of product, \$3,521,155. According to the method under discussion, which was the method adopted in the publications of the Eighth Census, these three classes of establishments would be added together, yielding the following result: Number of establishments *manufacturing leather*, 39; aggregate cost of materials, \$3,553,218; aggregate value of product, \$5,252,028.

Now, in the statement of the leather industry of Middlesex County, thus obtained, it is evident at a glance that only one element, viz, the number of establishments, is correctly given. The other two, by far the most important, are erroneously stated. Both of the "cost of materials" and of the "value of product," it must be said

that each should be very much less, or else very much greater. If the cost, both of untanned hides and of uncurried leather, and, again, the value both of the hides, when tanned, and of the leather, when curried, are to be included in the one case, the same elements should be included in the other. If excluded in one case, they should be in both.

The actual treatment of these establishments in preparing for the present publication was as follows: The sixteen establishments which were returned as doing both tanning and currying, were divided as sixteen establishments tanning leather and sixteen establishments currying leather; the wages, labor, materials, product, &c., were divided between the two processes, according to formulæ obtained for the purpose from "the trade," and the three classes were thus reduced to two, with the following result: Nineteen establishments tanning leather; cost of materials, \$2,396,350; value of product, \$2,999,541; thirty-six establishments currying leather; cost of materials, \$3,878,026; value of product, \$5,033,028. Total number of establishments engaged in manufacture of leather, fifty-five; aggregate cost of materials, \$6,274,376; aggregate value of product, \$8,032,569.

It will be evident to any one who will consider the reasons above presented, that of the three elements here given, the first is not correctly stated, being exaggerated by the number of establishments doing a complex business; but that the remaining two elements, which are of far greater importance for statistical purposes, are substantially correct, and that they could not be made even approximately correct by any other course of treatment.

The one objection which can be urged against this method, which is the method adopted for the present publication, is, that it exaggerates the number of establishments of productive industry, to the extent of the "separations" thus effected. This objection is fully met by the use of tables of duplications which correct the excess thus occasioned, and reduce the number of establishments of productive industry to the exact facts of the case.

The tables of duplications, by States and Territories, and also by counties of the same, will be found at the end of these remarks.

There are a few cases of duplication not embraced in these tables, where the union of two industrial operations beneath one roof, or under a single management, or by virtue of their common use of steam or water power, is so clearly accidental and arbitrary, that no notice has been taken of the duplication. For example, where a mill is returned as a "grist and saw mill," there has been no hesitation in separating the two parts of the business, and assigning each to its appropriate place in the Statistics of Industries. The fact that the power for the two operations is furnished by the same wheel is not regarded as sufficient to create a community of industrial character, even to the extent of requiring a record of the separations thus effected.

MINING AND THE FISHERIES.

The following tables do not embrace the Statistics of the Mining or the Fishing Industry of the country, both of which, in 1860, were included in the Manufacturing Statistics of the Census, but which, in the present publication, will be found presented in separate and independent tables. The reason for this innovation is three-fold:

First, because these industries are, in theory and in their practical relations, essentially distinct. Indeed, the occupation of the fisherman partakes more of the nature either of commerce or of agriculture than of manufactures.

The occupation of the miner is not so much unlike that of the artisan; yet writers on political economy have been quite generally disposed to hold that, if the occupations of mining and fishing are to be assigned to any one of the three grand divisions of industry which have been indicated, it should be to agriculture, as dealing in the spontaneous products of the earth and the sea, and also as furnishing material, in the earliest forms, for subsequent processes of industry.

Second, for convenience of reference and citation. The Statistics of Mining or Fishing Industry occupy so little space, comparatively, as not to be easily found, upon occasion, in voluminous tables of manufactures.

Third, because the Statistics of Mining and Fishing Industry in the United States, with the present modes of collection, are so distressingly inadequate to the known facts of the case, that their admission to the Tables of Manufacturing Industry amounts to a positive disparagement of the latter. The Statistics of Manufactures have their own faults, as is elsewhere frankly acknowledged, under the present census system of the United States; but they are incomparably more complete and accurate than any Statistics of Mining or Fishing Industry to be obtained by existing machinery. To merge them with matter so defective is, in a degree, to subject them to the same discredit. A separation, therefore, is on all accounts desirable.

In effecting this separation, however, in respect to mining industry, a difficulty is encountered, which, to be sure, ought none the less to be provided against in tables where the two industries appear indiscriminately, but which, in such a publication, is easily covered up, or, indeed, may escape the observation both of reader and compiler.

This difficulty is found in the fact that the mining of ores and the subsequent working of them are frequently and even generally carried on by the same individual, firm, or corporation, and without distinction, upon the returns of the census, as to the amount of capital invested in each, or the division of the aggregate labor of the establishment between the two processes. If, therefore, Mining and Manufacturing Statistics are to be "lumped," it is easy to find a common term for the aggregate figures of the complex industry, and publish them so. But if a separation between mining and manufacturing is to be effected, the part of each in this complex industry must be carried to its credit, and, in order to this, the part of each must be first determined, a task of no slight difficulty.

In preparation for the present publication, the same attempt at resolving clearly diverse elements has been made in respect to the complex industry of mining and reducing ores, whether of gold, of silver, of copper, of lead, or of iron, as was made (and heretofore described) in respect to complex industries like the tanning and currying of leather, or the conduct of furnace and foundry business in a single establishment, where both parts or processes belonged, indisputably, under the one head of manufactures.

In the present case this separation has been effected by much the same method as was pursued in the former, viz, by correspondence with the proprietors of establishments, so far as they were disposed to afford the information, or the Census Office had the clerical force to require it; and, in the remaining cases, by an analysis somewhat arbitrary in form, but conducted according to carefully obtained and approved formulæ, at the Census Office. As a result, the mining and the reducing of ores have been presented each distinct and in its entirety, (subject to the inevitable deductions on account of the incompleteness of the enumeration, as performed by assistant marshals,) the former under the appropriate head of mining industry, the latter as a part of the manufacturing industry of the country.

GOLD AND SILVER PRODUCT.

For an explanation of deficiencies existing in the report of the product of gold and silver reduction works, in the Mining Tables, reference is, for economy of space, made to the remarks in respect to the return of the gold and silver mining industry, to be found among the remarks which preface the General and Special Tables of Mining.

The deficiencies in the *milling* of the precious metals are not as great as in respect to the *mining* of them, inasmuch as the largest loss from the returns is in respect to placer mining, that form of industry being pursued under conditions less favorable than quartz or hydraulic mining to an accurate report in the census. The deficiencies in the statistics of the milling of the precious metals are, however, serious and frankly admitted. The reason for this substantial failure of the census to collect the statistics of the gold and silver product, either in the ore or upon reduction and assay, is explained in the remarks to which reference is made just above.

QUARRYING AND PEAT-CUTTING.

Both the convenience of publication and the reason of the case require that the statistics of stone, slate, and marble quarrying should be grouped with the Statistics of the Mining Industries. There is, indeed, no distinction in fact or in idea which would justify a separate treatment. The cutting of peat also clearly belongs with the mining industries, and the few instances in which it has been returned in the census have been noted in the Mining Tables.

DEFECTS OF THE CENSUS LAW.

The Tables of Manufacturing Industry probably show more clearly than any other conspicuous portion of these volumes the importance of additional legislation in respect to the census. The industry of the United States has now attained to such dimensions, and has come to embrace so diversified and complicated interests, as to require peremptorily a system of statistical investigations substantially new, both as to the scope and the details of inquiry, and as to the methods and agencies of enumeration. Outgrown and ineffective as is the census law of 1850 in almost all particulars, it is nowhere so painfully and almost ludicrously inadequate as in the canvass of the national industry.

Of the total amount paid for the collection of the Statistics of Manufacture in "Schedule 4," more than a fifth was expended for returns relating to carpentering, blacksmithing, coopering, painting, plastering, and plumbing, not one of which industries, though far better returned than ever before, was reported with sufficient completeness even to furnish the data for a computation of the true production of the trade, so that, after this expenditure, one is still obliged to resort to the Tables of Occupations for the material from which to estimate the production of this group of industries. The money thus thrown away would have served, if placed under the control of the Department of the Interior for the salaries of experts and for the traveling expenses of special agents, to make the statistics of the larger industries complete and correct in the highest attainable degree, creditable to the census as a national work,

and invaluable to the statesman, the political economist, and the practical man of business. At the same time, a well-trained statistician can, in a few hours, from the Tables of Occupations, reach a far more satisfactory result in respect to the products of the minor trades than is to be obtained by manipulating the partial returns of the trades themselves. In a word, the returns of manufactures should be restricted to those industries which are carried on in considerable establishments, and are susceptible of a thorough, complete, and detailed enumeration.

Second. The returns of manufactures, having been thus restricted, should be far more specific, and should be made to conform to the advance in the practical arts within the last twenty years and to the requirements of modern statistical science. The additional facts thus to be elicited should not be industrial merely, but such also as are of social and sanitary importance. The Manufacturing Tables of the census ought to be so full of technical information as to become the hand-book of manufacturers, while, at the same time, they might be made so pregnant with truths important to the economist and the statesman as to become a hand-book of social and political philosophy. With no more authority of law than might have been contained in five lines of the statutes, and with not a dollar of expense above what has been incurred in making this unsatisfactory exhibit of the national industries, such an enumeration of the manufactures of the country might have been effected at the Ninth Census.

Third. The enumeration of all the manufacturing industries which are of sufficient importance to be taken at all in the census, should be charged upon special agents or deputies, who should be in the widest sense experts, who should be liberally compensated; who should have ample authority to prosecute the stated inquiries of the census; and each of whom should be assigned to the enumeration of a single specific industry, or of a limited number of cognate industries, over a large extent of territory. To reduce the subjects of inquiry given each such agent, while extending his field of inquiry over entire cities, States, and sections, affords the true means of securing at once closeness of scrutiny and comprehensiveness of survey.

Fourth. The canvass of manufacturing industries should be conducted through means of schedules, special successively to each of the industries to be enumerated. This is demanded, not less for the convenience of the public than in the interest of the census itself, in order to accuracy and economy of enumeration.

At the census of 1860, the return of "kinds and quantities," both of materials and of products, required by the act of 1850, was enforced more or less completely in respect to each one of the 140,433 establishments enumerated;* while, in the case of only 6,336 establishments, (excluding, as in 1870, coal and iron mines,) were the returns of "kinds and quantities" tabulated. At the census of 1870, in the manifest uselessness and, indeed, impracticability of returning the kinds and quantities of materials or products in a form allowing of a systematic tabulation, the instructions to assistant marshals were so drawn as to excuse from this duty the proprietors of at least 115,000 establishments of productive industry. 85,042 are published in one of the following tables, with the kinds and quantities of materials and products stated in detail. In respect to the remainder, the returns of "kinds and quantities" were not used, either from the inadequacy or irregularity of the statements made, or because the materials and products were found, upon an attempt at compilation, not to be of a character to repay the expense of tabulation, or to justify the space required in publication.

To increase the ratio of establishments in respect of which quantitative statements of materials and of products are supplied in the census, from $4\frac{1}{2}$ per cent., as in 1860, to 34 per cent., as in 1870, may fairly be claimed as a marked success. But, to effect this object, an amount of clerical labor has been expended which has been simply enormous. Tens of thousands of letters from the Census Office were required to obtain the material for complete and comparative statements of production for the trades and branches of industry which are embraced in Table X, following.

The fatal defect of the "general blank" in this particular is, that each proprietor of establishment is left to fill out the columns, "kinds," "quantities," "values," twice—once for materials and once for products—according to his own judgment or inclination.

He has no idea how much particularity is desired, or how fully his neighbors and rivals in business will report their operations. If he really wishes to comply with the intentions of the law, he is at a loss to decide as to the best method of classifying the materials and products of his industry. The determination of this question, which is a matter for careful consideration by the best-informed statisticians, is thrown by turns upon each one of 250,000 manufacturers. No reasonable number of precise and specific questions could cause one-half the trouble which is involved in filling these six columns of the general schedule of manufactures. A similar difficulty, though not proceeding to the same degree, is found in the return of power and machinery upon the general schedule.

*Exception must be made to the extent of 5,000 gold mines, in the State of California, which were estimated for at the Census Office.

The result of all this is, that some manufacturers, out of conscientiousness, or from a real interest in securing a complete and correct census of their industry, will make their answers even more full and explicit than is necessary; while others will put in as little as possible, disregarding, perhaps, the plainest and most natural divisions between the classes of products and materials. Each man's inclinations are thus made the measure of his duty, and uniformity of practice becomes impossible. Where there is no uniformity of practice, there can be no comparison and no tabulation of results. The alternative presented to the Census Office by returns of industry so irregular and confused, is either to drop the whole and accept the failure of the effort to obtain specific information of the highest economical and social value, or else, by a most extensive, laborious, and thankless correspondence, to elicit the information which would have been given as a matter of course, and without extra trouble to any one, on schedules specially adapted to the industries in the enumeration of which they were to be used.

For all this uncertainty, vexation, and confusion to enumerator, enumerated, and compiler, the special schedule offers a clear and easy remedy, substituting for the diverse judgments and inclinations of a thousand manufacturers a single straight rule by which all can govern themselves, knowing that they are doing all that will be required of them; a rule, too, which, by making compilation a mere work of transcription, would save ten or twenty times more in clerical service than the trifling additional cost of printing involved.

THE STATISTICS OF THE COTTON MANUFACTURE.

The following communication from B. F. Nourse, esq., of Boston, a writer of high authority on both the production and the manufacture of cotton, indicates the degree of success attained in the census statistics of the cotton manufacture.

"BOSTON, September 5, 1872.

"Accept my thanks for the gratification afforded by an examination of the sheet containing the statistics of the cotton manufacture for the census of 1870.

"I was surprised as well as gratified to note the results or footings in the census returns, so closely corresponding with the results obtained by our association for the same year. Obtained through different channels, their agreement is strong proof that both are correct. It is certainly true that, in the item of cotton manufactures, in its subdivisions of the number of spindles, the quantity of cotton consumed, and the weight of the goods produced, this census is substantially, if not exactly, correct, and, from the comparison with our statistics for 1870, as well as from information obtained by persistent demands, repeated until complied with, for exact returns from every mill, it is fair to infer that this portion of the census has the highest attainable accuracy. It is in remarkable contrast with every previous census since the cotton manufacture became one of the important industries of the country.

"If, in other industries, and other departments of production, the same degree of accuracy has been attained as in respect of the cotton manufacture, and the production of cotton (raw) for the year prior to June 30, 1870, then is this census worthy of the confidence of statesmen, political economists, and men of business.

* * * * *

"B. F. NOURSE."

The following, from E. P. Bond, esq., of Boston, exhibits the result of certain critical tests applied the same statistics. No one familiar with such investigations can fail to appreciate the singular accuracy which the analysis shows to exist in the census tables of this industry:

"We find the tables in all essentials corroborated by the cotton association returns for 1870, and wonderfully consistent with themselves. Thus, you report 7,132,000 spindles; we, 7,114,000. You, 398,000,000 pounds cotton used, and we, 411,000,000. The difference here is explained by the fact that your year included July and August, 1869, when the mills were running short, and ours, the same months of 1870, when they were running full. You report as gross weight of cotton used..... 398,000,000 pounds.
 Deduct for waste, 16 per cent., which is the allowance made in the association report for 1870,
 and generally accepted by manufacturers..... 63,680,000 pounds.

And the total product would be.....	334, 320, 000 pounds.
You report, however, a product of.....	349, 000, 000 pounds.
<hr/>	
And there is an apparent excess of.....	14, 680, 000 pounds.
But, to offset this, there is—	
Amount of waste included in product.....	8, 000, 000
One-half amount of cordage, lines, and twines.....	2, 500, 000
One-third amount of batts, wicking, and wadding.....	4, 000, 000
	<hr/>
	14, 500, 000 pounds.
	<hr/>

“Showing an actual discrepancy of (about $\frac{5}{100}$ of one per cent.) 180,000 pounds.”

* * * * *

THE STATISTICS OF THE WOOLEN MANUFACTURE.

George William Bond, esquire, of Boston, an acknowledged authority in respect to the production of wool and the manufacture of woolen goods, writes the Census Office as follows, under date of July 6, 1872 :

* * * * * “The result of tabulating and analyzing the returns of the census of woolen manufactures is to give me great confidence in the general accuracy of the same. The different parts prove each other. The average capacity of the mills in the several sections is about what I should expect to find it. The consumption of wool and other textile fibers is about two-thirds of the full capacity of the mills, and its accuracy is well borne out by the quantity of goods manufactured.”

REMARKS ON THE TABLES OF MANUFACTURING INDUSTRY.

STATES AND TERRITORIES.	True number of establishments of manufacturing industry.	Number of establishments by Tables VIII and IX, (A and B.)	NUMBER OF ESTABLISHMENTS ADDED BY SEPARATION OF COMPOUND INDUSTRIES. *				NUMBER OF ESTABLISHMENTS IN SPECIFIED INDUSTRIES WHICH WERE QUADRUPPLICATED.			NUMBER OF ESTABLISHMENTS IN SPECIFIED INDUSTRIES WHICH WERE TRIPPLICATED.											
			Total.	On account of quadruplicates.	On account of triplicates.	On account of duplicates.	All industries.	Agricultural implements; cars, railroad; iron, castings; and machinery.	Cars, railroad; iron, forged; iron, castings; and machinery.	All industries.	Agricultural implements; iron, castings; and machinery.	Agricultural implements; iron, castings; and stoves.	Brass foundry; iron, castings; and machinery.	Cars, railroad; iron, rolled; and iron, blooms.	Cars, railroad; iron, castings; and iron, blooms.	Cars, railroad; iron, castings; and machinery.	Iron, rolled; iron, blooms; and iron, pipes.	Iron, rolled; iron, castings; and machinery.	Iron, rolled; iron, pipes; and nails and tacks.	Iron tubing, wrought; iron, castings; and machinery.	Leather, tanned, curried; and patent, enamelled.
The United States	247, 012	250, 883	3, 871	6	132	3, 733	2	1	1	66	39	4	2	1	1	1	2	2	2	1	11
1 Alabama	2, 137	2, 188	61			61															
2 Arkansas	1, 068	1, 079	11			11															
3 California	3, 945	3, 984	39			39															
4 Connecticut	5, 082	5, 128	46			46															
5 Delaware	786	800	14			14															
6 District of Columbia	951	952	1			1															
7 Georgia	3, 741	3, 836	95			95															
8 Illinois	12, 491	12, 597	106		4	102				2	1				1						
9 Indiana	11, 622	11, 847	225		14	211				7	7										
10 Iowa	6, 525	6, 566	41			41															
11 Kansas	1, 470	1, 477	7			7															
12 Kentucky	5, 296	5, 390	94			94															
13 Louisiana	2, 550	2, 557	7			7															
14 Maine	5, 462	5, 550	88		2	86				1		1									
15 Maryland	5, 759	5, 812	53			53															
16 Massachusetts	13, 128	13, 212	84			84															
17 Michigan	9, 264	9, 435	191			191															
18 Minnesota	2, 256	2, 270	14			14															
19 Mississippi	1, 701	1, 731	30			30															
20 Missouri	11, 828	11, 871	43			43															
21 Montana	200	201	1			1															
22 Nebraska	668	670	2			2															
23 Nevada	328	330	2			2															
24 New Hampshire	3, 296	3, 342	46		2	44				1	1										
25 New Jersey	6, 534	6, 636	102		22	80				11											11
26 New York	35, 693	36, 206	513		22	491				11	11										
27 North Carolina	3, 625	3, 642	17			17															
28 Ohio	22, 254	22, 773	519		22	497				11	11										
29 Oregon	954	969	15			15															
30 Pennsylvania	36, 489	37, 200	711	6	28	677	2	1	1	14	4	3	2	1	1		1		1	1	
31 Rhode Island	1, 843	1, 850	7			7															
32 South Carolina	1, 553	1, 584	31		2	29				1							1				
33 Tennessee	5, 122	5, 317	195		2	193				1								1			
34 Texas	2, 375	2, 399	24			24															
35 Utah	517	533	16			16															
36 Vermont	3, 194	3, 270	76		2	74				1	1										
37 Virginia	5, 770	5, 933	163		8	155				4	3										
38 West Virginia	2, 366	2, 444	78		2	76				1										1	
39 Washington	264	269	5			5															
40 Wisconsin	6, 915	7, 013	98			98															

* The separation of distinct industrial processes carried on under a common ownership made one fictitious establishment for every case of duplication, two for every case of triplication, three for every case of quadruplication.

TABLES VIII.—(A) and (B).

THE GENERAL STATISTICS OF MANUFACTURES

IN THE UNITED STATES.

(A.)—BY STATES AND TERRITORIES.

(B.)—BY INDUSTRIES.

AT THE CENSUSES OF 1870, 1860, AND 1850.

GENERAL STATISTICS OF MANUFACTURES.

TABLE VIII (A.)—THE UNITED STATES—BY STATES AND TERRITORIES.

STATES AND TERRITORIES.	1870*												
	Establishments.	STEAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.				CAPITAL. Dollars.	WAGES. Dollars.	MATERIALS. Dollars.	PRODUCTS. Dollars.
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.	Youth.				
The United States..	252,148	1,215,711	40,191	1,130,431	51,018	2,053,996	1,615,508	323,770	114,628	2,118,208,769	775,584,343	2,488,427,242	4,232,325,442
1 Alabama	2,188	7,740	295	11,011	724	8,248	7,196	664	388	5,714,032	2,227,068	7,592,837	13,040,644
2 Arizona	18	80	5	10	1	84	84			150,700	45,580	110,090	185,410
3 Arkansas	1,079	6,101	256	1,545	128	3,266	3,077	47	82	1,782,913	673,963	2,536,998	4,629,234
4 California	3,984	18,493	604	6,877	271	25,392	24,040	873	479	39,728,202	13,130,722	35,351,193	66,594,556
5 Colorado	256	1,433	49	792	31	876	874	2		2,835,605	528,221	1,593,280	2,853,820
6 Connecticut	5,128	25,979	711	54,395	1,988	89,523	61,684	20,210	7,029	95,281,278	38,987,187	86,419,579	161,065,474
7 Dakota	17	248	9	76	6	91	80		2	70,200	21,106	105,997	178,570
8 Delaware	800	4,313	164	4,220	234	9,710	7,705	1,199	896	10,839,093	3,692,195	10,206,397	16,791,382
9 District of Columbia..	952	789	54	1,100	15	4,685	4,333	216	136	5,021,925	2,007,600	4,754,883	9,292,173
10 Florida	659	3,172	126	528	79	2,749	2,670	20	59	1,679,930	989,592	2,330,873	4,685,403
11 Georgia	3,836	10,826	405	27,417	1,729	17,871	15,078	1,498	1,295	13,930,125	4,844,508	18,583,731	31,196,115
12 Idaho	101	311	11	295	16	265	264		1	742,300	112,372	691,785	1,047,624
13 Illinois	12,597	73,091	2,330	12,953	528	82,079	73,045	6,717	3,217	94,368,057	31,100,244	127,600,077	205,620,672
14 Indiana	11,847	76,851	2,881	23,518	1,090	58,852	54,412	2,272	2,168	52,052,425	18,366,780	63,135,492	102,617,278
15 Iowa	6,566	25,292	809	14,249	726	25,032	23,395	951	686	22,420,183	6,893,292	27,682,096	46,534,322
16 Kansas	1,477	6,369	254	1,789	62	6,244	6,599	118	127	4,319,060	2,377,511	6,112,163	11,775,833
17 Kentucky	5,390	31,928	1,147	7,640	459	30,636	27,687	1,159	1,790	29,277,809	9,444,524	29,497,535	54,625,899
18 Louisiana	2,557	24,924	887	142	23	30,071	23,637	4,210	2,234	18,313,974	4,593,470	12,412,023	24,161,905
19 Maine	5,550	9,465	354	70,108	2,760	49,180	34,310	13,448	1,422	39,796,190	14,282,205	49,379,757	79,497,521
20 Maryland	5,812	13,961	531	18,461	937	44,860	34,061	8,278	2,531	36,438,729	12,682,817	46,897,032	76,593,613
21 Massachusetts	13,212	78,592	2,396	105,854	3,157	279,380	179,032	86,229	14,119	231,677,862	118,051,886	334,413,922	553,912,568
22 Michigan	9,435	70,956	2,215	34,895	1,500	63,694	58,347	2,941	2,406	71,712,283	21,205,355	68,142,515	118,394,676
23 Minnesota	2,270	7,085	246	13,051	434	11,290	10,892	259	139	11,993,729	4,052,837	13,842,902	23,110,700
24 Mississippi	1,731	10,019	384	2,453	225	5,941	5,500	191	250	4,501,714	1,547,428	4,364,206	8,154,758
25 Missouri	11,871	48,418	1,638	6,644	388	65,354	53,904	3,884	5,566	80,257,244	31,055,445	115,533,269	206,213,429
26 Montana	201	822	33	795	46	701	697	2	2	1,794,300	370,843	1,316,331	2,494,511
27 Nebraska	670	1,865	63	1,446	67	2,665	2,558	81	26	2,169,963	1,420,913	2,902,074	5,738,512
28 Nevada	330	6,007	120	2,538	34	2,859	2,856	3		5,127,799	2,498,473	10,315,984	15,870,539
29 New Hampshire	3,342	8,787	280	68,291	2,312	40,783	25,829	12,775	2,179	36,023,743	13,823,091	44,577,967	71,038,240
30 New Jersey	6,636	32,307	984	25,832	1,132	75,552	58,115	11,198	6,239	79,606,719	32,648,400	103,415,245	169,237,732
31 New Mexico	182	252	13	659	42	427	423	1	3	1,450,695	167,281	880,957	1,489,868
32 New York	36,206	126,107	4,664	208,256	9,011	351,803	267,378	63,795	20,627	366,994,320	142,466,758	452,065,452	785,194,651
33 North Carolina	3,642	6,941	306	26,211	1,825	13,622	11,339	1,422	861	8,140,473	2,195,711	12,824,693	19,021,327
34 Ohio	22,773	129,577	4,586	44,746	2,157	137,292	119,686	11,575	5,941	141,923,964	49,066,488	157,131,697	269,713,610
35 Oregon	969	2,471	88	5,806	236	2,884	2,753	67	64	4,376,849	1,120,173	3,419,756	6,877,387
36 Pennsylvania	37,209	221,936	6,230	141,982	7,603	319,487	256,543	43,712	19,232	406,821,845	127,976,594	421,197,613	711,894,344
37 Rhode Island	1,850	23,546	402	18,481	456	49,417	28,804	14,752	5,861	66,537,322	19,354,256	73,154,109	111,418,354
38 South Carolina	1,584	4,537	210	10,395	700	8,141	7,099	578	464	5,400,418	1,543,715	5,855,736	9,858,921
39 Tennessee	5,317	18,467	732	19,514	1,340	19,412	17,663	1,089	660	15,595,295	5,390,630	10,657,027	34,362,636
40 Texas	2,399	11,214	540	1,830	116	7,927	7,450	157	320	5,284,110	1,787,835	6,273,193	11,517,392
41 Utah	533	331	21	2,169	192	1,534	1,465	43	26	1,391,898	395,365	1,238,252	2,343,019
42 Vermont	3,270	6,425	186	44,897	1,984	18,686	16,391	1,372	513	20,329,637	6,264,581	17,007,769	32,184,606
43 Virginia	5,933	8,410	396	41,292	2,229	26,974	22,175	2,259	2,540	18,455,400	5,343,099	23,832,384	38,364,322
44 Washington	269	1,411	38	1,412	52	1,026	1,025	1		1,893,674	574,936	1,435,128	2,851,052
45 West Virginia	2,444	17,136	509	10,195	683	11,672	10,728	287	657	11,084,520	4,322,164	14,503,701	24,102,201
46 Wisconsin	7,013	30,509	926	33,714	1,288	43,910	40,296	2,114	1,500	41,981,872	13,575,642	45,851,266	77,214,326
47 Wyoming	32	310	13	34	2	592	500	1	1	889,400	347,578	280,156	765,424

* As explained in the Remarks prefacing these tables the Statistics of Mining, Quarrying, and Fishing Industry are excluded from the Tables of Manufactures for 1870, but are included in the statements for 1860 and 1850.

TABLE VIII (A.)—THE UNITED STATES—BY STATES AND TERRITORIES.

Establish-ments.	1860							1850†								
	HANDS EMPLOYED.			CAPITAL.	WAGES.	MATERIALS.	PRODUCTS.	HANDS EMPLOYED.			CAPITAL.	WAGES.	MATERIALS.	PRODUCTS.		
	All.	Male.	Female.	Dollars.	Dollars.	Dollars.	Dollars.	All.	Male.	Female.	Dollars.	Dollars.	Dollars.	Dollars.		
140,433	1,311,246	1,040,349	270,897	1,009,853,715	378,878,966	1,031,605,092	1,885,861,676	123,035	957,059	731,137	225,922	533,245,351	236,755,464	555,123,822	1,019,106,616	
1,459	7,889	6,702	1,097	9,098,181	2,132,940	5,489,963	10,588,566	1,026	4,936	4,397	539	3,450,606	1,105,824	2,224,960	4,528,876	1
518	1,877	1,831	46	1,316,610	154,240	1,280,593	2,280,578	261	842	812	30	305,015	159,876	215,789	537,908	2
8,468	49,230	40,171	55	22,043,096	28,402,287	27,051,674	68,253,228	1,003	3,964	3,904	.....	1,006,197	3,717,180	1,201,154	12,862,522	3
3,019	64,469	44,002	20,467	45,590,430	10,026,196	40,909,090	81,924,555	3,737	50,731	34,248	16,483	25,876,648	12,435,984	23,608,971	47,114,585	4
615	6,421	5,465	956	5,452,887	1,905,754	6,028,918	9,892,902	531	3,888	3,237	651	2,978,945	936,924	2,864,607	4,640,290	5
429	3,148	2,653	495	2,905,865	1,139,154	2,884,185	5,412,102	403	2,570	2,034	536	1,001,575	757,584	1,405,871	2,690,258	6
185	2,454	2,297	157	1,874,125	619,840	874,506	2,447,969	103	991	876	115	547,060	199,452	220,611	668,335	7
1,800	11,575	9,492	2,083	10,890,875	2,925,148	9,986,532	16,925,564	1,522	8,368	6,050	1,718	5,456,483	1,709,664	3,404,917	7,082,075	8
4,268	22,908	22,489	419	27,548,563	7,637,921	35,558,782	57,580,886	3,162	11,559	11,066	493	6,217,765	3,204,336	8,059,327	10,534,272	9
5,323	21,295	20,563	732	18,451,121	6,318,335	27,142,597	42,893,469	4,302	14,440	13,748	692	7,750,492	3,728,844	10,369,700	18,725,423	10
1,939	6,307	6,142	165	7,247,130	1,922,417	8,612,259	13,971,325	522	1,707	1,687	20	1,292,875	473,016	2,356,881	3,551,783	11
344	1,735	1,700	35	1,084,935	880,346	1,444,975	4,357,408	.....	.....	.....	.....	.....	.....	.....	.....	12
3,450	21,258	19,587	1,671	20,256,579	6,020,082	22,295,759	37,931,240	3,609	21,476	19,576	1,900	11,810,462	5,106,048	12,165,075	21,710,212	13
1,744	8,789	7,873	916	7,151,172	3,683,679	6,738,486	15,587,473	1,008	6,217	5,458	759	5,032,424	2,033,928	2,459,508	6,779,417	14
3,810	34,619	24,827	9,792	22,044,020	8,368,691	21,553,060	38,193,254	3,974	22,020	21,853	6,167	14,699,152	7,485,588	13,553,144	24,661,057	15
3,083	22,403	21,630	6,773	23,230,608	7,199,672	25,494,007	41,735,157	3,725	30,212	22,729	7,483	14,934,450	7,403,832	17,090,836	33,043,892	16
8,176	217,421	146,268	71,153	132,792,327	56,960,913	135,053,721	255,545,922	8,852	177,461	107,784	69,677	88,940,292	41,954,736	85,856,771	157,743,994	17
3,448	23,190	22,144	1,046	23,808,226	6,735,047	17,635,611	32,658,356	2,033	9,344	8,990	354	6,563,660	2,717,124	6,136,328	11,169,092	18
562	2,123	2,104	19	2,388,310	712,214	1,904,070	3,373,172	5	63	63	.....	94,000	18,540	24,300	58,300	19
976	4,775	4,572	203	4,384,492	1,618,320	3,146,636	6,590,687	947	3,154	3,046	108	1,815,820	771,522	1,275,771	2,912,068	20
3,157	10,681	18,628	1,053	20,034,220	6,060,910	23,840,941	41,782,731	2,923	15,808	14,880	928	8,576,607	4,092,648	12,798,351	24,324,418	21
107	336	334	2	266,575	105,332	237,215	607,328	.....	.....	.....	.....	.....	.....	.....	.....	22
2,592	32,340	18,379	13,961	23,274,094	8,110,561	20,539,857	37,586,453	3,211	27,092	14,103	12,989	18,242,114	6,123,876	12,745,466	23,164,593	23
4,173	56,027	43,198	12,829	40,521,048	16,277,337	41,429,100	76,306,104	4,207	37,830	29,068	8,762	22,293,258	9,364,740	22,011,871	39,851,256	24
82	1,074	1,044	30	2,008,350	341,306	367,892	1,249,123	23	81	81	.....	68,300	29,772	110,220	249,010	25
22,624	230,112	176,885	53,227	172,895,052	65,446,759	214,813,061	378,870,939	23,553	199,340	147,737	51,612	99,904,405	49,131,000	134,655,674	237,597,249	26
3,689	14,217	12,102	2,115	9,693,793	2,689,441	10,293,228	16,678,098	2,663	14,601	12,473	2,128	7,456,860	2,383,456	4,602,501	9,111,050	27
11,123	75,602	65,749	9,853	57,295,393	22,392,989	69,890,270	121,691,148	10,622	51,491	47,054	4,437	29,019,538	13,467,156	34,678,019	62,692,279	28
309	978	968	10	1,337,238	635,256	1,431,952	2,976,761	52	285	285	.....	843,600	388,620	809,560	2,236,640	29
22,363	222,132	182,593	39,539	190,055,904	60,369,165	153,477,698	290,121,188	21,695	146,766	124,688	22,078	94,473,810	37,163,232	87,206,377	155,044,910	30
1,191	32,490	20,795	11,695	24,278,295	8,760,125	19,858,515	40,711,290	864	20,967	12,923	8,044	12,935,676	5,047,980	13,186,763	22,117,688	31
1,230	6,994	6,096	898	6,931,756	1,380,027	5,198,881	8,615,195	1,430	7,066	5,992	1,074	6,053,265	1,127,712	2,787,534	7,045,477	32
2,572	12,528	11,583	946	14,426,261	3,370,687	9,416,514	17,987,225	2,887	12,039	11,080	959	6,527,729	2,247,492	5,166,886	9,725,608	33
983	3,449	3,338	111	3,272,450	1,162,756	3,367,372	6,577,202	309	1,066	1,042	24	539,290	322,362	394,642	1,168,538	34
148	389	380	9	443,356	231,701	430,512	900,153	14	51	51	.....	44,400	9,984	337,381	291,220	35
1,883	10,497	8,563	1,934	9,498,617	3,004,926	7,698,858	14,637,807	1,849	8,445	6,894	1,551	5,001,377	2,292,348	4,172,552	8,570,920	36
5,385	36,174	32,606	3,568	26,935,560	8,544,117	30,840,531	50,653,124	4,740	29,110	25,790	3,320	18,109,143	5,434,476	18,101,131	29,602,507	37
52	870	866	4	1,296,200	453,601	502,021	1,406,921	.....	.....	.....	.....	.....	.....	.....	.....	38
3,064	15,414	14,641	773	15,831,581	4,268,708	17,137,394	27,849,467	1,262	6,089	5,798	291	3,382,148	1,712,496	5,414,931	9,293,068	39
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† The 1850 columns of this table are an exact reproduction of Table 4 of the Abstract of manufactures at the Seventh Census. [Senate Ex. Doc. No. 39, 2d session 35th Congress.] The table is arithmetically imperfect, and it is not known whether the errors are in the items or total of the table, or in both. The true total line of the items as printed is: Establishments, 123,029; hands employed, total, 957,079; male, 731,157; female, 225,922; capital, \$533,245,351; wages, \$236,755,464; materials, \$555,123,820; products, \$1,019,109,616.

TABLE VIII (B.)—THE UNITED STATES—BY INDUSTRIES—1870.

MECHANICAL AND MANUFACTURING INDUSTRIES.	Establishments.	STEAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.				CAPITAL.	WAGES.	MATERIALS.	PRODUCTS.
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.	Youth.	Dollars.	Dollars.	Dollars.	Dollars.
All industries	252,148	1,215,711	40,191	1,130,431	51,018	2,053,996	1,615,598	323,770	114,628	2,118,908,709	775,584,343	2,468,427,242	4,232,325,442
Acid, pyroligneous (a)	5	...	...	15	1	29	29	...	...	31,500	9,464	27,400	68,280
sulphuric (a)	4	29	3	16	1	29	29	...	...	162,000	55,900	51,250	212,150
Agricultural implements	2,076	15,873	670	10,209	420	25,249	24,634	12	603	34,834,600	12,151,504	21,473,925	52,066,875
Alarms, burglar and till	5	3	...	...	...	46	44	...	...	72,000	31,864	27,780	91,000
Ammunition, cartridges	8	110	3	13	2	462	242	214	6	570,430	344,515	552,005	976,366
Artificial eyes	1	...	...	...	...	3	3	...	...	2,000	600	200	3,000
feathers, flowers, and fruits	54	...	...	...	...	1,451	400	842	209	418,650	276,231	309,004	986,125
limbs	24	10	1	...	...	75	70	...	...	122,300	30,079	50,894	166,416
Artists' materials (b)	24	40	4	...	...	50	38	...	...	49,800	20,062	21,680	94,150
Asbes, pot and pearl	103	16	1	...	...	278	277	...	...	175,183	41,454	193,081	327,671
Awnings and tents	45	...	...	...	...	219	162	49	8	132,475	87,424	271,677	625,269
Babbitt metal and solder	8	2	...	...	...	34	33	...	...	152,650	15,610	246,513	309,900
Bagging, flax, hemp, and jute	33	785	15	535	11	3,710	1,718	893	589	3,158,101	958,106	2,624,682	4,507,664
Bags, paper	39	321	17	137	6	444	205	206	33	473,100	134,932	1,053,401	1,483,063
other than paper	39	239	14	125	4	1,097	486	502	100	1,290,500	452,517	3,227,078	8,261,679
Baking-powders	30	60	5	10	1	235	167	58	10	294,450	88,107	600,091	825,433
Bark, ground	33	513	13	169	14	133	131	...	...	322,700	47,069	194,491	372,829
Base-ball goods	5	...	...	...	...	118	25	69	24	24,500	20,856	34,091	73,605
Baskets	127	553	21	220	10	920	753	73	92	376,945	224,878	158,109	504,739
Bee-hives	15	11	2	31	3	33	32	...	...	15,350	3,172	8,459	21,482
Bellows	13	15	2	...	...	117	110	...	...	101,200	67,360	106,735	257,675
Bells	31	55	8	150	10	389	339	47	13	517,000	185,751	512,537	1,023,010
Belting and hose, (leather)	91	302	13	42	3	808	784	8	16	2,118,577	454,187	3,231,204	4,558,943
Billiard & bagatelle tables, cues & materials	39	86	4	...	...	505	493	2	10	895,000	383,762	650,864	1,092,943
Blacking	32	91	8	...	...	305	134	158	13	266,750	107,450	428,716	817,768
Blacksmithing	26,364	747	69	628	66	52,982	52,527	9	446	15,977,092	9,246,549	13,223,007	41,829,296
Bleaching and dyeing	250	4,278	101	1,384	26	4,172	3,279	680	213	5,006,950	1,783,449	53,166,634	58,571,493
straw-goods	11	10	1	...	...	60	66	34	...	17,100	29,000	52,505	108,010
Blocks and spars	9	78	7	15	1	104	63	...	...	66,250	31,914	28,565	95,095
Bluing	11	60	1	...	...	54	36	11	7	52,500	17,975	37,422	92,100
Boats	174	1,446	45	13	2	2,381	2,350	1	30	1,665,193	1,225,990	1,214,016	3,300,775
Bookbinding	500	773	77	...	...	7,897	3,972	3,175	550	5,319,410	3,095,821	8,026,870	14,077,309
Boot and shoe findings	271	310	32	223	14	2,773	1,045	1,442	286	858,500	702,957	1,817,028	3,369,001
Boots and shoes	23,428	2,902	207	167	24	135,889	113,415	19,113	3,361	48,094,366	51,072,712	93,582,528	181,644,000
Bottling, malt liquors and mineral waters	20	...	...	...	...	89	82	1	6	47,300	28,470	56,100	157,163
Boxes, cheese	194	547	40	2,318	136	694	662	11	21	424,375	255,012	242,937	970,840
cigar	104	200	17	73	5	783	486	139	158	274,610	242,130	477,499	900,222
fancy	15	50	2	64	4	146	101	26	19	44,300	36,314	39,199	112,500
wooden, packing	489	4,303	105	2,642	148	4,509	4,084	195	230	3,571,942	1,909,088	4,226,745	8,222,433
tobacco	13	83	3	48	2	100	95	...	...	32,325	34,218	110,300	171,630
paper	234	122	16	177	9	4,486	1,104	3,062	320	1,148,025	1,222,338	1,553,737	3,717,152
Brass and copper tubing	3	80	2	...	...	121	114	...	...	203,600	60,434	345,875	500,000
foundry and finishing	275	1,882	146	266	6	3,377	3,102	39	236	4,783,585	1,731,306	3,903,629	6,855,756
rolled	11	360	4	235	5	448	228	210	10	562,800	233,484	704,870	1,251,966
ware (c)	30	489	13	335	9	757	540	87	130	1,243,450	386,008	907,908	1,490,013
Bread, crackers, and other bakery products	3,550	2,370	187	218	2	14,126	12,598	842	686	10,025,966	5,353,184	22,211,856	36,957,704
Brick	3,114	10,333	372	218	19	43,293	30,541	258	3,494	20,504,238	10,768,828	7,413,097	29,028,359
Bridge-building	64	1,034	36	40	2	2,090	2,069	...	...	2,973,250	1,123,353	3,239,771	5,476,175
Bronze castings	9	45	2	...	...	187	156	29	2	539,300	111,714	63,375	280,400
Brooms and whisk-brushes	635	172	6	118	6	5,206	3,050	992	1,158	2,015,602	1,268,875	3,672,837	6,622,285
Brushes, (not whisk)	157	257	18	21	3	2,425	1,481	522	422	1,683,993	691,405	1,817,897	3,369,823
Building-stone, artificial	12	40	2	...	...	67	67	...	...	202,100	32,570	53,945	163,400
Butchering	599	247	18	6	1	1,821	1,251	11	19	2,099,905	546,340	11,039,928	13,626,061
Buttons	64	281	31	316	20	1,912	617	949	346	1,013,700	580,380	751,183	1,778,893
Calcium-lights	2	13	2	...	...	11	11	...	...	56,000	6,800	4,100	16,000
Candles, adamantine and wax	4	60	2	...	...	49	38	...	...	216,500	18,380	36,200	89,275
Cards, playing	5	62	4	...	...	276	74	178	24	620,000	90,896	442,800	765,000
other than playing	13	117	7	...	...	377	161	195	21	364,600	156,240	422,000	751,000
Carpentering and building	17,142	4,654	289	1,140	73	67,894	67,306	5	553	25,110,428	20,169,588	65,943,115	132,901,432
Carpets, rug	474	60	2	24	2	1,016	874	116	26	310,744	141,148	498,595	1,005,347
other than rug	215	3,017	45	702	18	12,098	6,808	4,316	974	12,540,750	4,681,718	13,577,993	21,761,573
Carriage trimmings	44	71	6	55	9	433	241	170	36	326,150	144,278	214,544	590,878
Carriages and sleds, children's	53	366	22	301	21	913	780	89	44	746,628	407,327	495,281	1,432,833
wagons	11,847	4,169	279	4,651	363	54,928	54,280	70	572	36,563,095	21,272,730	22,787,311	65,362,837
Car fixtures and trimmings	3	55	3	...	...	122	102	20	...	122,000	69,568	73,061	208,030
Cars, railroad and repairs (d)	170	5,699	134	163	4	15,931	15,090	20	221	16,632,792	9,659,992	18,117,707	31,070,734
Cement	45	1,490	23	900	23	1,622	1,508	...	...	1,521,500	631,993	773,192	3,073,893
Charcoal and coke (e)	167	1,279	16	98	4	3,473	3,456	...	...	2,393,053	1,204,707	1,204,779	3,161,104
Cheese	1,313	1,872	261	119	16	4,607	3,272	1,279	56	3,690,075	706,566	14,089,294	16,771,665
Chocolates	91	290	7	210	9	104	104	...	...	377,000	78,700	665,149	946,259
Chronos and lithographs	5	186	20	...	...	1,399	1,244	56	99	1,533,725	837,732	735,810	2,515,684
Cider	547	514	48	2,048	173	1,472	1,430	4	29	766,256	144,334	802,820	1,537,214
Clock-cases	5	4	2	69	4	68	65	1	2	53,700	27,784	71,470	111,430
materials	15	34	4	92	11	207	172	20	6	197,250	101,700	160,568	401,160
Cloaks	20	502	12	277	14	1,330	1,177	66	87	882,700	805,340	818,409	2,509,693
Clothing, children's	20	...	...	...	...	1,449	805	553	1	333,300	210,700	677,475	1,009,875
men's	7,838	457	37	96	3	106,679	46,934	58,466	1,279	40,801,080	30,535,879	86,117,231	147,006,378
women's	1,847	35	4	125	2	11,696	1,105	10,247	344	2,520,218	2,513,956	6,837,078	12,900,593
Coal-oil, refined	170	4,214	198	...	...	1,870	1,894	...	...	6,770,383	1,184,550	20,942,287	26,942,287
Coffee and spices, roasted and ground	156	1,63											

GENERAL STATISTICS OF MANUFACTURES.

TABLE VIII (B).—THE UNITED STATES—BY INDUSTRIES—1870—Continued.

MECHANICAL AND MANUFACTURING INDUSTRIES.	Establishments.	STEAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.				CAPITAL. Dollars.	WAGES. Dollars.	MATERIALS. Dollars.	PRODUCTS. Dollars.
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.	Youth.				
Cordage and twine.....	201	2,381	36	604	30	3,698	2,115	770	804	3,530,470	1,234,272	5,739,608	8,979,382
Cordials and sirups.....	33	27	4	.....	.....	258	185	51	23	527,100	118,847	505,398	955,271
Cork-cutting.....	27	147	11	14	2	482	245	131	116	347,400	144,518	426,739	754,530
Costumes.....	4	.....	.....	.....	.....	28	8	19	1	17,600	9,775	3,400	9,500
Cotton goods, (not specified) (a)	810	44,874	402	94,253	1,110	120,442	40,746	66,870	21,826	133,238,797	37,220,556	106,307,922	168,477,353
butting and wadding.....	27	240	14	161	11	244	159	31	51	276,800	78,876	333,451	730,117
thread, twine, and yarns.....	123	2,093	40	4,820	123	6,077	2,052	2,936	1,087	7,392,295	1,748,651	5,135,993	8,726,217
Croquet sets.....	8	.....	.....	.....	.....	121	104	4	13	51,000	59,400	74,224	172,960
Crucibles.....	10	155	7	.....	.....	119	112	.....	7	699,000	127,182	536,712	1,117,463
Cutlery.....	82	953	40	1,054	32	2,111	1,896	150	65	2,246,830	973,554	702,029	2,822,403
and edge-tools, (not specified).....	102	453	21	1,547	55	2,317	2,070	76	171	1,840,717	1,157,991	864,014	2,739,998
Dentistry, mechanical.....	650	6	.....	.....	.....	1,020	991	15	14	621,762	184,252	441,534	1,614,644
Dentists' materials.....	10	32	.....	.....	.....	346	264	72	10	838,200	242,836	181,109	579,361
Drain-pipe.....	68	339	15	110	3	758	733	2	23	977,775	316,521	415,369	1,294,256
Drugs and chemicals (b).....	202	3,637	114	445	17	4,729	4,026	452	251	12,750,800	2,141,232	11,611,405	19,117,191
Dye woods, stuffs, and extracts.....	19	1,004	22	565	7	548	517	5	26	1,227,500	300,755	1,255,444	2,653,390
Edge-tools and axes.....	97	1,292	36	4,431	119	3,520	3,470	11	39	4,319,205	1,997,793	2,413,555	5,482,520
Emory, reduced and ground.....	5	145	5	100	3	25	25	.....	.....	157,320	70,659	153,760	352,520
wheels.....	6	22	2	76	3	41	41	.....	.....	228,500	31,222	53,840	156,300
Enameling.....	12	218	11	.....	.....	274	253	18	8	393,000	137,385	718,391	1,070,753
Engraving.....	157	151	13	.....	.....	1,407	1,047	269	91	1,044,795	1,622,090	452,072	2,093,429
and stonell-cutting.....	136	13	4	10	1	431	381	5	45	244,000	155,968	103,035	509,444
Envelopes (c).....	22	129	14	30	1	910	245	627	38	875,000	316,158	1,228,139	2,277,541
Explosives and fireworks.....	21	73	3	60	5	303	208	82	73	600,100	196,497	307,369	881,159
Fancy articles.....	13	77	2	22	2	191	82	91	15	172,650	65,435	77,627	188,830
Fans.....	6	14	2	.....	.....	117	31	43	43	28,000	23,426	37,279	92,100
Fathers, cleaned, dressed, and dyed.....	19	32	.....	.....	.....	583	290	272	21	474,050	144,097	467,200	879,245
Fences, patent.....	4	25	2	8	1	45	45	.....	.....	30,100	3,440	21,655	48,400
Fertilizers, (not plaster, ground).....	126	2,307	69	644	33	2,501	2,470	19	12	4,395,948	766,712	3,809,025	5,815,118
Filles.....	121	780	30	216	18	1,581	1,356	59	166	1,659,370	638,922	468,303	1,649,394
Fire-arms.....	46	1,323	27	365	17	3,297	3,152	33	112	4,016,902	2,490,774	1,100,999	5,582,258
Fish, cured and packed.....	75	28	5	5	1	854	673	142	39	391,695	181,105	841,205	1,592,591
and oysters, canned.....	17	207	6	.....	.....	1,587	751	554	282	574,809	266,499	940,392	1,471,369
Flax, dressed.....	90	503	28	1,064	72	705	709	13	52	524,701	200,943	382,534	815,010
and linen goods (d).....	10	593	7	1,055	16	1,746	473	750	514	2,325,250	424,946	1,191,467	2,178,753
Flouring and grist mill products.....	22,573	168,726	5,383	407,950	21,213	58,448	57,795	91	562	151,565,376	14,577,539	367,392,122	444,982,143
Food preparations, animal.....	85	426	32	87	5	582	512	55	15	672,656	276,427	1,548,460	2,322,790
vegetable.....	33	308	9	340	12	559	511	331	17	618,216	177,062	746,899	1,188,292
vermicelli and macaroni.....	6	19	.....	.....	.....	37	34	.....	3	35,200	17,100	43,346	107,472
Fruits & vegetables, canned & preserved.....	97	742	45	.....	.....	5,890	1,658	3,434	777	2,335,925	771,643	3,094,846	5,427,677
Furniture, (not specified).....	5,423	14,811	764	6,920	406	40,554	38,033	657	1,874	35,740,629	17,901,379	21,669,837	57,926,547
chairs.....	529	3,203	117	4,740	184	12,403	6,073	3,168	2,319	7,643,884	2,522,940	3,979,743	10,567,104
iron bedsteads.....	2	6	.....	.....	.....	15	15	.....	.....	16,000	9,000	11,151	28,570
refrigerators.....	27	114	6	24	2	267	260	7	7	548,000	141,212	192,490	566,464
Furs, dressed.....	182	48	6	10	1	2,903	1,306	1,525	72	3,472,267	1,042,305	4,816,124	8,903,052
Galvanizing.....	9	.....	.....	.....	.....	146	141	.....	5	202,000	88,650	584,996	796,320
Gas.....	390	2,747	100	21	2	8,723	8,705	.....	18	71,773,694	6,546,734	10,869,373	32,048,851
Gasometers.....	2	7	.....	.....	.....	30	30	.....	.....	35,000	74,000	140,000	280,000
Gas-retorts.....	5	122	.....	.....	.....	177	176	.....	1	863,000	142,220	356,846	665,225
and lamp fixtures.....	39	601	27	30	1	2,409	2,080	257	123	2,723,194	1,232,424	1,626,579	4,061,775
Gilding.....	40	.....	.....	.....	.....	213	189	3	21	100,250	102,824	122,523	355,527
Glass, cut.....	29	189	21	.....	.....	200	193	.....	5	193,700	132,410	86,708	335,250
plate.....	5	52	.....	.....	.....	170	156	10	4	148,400	99,739	96,277	297,480
stained.....	18	44	.....	.....	.....	12	12	.....	.....	.....	.....	.....	.....
ware, (not specified).....	114	1,044	55	42	3	12,308	8,494	668	3,142	10,325,882	5,953,423	4,376,897	14,360,949
window.....	35	381	20	110	2	2,859	2,403	37	419	3,244,569	1,503,277	1,400,760	3,811,368
Gloves and mittens.....	221	3	.....	.....	.....	4,058	1,127	2,894	37	2,340,559	980,549	1,244,146	3,098,521
Glue.....	70	1,049	27	.....	.....	840	683	27	88	1,954,800	303,673	822,981	1,769,065
Gold and silver, reduced and refined.....	12	596	10	.....	.....	163	164	.....	1	292,000	110,118	673,020	842,691
Gold leaf and foil.....	51	98	4	.....	.....	105	373	129	51	412,965	204,408	621,773	1,411,431
Grease and tallow.....	62	233	13	.....	.....	442	359	62	21	841,980	184,787	5,114,865	6,035,415
Grindstones.....	10	136	6	.....	.....	226	226	.....	10	83,000	59,600	33,850	163,700
Gunpowder.....	33	943	10	2,779	125	930	920	4	9	4,000,000	570,279	2,270,747	4,011,839
Gunsmithing.....	615	70	15	103	8	1,082	1,062	7	13	1,062,770	228,879	227,151	959,602
Hair-cloth.....	5	15	1	170	4	1,651	87	154	3	535,500	81,850	351,822	467,750
work.....	230	55	3	7	1	611	597	940	114	766,475	416,294	883,421	1,971,879
Hand-stamps.....	8	5	1	.....	.....	20	28	.....	1	14,100	10,350	10,721	42,700
Hardware.....	580	5,616	243	3,398	155	14,226	11,713	1,179	1,344	13,869,315	6,845,601	9,188,061	22,227,329
saddlery.....	155	689	29	260	13	2,566	2,129	184	253	1,482,225	1,062,059	1,257,947	3,227,123
hat materials.....	62	433	11	138	8	1,014	722	146	6	1,168,635	537,227	2,074,956	3,225,763
hats and caps.....	483	2,112	64	186	10	16,173	8,847	6,301	1,025	6,489,571	6,374,490	12,262,107	24,848,167
hatters' tools.....	7	17	3	8	1	27	24	2	1	30,175	18,000	18,015	44,199
heating apparatus.....	59	239	18	.....	.....	1,141	1,121	.....	20	1,605,840	853,516	1,424,345	3,425,150
hemlock-bark extract.....	2	140	2	.....	.....	138	135	.....	2	164,000	39,000	526,754	743,040
hides and tallow.....	12	84	6	.....	.....	176	176	3	10	136,500	77,425	120,587	241,750
hinges, wrought and cast.....	6	135	4	.....	.....	189	216	52	18	155,157	80,260	74,980	258,942
hones and whetstones.....	39	126	10	380	10	289	72	67	46	185,000	72,646	90,653	269,522
hooks and eyes.....	9	3	1	54	5	185	138	.....	.....	1,707,600	1,045,188	2,276,577	4,758,290
hoop-skirts and corsets.....	194	359	13	2	1	4,345	1,138	2,921	236	1,707,600	1,045,188	2,276,577	4,758,290
hosiery.....	248	2,223	81	4,275	124	14,788	4,452	7,901	2,545	10,931,260	4,429,085	9,835,823	1

TABLE VIII (B).—THE UNITED STATES—BY INDUSTRIES—1870—Continued.

MECHANICAL AND MANUFACTURING INDUSTRIES.	Establishments.	STREAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.				CAPITAL. Dollars.	WAGES. Dollars.	MATERIALS. Dollars.	PRODUCTS. Dollars.
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.	Youth.				
Iron, bolts, nuts, washers, and rivets.	93	2,480	09	743	24	4,423	3,632	89	702	4,263,227	1,665,426	4,021,070	7,191,151
nails and spikes, cut and wrought.	142	10,775	01	2,503	65	7,770	6,062	381	1,327	9,091,912	3,961,172	18,792,323	21,823,096
pipe, wrought.	22	1,715	26	25	1	2,129	1,928	141	11	5,311,095	1,155,910	4,872,007	7,389,194
railing, wrought (a).	74	197	27	3	1	630	605	25	25	405,200	321,101	1,263,116	1,263,756
ship-building and marine engines.	1	100	2			352	332			750,000	210,000	187,000	472,000
Ivory work.	20	205	13	75	6	272	236	33	3	585,450	173,968	635,435	1,020,210
Japanned ware.	21	42	3			158	127	19	12	140,600	61,810	83,189	160,145
Jewelry, (not specified).	681	805	78	111	13	10,091	8,141	1,545	405	11,787,956	4,433,235	9,187,364	22,104,032
and instrument cases.	29	3	2			183	153	16	14	70,900	65,108	65,061	216,997
Knolin and ground carths.	52	529	15	672	28	262	253	1	8	306,366	101,213	163,874	388,054
Kindling-wood.	70	827	48	30	3	701	523	2	176	562,750	253,150	426,642	930,290
Lamp-black.	9	43	3			56	56			93,000	20,734	107,565	193,804
Lamps, lanterns, & locomotive head-lights.	40	154	16	10	1	558	490	36	32	689,300	226,843	403,205	995,289
Lapidary work.	13	10	1	22	2	88	81	5	2	34,400	38,800	37,164	107,300
Lasts.	60	465	32	180	10	510	484	2	24	330,800	262,212	137,657	665,703
Lead, bar and sheet.	5	46	2	35	1	39	39			246,000	23,500	63,769	717,700
pipe.	62	431	20	201	23	589	577		12	2,191,600	237,628	2,807,074	3,499,183
pipe.	17	453	15			160	160			2,054,500	115,020	0,303,869	12,861,959
shot.	7	170	5			55	47		7	330,000	34,755	989,189	1,218,354
Leather, tanned.	4,237	19,572	1,045	14,202	855	20,784	20,423	98	263	42,720,565	7,934,416	63,069,491	86,170,823
curried.	3,083	2,992	174	487	55	10,027	9,077	57	63	12,303,785	4,154,114	43,565,593	54,101,167
morocco, tanned and curried.	113	683	48	16	3	3,006	2,740	182	84	3,874,072	1,078,246	6,633,066	9,997,400
patent and enameled.	26	354	14	45	1	528	500		19	906,000	341,445	311,749	4,018,115
dressed skins.	110	206	15	626	36	898	844	16	38	1,340,450	307,574	909,735	2,859,972
Leather-board.	8	80	4	495	13	94	87			208,000	88,300	135,675	242,500
Lighting-rods.	25	47	0			204	183			510,275	83,110	458,799	1,374,641
Lime.	1,001	425	17	56	3	6,450	6,402		45	5,344,154	1,936,158	4,458,542	8,917,405
Liquors, distilled.	719	12,853	411	811	82	5,131	5,068		57	15,545,116	2,019,810	19,729,432	36,191,133
malt.	1,072	10,438	726	324	30	12,443	12,320		94	48,779,435	6,758,002	28,177,084	55,706,643
vinous.	308	39	4			1,488	1,426		32	2,334,394	230,650	1,204,172	2,225,228
Locksmithing and bellhanging.	101	63	7			555	518		1	229,955	100,799	170,168	608,140
Looking-glasses.	11	25	2			206	193		13	229,000	106,772	197,061	488,500
Looking-glass and picture frames.	320	1,107	40	90	4	3,857	2,976	196	415	2,530,030	1,623,523	2,460,313	5,962,235
Lumber, planed.	1,113	25,608	848	3,651	193	13,040	13,064	52	524	18,007,041	6,222,076	28,728,348	42,170,702
sawned.	25,817	314,774	11,199	326,728	16,559	140,871	145,926	682	3,263	143,399,082	39,960,817	103,162,393	209,852,527
staves, shooks, and headings.		110	5	53	3	126	121		5	94,150	42,345	241,037	306,600
Machinery, (not specified).	1,737	17,429	981	6,701	356	30,781	30,183	93	505	40,383,960	17,812,493	22,575,692	54,429,634
cotton and woolen.	338	3,383	146	2,543	115	8,918	8,438	326	154	10,003,424	4,632,913	5,246,874	13,311,118
fire-engines.	9	25	3	413	8	832	831		7	986,000	307,414	913,833	1,636,580
railroad repairing.	150	5,700	115	282	5	20,015	19,826	6	123	33,222,761	12,541,818	11,932,840	27,565,560
steam engines and boilers.	663	11,076	515	704	33	22,562	22,444	8	510	25,987,452	12,372,241	19,734,404	41,576,264
Malt.	208	1,150	82	230	11	1,460	1,034		6	8,017,248	700,624	9,002,094	12,016,515
Maps and atlases.	18			1,400	1	181	101		65	380,500	87,562	129,162	393,447
Marble and stone work, (not specified).	928	4,231	141	1,400	34	13,190	12,974	12	204	11,287,677	7,601,471	8,034,858	21,316,860
monuments and tombstones.	1,049	853	43	135	13	5,719	5,650	8	61	4,942,063	2,490,296	3,709,518	8,916,554
Masonry, brick and stone.	2,204	32	4			11,043	10,931		112	2,546,425	4,271,700	7,015,782	14,587,125
Matches.	75	359	29	449	19	2,536	2,009	1,089	858	1,521,802	616,714	1,179,666	3,540,008
Mats and rugs.	15	26	3			153	113		16	82,400	55,800	135,728	257,981
Meat, cured and packed, (not specified).	17	128	6			499	257	165	77	1,540,100	173,180	2,531,522	3,700,802
packed, beef.	36	225	15			435	423		4	496,700	111,595	1,524,660	1,950,306
pork.	206	1,801	86			5,551	5,373	22	154	20,078,857	1,722,326	46,577,864	56,429,331
Meters, gas and water.	1	20	1			75	75			100,000	70,000	170,000	420,000
gas.	12	173	11			577	569		2	936,000	365,240	435,155	1,000,190
water.	2	5	1			12	12			15,000	6,700	6,598	32,000
Military goods.	6	24	3			91	69		12	98,200	66,426	141,550	282,630
Millinery (b).	1,668	18	4			7,205	864	6,100	235	2,425,926	1,156,331	3,365,132	6,512,222
Millstones.	19	125	5			317	316		1	813,100	191,913	378,575	819,550
Millwrighting.	189	71	9	116	10	507	503		4	153,120	208,817	384,787	859,941
Mineral and soda waters.	387	165	23			2,383	2,128	16	239	3,462,360	923,703	1,687,931	4,222,278
Mops and dusters.	4	3	1			40	17		23	16,800	8,700	30,790	49,475
Musical instruments, (not specified).	83	207	10	355	19	1,059	1,019	21	19	1,351,000	631,634	932,657	2,019,264
melodions, house-organs, and materials.	22	135	7			401	393		8	408,000	264,485	233,767	596,085
organs and materials.	76	398	19	58	4	1,566	1,535	20	11	1,775,850	1,139,780	743,351	2,960,165
pianos and materials.	150	829	36	23	3	4,141	4,054	19	68	6,019,311	3,071,392	2,924,777	8,229,594
Mucilage and paste.	7	18	4			21	19		2	21,500	8,000	81,887	125,550
Mustard, ground.	15	79	11			94	92		2	105,950	43,086	198,835	307,000
Needles and pins.	39	126	13	370	20	636	373	226	57	616,050	286,123	353,407	955,654
Nets, fish and seine.	9			20	1	80	34	39	7	101,325	20,426	105,108	157,057
Nickel, smelted.	1	50	1			33	33			55,000	9,900	48,110	66,190
Nitro-glycerine.	3	32	2			34	30		2	39,500	24,100	127,600	225,700
Oars.	25	238	10	99	5	191	186		3	158,798	61,210	45,845	178,139
Oil, animal.	58	396	24			543	461	45	34	2,072,532	298,975	7,582,576	9,728,667
fish.	101	1,081	57	30	2	1,487	1,468	12	7	1,490,131	277,895	2,782,861	3,993,139
lubricating.	3	5	1			9	8		1	12,200	4,200	67,050	87,500
vegetable, (not specified).	16	199	7	103	6	111	111			353,400	60,138	514,009	772,521
castor.	6	191	8			94	76		18	470,800	46,950	537,250	757,700
cotton-seed.	26	1,142	21	65	2	664	639	10	15	1,225,350	292,032	1,333,631	2,205,610
essential.	118	34	7			2,365	2,369			145,475	32,884	374,058	631,445
linseed.	77	1,825	39	843	36	945	924	11	10	3,862,956	458,387	7,216,414	8,881,962
Oil-cloth, silk.	1					2	2			500	400	1,400	1,400
Oil floor-cloth.	34	424	25			1,411	1,343	17	51	2,237,000	687,288	2,548,768	4,211,879
Painting.	3,040	19	3			10,964	10,728	25	208	2,797,306			

TABLE VIII (B.)—THE UNITED STATES—BY INDUSTRIES—1870—Continued.

MECHANICAL AND MANUFACTURING INDUSTRIES.	Establishments.	STEAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.				CAPITAL.	WAGES.	MATERIALS.	PRODUCTS.
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.	Youth.	Dollars.	Dollars.	Dollars.	Dollars.
Pencils, lead	7	265	6			156	61	95		241,150	48,150	44,510	160,800
indieble	1	8	1			4	4			20,000	3,000	13,000	20,000
Penholders, wooden	4	2		60	2	24	19	5		32,500	7,700	11,501	34,026
Pens and pencils, gold	21	56	3	5	1	242	199	30	13	268,250	133,556	181,740	467,380
steel	3	38	2			257	47	195	15	175,000	60,000	49,043	189,000
Percussion-caps	2			100	2	140	53	46	41	145,000	76,500	153,000	220,000
Perfumery, cosmetics, and fancy soaps	64	122	8			727	320	371	36	1,172,900	260,415	892,210	2,029,582
Photographic apparatus	10	16	4			196	134	60	2	245,400	103,000	174,233	831,975
Photographs	1,090					2,800	2,260	452	88	1,995,220	786,702	1,094,401	3,643,887
Pipes, tobacco	31	323	15	15	1	481	360	35	264	178,600	214,824	93,899	447,330
Plaster, ground	321	1,907	44	4,338	207	1,513	1,488	3	22	2,341,260	533,407	1,430,140	2,691,651
Plastering	691	54	2	80	6	2,464	2,404		60	378,462	900,395	907,524	2,659,025
Plated ware	203	1,229	61	650	22	4,235	3,425	654	156	4,586,125	2,350,139	3,771,981	8,142,150
Plumbing and gasfitting	705	356	36	12	2	4,783	4,582	1	200	3,731,667	2,277,644	5,167,323	10,394,471
Pocket-books	60	1	1			733	394	293	46	351,225	293,258	467,922	1,108,380
Polishing preparations	21	85	4	33	3	92	73	16	9	370,600	37,687	214,696	323,015
Portable forges	4	12	1			25	25			20,900	11,730	13,975	53,930
Preserves and sauces	30	67	8			335	195	121	19	411,100	113,427	844,770	1,242,836
Printers' fixtures	21	15	3	28	3	80	80		6	55,200	33,931	32,640	118,119
Printing cotton and woolen goods	42	7,158	130	2,695	19	8,894	6,092	1,393	1,409	13,367,553	3,428,089	46,373,358	54,440,044
Printing and publishing, (not specified) (a)	311	2,698	187	20	1	10,668	8,718	1,231	719	16,839,993	7,156,332	11,398,131	28,995,214
book	40	478	28			1,990	920	352	118	2,198,993	760,275	1,525,732	3,568,623
newspaper	1,199	3,135	302	74	9	13,130	11,344	718	1,069	14,947,887	8,168,515	8,709,632	25,393,629
job	609	1,440	174	15	4	5,555	4,458	499	598	6,007,354	2,710,234	2,966,708	6,511,734
Pumps	465	1,379	102	958	52	1,905	1,817	7	81	1,755,894	663,594	970,547	2,812,457
Putty	13	74	6			93	91		2	231,600	42,590	264,250	395,250
Quartz, milled	296	8,210	175	4,368	121	2,973	2,973			10,916,822	2,460,631	12,446,974	18,388,406
Quicksilver, smelted	4	64	1		1	256	245		8	3,500,000	181,000	837,800	1,027,600
Regalia and society banners and emblems	20	31	5			410	150	237	23	251,650	114,702	307,296	626,476
Rodding-materials (b)	192	442	27	274	15	1,919	1,884	13	22	2,448,666	883,341	1,293,116	3,257,403
Saddlery and harness	7,607	172	12	43	3	23,557	23,716	375	466	13,935,961	7,046,207	16,068,310	32,709,861
Safes, doors, and vaults, (fire-proof)	65	659	35	10	1	1,639	1,599	1	39	2,075,200	917,263	967,810	2,728,326
Sails	179					908	836	44	28	589,290	455,575	1,230,346	2,255,446
Saleratus	4	41	3			63	63			140,790	33,530	164,660	231,647
Salt	282	3,278	102	44	3	2,021	2,858	7	56	6,561,615	1,147,910	1,760,670	4,890,629
ground	15	277	10	32	2	146	115	25	6	515,470	69,166	295,939	376,160
Salt-peter	2	10	1			10	10			92,000	4,800	57,410	66,280
Sand and emery paper and cloth	4	190	2			82	62	4	16	989,956	45,450	146,165	349,068
Sash, doors, and blinds	1,605	27,061	909	7,758	367	20,379	19,496	43	840	21,939,812	10,059,612	17,581,814	36,625,896
Saws	73	1,303	40	240	13	1,505	1,457	8	130	2,883,391	995,609	1,332,891	3,175,289
Scales and balances	49	508	16	205	10	1,003	955	7	41	1,019,500	668,451	820,870	2,623,616
School slates and slate pencils	22	108	4	234	17	1,330	271	11	57	384,620	113,236	81,435	268,653
Screws	18	978	11	138	3	1,582	924	476	182	9,147,880	664,408	1,248,135	3,425,413
Sewing-machine fixtures	20	490	13	75	1	1,130	1,075	11	44	761,890	638,973	555,990	1,749,858
Sewing-machines	49	1,688	37	145	6	7,291	6,779	334	248	8,759,431	5,142,245	3,055,766	14,097,416
Ship building, ship materials, & repairs (c)	762	3,311	110	109	6	11,063	10,978	2	83	9,162,335	5,594,666	6,252,324	17,010,528
Shoddy	56	224	10	1,487	53	632	419	171	42	515,950	198,372	1,028,603	1,764,582
Shoe-pegs	26	257	10	365	18	279	175	98	6	169,900	78,051	63,736	264,847
Shovels and spades	13	614	11	540	21	249	237	1	12	757,100	469,100	1,424,844	2,445,526
Show-cases	47	9	2			353	340	1		178,300	219,384	419,466	828,689
Silk goods, (not specified)	53	672	28	457	20	4,174	1,209	2,963	600	4,019,030	1,328,329	4,196,329	7,036,467
sewing and twist	35	450	20	352	21	2,523	465	1,368	600	2,229,700	624,917	4,197,752	5,672,875
Silverware	55	361	35	10	1	815	747	59	9	1,282,500	542,113	1,222,422	2,344,257
Slicers, wooden, for butchers & packers	2	4	1	45	2	18	11	7		20,000	11,400	3,100	92,000
Small beer	62	4	1			160	138	5	23	101,250	34,412	80,168	225,376
Soap and candles	614	3,909	158	20	1	4,422	3,828	309	285	10,454,800	1,927,951	15,222,587	22,533,357
Soap-stone stoves, fire-places, sinks, and cisterns	9	50	0	87	2	74	74			127,500	38,444	98,325	189,115
Soda-water apparatus	13	97	0			307	300	1	6	424,150	140,751	364,246	813,075
Spectacles and eye-glasses	31	51	9			258	237	10	11	183,825	133,553	180,330	420,450
Starch	195	953	46	3,564	181	2,072	1,712	317	43	2,741,675	900,710	3,884,609	5,094,422
Steel, (not specified)	5	700	8	75	3	168	165		3	1,905,000	158,200	253,250	654,000
Bessemer	3	3,200	19	100	1	329	329			558,000	176,000	1,373,812	1,848,220
cast	29	7,577	55	75	2	1,893	1,842	4	47	3,979,400	1,256,632	3,417,958	6,020,766
forged	2	100	1			47	42		5	203,000	61,300	121,013	201,200
Steel springs	41	976	28	207	6	1,021	996		25	2,426,500	601,706	1,662,920	2,925,933
Stereotyping and electrotyping	36	91	8			766	659	15	92	1,033,200	446,532	229,774	1,075,020
Stone and earthen ware	777	1,566	82	122	8	6,116	5,059	316	741	5,394,398	2,247,173	1,704,703	6,045,536
Straw goods	75	341	24	35	2	14,925	1,988	12,594	343	2,119,350	2,122,870	3,661,740	7,282,066
Sugar and molasses, raw cane	713	18,320	599			21,299	15,723	3,797	1,779	10,248,475	1,230,119	6,663,271	10,383,368
refined cane	59	9,653	119			4,597	4,494	20	83	20,545,220	3,177,288	94,899,431	169,941,011
beet and grape	2	200	12			116	66	25	25	67,570	8,690	90,740	110,720
sorghum	317	272	17	138	17	1,169	1,038	61	80	143,637	39,616	162,267	344,098
Sumac, ground	19	208	10	85	6	85	84	1		167,450	31,337	261,760	261,760
Tar and turpentine	227	177	26	15	1	2,638	2,529	81	31	902,225	476,394	2,146,090	3,565,225
Taxidermy	2					18	18			20,200	5,000	11,464	20,650
Tin, copper, and sheet-iron ware	6,646	1,236	68	270	6	25,823	21,201	631	991	21,027,676	9,516,357	19,067,615	40,696,811
Tobacco and cigars	61	352	30	10	2	1,431	838	319	274	1,767,100	546,832	1,782,829	3,337,274
chewing and smoking, and snuff	512	2,320	146	363	23	20,368	9,750	4,860	5,758	11,788,714	4,676,093	20,351,607	36,258,177
cigars	4,631	16	2	30	1	26,409	21,409	2,615	2,025	11,368,616	2,098,708	12,522,171	32,166,593
Toys and games	49	57	7	270	16	615	357	184	74	312,800	152,258	159,946	579,865
Trunks, valises, and satchels	222	358	15	55	4	3,479	2,798	457	224	2,185,064	1,810,798	3,315	

GENERAL STATISTICS OF MANUFACTURES.

TABLE VIII (B.)—THE UNITED STATES—BY INDUSTRIES—1870—Continued.

MECHANICAL AND MANUFACTURING INDUSTRIES.	Establishments.	STEAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.				CAPITAL. Dollars.	WAGES. Dollars.	MATERIALS. Dollars.	PRODUCTS. Dollars.
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.	Youth.				
Watch and clock repairing.....	1,103	1	1	10	1	2,035	1,966	13	46	1,355,170	459,492	332,729	1,827,993
cases.....	49	5	3	.....	.....	703	619	73	11	730,500	555,018	1,152,979	2,333,340
materials.....	10	13	2	33	3	47	45	2	.....	22,150	22,500	12,320	61,021
Watches.....	37	145	4	.....	.....	1,816	1,202	592	22	2,666,133	1,304,304	412,783	2,819,080
Weaving, (not specified).....	8	.....	.....	.....	.....	27	25	2	.....	2,450	455	6,639	10,145
Whalebone and rattan, prepared.....	5	4	3	10	1	55	33	12	10	18,000	26,000	169,644	262,000
Wheelbarrows.....	23	213	10	297	15	236	204	8	26	243,750	111,390	166,420	472,720
Wheelwrighting.....	3,013	554	32	983	75	6,989	6,915	11	63	2,839,316	1,353,474	1,907,418	5,846,943
Whips.....	43	117	4	17	3	377	220	124	33	332,031	124,261	173,391	475,651
and canes.....	60	23	2	105	6	584	401	177	6	551,530	260,283	330,111	707,467
Willow ware (a).....	168	25	2	99	2	859	565	68	226	208,755	171,213	143,634	510,930
Wire.....	32	2,082	23	745	25	1,733	1,475	226	32	2,520,800	1,078,184	2,955,925	5,030,581
insulated.....	2	.....	.....	10	1	11	10	1	.....	12,000	4,800	8,960	27,817
work (b).....	141	470	22	492	20	2,526	1,316	1,053	157	1,667,900	719,633	1,548,006	2,959,227
Wood brackets, moldings, and scrolls.....	65	1,375	54	101	5	747	714	3	30	832,275	434,640	636,423	1,472,042
Wooden ware.....	269	2,293	70	3,366	165	3,169	2,708	67	394	2,814,592	1,210,268	1,623,694	4,142,124
Wood pulp.....	8	.....	.....	1,069	14	111	111	.....	.....	101,000	60,178	29,500	172,350
turned and carved (c).....	733	3,830	231	4,323	235	4,103	3,777	103	223	2,751,544	1,499,565	1,648,008	4,959,191
miscellaneous articles.....	117	418	20	727	47	715	673	11	31	481,495	257,451	388,549	1,018,047
Wool-carding and cloth-dressing.....	1,001	3,768	202	6,823	564	2,318	1,986	173	159	1,740,249	260,419	3,504,052	4,675,925
Woolen goods.....	1,938	32,195	855	52,906	1,548	77,870	40,852	27,531	9,487	97,173,432	26,648,272	93,406,884	151,298,196
Worsted goods.....	102	3,382	71	4,634	40	12,920	3,864	7,152	1,004	10,085,778	4,368,857	14,308,198	22,000,331
Zinc, smelted and rolled.....	11	134	4	100	4	316	302	1	13	620,020	159,516	764,598	1,107,947
statuary and building ornaments.....	2	10	1	.....	.....	38	36	.....	2	38,500	19,000	22,115	56,500

(a) Includes 1 establishment only, (in Michigan,) producing also Rustic ornaments.
 (b) Includes Telegraph supplies (mainly wire) of Table IX (B).
 (c) Includes the item of Table IX (B), (Connecticut,) there erroneously styled Stationery.

TABLE VIII (B.)—THE UNITED STATES—BY INDUSTRIES—1860.*

MECHANICAL AND MANUFACTURING INDUSTRIES.	Establishments.	HANDS EMPLOYED.			CAPITAL. Dollars.	WAGES. Dollars.	MATERIALS. Dollars.	PRODUCTS. Dollars.
		All.	Male.	Female.				
All industries.....	140,433	1,311,246	1,040,349	270,897	1,009,855,715	378,878,966	1,031,605,092	1,285,861,676
Agricultural implements, miscellaneous.....	1,046	7,100	7,098	2	5,201,016	2,334,172	2,508,192	7,953,055
fanning-mills.....	47	177	177		109,525	59,500	53,087	197,672
grain-cradles and scythe-snaths.....	47	219	219		141,482	71,646	77,788	218,687
grain-drills.....	10	112	112		78,800	44,448	40,862	153,765
handles, plow, and other.....	23	320	319	1	221,530	111,336	97,748	315,872
hoes.....	5	163	163		117,500	59,220	86,835	224,175
mowing and reaping machines.....	73	2,421	2,421		2,039,000	863,884	1,696,116	2,516,120
plows, barrows, and cultivators.....	423	2,297	2,297		1,894,334	840,262	962,177	2,855,248
rakes.....	83	219	219		105,585	57,936	35,933	128,118
straw-cutters.....	2	45	45		34,000	10,200	33,650	71,500
thrashers, horse-powers, and separators.....	163	1,741	1,740	1	1,534,467	627,945	643,781	1,953,748
Alcohol.....	22	208	208		897,000	82,068	3,567,062	4,168,300
Ammunition.....	5	119	101	18	117,500	40,308	75,010	160,900
Anchors and chains.....	17	116	116		127,300	46,668	73,982	165,075
Anvils and vises.....	2	26	26		20,000	11,640	11,916	38,300
Aquariums.....	1	3	3		2,000	1,200	3,000	5,500
Arrow-root.....	1	10	6	4	1,000	1,008	200	1,376
Artificial eyes.....	1	2	2		4,000	1,800	590	6,000
limbs.....	5	39	35	4	25,000	23,544	10,050	53,000
Artists' materials.....	8	43	38	5	14,500	15,500	44,800	44,800
Ashes, pot and pearl.....	212	423	418	5	199,590	106,900	254,729	535,550
Asphaltum work.....	1	4	4		700	3,000	4,000	10,000
Automaton pressmen.....	1	3	3		1,700	1,200	1,700	6,000
Awnings and tents.....	17	94	63	31	30,200	30,732	48,351	113,900
Axles.....	10	136	136		142,950	50,004	140,137	226,509
Bagging.....	34	787	661	126	505,250	141,636	803,800	1,109,628
Bags.....	19	112	72	40	82,600	43,968	607,785	749,578
Baking, and yeast cakes and powders.....	5	17	6	11	26,250	3,180	18,135	28,820
Bank locks.....	1	18	18		25,000	5,760	14,000	39,000
Barilla.....	1	10	10		30,000	4,848	25,000	54,800
Baris, ground.....	36	64	64		60,000	15,968	83,270	154,463
sumac, and sumac prepared.....	4	12	12		11,700	2,520	10,900	16,250
Barley, pearl.....	3	9	9		18,000	3,300	41,500	53,000
Barytes.....	1	40	40		5,000	12,000	5,000	25,000
Baskets.....	67	437	375	62	106,970	120,462	62,205	255,137
Bath-tubs.....	1	50	50		20,000	12,000	42,600	62,600
Bead-work.....	8	40	3	37	24,200	6,624	15,911	25,749
Beds, spring.....	15	61	51	10	31,000	22,908	109,401	313,300
Bee-hives.....	12	33	33		18,900	19,406	20,966	49,435
Bellows.....	16	78	78		40,600	31,248	70,865	170,950
Bells.....	9	60	60		84,700	20,484	139,193	224,500
Belt clasps and slides.....	1	14	7	7	4,000	2,700	1,150	5,000
Bolts, children's.....	1	170	4	166	60,000	20,925	185,000	450,000
Benzoline.....	1	1	1		100	240	787	2,000
Billiard-cues.....	2	4	4		4,000	1,380	3,600	12,000
and bagatelle tables.....	23	298	298		225,100	139,176	340,268	727,900
Blacking.....	13	176	82	94	177,400	40,312	188,600	298,149
and water-proof composition.....	5	9	5	4	5,650	2,208	6,778	23,800
Blacksmithing.....	7,504	15,720	15,719	1	4,940,756	4,827,303	3,417,067	11,641,223
tools.....	1	2	2		500	864	623	1,500
Blackletters.....	4	34	33	1	12,700	15,936	5,623	21,547
Blocks, pumps, and spars.....	101	370	370		255,350	150,500	154,951	523,897
Bolts, nuts, washers, and rivets.....	54	1,494	1,492	12	1,225,300	426,090	988,993	2,175,535
Bone-black.....	8	78	78		144,100	20,460	122,500	246,100
boiling.....	5	38	38		23,500	12,156	74,080	122,539
Bookbinders' machinery.....	4	47	46	1	26,000	19,062	6,390	39,100
tools.....	1	5	5		3,000	1,800	660	2,625
Bookbinding and blank books.....	269	4,777	2,045	2,732	1,054,830	1,048,930	1,554,082	3,729,000
foot and shoe patterns.....	2	4	4		900	1,206	648	3,000
Boots and shoes.....	12,466	123,026	94,512	28,514	23,357,627	30,938,020	42,728,174	61,829,295
Bottle molds.....	1	7	7		5,000	2,640	1,000	6,000
Boxes, cheese.....	101	225	224	1	137,575	59,186	53,452	144,565
cigar.....	10	22	22		10,350	8,748	16,535	31,800
packing.....	270	1,694	1,595	99	1,057,840	612,123	1,219,036	2,516,174
paper.....	110	1,001	511	1,090	333,196	358,653	467,350	1,162,777
sugar.....	1	4	4		1,500	1,200	100	1,600
tobacco.....	13	100	100		21,395	35,928	42,985	100,823
Box-shooks.....	5	102	102		65,600	34,920	104,100	176,750
Brass and bell founding.....	7	30	30		38,500	10,836	31,662	110,020
and copper-tubing.....	1	45	45		140,000	24,000	201,000	250,600
and German silver, rolled.....	11	945	909	36	2,026,000	344,424	1,425,560	2,401,600
book clasps and badges.....	2	22	22		4,500	5,400	3,376	12,500
founding and brass ware.....	183	1,492	1,492		1,226,460	557,412	1,414,339	2,643,754
ornaments.....	1	3	3		2,000	1,152	500	3,000
wire and wire cloth.....	2	52	46	4	45,000	19,464	28,555	62,200
Bread and crackers.....	1,930	6,514	6,176	338	3,909,189	2,086,148	10,634,199	16,980,012
Brick.....	1,595	20,450	20,046	440	7,130,128	3,888,108	2,028,625	10,253,734
machinery and tools.....	2	16	16		13,000	6,246	12,109	25,750
Bridges.....	5	96	96		61,500	51,730	85,840	192,500
Bronze powders.....	1	6	6		10,000	3,600	5,000	10,000
Broom-handles.....	3	18	18		7,500	3,636	2,150	6,200
Brooms.....	228	1,181	1,144	40	565,713	287,523	874,046	1,428,194
Brush-blocks.....	6	23	23		34,800	5,316	4,010	14,800
handles and stocks.....	1	4	4		3,000	1,200	715	2,500
Brushes.....	121	2,378	1,075	703	913,030	594,710	993,939	2,096,523
Buttons.....	43	1,161	487	674	558,550	260,206	358,385	949,408
Calico-printing.....	22	3,894	3,330	564	3,397,250	1,048,504	3,789,781	7,748,614
Cameras.....	2	25	25		30,000	12,450	6,753	66,600
Camphene and burning-fluid.....	33	174	174		505,490	73,740	2,323,452	2,813,900
Candle-molds.....	1	4	4		3,000	1,920	2,250	5,000
Candle, adamantine.....	5	215	181	34	695,000	62,688	850,680	1,145,069
wax.....	1	2	2		1,000	660	750	1,800
Candlesticks.....	1	11	8	3	5,000	3,441	9,500	15,000
Cap fronts.....	1	10	6	4	000	2,568	3,700	10,000
Car-brakes.....	1	3	3		500	1,200	3,000	10,000
linings.....	2	20	20		9,500	7,650	4,967	17,100

* With the exception of the column for All hands employed, this table is a reproduction of the table as printed at the census of 1860, and contained on pages 733 to 742, of the Volume on Manufactures. It contains errors which cannot be corrected without an extraordinary expenditure in both time and labor.

TABLE VIII (B.)—THE UNITED STATES—BY INDUSTRIES—1860—Continued

MECHANICAL AND MANUFACTURING INDUSTRIES.	Establishments.	HANDS EMPLOYED.			CAPITAL. Dollars.	WAGES. Dollars.	MATERIALS. Dollars.	PRODUCTS. Dollars.
		All.	Males.	Females.				
Car-wheels	16	523	523		1,223,700	210,120	1,243,200	1,096,350
Cars, omnibuses, and repairing	62	3,174	3,172	7	2,053,717	1,237,452	1,841,344	4,302,613
Card-boards	1	24	24		8,000	7,620	6,136	17,246
cutting	1	3	3		1,000	1,080	1,500	4,000
Cards, enameled	1	120	50	70	100,000	34,800	86,125	300,000
hand	3	61	52	9	34,400	19,896	28,220	181,700
playing	4	153	71	82	113,000	38,360	158,000	264,000
Carpentering	1,323	9,006	8,998	8	3,251,327	3,668,672	5,164,975	12,646,392
Carpenters' tools	33	756	754	2	578,250	251,204	214,974	731,430
Carpet-cleaning	3	9	9		8,200	4,140	91,000	118,000
sweepers	1	4	2	2	1,000	984	2,000	4,000
Carpets	216	6,083	3,012	2,771	4,721,938	1,546,328	4,419,561	7,860,351
Carriages	3,917	27,461	27,304	157	14,131,537	10,001,691	9,085,301	26,848,905
children's	32	357	335	22	134,470	129,540	108,393	374,350
Carriagesmithing	4	11	11		3,700	5,220	3,718	12,800
Carriage-trimmings	8	25	22	3	9,550	8,436	12,884	29,790
Carving	56	229	229		80,400	105,596	74,047	239,396
Cement	14	740	738	2	759,200	206,460	262,920	767,080
pipe	2	4	4		800	1,212	750	2,361
Chalk and crayons	2	9	9		5,000	2,700	4,775	17,000
prepared	1	4	4		1,000	900	1,830	5,250
Charcoal	69	457	456	1	161,875	122,840	120,076	422,217
pulverized	4	8	8		18,500	3,024	13,356	34,000
Charts, hydrographic	1	4	4		1,000	2,400	400	3,000
Cheese	2	7	4	3	8,000	984	9,441	13,400
presses and vats	3	6	6		5,400	2,076	3,350	10,100
Chemicals	84	1,529	1,467	62	3,276,800	506,364	2,707,152	4,705,741
bichromate of potash	1	50	50		70,000	15,600	100,300	135,000
bisulphate of lime	1	10	10		7,000	7,200	6,500	20,000
Chimney-flues	3	6	6		625	1,440	1,240	3,700
China and glass decorating	2	156	116	40	205,000	66,000	89,000	185,000
Chocolate	3	13	10	3	15,300	4,212	50,995	60,880
Chrome-mining	1	32	32		10,000	6,144		15,000
Churns	11	27	27		10,775	7,772	28,629	66,332
Cider	71	149	149		65,670	23,700	67,413	125,747
refined	14	35	35		31,900	11,452	22,549	40,286
Cigars	1,478	7,997	7,966	731	3,035,553	2,531,312	3,511,312	9,068,778
Cisterns	25	59	59		22,750	26,844	60,027	153,700
Clay-mining	5	68	68		69,500	24,394	24,000	105,660
Clock-cases	3	26	26		12,500	14,160	17,410	40,500
Clocks	22	973	935	40	376,100	391,320	474,668	1,187,550
Cloth-finishing	2	12	10	2	4,500	3,180	3,100	8,250
Clothing, ladies'	188	5,739	589	4,850	1,421,659	1,193,032	3,323,335	7,181,039
men's	4,014	114,800	41,837	72,963	27,246,003	10,856,426	44,149,752	80,830,555
oil		85	23	62	39,500	15,864	54,473	83,769
seed cleaning	23	28	28		26,200	3,788	32,063	41,218
Coach lace	7	10	10		10,000	2,600	10,750	16,700
Coal, anthracite	6	96	80	16	42,800	32,364	28,987	89,200
bituminous	170	25,126	25,126		13,280,250	5,503,124	1,637,898	11,869,574
Cocoa	440	11,360	11,343	17	15,548,420	4,147,140	1,115,074	8,374,063
Coffee and spices, ground	2	7	2	2	25,500	2,640	14,750	21,750
essence of	85	510	487	23	1,002,150	192,218	2,725,012	3,502,181
roasters	9	85	51	34	62,600	18,264	33,760	197,600
roasting	1	1	1		600	336	225	1,400
Collars	7	34	33	1	49,500	11,088	498,988	570,297
Collin-screws	210	688	671	17	605,950	297,564	312,838	1,024,953
trimmings	1	11	9	2	10,000	3,312	4,200	10,520
Coke	4	23	20	3	6,300	4,236	6,785	16,650
Comb-plates	21	198	198		62,300	61,368	73,552	189,844
Combs, shell and other	1	3	3		1,000	1,080	1,200	2,700
Confectioners' tools	66	930	800	130	721,700	304,716	614,431	1,314,968
Confectionery	1	3	3		1,000	1,440	6,600	25,000
Cooperage	541	2,340	1,875	465	1,568,478	688,423	2,990,186	5,361,100
Coopers' tools	2,707	13,750	13,741	9	4,353,546	4,284,704	4,105,203	11,343,921
Copper and brass ware	4	12	12		1,000	4,128	1,894	9,100
mining	1	130	130		60,000	48,000	86,540	145,000
rolled	47	5,153	5,111	42	8,525,500	1,816,160	506,814	3,361,222
sheet and bolt	2	260	260		1,250,000	95,280	1,454,750	1,800,000
smelting	5	153	153		1,220,000	61,800	1,082,450	1,398,768
work	10	472	472		1,535,000	176,720	4,237,567	4,945,300
Coppersmithing	2	32	32		100,000	14,400	107,450	162,000
Cor dage	70	592	592		587,550	259,956	662,981	1,281,362
Corks	190	3,478	2,860	618	2,038,289	966,216	5,685,320	7,613,339
Corundum	13	86	78	8	52,500	21,288	54,911	141,000
Cotton bags	1	3	3		5,000	1,440	825	3,000
batting and wadding	3	196	113	83	92,700	40,380	83,600	177,000
braid, thread, lines, twine, and yarn	54	444	378	66	365,400	122,484	628,209	990,414
cordage	191	6,000	2,549	3,451	4,239,060	1,182,000	3,613,132	6,569,093
coverlets	22	215	133	82	166,300	45,210	144,470	257,650
diannel carding	18	87	68	19	34,975	21,288	45,470	102,675
ginning	3	29	29		6,600	4,636	38,973	54,482
gins	89	271	265	6	92,657	52,644	307,746	534,635
goods	57	616	614	2	768,825	266,160	237,488	1,152,315
lamp-wick	803	114,955	43,406	71,549	93,143,750	22,488,562	52,066,701	107,337,783
mosquito-netting	2	73	43	30	70,000	5,700	52,909	119,124
pressing	2	129	58	71	53,000	25,026	32,720	138,392
table-cloths	5	64	64		149,700	23,000	3,610	89,650
Creelies	13	74	68	6	23,550	15,900	18,127	40,318
Curled hair	3	59	59		110,000	25,200	58,700	150,000
Curves' tools	2	45	40	5	65,500	12,744	78,738	106,869
Curtain fixtures	7	5	5		1,800	2,204	750	5,197
Curtains	3	17	17		4,500	4,200	3,850	14,000
Cutlery	1	9	4	5	2,500	1,896	1,200	3,500
Dead-try	51	1,338	1,305	33	869,800	472,921	433,492	1,306,225
Dippers, cocoa-nut	154	229	229		147,120	115,656	134,531	414,554
Drain-pipe, wooden	1	6	6		4,000	2,100	3,000	6,000
tile	1	40	40		12,000	12,480	4,150	28,000
Dress patterns	56	455	448	7	335,600	166,148	104,199	516,013
Drugs, ground	1	6	6		150	960	150	3,000
	3	16	16		45,500	5,544	77,200	107,500

GENERAL STATISTICS OF MANUFACTURES.

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TABLE VIII (B.)—THE UNITED STATES—BY INDUSTRIES—1860—Continued.

MECHANICAL AND MANUFACTURING INDUSTRIES.	Establishments.	HANDS EMPLOYED.			CAPITAL. Dollars.	WAGES. Dollars.	MATERIALS. Dollars.	PRODUCTS. Dollars.
		All.	Males.	Females.				
Dumb-waiters.....	1	4	4	.....	1,000	1,920	1,500	9,000
Dyeing and bleaching.....	102	3,293	2,755	448	2,321,421	953,024	1,215,652	3,967,819
Dye-woods and dye-stuffs.....	15	364	360	4	732,050	131,000	1,021,547	1,484,191
Enave-troughs.....	2	11	11	.....	2,500	3,913	.....	14,600
Edge-tools and axes.....	166	2,869	2,869	.....	2,146,499	1,086,935	1,270,171	3,243,922
Electro-magnetic machines.....	4	13	13	.....	16,500	5,040	.....	59,000
Embroidery.....	3	81	3	78	11,000	14,244	13,655	56,216
Enery.....	2	14	14	.....	30,000	5,880	13,400	56,216
Enameling.....	1	7	6	1	3,000	2,712	26,000	56,000
Engravers' blocks and wood.....	2	12	12	.....	25,000	4,104	1,800	10,000
Engraving and die-sinking.....	191	724	706	18	431,650	330,524	4,750	12,700
<i>calico</i>	2	5	4	1	3,100	2,280	157,171	829,140
Envelopes.....	16	432	150	282	309,600	117,180	433,647	763,700
and cards, embossed.....	1	6	4	2	1,000	686	.....	3,900
Envs.....	2	39	12	27	3,000	4,080	400	2,500
Felting.....	2	14	14	.....	10,500	5,520	2,490	56,050
Fertilizers.....	47	308	308	.....	466,000	95,016	15,430	31,700
Filter bags.....	1	2	2	.....	600	672	599,816	891,344
Fire-arms.....	230	2,056	1,086	70	2,512,751	885,898	3,600	4,500
<i>bomb-lances</i>	1	12	12	.....	40,000	5,400	376,913	2,362,651
<i>brick</i>	27	468	468	.....	528,700	120,247	10,000	50,000
<i>clay</i>	2	3	3	.....	2,000	900	.....	493,409
<i>engines</i>	13	563	563	.....	474,500	272,400	209,894	1,588
<i>escapes</i>	1	1	1	.....	700	240	705,259	700
Fire-works.....	0	133	112	21	82,500	37,920	48,136	173,100
Fisheries.....	1,970	30,383	29,452	931	17,919,959	0,077,677	4,362,855	14,284,402
Fish-hooks.....	2	45	42	3	162,000	15,720	35,150	157,000
Fishing lines, nets, and tackle.....	7	42	15	27	16,200	7,080	11,057	29,409
Flags and banners.....	9	77	48	29	50,200	26,088	34,330	90,600
Flax-dressing.....	32	115	115	.....	56,636	29,839	77,422	165,404
Flour and meal.....	13,868	27,682	27,626	56	84,585,004	8,721,391	208,497,309	248,586,365
Flowers.....	3	7	7	.....	9,000	2,025	9,500	16,500
Fly-nets.....	4	88	14	74	15,800	14,448	8,926	32,100
Foundry-facings.....	7	30	30	.....	74,500	12,900	44,696	105,950
Furnaces, ranges, registers, and ventilators.....	39	348	348	.....	336,250	164,952	349,893	888,288
Furniture, cabinet, school, and other <i>polish</i>	3,594	27,106	25,132	1,974	13,639,526	8,909,992	8,181,250	25,682,993
Furs.....	1	10	7	3	10,000	2,200	31,270	44,600
Gas-fixtures, lamps, and chandeliers.....	95	1,293	496	707	1,163,600	268,574	1,792,923	3,115,755
<i>illuminating</i>	33	1,632	1,632	4	1,310,250	570,804	693,782	2,255,900
<i>works, portable</i>	221	5,730	5,730	.....	22,848,726	2,321,530	3,667,630	12,016,353
Gasometers and tanks.....	1	2	2	.....	7,000	900	2,000	4,000
Ginseng.....	7	373	373	.....	326,500	169,198	277,016	565,500
Glass.....	3	5	5	.....	10,000	1,569	4,520	6,850
<i>sand</i>	112	9,016	8,765	251	6,133,666	2,993,822	2,914,393	8,775,155
<i>and diamonds</i>	1	3	3	.....	50	720	.....	800
<i>crystal</i>	3	11	11	.....	11,500	3,240	9,500	27,250
Globes, terrestrial and celestial.....	1	7	4	3	4,000	1,740	1,550	10,000
Gloves and mittens.....	126	1,429	453	976	594,825	330,419	537,529	1,176,795
Gold.....	62	875	865	10	1,052,900	305,964	547,216	1,185,625
Gold and silver assaying and refining.....	13	274	223	51	755,300	242,710	669,055	1,149,070
<i>leaf and foil</i>	23	226	145	81	140,250	77,593	399,636	481,072
<i>mining</i>	7,202	44,316	44,261	55	12,066,791	23,661,620	16,561,726	47,163,170
Grain-threshing.....	2	4	4	.....	1,350	360	1,200	1,800
Granular fuel.....	3	9	9	.....	6,300	2,496	755	15,460
Grates and fenders.....	16	186	186	.....	153,500	74,862	124,895	362,900
Grease.....	6	18	18	.....	26,100	8,940	97,520	123,596
Grindstones and grindstone quarrying.....	11	145	145	.....	100,800	41,640	12,800	67,040
Gum and gum cleaning.....	2	52	14	38	30,000	9,912	115,375	199,500
Gum locks and materials.....	3	9	8	1	3,700	3,324	1,700	6,250
Gunpowder.....	58	747	737	10	2,365,700	291,144	1,812,250	3,223,000
Gutta-percha goods.....	2	34	34	.....	100,000	21,600	69,000	125,750
Hair-cloth.....	11	411	70	341	180,500	99,703	137,545	279,000
<i>jewelry</i>	8	42	17	25	27,000	10,620	15,820	45,600
Handles.....	14	70	78	1	45,100	28,752	21,885	89,313
Handspikes.....	1	3	3	.....	800	1,132	990	4,000
Hardware.....	443	10,721	9,458	1,263	6,707,000	3,443,664	4,402,958	10,993,106
Hat and bonnet blocks.....	5	12	12	.....	5,300	4,536	1,347	10,100
<i>bodies</i>	3	20	18	12	81,000	33,240	508,320	637,400
<i>tips</i>	1	3	3	.....	500	1,056	800	2,000
Hats and caps.....	655	11,764	7,521	4,243	4,154,372	3,815,824	8,252,380	16,137,782
Hatters' trimmings.....	3	9	6	3	6,500	2,448	9,100	15,700
Hay-pressing.....	7	31	31	.....	30,755	9,012	38,556	61,049
Hemp-dressing.....	1	10	10	.....	3,000	2,400	40,000	60,000
<i>hose</i>	1	7	6	1	3,060	2,340	8,060	8,060
Hides and tallow.....	12	81	81	.....	264,000	31,389	874,606	1,143,937
Hoisting apparatus and machines.....	4	18	18	.....	8,500	1,280	9,244	33,209
Hombly.....	1	1	1	.....	1,000	282	1,300	1,775
Hooks and eyes.....	5	117	60	57	139,850	34,824	66,450	194,700
Horse-covers.....	1	51	1	50	10,000	7,500	125,000	145,000
<i>shoe nails</i>	24	94	94	.....	21,000	33,852	27,548	81,706
<i>shoes</i>	10	93	93	.....	29,260	34,704	45,771	106,383
Hostery.....	197	9,103	2,780	6,323	4,035,510	1,661,972	3,292,317	7,289,006
Husks, prepared.....	8	40	40	.....	11,500	12,228	14,350	40,355
Hydrant cases.....	1	4	4	.....	1,500	1,920	4,000	8,250
Hydrants.....	1	4	4	.....	16,000	3,400	47,820	451,275
Ice.....	52	1,765	1,765	.....	494,200	86,273	47,820	5,612,700
India-rubber goods.....	27	2,762	1,795	973	3,534,000	796,570	3,058,360	5,612,700
Ink, printing.....	16	70	70	.....	245,700	33,244	498,505	802,500
<i>writing</i>	13	66	58	8	33,650	18,432	45,344	119,578
Instruments.....	116	742	710	32	827,000	294,288	239,717	1,626,133
Iron, cast.....	1,405	26,961	26,940	21	24,368,243	10,328,722	15,521,619	36,436,073
<i>forged, rolled, and wrought</i>	402	22,014	21,962	52	23,341,073	7,436,538	21,961,437	36,537,259
Iron-ore.....	159	3,206	3,206	.....	2,195,527	913,280	1,901,562	2,165,292
<i>pigs</i>	286	13,927	15,824	73	24,672,824	4,545,430	12,293,030	59,850,120
<i>steamships</i>	1	300	300	.....	190,000	184,400	585,070	914,700
Isinglass.....	1	16	10	.....	5,000	1,920	667	3,750
Ivory-black.....	1	6	6	.....	5,000	2,010	2,000	6,000
Jack-screws.....	1	2	2	.....	4,500	960	700	2,350
Japaned ware.....	11	240	224	16	114,400	63,204	91,621	247,960
Jewelers' dies, tools, and machinery.....	6	16	16	.....	10,400	6,132	2,418	14,840

TABLE VIII (B).—THE UNITED STATES—BY INDUSTRIES—1860—Continued.

MECHANICAL AND MANUFACTURING INDUSTRIES.	Establishments.	HANDS EMPLOYED.			CAPITAL. Dollars.	WAGES. Dollars.	MATERIALS. Dollars.	PRODUCTS. Dollars.
		All.	Male.	Female.				
Jewelry	463	5,947	5,363	584	5,180,723	2,605,056	5,102,500	10,415,811
boxes and cases	14	82	70	12	23,650	23,876	23,120	85,816
Keys, metallic	1	12	12		5,000	3,600	8,000	15,000
Kindling-wood	32	416	416		178,700	131,892	280,273	613,315
Lampblack	15	84	81	3	110,300	29,676	43,695	124,610
Lamp-fixtures	1	1	1		1,000	300	1,500	2,000
trimmings	1	70	70	0	25,000	34,488	51,750	100,000
Lamps	30	374	344	30	235,800	135,848	242,536	578,020
Lapidaries' work	7	29	29		13,400	14,760	14,004	36,850
Lasts and boot-trees	77	434	434		210,081	134,884	93,818	484,279
Laundry-work	3	176	11	165	19,600	24,840	165,830	212,600
Lead, manufactures of	14	316	344	2	1,739,963	103,056	2,679,453	3,166,029
mining and smelting	64	361	361		359,803	90,696	951,121	1,176,875
Leather	5,040	22,679	22,622	57	35,655,370	6,933,740	44,520,737	67,306,452
bolting and hose	46	354	354	25	582,000	134,952	4,520,737	1,481,750
morocco	123	2,601	2,279	322	2,213,800	893,078	3,618,181	5,910,773
patent and enameled leather	12	805	805		1,039,000	317,460	1,395,400	2,101,250
skin-dressing	13	101	92	9	117,450	31,230	278,341	326,272
Life-preservers	1	3	3		1,500	2,282	6,220	
Lighting-rods	20	85	85		87,610	32,820	76,362	182,750
Lime	714	3,053	3,031	22	2,014,931	877,377	1,700,103	3,798,505
Linen goods	4	487	226	261	690,000	95,220	238,575	655,000
Liquor-coloring	1	2	2		2,000	600	6,000	
Liquors, bottled	12	50	50		32,650	18,204	34,204	82,610
cordials	3	13	13		7,975	4,536	11,216	30,900
distilled	1,193	5,416	5,405	11	11,548,675	1,753,445	18,330,713	26,768,225
malt	1,269	6,433	6,412	21	15,722,342	2,305,970	9,997,293	21,310,933
rectified	232	688	685	3	2,571,265	283,640	6,351,972	7,391,707
wine	32	106	102	4	306,300	48,208	196,075	400,791
Lithography	53	726	700	26	445,250	338,868	229,206	848,230
Locksmithing and bell-hanging	49	203	203		127,780	76,992	49,255	195,071
Locomotive engines and repairing	19	4,174	4,174		3,482,592	1,564,468	2,411,954	4,866,900
Looking-glass and picture frames	199	1,896	1,884	12	1,008,383	704,274	1,228,831	2,854,132
Lumber, planed	466	3,717	3,715	2	4,138,993	1,322,438	8,291,497	11,529,736
sawed	10,699	71,878	71,207	671	72,503,894	20,647,897	43,156,993	93,338,696
Lye, condensed	1	5	5		10,000	1,800	52,780	62,500
Macaroni and vermicelli	6	60	29	31	24,600	20,460	111,600	111,600
Machinery, cotton and woolen	192	4,813	4,370	443	2,492,083	1,619,052	1,911,786	4,962,704
hay and cotton presses	2	12	12		3,500	7,080	6,300	31,000
paper	3	33	33		45,000	14,232	13,675	41,400
rice-machines	1	1	1		500	300	132	500
ribbon-looms	1	10	10		2,000	4,800	2,850	15,000
shingle-machines	5	13	13		10,400	4,452	2,371	10,620
silk	2	17	17		8,000	5,880	2,550	12,756
steam-engines, &c.	1,177	36,198	36,190	8	33,392,080	14,469,390	17,433,620	40,757,126
stump-machines	1	8	8		900	3,360	3,160	7,210
turbine water-wheels	2	50	50		43,600	15,600	35,000	96,700
wood-working	2	72	72		34,600	38,400	28,050	135,000
Machinists' tools	17	455	455		536,150	178,732	143,404	540,292
Magnesia	2	9	9		2,700	3,312	2,600	12,270
Manganese	1	10	10		2,000	3,600	5,250	
Malt	85	529	529		2,125,750	189,700	2,365,299	3,238,857
kilns	2	9	9		2,300	2,340	2,400	7,000
Map mounting and coloring	1	2	2		200	816	200	2,000
Maps	15	200	90	110	218,500	69,108	115,555	301,500
Marble and stone work	1,206	15,379	15,365	14	8,864,675	5,072,211	5,345,526	16,244,044
Mast hoops and hanks	6	14	14		4,650	5,400	1,482	10,580
Masts and spars	27	181	181		204,200	82,716	124,420	301,591
Matches	75	1,252	604	648	361,750	179,450	229,720	698,566
Mats and rugs	9	165	161	4	34,760	20,692	42,850	107,036
Mattresses and beds	36	93	72	21	35,753	23,004	43,621	104,499
Medicine-chests	3	10	10		6,000	4,308	3,550	9,150
Medicines, extracts and drugs	173	1,059	833	226	1,077,985	372,127	1,492,248	3,465,594
Metallic caps and labels	10	4	4		500	960	1,200	3,700
Metal cocks and faucets	1	299	299		175,500	135,024	197,798	431,445
repaired and white	7	40	49		226,200	21,348	226,150	330,500
spinning	1	2	2		1,000	720	1,594	4,648
type	1	6	6		50,000	2,904	50,640	62,000
Military goods	15	209	174	35	407,500	76,528	107,350	299,856
Milk, condensed	1	10	9	1	24,000	3,300	25,000	48,000
Millduery and dressmaking	967	4,746	132	4,614	1,379,777	887,702	2,153,192	4,543,254
goods	35	104	111	93	365,000	292,508	739,965	1,483,154
Millstones and mill furnishing	21	162	162		162,245	65,952	100,329	270,644
Millwrighting	40	333	329	4	274,950	99,356	175,115	482,654
Mineral water	123	727	720	7	585,860	241,292	454,453	1,415,420
water apparatus	2	34	33	1	52,500	10,680	7,500	30,000
Molasses, refined	21	21	21		10,500	6,384	87,000	98,600
Money-drawers	1	8	8		600	2,000	540	16,800
Molding-sand	3	15	15		5,650	3,600	4,000	13,600
Mowing-machine knives	1	1	1		3,000	432	4,000	2,100
Musical instruments, miscellaneous	53	263	263		184,650	105,740	90,033	315,800
melodeons	49	451	447	4	418,400	230,352	214,950	644,675
organs	39	265	265		184,600	112,764	111,395	324,750
piano-forges	110	3,482	3,479	3	3,644,250	1,024,664	1,727,825	5,280,007
Instrument materials	24	292	287	5	189,290	148,668	179,051	411,456
Music-printing	2	11	11		18,000	5,820	5,800	22,500
Mustard	4	17	17		21,000	5,700	33,084	79,450
Nails, cut, wrought, and spikes	99	6,878	6,721	157	5,810,251	2,398,872	6,069,195	9,857,223
Needles	1	3	3		700	600	310	1,000
Needle-threaders	1	4	4		1,000	200	525	2,880
Nets	1	22	2	20	1,500	3,300	12,000	23,240
Newspaper-directing machines	1	2	2		2,000	240	340	600
Nickel and cobalt	2	40	40		80,000	14,856	40,750	81,000
Nickel ore	2	45	45		115,000	18,850	3,398	35,628
Oakum	14	196	196		101,400	49,044	245,050	348,401
Oars	4	10	10		5,100	3,456	3,180	9,255
Ochre	1	2	2		1,500	450	1,080	
Oil, castor	8	97	97		137,400	41,196	230,840	320,370
coal	64	92	92		2,240,518	339,360	2,167,103	4,254,887
cocon-nut	1	2	2		3,000	600	2,000	4,000

TABLE VIII (B.)—THE UNITED STATES—BY INDUSTRIES—1860—Continued.

MECHANICAL AND MANUFACTURING INDUSTRIES.	Establishments.	HANDS EMPLOYED.			CAPITAL. Dollars.	WAGES. Dollars.	MATERIALS. Dollars.	PRODUCTS. Dollars.
		All.	Male.	Female.				
Oil and enameled cloth.....	41	1,228	1,205	23	1,265,700	420,972	1,955,912	2,916,416
cloth, silk.....	1	4	4		1,500	840	4,838	7,000
cotton-seed.....	7	183	183		351,000	70,956	498,000	741,000
fish, whale and other.....	48	337	335	2	1,968,201	138,276	5,236,405	6,090,377
floor cloth.....	8	310	310		341,000	96,324	420,063	685,800
kerosene.....	14	551	551		2,085,000	216,924	895,124	2,142,633
lard.....	20	151	147	4	512,950	51,112	2,131,141	2,552,510
linseed.....	94	814	808	6	2,592,550	284,604	5,044,277	5,981,843
meats/foot.....	4	15	15		10,000	3,024	8,533	15,826
resin.....	14	77	77		560,000	32,732	204,326	518,439
stones.....	1	3	3		1,000	360	200	2,500
tanks.....	1	3	3		1,500	720	1,627	2,410
water.....	1	3	3		6,000	1,440	15,800	20,000
Oils, chemical.....	20	20	20		100,000	6,920	134,825	200,000
essential.....	45	74	74		35,615	12,247	87,369	124,317
Ornaments, paper.....	1	1	1		100	360	250	1,200
plaster.....	11	42	42		10,100	12,780	9,325	35,070
terra-cotta.....	1	4	4		600	1,584	238	4,000
Painting.....	268	913	903	10	300,815	370,028	325,112	915,339
Paint-mills.....	1	4	4		1,020	1,020	1,242	6,000
Paints.....	45	563	562	1	1,615,300	213,864	1,567,238	2,574,955
Paper.....	555	10,911	6,519	4,392	14,032,683	2,767,212	11,692,266	21,216,862
bags.....	2	14	5	9	11,000	2,460	12,200	21,500
clay.....	1	6	6		10,000	1,522	1,000	7,500
hangings.....	26	1,294	1,203	91	1,037,600	328,224	1,153,670	2,148,800
ruling.....	1	4	4		500	720	1,600	1,800
shades.....	1	27	13	13	10,060	6,300	5,000	25,000
staining.....	3	25	25	2	17,000	7,260	14,026	22,500
Patterns and models.....	48	240	240		101,050	111,732	32,221	236,060
Pearl goods.....	12	112	97	15	16,300	20,976	17,075	59,416
Perfumery and fancy soaps.....	33	535	261	274	597,000	146,076	460,194	1,222,400
Photographic materials.....	12	551	255	296	198,000	123,900	173,821	468,250
Photographs.....	249	653	580	73	417,250	359,854	293,237	1,090,647
Piano-forte stools.....	1	5	5		1,500	2,400	1,860	7,000
Pins.....	1	253	88	165	206,000	65,200	272,422	432,500
Pipes, clay.....	1	3	3		500	684	150	3,750
meerschams.....	1	2	2		800	840	375	2,000
Pipe-tongs.....	1	5	5		1,000	2,400	1,450	5,000
wooden.....	1	2	2		4,000	864	1,000	2,000
Pitch, brewers' and Burgundy.....	3	3	3		5,800	1,800	3,000	7,100
Plaster and manufactures of.....	307	866	804	2	1,023,990	232,500	523,836	1,110,854
Plastering.....	11	49	49		7,150	21,540	16,104	49,500
Plugs and wedges.....	1	4	4		2,500	960	300	3,000
Plumbago, black and silver lead.....	2	48	48		101,600	15,000	16,853	53,000
Plumbers' materials.....	1	35	35		14,000	7,200	26,905	40,000
Plumbing and gasfitting.....	221	1,345	1,345		797,470	523,050	931,920	2,113,701
Pocket-books, portemonnaies, and wallets.....	46	820	423	397	208,200	156,996	354,264	706,037
Porcelain ware.....	3	236	224	12	360,000	109,680	81,195	243,000
Potters' clay and materials.....	2	24	24		23,000	6,480	15,000	34,000
Pottery and stoneware.....	557	2,908	2,836	72	1,341,774	934,918	517,113	2,463,681
Powder-flasks and percussion-caps.....	7	237	143	94	245,500	60,220	142,315	320,000
Prepared moss.....	1	5	5		4,000	3,600	4,000	18,000
Printers' cases, furniture, and rollers.....	1	27	27		13,900	10,656	11,699	31,500
Printing and publishing.....	1,666	20,159	17,826	2,333	10,632,318	7,528,096	12,844,268	31,063,898
lithographic presses.....	14	707	707		1,015,000	289,684	145,520	943,450
Provisions.....	352	7,479	6,680	799	11,484,896	1,368,190	24,894,621	31,986,433
Pump logs.....	1	2	2		3,000	624	1,000	3,000
Pumps and hydraulic rams.....	133	534	534		453,740	199,856	229,198	685,024
Putty.....	3	9	9		11,500	2,700	18,280	35,720
Quicksilver.....	3	335	335		3,112,000	159,000	169,100	382,007
Quilts.....	2	20	1	19	6,500	2,424	12,160	15,504
Razor-strops.....	9	57	28	29	17,000	12,984	14,547	56,800
Refrigerators and water-coolers.....	13	93	92	1	83,650	41,244	70,727	162,550
Regalia, banners, and flags.....	6	23	10	13	12,000	5,508	14,000	26,900
Rice-cleaning.....	23	442	229	213	529,700	79,836	1,530,777	1,788,126
flour.....	1	96	70	26	115,000	16,560	645,200	772,200
Rigging.....	20	294	294		72,400	147,588	296,058	506,350
Roofing.....	56	554	554		352,300	195,996	533,155	1,024,019
Saddlery and harness.....	3,621	12,285	11,063	322	6,478,184	4,150,305	6,606,415	14,169,037
harness materials.....	74	495	480	15	137,850	182,676	119,929	438,291
Sad-irons.....	3	152	152		55,000	42,060	52,650	140,000
Safes, cheese.....	1	2	2		3,000	720	2,300	4,000
fire-proof.....	36	1,093	1,093		1,026,800	471,924	757,515	1,910,679
provision.....	4	25	25		10,500	8,940	5,132	21,200
Safety-fuse.....	3	32	14	18	40,000	8,880	47,245	70,940
Sails.....	133	643	641	2	312,075	267,485	820,222	1,328,146
Saleratus.....	11	178	173	6	275,000	89,112	433,010	1,176,000
Salt.....	399	2,213	2,100	23	3,692,215	371,954	1,054,780	2,289,504
ground.....	9	51	37	14	83,700	18,852	95,140	107,468
Salpeter and nitrate of soda.....	1	2	2		3,000	1,032	15,000	23,500
Sand-paper.....	3	21	18	3	42,500	7,368	24,760	51,350
washed.....	4	31	31		44,760	7,936	6,750	132,500
Sash, doors, and blinds.....	956	7,406	7,399	7	5,410,467	2,745,667	3,965,365	9,589,007
metal.....	6	6	6		4,000	2,460	12,000	12,000
Satinet printing.....	7	111	103	8	120,000	39,792	95,032	222,420
Saws.....	42	759	756	3	770,200	281,392	553,123	1,237,063
Scales and balances.....	43	725	725		744,300	280,015	336,166	1,292,500
School apparatus.....	3	30	23	7	8,200	9,936	5,500	27,000
Scythe files.....	1	2	1	1	500	480	163	1,400
stones.....	12	29	29		7,700	8,676	2,029	16,735
Scythes.....	22	474	474		667,925	173,723	214,637	553,753
Seal and copying presses.....	3	17	17		19,000	7,680	8,500	39,400
Seeds, garden and flower.....	2	28	13	15	36,000	19,500		45,500
Sewing-birds.....	1	12	10	2	12,000	4,560	8,850	17,000
machine cases.....	1	20	20		20,000	6,000	33,750	50,000
machine needles.....	12	135	117	18	46,700	43,888	18,714	97,326
machines.....	74	2,287	2,250	28	1,420,550	1,090,956	647,963	4,247,820
machine shuttles.....	1	10	10		1,000	3,840	8,000	8,000
Shingles and lath.....	665	2,190	2,177	19	1,125,470	552,849	652,821	1,665,507
Ship and boat building.....	614	9,260	9,259	1	3,472,815	4,151,599	4,774,586	11,667,661

TABLE VIII (B).—THE UNITED STATES—BY INDUSTRIES—1860—Continued.

MECHANICAL AND MANUFACTURING INDUSTRIES.	Establishments.	HANDS EMPLOYED.			CAPITAL. Dollars.	WAGES. Dollars.	MATERIALS. Dollars.	PRODUCTS. Dollars.
		All.	Male.	Female.				
Shoddy	30	290	141	149	123,500	54,124	227,925	402,590
Shoe and boot tips	1	15	15		25,000	8,184	31,400	149,740
findings	43	303	265	38	157,600	92,692	91,091	307,188
peg machines	2	13	13		4,000	7,200	980	16,000
strings	2	12	7	5	2,500	3,036	2,650	7,040
Shoemakers' tools	39	394	387	7	139,900	120,396	73,096	339,059
Shoulder-braces	1	3	1	2	100	480	200	800
Shovels, spades, forks, and hoes	55	1,189	1,188	1	963,300	414,620	866,468	1,638,876
Show-cards	7	71	44	27	20,400	19,284	39,811	91,100
cases	9	40	40		17,900	18,648	29,141	85,200
Stove-hoops	2	7	7		9,000	2,208	1,300	5,850
Signs	20	83	83		11,500	38,016	24,995	85,200
Silk and fancy goods, fringes, and trimmings	95	2,781	940	1,841	1,262,780	647,993	1,527,769	2,992,932
sewing and twist	42	2,579	583	1,996	1,675,900	387,312	2,378,521	3,596,249
Silver, manufactures of	106	1,344	1,283	61	1,712,050	556,140	2,266,784	3,571,654
mining	6	259	259		694,000	52,200	99,000	1,040,000
plated and Britannia ware	138	2,499	2,172	327	1,537,540	932,756	1,738,896	3,676,460
Straps, other than sorghum	7	21	21		73,200	16,476	96,422	172,630
Skirt-supporters	2	21	11	10	4,500	4,368	4,300	15,000
Slate quarrying	22	370	368	2	323,300	118,824	63,660	287,150
Soap and candles	614	3,247	3,062	185	6,347,138	1,066,390	12,562,179	18,464,574
stone	6	27	27		16,900	10,824	10,425	27,600
Sorghum strap	8	25	25		9,300	4,692	4,993	23,870
Speaking-tubes	1	2	2		400	900	460	2,000
Spelter	1	6	6		5,000	2,161	2,420	10,800
Spilins	2	14	14		7,200	5,520	7,515	27,640
Spokes, hubs, felloes, shafts, and bows	215	1,635	1,635		1,422,700	599,179	792,324	2,213,849
Sponges	1	250	250		14,000	60,000		72,000
Springs, car, carriage, locomotive, and other	40	1,009	1,009		1,264,000	408,160	1,093,142	2,117,377
Stair-building	46	258	258		105,266	113,022	113,892	339,600
rods	5	67	62	5	87,000	28,380	75,685	149,400
Starch	167	1,073	1,003	10	2,051,710	296,526	1,389,000	2,823,258
Stationery	32	392	365	27	144,400	106,360	81,167	325,338
Staves, heading, hoops, and shooks	295	1,788	1,787	1	897,726	501,809	772,029	1,711,743
Steam and gas fittings and valves	18	426	396	30	229,000	122,292	177,004	507,400
heaters and heating apparatus	9	234	234		275,500	75,540	189,876	516,650
water-gauges	1	5	5		2,000	2,400	382	5,310
Steel, and manufactures of	17	889	871	18	1,666,000	338,880	858,274	1,879,840
Steering apparatus	1	3	3		1,500	792	950	3,500
Stencils and brands	4	8	8		2,150	3,420	1,340	7,675
Stencil tools	1	12	12		7,000	3,120	2,120	35,008
Stereoscopic cases	1	1	1		500	600	730	1,200
Stereotyping and electrotyping	41	305	305		126,500	120,840	60,507	286,300
Stone-cutters' tools	1	1	1		200	360	100	850
Stove-polish	10	55	40	15	30,500	15,552	42,320	121,350
Straw-hat bleaching	3	50	23	27	2,500	12,228	3,170	18,500
goods	39	7,004	801	6,803	1,256,700	1,384,232	2,529,416	4,395,616
Stucco and stucco work	6	38	38		7,100	15,900	8,725	45,265
Stuffed birds	1	1	1		500	720	200	1,100
Sugar and molasses	2	5	5		1,300	800	477	2,280
evaporators	2	27	27		11,000	9,456	11,060	31,000
molds	3	75	75		8,000	22,800	29,945	90,000
refining	30	3,484	3,484		9,087,600	1,358,328	34,143,767	42,143,234
Sulphur	3	22	22		73,000	8,736	107,700	133,264
Suspenders	4	482	143	339	341,200	95,460	243,522	633,000
Tags	1	17	2	15	3,500	2,664	4,500	10,000
Tapes and binding	1	100	40	60	60,000	26,400	40,400	75,000
Tar	29	47	47		6,500	10,284	3,895	41,900
Teeth, porcelain	11	176	92	84	304,060	67,704	206,410	367,512
Terra-cotta ware	2	16	16		11,750	5,760	2,345	18,000
Thread, linen	7	202	92	110	149,795	39,248	99,195	184,570
Timber cutting and timber hewed	159	1,202	1,202		450,483	322,792	77,565	640,801
Tin, copper, and sheet-iron ware	3,468	11,226	11,156	70	9,079,766	4,056,480	7,699,047	16,718,388
foil	1	30	30		100,000	11,400	92,000	120,000
Tinned iron ware	1	66	66		17,000	16,740	23,700	50,000
Tinners' tools and machines	6	135	135		100,000	54,600	34,743	128,035
Tobacco and snuff	626	18,859	15,869	2,990	9,494,405	3,571,294	13,024,988	21,820,535
Torpedoes	3	11	11		2,200	1,920	828	4,275
Toy books and games	1	45	15	30	38,000	8,400	30,000	70,000
Toys	10	116	65	51	47,000	32,928	37,130	104,600
tin	1	15	9	6	2,000	3,360	3,505	10,000
Trunk and carpet-bag frames	3	105	105		28,500	9,420	27,976	53,500
Trunks, carpet-bags, and valises	151	2,092	1,793	299	935,800	692,572	1,380,444	2,836,969
seamens' chests	2	2	2		2,000	792	900	2,800
Trusses, bandages, and supporters	18	88	38	50	28,300	25,488	29,440	77,860
Truss hoops	2	3	3		550	1,200	542	2,300
Turning, ivory and bone	10	307	293	14	89,550	88,608	130,155	253,204
scroll-sawing, and molding	253	1,667	1,667		988,328	585,740	836,484	2,084,325
Turpentine, crude	1,082	2,102	2,102	6	957,648	394,968	250,004	926,366
distilled	596	4,167	4,032	135	4,007,258	760,412	4,320,510	6,423,370
Type and type and stereotype founding	32	1,107	795	312	1,113,600	416,404	357,600	1,276,570
wooden	2	39	32	7	26,500	11,520	5,000	25,000
Umbrella furniture	6	20	163	46	38,852	43,380	41,977	134,100
Umbrellas and parasols	66	1,961	551	1,410	1,038,890	433,980	2,015,623	2,948,362
Upholstery	199	1,427	876	551	740,330	425,452	1,705,634	2,920,188
Valentines	1	9	9		7,000	2,160	3,000	12,000
Vanes, weather	2	2	2		1,501	1,200	2,025	4,500
Vault-lights	1	30	30		1,000	10,800	4,000	40,000
Varnish	48	315	312	3	1,080,650	126,024	1,549,413	2,402,790
Vats	1	18	18		12,000	8,208	61,860	90,000
Veneers	25	194	192	2	507,300	88,560	585,187	1,021,700
Venetian blinds	31	138	106	32	48,200	42,384	49,747	134,740
Vinegar	126	319	308	11	428,200	107,340	411,273	923,832
Wagons and carts	3,305	9,641	9,639	2	4,501,968	3,415,925	2,812,981	8,703,937
washing blue	1	1	1		500	288	1,706	3,000
machines and clothes-driers	29	85	85		34,700	29,124	24,624	87,565
Watches, watch repairing, and materials	94	833	710	123	775,611	359,400	705,173	1,524,700
Watch-engraving	2	3	3		2,200	1,728	200	2,600
guards	28	22	22	6	1,200	2,736	2,400	12,000
Watchmakers' lathes	2	7	7		1,700	2,400	152	4,750

TABLE VIII (B.)—THE UNITED STATES—BY INDUSTRIES—1860—Continued.

MECHANICAL AND MANUFACTURING INDUSTRIES.	Establishments.	HANDS EMPLOYED.			CAPITAL.	WAGES.	MATERIALS.	PRODUCTS.
		All.	Male.	Female.	Dollars.	Dollars.	Dollars.	Dollars.
Water-closets.....	3	35	35	.....	23,000	11,040	34,920	55,300
lime.....	29	1,054	1,054	.....	465,400	236,556	291,798	928,292
Wax-work.....	1	1	1	.....	100	312	100	600
Webbing.....	10	279	109	170	262,400	63,492	131,210	303,010
Well curbs.....	8	15	15	.....	7,100	5,304	10,670	20,830
Whalebone and rattan.....	3	50	43	7	69,000	12,720	86,843	132,331
Whetstones.....	1	15	15	.....	15,000	2,400	5,000	15,600
Whips, whip-lashes, sockets, and canes.....	71	1,179	730	459	372,467	240,658	223,708	852,150
White-lead.....	36	994	992	2	2,453,147	387,240	3,524,633	5,380,347
Whitesmithing.....	4	9	8	1	1,200	3,504	2,600	10,000
Whiting.....	8	45	45	.....	62,500	18,720	37,678	195,600
Wigs and hair-work.....	44	155	98	57	72,600	44,388	78,345	237,012
Willow furniture and willow ware.....	26	107	91	16	33,420	35,736	15,847	82,245
Windlasses.....	1	2	2	.....	10,000	1,800	2,700	4,500
Windmills.....	5	27	27	.....	8,550	12,948	11,165	28,750
Window blinds and shades.....	15	83	82	1	23,950	34,924	51,495	134,620
Wire.....	25	789	727	62	620,063	279,540	1,133,895	2,015,133
cloth.....	7	40	36	4	28,900	11,964	24,265	45,485
rope.....	1	30	30	.....	100,000	14,400	45,000	70,000
work, sieves, and bird-cages.....	58	469	457	12	234,300	120,060	214,450	478,543
Wired steel.....	1	1	1	.....	400	480	505	1,500
Wood-cutting.....	1	30	30	.....	.....	4,680	15,000	21,000
work, miscellaneous.....	10	67	59	8	34,500	21,594	41,765	106,250
Wooden clothes-frames.....	1	4	4	.....	1,000	960	195	1,500
door-knobs.....	1	10	10	.....	1,200	3,000	6,200	10,600
screws.....	5	14	14	.....	6,900	4,560	1,808	9,490
ware.....	229	1,933	1,909	24	1,103,770	619,062	835,273	2,108,656
Wool-carding and cloth-dressing.....	712	1,276	1,146	130	1,080,985	286,267	1,759,125	2,403,513
cleaning and pulling.....	47	353	341	12	510,900	116,564	1,174,130	1,629,361
Woolen goods.....	1,227	40,597	24,471	16,126	30,186,954	9,616,593	35,652,701	60,625,190
yarn.....	33	763	370	393	675,700	191,661	934,186	1,320,027
Worsted goods.....	3	2,378	1,101	1,277	3,230,000	543,684	2,442,775	3,761,378
Zinc ore.....	2	52	52	.....	59,100	15,696	4,537	72,600
oxide of.....	4	141	140	1	1,228,000	51,720	138,690	226,860
paint.....	1	100	100	.....	1,000,000	36,690	95,000	250,000

TABLE VIII (B.)—THE UNITED STATES—BY INDUSTRIES—1850.*

MECHANICAL AND MANUFACTURING INDUSTRIES.	Number of establishments.	All hands.	Male hands.	Female hands.	CAPITAL.	COST OF LABOR.	COST OF RAW MATERIAL.	VALUE OF PRODUCT.
					Dollars.	Dollars.	Dollars.	Dollars.
All industries.....	123,033	966,969	741,671	225,298	533,244,250	236,745,858	555,180,360	1,019,178,131
Agricultural implements.....	1,333	7,220	7,211	9	3,564,202	2,167,868	2,445,765	6,842,611
Arrowroot.....	2	29	27	2	6,000	9,600	7,200	22,800
Artificial flowers.....	23	434	62	372	44,100	45,792	52,785	146,120
Asheries.....	569	1,024	1,020	4	485,760	243,672	812,190	1,401,533
Awning and sacking bottoms.....	6	20	18	2	5,000	5,442	9,570	21,200
Bagging, rope, and cordage.....	417	6,057	5,258	799	3,341,500	1,192,788	5,612,247	8,062,893
Bakers.....	2,027	6,727	6,351	376	3,390,824	1,960,416	8,367,370	13,294,229
Bark-mills.....	32	80	87	2	105,450	18,852	95,029	193,110
Barrel-heading.....	24	108	108	0	17,510	31,920	22,369	40,750
Baskets.....	67	203	190	13	32,975	56,052	40,410	147,400
Bellows.....	7	16	16	0	7,700	6,504	13,536	30,225
Blacksmiths.....	10,373	25,002	24,923	19	5,824,149	6,508,032	5,111,388	16,048,536
Bleachers and dyers.....	16	565	519	46	563,600	161,688	323,924	686,830
Blocks and pumps.....	203	783	774	9	339,690	227,736	250,688	878,021
Block letters.....	3	14	14	0	11,200	5,280	7,550	29,500
Blocks and spars.....	2	8	8	0	4,500	3,840	5,500	12,000
Bobbins and spools.....	3	9	8	1	8,000	4,036	1,760	6,000
Bonnets, straw braid, &c.....	68	3,771	373	3,468	336,350	592,824	632,674	1,087,248
Bookbinders and blank-books.....	235	3,468	1,778	1,690	1,063,703	901,401	1,560,330	3,225,678
Bone-lust.....	3	16	16	0	7,000	4,344	15,478	24,274
Boots and shoes.....	11,305	105,254	72,305	32,949	12,924,919	21,622,698	23,848,374	53,967,408
Boxes, hand and fancy.....	82	718	303	415	136,240	139,764	187,796	434,104
cheese.....	40	99	99	0	31,020	22,362	14,318	46,195
packing.....	206	891	878	13	355,156	286,500	500,470	1,053,741
Brass foundries.....	148	1,678	1,666	12	1,585,090	501,672	2,112,592	3,625,618
Breweries.....	431	2,347	2,346	11	4,072,380	654,144	3,055,266	5,728,568
Bricks.....	1,603	17,345	16,726	619	4,367,912	4,235,088	1,474,023	6,610,731
fire.....	4	28	28	0	14,450	5,748	2,165	12,000
common.....	2	20	20	0	16,000	11,520	50,500	80,000
Brimstone refiners.....	91	1,276	1,120	156	592,150	414,140	760,978	1,535,765
Britannia and plated ware.....	303	1,124	1,174	10	314,985	263,642	528,842	940,766
Brooms.....	146	2,405	1,500	905	710,800	533,460	638,359	1,573,579
Burr millstones.....	9	53	55	0	34,100	17,400	25,825	55,000
Buttons.....	59	1,088	467	621	393,000	225,120	324,837	964,359
Cabinet ware.....	4,242	22,010	20,997	1,013	7,303,356	6,638,568	6,089,546	17,663,654
Calico printers.....	42	4,080	3,351	729	3,922,800	1,088,904	10,462,044	13,640,205
Card-machines.....	31	160	146	14	213,850	57,216	207,220	393,823
Cards, playing.....	4	221	66	155	147,000	43,320	105,260	176,800
Carpenters and builders.....	2,790	15,282	15,276	6	3,289,308	5,599,320	7,011,930	16,886,819
Carpets.....	116	6,186	3,281	2,905	3,852,981	1,246,500	3,075,592	5,402,634
Carpet-weaving.....	16	37	37	0	8,396	8,112	26,416	36,025
Cars, railroad.....	41	1,554	1,554	0	896,015	604,708	1,393,676	2,493,552
Carvers.....	37	168	168	0	40,020	78,516	26,057	144,280
Cement, for building purposes.....	35	407	407	0	391,525	117,924	238,157	509,110
Chandlers.....	487	2,816	2,660	156	4,145,400	775,300	7,000,707	10,199,730
Charcoal.....	140	767	767	0	270,225	176,770	161,608	386,651
Cheese.....	8	55	43	12	11,951	11,676	54,419	67,210
Chemicals.....	170	1,389	1,335	54	2,335,715	423,560	3,225,360	4,979,636
Chocolate.....	3	34	17	17	56,000	8,520	94,600	121,000
Chrome mining.....	4	47	47	0	2,800	16,080	5,610	24,400
Cider-bottling.....	10	32	32	0	21,500	8,544	11,485	20,772
Clocks.....	23	860	777	83	499,800	278,528	456,834	1,181,500
Clock-cases.....	5	53	49	4	12,600	12,600	12,600	38,000
springs.....	6	76	62	14	22,300	23,338	34,875	72,087
Cloth-dressers.....	30	36	36	0	20,275	9,612	39,879	65,160
Clothiers and tailors.....	4,278	96,551	35,051	61,500	12,509,161	15,032,340	25,730,258	48,311,709
Coaches and carriages.....	1,822	14,040	13,982	58	4,973,707	4,268,904	4,268,904	11,073,632
Coach lace.....	4	66	35	31	20,200	19,372	20,228	47,458
Coal-mining.....	510	15,112	15,112	0	8,317,501	4,069,188	246,414	7,173,750
Coffee and spice.....	48	317	305	12	438,662	99,900	843,254	1,240,614
Coke.....	4	14	14	0	3,700	3,444	6,023	15,250
Combs.....	151	1,728	1,426	362	633,637	494,196	843,482	1,615,850
Confectioners.....	383	1,733	1,388	345	1,035,551	458,904	1,691,824	3,040,671
Coopers.....	2,902	11,916	11,900	16	2,383,040	3,201,201	2,644,582	7,126,317
Copper and brass.....	175	2,390	2,388	2	2,850,981	956,641	3,062,661	4,942,901
Corks.....	3	23	11	12	1,650	6,168	3,450	12,000
Cork-cutters.....	11	81	79	2	41,750	25,152	53,653	126,893
Corsets.....	8	86	30	56	8,650	10,728	9,364	28,920
Cottons.....	1,074	97,956	35,295	62,661	76,032,578	17,267,112	37,778,064	65,501,687
and woollens, mixed.....	103	4,568	2,667	1,901	1,711,720	808,752	2,321,926	3,693,731
Curled hair.....	6	247	147	100	166,825	48,216	176,352	279,630
Cutlery and edge-tools.....	401	4,275	4,247	28	2,321,835	1,420,844	1,439,462	3,613,241
Daguerrotypes.....	74	158	141	17	89,925	70,500	99,729	250,267
Die-sinkers.....	2	3	3	0	400	1,320	550	3,000
Distilleries.....	968	4,008	3,985	23	5,409,334	1,089,864	10,543,201	15,770,240
rectifying.....	38	80	80	0	357,300	24,120	658,452	791,030
Dyers.....	46	460	434	26	331,950	127,320	754,379	1,086,715
Earthen ware.....	30	139	139	0	57,325	43,168	17,103	100,556
Electro-magnetic instruments.....	2	4	4	0	3,750	1,500	1,450	5,100
Engravers.....	112	460	433	27	172,065	227,776	130,714	566,005
Envelopes.....	2	42	6	36	10,500	7,620	17,120	45,000
Fire-engines.....	16	248	248	0	152,700	93,312	116,237	296,230
hose.....	2	12	12	0	8,000	4,272	26,500	34,500
Fisheries.....	1,407	21,238	20,814	424	8,962,403	4,639,188	71,517	10,056,163
Flax-breakers.....	4	63	42	21	22,000	17,824	25,500	50,000
dressers and spinners.....	4	262	160	102	135,700	61,728	186,000	301,868
Flour and grist mills.....	11,891	23,310	23,260	50	54,415,581	5,680,164	113,036,698	136,056,736
Fringe, gimp, and tassels.....	38	886	205	681	244,350	142,928	233,660	583,000
Furriers.....	49	1,078	618	460	1,116,800	248,724	643,170	1,598,695
Gas.....	30	952	950	2	6,674,000	390,684	503,674	1,921,746
fixtures.....	20	241	241	0	104,250	75,312	130,969	293,725

* This table is an exact reproduction of Table No. 3 in the Abstract of Manufactures at the Seventh Census, [Senate Executive Document, No. 39, second session Thirty-fifth Congress,] with the exception that the table, as there published, had neither a line of "All Industries" nor a column of "All Hands." It will be seen that the line "All Industries" does not agree with the line "The United States" in Table VIII (A) *ante*, as respects the manufactures of 1850. An attempt, involving much labor, has been made to reconcile the many inconsistencies in the several tables of the "Abstract of Manufactures" at the Seventh Census, but the set, consisting of four tables, has been found to be too erroneous for correction otherwise than by entirely recompiling all the material on the Industrial Schedule of that Census. The discrepancies, though numerous, do not seem to be of sufficient importance to justify an undertaking of this magnitude.

TABLE VIII (B.)—THE UNITED STATES—BY INDUSTRIES—1850—Continued.

MECHANICAL AND MANUFACTURING INDUSTRIES.	Number of establishments.	All hands.	Male hands.	Female hands.	CAPITAL.	COST OF LABOR.	COST OF RAW MATERIAL.	VALUE OF PRODUCTS.
					Dollars.	Dollars.	Dollars.	Dollars.
Gas-meters	2	92	92		70,000	31,000	42,700	114,000
Hammers	4	4	4		400	1,000	750	4,000
Glass cutters	94	5,668	5,571	97	3,402,350	2,094,575	1,556,834	4,611,076
Gloves	110	1,938	329	1,609	176,600	60,300	71,133	165,950
Glue	47	391	378	13	181,200	233,496	322,837	708,184
Gold-beaters	20	164	107	57	519,950	99,432	371,616	652,495
mining	1,015	4,884	4,804	80	62,500	52,500	216,300	336,000
rockers	7	30	30		1,814,012	3,030,832	57,711	9,551,824
Grindstones	3	10	10		8,200	14,075	75,970	252,400
Gum and varnish	3	4	4		4,500	4,740	16,500	16,500
Guns	317	1,547	1,547		1,550	1,506	10,500	15,375
Hardware	340	7,030	6,149	881	577,500	518,292	289,673	1,173,014
Hats and caps	1,048	15,200	6,974	8,226	3,539,025	1,973,064	3,015,688	6,957,770
Hose, riveted	2	9	9		4,427,798	3,179,700	7,199,029	14,319,861
Hosiery	85	2,325	835	1,490	6,800	3,280	7,200	20,760
India-rubber goods	34	2,565	1,010	1,555	544,735	360,356	415,113	1,021,162
Ink and lamp-black	14	53	49	4	1,455,700	537,822	1,062,728	3,031,365
Iron forges	3	13	13		116,850	21,588	72,673	213,619
foundries	375	7,775	7,098	77	16,500	4,596	29,318	62,024
furnaces	1,319	18,969	18,938	31	8,517,011	2,310,759	5,332,565	9,992,795
manufactures	404	21,054	20,847	207	14,732,749	6,279,812	8,534,024	20,111,517
mining	99	1,082	1,079	3	16,648,360	5,011,360	7,538,117	13,491,897
rolling	107	2,195	2,192	3	603,800	409,728	596,864	1,425,313
Japanners	64	3,820	3,800	20	500,866	500,866	63,651	1,277,863
Lamp-black	9	132	108	14	5,214,700	1,451,742	4,353,150	6,936,081
Lamps	2	8	8		69,200	31,638	48,440	127,340
and ethereal oil	5	24	23	1	41,250	7,056	29,025	42,250
Lasts	43	284	284		486,300	290,424	490,862	1,000,022
Lead	156	753	737	16	6,000	2,592	7,951	13,750
pipe	10	71	71		132,450	104,152	38,421	230,036
Leather bolting	4	18	15	3	603,196	181,756	1,532,885	2,130,068
Legs, artificial	3	15	15		272,350	26,001	678,320	797,166
Lime	761	2,838	2,834	4	26,000	7,656	78,035	165,500
Lithographers	11	162	104	58	2,700	5,880	1,400	14,300
Locomotives	3	802	802		1,124,072	735,746	1,106,775	2,286,212
Looking-glasses and picture-frames	108	963	881	79	76,600	51,288	136,000	136,000
Loom-furnishers	3	43	8	35	445,000	231,840	329,440	609,029
harness	3	31	6		445,240	347,976	544,909	1,952,748
pickers	2	29	29		10,600	7,260	4,854	15,400
Lumber, sawing and planing	17,895	52,218	51,706	452	4,600	4,776	3,286	9,712
Machinists and millwrights	1,062	27,992	27,834	58	31,000	10,668	27,100	55,500
Maltsters	11	73	73		40,038,427	13,022,652	27,593,523	58,520,866
Maps	3	80	26	63	19,225,018	9,639,912	11,397,725	27,099,314
Matches, friction	60	1,021	481	540	271,800	18,276	363,600	471,035
Mathematical instruments	90	664	624	40	8,200	21,024	6,255	42,100
Masts and spars	39	154	154		109,130	154,630	157,511	427,833
Mats	3	9	9		326,550	260,212	165,066	709,750
Meas	2	3	3		124,130	63,216	89,719	189,482
Medicines, drugs, and dye-stuffs	143	827	693	134	230	2,100	2,464	8,500
Military equipments	2	8	8		2,000	948	1,000	1,000
goods	532	3,809	181	3,628	1,427,375	276,488	1,657,889	3,508,365
Milliners	23	87	87		3,600	3,600	4,000	15,000
Millstones	64	569	570	19	203,000	43,430	102,500	184,000
Mineral water and pop.	5	36	26	10	610,826	610,826	1,496,869	2,761,659
Morocco cases	116	1,967	1,796	171	81,825	32,508	61,704	160,420
dressers	204	2,331	2,307	24	228,650	153,916	313,634	769,420
Musical instruments	87	5,231	5,227	4	13,500	8,820	14,765	31,200
Nails	5	36	36		1,367,750	624,772	2,290,935	3,861,285
Oakum	5	49	49		1,545,935	1,054,728	606,168	2,589,515
pickers	12	133	120	8	4,428,498	1,812,972	4,428,976	7,062,111
Oars	2	10	10		23,500	6,532	13,430	25,000
Ocher	23	147	147		38,500	13,020	24,316	76,575
Oil, castor	41	193	182	11	56,000	34,788	42,300	82,300
lard	168	479	477	2	11,000	2,700	2,300	5,000
linseed	50	544	492	52	152,820	43,824	447,065	704,050
whale	10	58	58		58,956	58,956	1,271,082	1,611,680
miscellaneous	56	650	648	2	362,950	362,950	1,317,015	1,948,914
Oil-cloths	4	22	22		896,650	143,664	6,492,576	7,890,989
Paints	443	6,785	3,835	2,950	2,491,000	198,468	6,41,504	7,890,989
Palm-leaf splitters	3	35	35		35,200	13,128	41,104	63,071
Paper	38	803	753	50	640,700	174,854	820,500	1,256,994
card	20	837	687	150	13,000	5,064	6,500	11,000
steamers	6	31	31		4,000	3,450	10,805	10,800
Patent leather	4	4	4		7,200,864	1,497,792	5,555,929	10,187,477
Patterns	2	4	4		21,000	7,320	21,480	37,500
Pearl-workers	4	58	58		21,000	7,320	21,480	37,500
Pens and pencils	4	12	12		517,700	160,288	314,291	741,539
Perceussion-cups	39	188	125	63	262,248	262,248	886,495	1,368,000
Perfumes and fancy soap	6	265	265		4,300	11,004	3,500	6,000
Pickles and preserves	4	7	7		1,500	1,500	59,014	82,000
Pins	149	381	381		43,000	14,022	15,376	30,000
Plaster casts	124	1,017	1,017		3,000	2,850	163,826	255,250
Plaster (gypsum)	37	770	609	161	137,550	43,720	257,893	366,100
Plumbers	185	3,276	3,267	9	103,000	54,552	137,890	291,500
Pocket-books	484	2,880	2,246	43	164,506	52,104	720	7,500
Pork and beef packing	54	570	570		2,000	3,420	329,063	427,914
Potteries	241	375	375		410,440	100,082	1,271,419	2,318,910
Powder, gun	26	375	375		646,225	377,944	1,271,419	2,318,910
Printers, lithographic and copper-plate	673	8,268	6,989	1,279	144,750	142,336	9,451,936	11,781,622
and publishers	30	148	138	24	1,231,536	607,412	273,683	1,000,000
Pumps	3	42	42		777,544	607,412	590,582	1,000,000
Pyrotechnists	2	8	8		192,526	192,526	59,528	217,300
Red lead	0	0	0		148,300	148,300	4,314,225	11,781,622
Reeds	0	0	0		8,370	49,300	36,423	168,919
Regalia	0	0	0		20,000	2,100	6,300	21,000
Rice mills	4	83	83		12,300	7,700	21,000	27,000
Riggers	8	200	200		8,000	12,300	30,800	68,700
					210,000	20,400	1,500,000	1,402,000
					5,000	31,464	13,900	52,000

TABLE VIII (B).—THE UNITED STATES—BY INDUSTRIES—1850—Continued.

MECHANICAL AND MANUFACTURING INDUSTRIES.	Number of establishments.	All hands.	Male hands.	Female hands.	CAPITAL.	COST OF LABOR.	COST OF RAW MATERIAL.	VALUE OF PRODUCT.
					Dollars.	Dollars.	Dollars.	Dollars.
Saddles and harness	3,515	12,958	12,508	360	3,969,379	3,154,008	4,427,006	9,035,474
Sails	183	848	838	10	266,380	349,644	880,414	1,054,503
Salt-bags	24	25	2	23	2,300	3,112	12,170	16,550
Salt and salt-refining	340	2,786	2,699	87	2,640,860	753,360	1,051,419	2,177,945
Sand-paper	2	6	6	0	9,000	864	3,200	6,000
Sash and blinds	433	2,448	2,448	49	1,066,355	840,924	859,827	2,277,061
Scales and beams, (weighers')	22	402	402	0	184,000	144,588	130,267	350,505
Sewing-silk	27	849	295	554	428,350	152,712	848,945	1,209,426
Silk cloth	2	8	3	5	5,600	1,776	11,235	17,050
Silversmiths, jewelers, &c	583	5,262	4,873	389	3,828,170	2,131,296	4,920,619	9,401,765
Shingles	520	2,127	2,127	0	823,940	425,328	406,932	985,657
Shingle-machine	1	5	5	0	300	1,440	2,256	5,000
Ship-building and boats	892	12,620	12,620	6	5,182,309	5,922,576	7,286,401	16,595,683
Shoe-pegs	24	126	111	15	35,750	33,084	13,238	73,018
Shot	5	73	69	4	245,500	18,580	760,421	988,550
Skin-dressers	22	216	195	21	192,000	49,548	391,198	525,370
Slates	6	109	109	0	50,000	23,100	13,174	40,700
Slate-pencils	3	39	19	20	4,600	7,704	1,800	15,000
Slates quarries	5	80	80	0	59,000	21,528	1,650	29,050
Spice mills	6	19	19	0	12,850	6,084	41,644	57,900
Starch	9	55	55	0	64,300	16,140	204,244	248,405
Starchers	146	694	686	8	692,675	193,224	799,456	1,261,468
Stations	8	225	99	126	113,000	45,708	207,775	332,900
Staves	63	361	478	0	53,725	47,484	11,300	104,392
Staves and shooks	99	428	428	0	164,153	130,344	190,141	438,794
Steel-furnaces	2	40	40	0	32,300	10,176	133,420	173,080
Steel-works	5	11	11	0	32,550	4,488	37,740	53,400
Stone and marble quarries	1,144	10,091	9,996	5	4,032,182	3,431,104	2,475,700	8,180,115
Stoves and ranges	230	4,227	4,227	0	3,179,475	1,617,274	6,193,943	6,154,748
Sugar-refiners	23	1,656	1,644	12	2,669,000	604,248	7,662,685	9,898,800
Sunac	9	25	25	0	15,550	13,270	24,360	36,731
Surgical instruments	37	300	189	111	161,450	94,041	80,987	259,400
Suspenders	5	362	35	327	20,800	33,750	55,300	171,000
Tanners and curriers	6,528	22,575	22,451	124	20,662,945	5,006,110	22,865,233	37,702,333
Thread	5	99	42	57	66,109	21,792	31,400	73,400
Timber-hewers	129	414	414	0	222,479	67,508	14,742	132,246
Tin and sheet-iron works	2,280	7,393	7,305	88	4,129,557	2,363,100	4,305,389	8,933,188
Tobacco-nists	1,418	14,236	12,201	1,975	5,008,295	2,420,298	7,341,728	13,491,147
Tress-hoops	6	20	20	0	1,100	4,668	1,650	9,700
Trunks and carpet-bags	116	1,320	1,056	264	350,660	386,160	765,816	1,558,388
Trusses	4	17	6	11	4,000	4,296	4,650	16,500
Turners	440	1,651	1,624	27	663,615	493,020	407,043	1,374,449
Turners bone and horn	5	24	24	0	3,500	6,036	4,280	13,800
Turners iron	7	52	52	0	17,800	18,492	16,907	57,000
Turners ivory	7	147	147	0	30,900	33,604	56,880	111,880
Tar-pentine	856	3,437	3,369	68	1,663,692	447,348	1,484,315	2,855,657
Twine	5	38	23	15	12,800	9,228	14,331	27,275
Type and stereotype	42	999	775	224	513,700	275,220	298,922	913,200
Umbrellas	80	2,576	814	1,762	761,760	433,548	1,399,607	2,505,622
United States armories	2	341	341	0	899,760	171,144	59,948	302,620
Upholsterers	155	1,512	804	708	565,635	365,580	983,961	1,790,683
Vegetable extracts	24	71	71	0	30,450	16,284	23,080	58,650
Wall-paper	6	93	91	2	49,500	25,872	53,335	107,040
Washing-fluid	2	40	29	11	17,500	13,440	109,106	215,000
Weavers	153	532	377	155	126,290	102,204	134,480	310,169
Webbing	2	34	9	25	8,000	6,408	11,024	15,400
Whalebone	11	200	199	1	85,100	39,252	285,885	412,000
Wheelwrights	4,226	11,549	11,542	7	3,146,211	3,157,544	1,886,551	6,827,451
Wigs and curls	25	108	40	68	33,900	25,680	36,383	80,270
Whips and canes	71	1,051	519	532	198,895	195,984	237,643	575,271
White lead	50	1,568	1,508	60	3,124,800	512,388	3,541,072	5,242,313
White and lock smiths	82	415	413	2	144,082	140,712	110,155	355,137
Whiting	6	27	27	0	31,150	10,896	33,000	76,700
Willow ware	3	4	4	0	2,200	1,680	2,700	5,700
Wire and wire-workers	83	676	658	18	537,725	208,128	534,548	1,033,249
Wood cutting and cording	65	543	493	50	246,895	112,404	53,999	260,778
Wooden ware	197	1,360	1,328	32	530,165	372,132	436,676	1,138,078
Wool-carders	630	1,093	1,071	22	739,925	225,972	1,251,550	1,739,476
Wool-carders cleaners and pullers	3	11	11	0	5,000	3,144	27,125	36,900
Woolens, carding, and pulling	1,817	44,895	20,919	14,976	26,071,542	7,167,900	24,912,455	39,848,557
Miscellaneous	504	4,980	4,247	742	4,045,370	2,231,378	3,249,944	10,050,504

OF MANUFACTURES

AND

TABLE VIII (C).

GENERAL STATISTICS OF MANUFACTURES

FOR

EACH SPECIFIED INDUSTRY,

(BY STATES AND TERRITORIES,)

AT THE CENSUS OF 1870.

REMARKS ON TABLE VIII (C.)

All industries specified in Table VIII (B) for 1870 will be found in the following table, or in the notes at the foot of the pages to which they severally belong, in alphabetical arrangement.

Industries which appear in less than eight States and Territories are omitted from the following Table, and will be found in the notes, with references to Table IX (B) of the States in which such industries are reported.

Industries which are published *in extenso* in the Special Statistics of Manufactures are omitted from this table, and merely a reference made, in the notes, to Table X.

In addition to this, a number of combinations have been effected, by which it is sought to exhibit the production of certain Groups of Industries. Such combinations as are here attempted must, at the best, fall short of theoretical exactness, and in some cases will be found only approximately correct. For example, in dealing with the group of industries producing building-materials, it is wholly impracticable to separate from the manufactures of iron those parts which go to the building of houses, stores, factories, bridges, &c., and the group is, therefore, left incomplete to just this extent. Again, in the group dealing with the preparation of food for man, foreign elements are manifestly included to a small extent, as in the case of provender for horses and cattle, embraced in the productions of grist and flouring mills. Many other such instances might be noted. Still, it is believed that these combinations will be found highly convenient for many of the purposes to which the statistics of production are applied, and that substantial accuracy may be claimed for the results, after the one broad exception has been made as to the completeness of the returns relating to the common trades of carpentering, painting, plastering, and plumbing.

The following list comprises all the Groups of Industries thus formed:

- BRASS, CAST AND ROLLED, AND BRASS-WARE**, includes: Brass and copper tubing, (which is mainly brass;) Brass founding and finishing; Brass, rolled; and Brass-ware.
- BUILDING, (NOT MARINE)**, includes: Bridge-building; Carpentering and building; Marble and stone work; Masonry, brick and stone; Painting; Paperhanging; Plastering; and Plumbing and gasfitting.
- BUILDING-MATERIALS**, includes: Brick; Building-stone, artificial; Cement; Glass, window; Lumber, planed and sawed; Paints and putty; Paints, lead and zinc; Roofing-materials; Sash, doors, and blinds; and Marble and stone quarrying.
- COPPER, MILLED AND SMELTED, AND WROUGHT**, includes: Copper, milled and smelted; Copper, rolled; and Coppersmithing.
- FIRE-ARMS AND AMMUNITION**, includes: Ammunition, cartridges, gunpowder, lead shot; Fire-arms; and Gunsmithing.
- FOOD AND FOOD PREPARATIONS**, includes: Bread, crackers, and other bakery products; Butchering; Cheese; Chocolate; Coffee and spices, ground; Fish, cured and packed; Fish and oysters, canned; Flouring and grist mill products; Food preparations, animal; Food preparations, vegetable; Food preparations, vermicelli and macaroni; Fruits and vegetables, canned; Meat, cured and packed; Meat, packed, beef; Meat, packed, pork; Mustard, ground; and Preserves and sauces.
- FURNITURE AND HOUSE-FIXTURES, (EXCLUSIVE OF STOVES AND HOLLOW-WARE)**, includes: Furniture, (not specified;) Chairs; Iron bedsteads; Refrigerators; Looking-glasses; and Looking-glass and picture frames.
- IRON AND MANUFACTURES OF IRON**, includes: Iron anchors and cable chains; Iron bolts, nuts, washers, and rivets; Iron, blooms; Iron castings, stoves, heaters, and hollow-ware; Iron, forged and rolled; Iron, pigs; Iron, railing, wrought; Iron pipe, wrought; and Iron ship-building and marine-engines.
- LEAD**, includes: Lead, bar and sheet; Lead, pig; Lead, pipe; and Lead, shot.
- LEATHER**, includes: Leather, tanned; Leather, curried; Leather, dressed skins; Leather, morocco, tanned and curried; and Leather, patent and enameled.
- LUMBER**, includes: Lumber, planed; Lumber, sawed; and Lumber, staves, shooks, and headings.
- PAPER**, includes: Paper, (not specified;) Paper, wrapping; Paper, writing; and Paperhangings.
- PRINTING AND PUBLISHING**, includes: Printing and publishing, (not specified;) Printing and publishing, book; Printing and publishing, newspaper; Printing, job; Maps and atlases; and Photograph albums.
- SHIP AND BOAT BUILDING AND MATERIALS**, includes: Boats; Blocks and spars; Iron ship-building and marine-engines; Oakum; Oars; and Ship-building, ship-materials, and repairs.
- TEXTILES**, includes: Carpets; Cotton goods; Flax and linen goods; Woolen goods; and Worsted goods.
- TOBACCO**, includes: Tobacco, chewing, smoking, and snuffing; Tobacco and cigars; and Tobacco, cigars.
- WEAR, ARTICLES OF**, includes: Boots and shoes; Clothing, men's; Clothing, women's; Clothing, children's; Collars and cuffs, paper; Gloves and mittens; Hats and caps; Hoop-skirts and corsets; and Hosiery.

GENERAL STATISTICS OF MANUFACTURES.

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TABLE VIII (C).—EACH INDUSTRY BY STATES AND TERRITORIES—1870.

[*] ARTIFICIAL LIMBS.

STATES AND TERRITORIES.	Establishments.	STREAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.				CAPITAL. Dollars.	WAGES. Dollars.	MATERIALS. Dollars.	PRODUCTS. Dollars.
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.	Youth.				
The United States.....	24	10	1			76	70	1	7	122,300	36,079	59,804	166,416
District of Columbia.....	1					2	2			200	1,000	300	2,300
Indiana.....	1					4	4			5,500		1,100	4,575
Maine.....	1					1	1			300		350	1,000
Massachusetts.....	9					9	8	1		23,000	3,851	1,852	14,318
Michigan.....	3					3	3			4,000	936	1,000	3,000
Missouri.....	9					9	9			5,500	4,500	2,500	14,100
New Hampshire.....	2					2	2			800	1,000	500	2,500
New Jersey.....	10	1				21	17		4	62,350	11,500	42,025	93,693
New York.....	6					6	5		1	3,850	1,192	1,345	5,150
Ohio.....	19					19	17		2	17,500	11,100	2,272	23,500
Pennsylvania.....	2					2	2			300	1,000	750	2,250
Wisconsin.....	1												

[†] AWNINGS AND TENTS.

The United States.....	45					210	162	49	8	132,475	87,424	371,677	625,269
Illinois.....	1					5	4	1		500	1,008	785	3,000
Indiana.....	1					2	2			4,000	500	1,100	2,000
Maine.....	1					1	1			100		200	600
Maryland.....	3					14	7	4	3	5,400	4,200	23,000	37,200
Massachusetts.....	4					24	22	2		7,000	12,750	20,385	39,000
New Jersey.....	2					13	3	10		10,250	2,598	8,350	14,091
New York.....	17					89	65	21	3	59,275	43,868	228,687	350,200
Ohio.....	4					18	12	6		3,700	3,600	6,090	16,425
Oregon.....	1					3	3			5,000	1,000	40,000	56,000
Pennsylvania.....	10					47	42	3	2	37,050	17,400	31,420	82,093
Wisconsin.....	1					3	1	2		200	500	10,000	15,000

[‡] BAGS, PAPER.

The United States.....	39	321	17	127	6	444	205	206	33	473,100	134,932	1,053,463	1,483,963
District of Columbia.....	2					4	3		1	700	350	1,250	2,453
Illinois.....	3	32	3			39	20	17	2	75,000	15,350	189,100	274,000
Indiana.....	1	8	1			7	7			6,000	1,080	6,000	11,000
Maryland.....	1	10	1			28	15	13		40,000	8,950	111,260	153,275
Massachusetts.....	3	215	80	2		84	68	10	6	125,550	31,100	122,700	242,600
Missouri.....	1	5	3			20	4	16		25,000	7,900	42,950	75,000
New Jersey.....	2					12	2	10		1,050	1,100	3,220	11,000
New York.....	12	12	4	3	1	111	41	55	15	76,000	20,650	190,673	252,835
Ohio.....	5	26	2	44	3	56	24	24	8	30,000	19,500	120,322	170,600
Oregon.....	1	2				2	1	1		300	160	6,500	7,200
Pennsylvania.....	7	12	2			76	18	58	2	91,000	18,992	239,508	281,000
Rhode Island.....	1	1				5	2	2	1	2,500	800	4,000	7,000

BAGS, OTHER THAN PAPER.

The United States.....	39	239	14	125	4	1,097	486	502	109	1,290,500	452,517	3,827,678	8,261,679
California.....	8	40	1			113	96	14	3	106,500	53,125	334,500	501,310
Connecticut.....	1	4	1			8	4	4		14,000	3,500	5,125	17,000
Iowa.....	2	2	1			12	12			8,000	2,876	1,288	4,976
Kentucky.....	2					18	15		3	4,000	2,800	16,400	21,100
Maryland.....	2					88	25	43		60,000	23,000	330,000	430,000
Massachusetts.....	1	60	2			46	6	30	10	109,000	12,000	76,500	92,000
Minnesota.....	2			75	1	39	16	20	3	101,500	3,300	17,000	25,975
Missouri.....	6	35	3			320	101	153	66	511,000	192,000	1,464,100	5,037,250
New York.....	8	73	4	30	1	408	192	202	14	353,000	149,766	1,482,303	2,003,283
Ohio.....	3	20	1			27	11	10	6	24,000	5,400	47,250	60,000
Oregon.....	1					2	2			2,500	6,500	6,037	15,080
Tennessee.....	1			10	1	13	3		4	3,000	3,000	31,000	36,700
Washington.....	1			10	1	1	1			2,500		13,075	14,000
Wisconsin.....	1					2	2			500	500	3,000	4,000

[*] ACID, PYROLIGNEOUS: See Table IX (B) for Connecticut, New Hampshire, and New York. ACID, SULPHURIC: See Table IX (B) for Connecticut, Maryland, and Ohio. AGRICULTURAL IMPLEMENTS: See Table X. ALARM, BURGLAR AND TELL: See Table IX (B) for New York and Rhode Island. AMMUNITION, CARTRIDGES: See Table IX (B) for Connecticut, Massachusetts, New York, and Pennsylvania. ARTIFICIAL EYES: See Table IX (B) for New York. ARTIFICIAL FEATHERS, FLOWERS, AND FRUIT: See Table IX (B) for California, Louisiana, Missouri, New Jersey, New York, and Pennsylvania.

[†] ARTIST'S MATERIALS: See Table IX (B) for Massachusetts, New Jersey, New York, and Pennsylvania. ASHES, POT AND PEARL: See Table IX (B) for Indiana, Iowa, Maine, Michigan, New York, Ohio, and Wisconsin.

[‡] BABBETT METAL AND SOLDER: See Table IX (B) for Maryland, New Jersey, New York, Pennsylvania, and Wisconsin. BAGGING, FLAX, HEMP, AND JUTE: See Table X.

TABLE VIII (C).—EACH INDUSTRY BY STATES AND TERRITORIES—1870—Continued.

BAKING-POWDERS.

STATES AND TERRITORIES.	Establishments.	STEAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.				CAPITAL. Dollars.	WAGES. Dollars.	MATERIALS. Dollars.	PRODUCTS. Dollars.
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.	Youth.				
The United States.....	30	80	5	10	1	235	167	58	10	294,450	88,107	600,691	895,433
California	1	25	1			30	30			50,000	5,000	49,700	64,200
Illinois	6					39	30	9		32,500	10,330	123,640	170,427
Indiana	2					5	3		2	14,300	450	6,800	9,200
Iowa	1	20	1			7	7			7,500	3,500	25,000	45,000
Massachusetts	2			10	1	24	13	11		12,500	13,032	139,840	151,050
Michigan	1					6	6			1,000	540	1,222	4,000
New York	9	35	3			105	64	36	5	108,000	52,180	238,650	422,602
Ohio	5					13	9	1	3	2,450	1,875	9,489	16,554
Pennsylvania	2					5	4	1		6,000	1,200	6,062	11,100
Wisconsin	1					1	1			200		288	1,300

BARK, GROUND.

The United States.....	33	513	13	169	14	133	131		9	322,700	47,069	194,491	372,829
Delaware	5	70	2	25	2	24	24			33,900	3,955	22,400	36,900
Maryland	2			40	2	3	3			14,100	400	3,850	5,200
Massachusetts	3	160	3			13	13			20,000	6,700	61,150	71,332
New Jersey	8			42	5	15	15			13,400	3,164	22,315	37,100
North Carolina	1	12	1			4	4			3,000	800	1,200	2,000
Pennsylvania	9	208	5	58	4	54	52		2	169,500	25,892	71,510	178,985
Tennessee	1	40	1			9	9			50,000	4,000	6,000	30,000
Virginia	4	23	1	4	1	11	11			12,860	2,158	6,066	11,312

[*] BASKETS.

The United States.....	127	553	21	220	10	920	755	73	92	376,945	224,878	158,109	594,730
Connecticut	9	40	3	40	2	91	48	41	2	97,370	28,300	19,255	84,450
Delaware	4	00	2			76	76			21,150	11,660	11,785	36,240
Illinois	2					3	3		1	900	100	275	1,225
Indiana	6	60	3			74	73		1	15,035	11,900	5,490	33,300
Iowa	1					4	1		3	150	400	50	500
Kentucky	4					5	5			3,450	500	925	3,270
Maryland	1	15	1			12	12			700	2,000	937	4,500
Massachusetts	18	27	1	27	3	137	131	4	12	64,700	63,228	54,596	150,418
Michigan	6	204	5			93	74		19	23,630	27,000	17,925	77,858
New Hampshire	1			18	1	14	12	2		7,000	3,000	1,000	8,500
New Jersey	15					28	28			2,570	4,450	2,728	15,490
New York	34	40	2	75	2	192	131	26	35	47,780	29,815	24,598	85,609
North Carolina	1					1	1			15		25	500
Ohio	8	22	2			23	22		1	8,325	2,000	3,130	12,365
Pennsylvania	4					6	6			700	325	375	3,375
Tennessee	1					2	2			250	200	200	2,000
Utah	2					3	3			320	150	155	996
Vermont	5			60	2	33	32		1	14,900	11,250	3,160	20,913
Virginia	2	35	1			78	65		13	55,000	19,000	6,000	29,430
Wisconsin	3	20	1			45	41		4	13,000	9,600	5,400	23,800

BEE-HIVES.

The United States.....	15	11	2	31	3	33	32		1	15,350	3,172	8,459	21,452
Illinois	1			3	1	2	1		1	1,000	100	245	1,525
Indiana	1					5	5			5,000	2,000	4,000	7,500
Iowa	1					2	2			1,000	112	350	1,750
Kentucky	3					3	3			400		600	2,000
Massachusetts	1					2	2			1,500		525	1,050
Missouri	1			8	1	1	1			1,000	130	500	700
New York	3	8	1	20	1	10	10			3,550	600	1,660	4,625
Ohio	2					5	5			700	220	179	1,102
Vermont	1	3	1			1	1			1,000		150	700
Wisconsin	1					2	2			200	10	250	500

BELLOWS.

The United States.....	13	15	2			117	110		7	101,200	67,360	106,735	257,675
California	1	5	1			5	5			4,000	4,000	5,850	16,000
Indiana	1					2	2			500		925	1,500
Missouri	2					35	30		5	30,000	23,000	28,900	95,000
New Jersey	1					2	2			500	300	400	975
New York	4					54	54			33,000	33,900	48,300	111,200
Pennsylvania	2					11	9		2	25,000	4,960	19,310	57,000
Tennessee	1	10	1			6	6			8,000	400	1,750	3,500
Wisconsin	1					2	2			200	800	1,300	2,500

[*] BASE-BALL GOODS: See Table IX (B) for Massachusetts and New York.

TABLE VIII (C.)—EACH INDUSTRY BY STATES AND TERRITORIES—1870—Continued.

BELLS.

STATES AND TERRITORIES.	Establishments.	STEAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.				CAPITAL. Dollars.	WAGES. Dollars.	MATERIALS. Dollars.	PRODUCTS. Dollars.
		Horse-power.	Number.	Horse-power.	Number.	ALL.	Males above 16.	Females above 15.	Youth.				
The United States.....	31	53	8	150	10	389	329	47	13	517,000	185,751	512,537	1,023,010
Connecticut.....	12	2	.....	150	10	231	173	43	6	223,500	88,095	144,974	340,100
Illinois.....	1	.....	.....	.....	.....	11	11	.....	.....	15,000	7,000	10,500	40,000
Kentucky.....	2	.....	.....	.....	.....	10	10	.....	.....	5,400	3,550	3,662	10,050
Massachusetts.....	3	.....	.....	.....	.....	16	11	5	.....	10,000	7,750	13,386	28,760
Minnesota.....	1	.....	.....	.....	.....	1	1	.....	.....	500	500	500	1,500
Missouri.....	4	17	2	.....	.....	62	56	.....	6	65,000	42,400	89,490	204,000
New York.....	5	30	5	.....	.....	58	57	.....	1	174,000	33,456	230,530	317,000
Ohio.....	1	.....	.....	.....	.....	2	2	.....	.....	2,500	1,000	4,000	12,000
Oregon.....	1	.....	.....	.....	.....	2	2	.....	.....	1,100	.....	2,000	4,000
Pennsylvania.....	1	6	1	.....	.....	6	6	.....	.....	20,000	2,500	13,475	65,000

BELTING AND HOSE, (LEATHER.)

The United States.....	91	302	13	42	3	808	784	8	16	2,118,577	454,187	3,231,204	4,558,043
California.....	1	.....	.....	.....	.....	14	14	.....	.....	21,000	7,000	40,400	54,000
Connecticut.....	8	50	1	14	1	108	107	.....	1	290,500	70,000	667,000	850,500
Illinois.....	1	.....	.....	.....	.....	7	7	.....	.....	20,000	4,000	22,932	34,000
Indiana.....	2	.....	.....	.....	.....	9	9	.....	.....	23,000	4,800	39,420	53,000
Kentucky.....	1	.....	.....	.....	.....	4	4	.....	.....	3,000	1,100	15,000	18,000
Maine.....	6	13	1	20	1	33	33	.....	.....	54,500	11,000	44,725	77,000
Maryland.....	4	.....	.....	.....	.....	16	16	.....	.....	28,500	7,700	19,060	38,512
Massachusetts.....	16	59	3	3	1	85	85	.....	.....	203,500	43,434	458,607	612,556
Michigan.....	1	.....	.....	.....	.....	2	2	.....	.....	500	300	750	1,400
Missouri.....	1	35	1	.....	.....	52	52	.....	.....	123,000	36,000	75,000	150,000
New Hampshire.....	5	.....	.....	5	.....	17	16	.....	1	28,000	6,800	90,790	115,460
New Jersey.....	4	.....	.....	.....	.....	23	23	.....	.....	44,000	11,820	100,325	124,000
New York.....	19	107	4	.....	.....	210	207	.....	3	687,500	135,480	931,950	1,377,100
North Carolina.....	1	4	.....	.....	.....	1	1	.....	.....	1,000	100	5,900	12,000
Ohio.....	4	15	2	.....	.....	70	54	6	10	90,000	37,114	249,745	334,463
Pennsylvania.....	15	.....	.....	.....	.....	99	97	2	.....	336,300	50,942	353,300	510,312
Rhode Island.....	2	19	1	.....	.....	58	57	.....	1	157,677	24,797	120,234	195,740

BILLIARD AND BAGATELLE TABLES, CUES, AND MATERIALS.

The United States.....	39	86	4	.....	.....	505	493	2	10	805,000	383,768	650,864	1,692,943
California.....	6	.....	.....	.....	.....	44	43	.....	1	52,000	38,626	26,880	91,654
Illinois.....	2	.....	.....	.....	.....	57	57	.....	.....	70,000	30,500	46,110	210,060
Maryland.....	2	.....	.....	.....	.....	3	3	.....	.....	1,700	720	4,600	7,800
Massachusetts.....	3	35	1	.....	.....	44	44	.....	.....	77,200	31,600	69,010	130,000
Michigan.....	2	16	1	.....	.....	71	66	2	3	170,000	57,760	51,200	189,750
Missouri.....	2	.....	.....	.....	.....	10	10	.....	.....	55,000	5,900	54,000	121,060
New York.....	14	35	2	.....	.....	170	167	.....	3	210,600	144,916	238,418	624,545
Ohio.....	2	.....	.....	.....	.....	86	83	.....	3	103,000	63,316	139,896	276,634
Pennsylvania.....	4	.....	.....	.....	.....	13	13	.....	.....	15,500	6,406	5,650	18,100
Wisconsin.....	2	.....	.....	.....	.....	7	7	.....	.....	20,000	5,000	15,000	24,000

BLACKING.

The United States.....	32	91	8	.....	.....	305	134	158	13	266,750	107,450	428,716	817,768
Illinois.....	2	.....	.....	.....	.....	7	6	.....	.....	2,875	2,530	5,825	14,000
Indiana.....	1	.....	.....	.....	.....	4	4	.....	.....	675	500	1,500	1,500
Maryland.....	1	.....	.....	.....	.....	3	3	.....	.....	1,000	720	1,720	9,000
Massachusetts.....	10	5	2	.....	.....	35	31	4	.....	56,500	18,000	61,089	148,696
Michigan.....	1	.....	.....	.....	.....	5	4	.....	.....	5,000	3,500	9,500	10,000
Missouri.....	1	.....	.....	.....	.....	2	2	.....	.....	1,000	400	1,190	4,000
New Jersey.....	6	25	1	.....	.....	62	25	36	1	47,200	17,750	91,000	148,450
New York.....	9	61	5	.....	.....	184	56	117	11	151,000	62,220	254,087	466,322
Pennsylvania.....	1	.....	.....	.....	.....	3	3	.....	.....	1,500	1,200	2,305	9,800

TABLE VIII (C.)—EACH INDUSTRY BY STATES AND TERRITORIES—1870—Continued.

BLACKSMITHING.

STATES AND TERRITORIES.	Establishments.	STEAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.				CAPITAL. Dollars.	WAGES. Dollars.	MATERIALS. Dollars.	PRODUCTS. Dollars.
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.	Youth.				
The United States.....	26,364	747	60	628	66	52,982	52,527	9	446	15,977,092	9,246,540	13,223,907	41,828,290
Alabama.....	290			5	1	594	591		3	96,092	83,349	98,269	300,840
Arizona.....	4					10	10			4,600	5,840	17,900	39,500
Arkansas.....	204					368	365		3	64,032	48,091	73,124	271,781
California.....	433	4	1			812	808		4	417,415	272,125	398,270	1,161,790
Colorado.....	39					64	64			37,530	27,435	37,059	117,700
Connecticut.....	346	1	1	89	5	815	812		3	270,220	210,482	203,809	702,088
Delaware.....	60	15	1			203	202		1	80,412	48,218	40,972	155,254
District of Columbia.....	71					174	170		4	170	41,275	44,207	151,258
Florida.....	70					114	113		1	24,925	17,235	20,675	86,175
Georgia.....	513					1,080	1,068	3	9	135,300	147,705	168,714	630,445
Iaho.....	25					50	50			18,575	14,693	32,029	76,626
Illinois.....	1,486	71	6			2,860	2,793		7	943,990	448,830	600,184	2,450,865
Indiana.....	1,322	144	3			2,652	2,641	1	10	741,946	357,780	616,867	1,916,637
Iowa.....	856					1,607	1,602		5	491,562	206,923	438,176	1,320,019
Kansas.....	214					432	430		2	116,617	86,608	113,651	373,566
Kentucky.....	1,002	23	4			1,970	1,958		12	465,735	248,821	443,200	1,361,070
Louisiana.....	172					372	362		10	93,550	75,292	80,536	297,250
Maine.....	604	22	2	15	3	1,282	1,279		3	417,595	175,218	346,191	1,012,117
Maryland.....	615					1,329	1,320		9	245,876	171,157	237,693	783,165
Massachusetts.....	651	57	9	109	9	1,882	1,849		3	715,067	650,058	505,537	1,934,418
Michigan.....	904	14	3			1,997	1,968		9	729,538	391,145	605,709	1,581,357
Minnesota.....	310			10	1	630	625		5	255,511	134,717	229,195	624,921
Mississippi.....	295					542	535	1	6	115,975	75,478	120,299	360,912
Missouri.....	1,386	11	1			2,081	2,060		81	849,555	554,597	706,314	2,257,211
Montana.....	36					55	55			27,820	19,060	41,766	143,943
Nebraska.....	90					188	188			77,210	71,343	105,447	247,960
Nevada.....	33					90	90			31,000	50,140	38,485	141,800
New Hampshire.....	363			98	13	696	693		3	211,090	112,719	144,844	467,701
New Jersey.....	707	12	2	3	1	1,466	1,466		14	510,598	306,777	349,580	1,266,706
New Mexico.....	40					52	52			15,800	10,275	22,905	51,135
New York.....	3,146	43	5	132	14	6,643	6,581	1	61	2,378,453	1,331,846	1,575,738	5,373,671
North Carolina.....	836	20		14	3	519	504		15	33,185	72,022	76,037	257,392
Ohio.....	2,466	45	5			4,270	4,228	1	41	1,089,692	518,222	938,692	3,099,476
Oregon.....	118	10	1			199	192		1	90,063	42,139	112,029	366,176
Pennsylvania.....	3,529	190	20	65	7	6,990	6,938		52	2,219,735	1,199,047	1,775,502	5,268,529
Rhode Island.....	130			14	3	341	333		8	89,650	110,401	106,651	337,731
South Carolina.....	147					345	338		7	39,960	40,466	38,998	151,322
Tennessee.....	719			8	2	1,445	1,433		12	230,897	163,041	250,683	873,888
Texas.....	360					761	744		17	177,238	99,665	190,883	531,559
Utah.....	88					136	136			37,090	19,697	31,094	96,527
Vermont.....	355			25	3	759	757		2	273,665	140,392	157,629	566,129
Virginia.....	825			5	1	1,451	1,435		16	189,498	102,782	214,690	729,128
Washington.....	31					57	57			30,800	22,093	33,025	85,761
West Virginia.....	290	37	3			475	470	1	4	90,285	51,315	99,470	343,014
Wisconsin.....	806	28	2			1,644	1,640		4	591,370	247,401	467,210	1,391,241
Wyoming.....	4					36	36			108,500	31,112	23,916	55,628

BLEACHING AND DYEING.

The United States.....	250	4,278	101	1,384	26	4,172	3,270	680	213	5,006,950	1,783,449	53,166,634	58,571,493
California.....	1					1	1			400		100	1,000
Connecticut.....	18	13	2	258	2	188	146	42		150,100	81,352	2,541,985	2,849,743
Delaware.....	1			20	1	23	9	7		30,000	8,033	171,619	192,049
District of Columbia.....	3	20	1			12	9	3		4,700	4,660	2,050	12,640
Georgia.....	2	6	1			4	4			1,000	600	500	3,300
Illinois.....	3	7	1			13	10	3		1,701	4,500	5,950	14,785
Indiana.....	1					2	2			500	300	300	1,000
Iowa.....	2					4	4			800	1,000	535	4,600
Kentucky.....	2					4	4			250		1,300	2,700
Louisiana.....	11	2	1			4	4			600	1,000	700	2,700
Maine.....	15	11	2	200	1	153	119	19	15	261,700	64,180	2,560,467	2,707,000
Maryland.....	32	17	3			34	31	2	42	4,250	8,918	6,400	23,090
Massachusetts.....	1	1,753	19	187	4	1,387	1,048	297	1	1,003,650	608,348	20,623,653	22,252,429
Michigan.....	1					1	1			2,900		300	1,000
Minnesota.....	5					17	14	3		1,200		500	1,500
New Hampshire.....	12	300	7	50	3	17	14	3		4,850	4,650	170,478	185,500
New Jersey.....	29	353	14	80	1	308	207	53	25	281,450	113,875	4,572,329	4,899,625
New York.....	8	9	1			202	202	90	16	482,050	195,092	2,550,250	2,638,315
Ohio.....	79	754	34	38	2	799	699	5	5	5,850	11,459	5,353	31,550
Pennsylvania.....	18	973	14	316	7	760	618	47	53	1,212,800	352,887	6,067,394	7,285,114
Rhode Island.....	4	60	1	15	1	36	35	1		1,474,000	316,994	13,842,020	15,138,723
Virginia.....										22,200	5,700	13,225	21,500

GENERAL STATISTICS OF MANUFACTURES.

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TABLE VIII (C).—EACH INDUSTRY BY STATES AND TERRITORIES—1870—Continued.

[*]BOATS.

STATES AND TERRITORIES.	Establishments.	STEAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.				CAPITAL. Dollars.	WAGES. Dollars.	MATERIALS. Dollars.	PRODUCTS. Dollars.
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.	Youth.				
The United States.....	174	1,446	45	13	2	2,381	2,350	1	30	1,665,193	1,225,996	1,214,016	3,300,775
District of Columbia.....	5	15	1			17	17			11,000	5,556	3,357	13,800
Florida.....	8	8	1			20	20			8,125	4,950	16,825	30,125
Georgia.....	2					11	11			1,800	3,800	7,372	14,700
Indiana.....	9	310	8			301	291		10	156,250	194,853	166,809	424,300
Iowa.....	2					50	50			16,000	13,500	8,405	43,200
Kentucky.....	8	40	1			56	53		3	33,100	14,326	20,045	56,500
Massachusetts.....	16	10	1	3	1	62	62			38,500	16,350	23,050	64,970
Minnesota.....	4					12	12			3,450	2,750	2,030	7,100
Missouri.....	5	402	10			226	212		14	350,200	192,300	196,850	537,000
New York.....	25	26	3	10	1	374	370	1	3	205,400	170,107	248,128	548,320
Ohio.....	46	430	12			762	762			674,418	360,429	295,805	851,060
Oregon.....	1					1	1			200	236	1	755
Pennsylvania.....	27					140	140			49,550	37,675	81,204	169,830
Tennessee.....	1	35	1			50	50			10,000	35,000	20,000	150,000
Texas.....	2					6	6			500	2,700	3,656	8,500
Vermont.....	2					17	17			11,000	11,000	5,350	20,500
Washington.....	1					2	2			300	100	150	725
West Virginia.....	3	74	4			66	66			38,000	21,400	50,500	89,300
Wisconsin.....	7	96	3			208	208			54,400	139,200	59,055	273,000

BOOKBINDING.

The United States.....	500	773	77		7,697	3,972	3,175	550	5,319,410	3,095,821	2,026,870	14,077,399
Alabama.....	2				7	2	4	1	2,900	1,450	6,200	8,000
Arkansas.....	1				5	4	1		1,500	2,500	1,359	4,000
California.....	10	7	2		114	59	38	17	56,500	52,760	68,493	171,942
Colorado.....	1				2	2			2,000	1,800	300	3,000
Connecticut.....	10	38	4		261	89	171	1	149,046	97,495	385,981	552,410
Delaware.....	2				16	6	9	1	8,000	2,500	5,340	8,800
District of Columbia.....	2				10	10			4,500	3,100	1,950	7,312
Florida.....	1				2	1			500	200	250	1,500
Georgia.....	3				22	18	3	1	14,766	10,613	16,170	35,560
Illinois.....	34	30	2		329	176	124	29	189,450	130,957	676,208	980,575
Indiana.....	11	30	3		133	86	21	26	75,400	59,970	112,226	226,400
Iowa.....	14	9	2		77	53	10	14	72,600	25,860	42,503	101,300
Kansas.....	6				25	16	5	4	15,200	13,900	15,215	55,200
Kentucky.....	4				133	78	43	12	100,000	68,000	258,425	353,200
Louisiana.....	1				2	2			100	400	250	1,000
Maine.....	10	5	1		50	26	23	1	18,700	13,350	21,576	51,410
Maryland.....	16				125	76	46	3	41,350	38,094	30,470	89,374
Massachusetts.....	65	94	10		1,078	483	577	18	492,300	478,310	588,070	1,446,073
Michigan.....	16				76	52	16	8	48,313	20,262	49,012	90,786
Minnesota.....	5	3	1		50	35	5	10	66,750	30,875	37,400	86,500
Mississippi.....	2				5	5			4,500	3,500	7,625	15,300
Missouri.....	1				23	16	3	4	18,000	16,000	18,500	40,000
Nebraska.....	2				12	9	3		3,500	1,600	2,300	4,530
New Hampshire.....	10	1			74	31	43		46,200	20,380	29,810	63,200
New Jersey.....	6				51	33	12	6	33,000	20,410	47,313	104,371
New York.....	94	325	26		2,261	1,231	953	77	1,625,678	968,648	2,961,396	4,557,119
North Carolina.....	4				36	27	2	7	16,900	15,800	20,010	51,000
Ohio.....	37	51	5		526	242	156	128	352,250	197,326	425,046	922,934
Oregon.....	3				7	6	1		4,900	1,350	5,198	9,500
Pennsylvania.....	91	153	19		1,877	930	803	144	1,640,897	674,254	1,019,961	3,588,623
Rhode Island.....	5	3			63	34	29		49,600	43,460	35,000	95,000
Tennessee.....	9	24	2		105	62	34	9	65,400	49,550	75,047	166,550
Texas.....	2				4	3			550	2,600	17,713	22,200
Vermont.....	3				17	10	7		7,000	5,000	24,020	33,200
Virginia.....	5				53	17	19	17	7,750	10,330	17,537	32,800
Wisconsin.....	12				66	42	14	10	24,100	20,507	28,335	81,060

BOOT AND SHOE FINDINGS.

The United States.....	271	310	32	223	14	2,773	1,045	1,442	286	858,560	792,957	1,817,028	3,389,091
Alabama.....	1					2	2			1,000	200	500	1,000
California.....	1	40				4	4			2,000	3,600	1,740	8,650
Connecticut.....	2			54	2	43	31	8	4	13,000	19,600	30,600	59,061
Delaware.....	4					14	11	3		4,700	4,000	8,085	22,400
Illinois.....	2					30	11		19	2,000	1,960	860	3,865
Louisiana.....	6					13	8		3	2,050	2,150	6,120	14,700
Maine.....	6	11	3	10	1	97	40	22	35	16,285	30,075	16,000	57,735
Maryland.....	3					40	8			2,000	5,760	13,672	28,200
Massachusetts.....	170	190	22	6	3	1,612	591	868	153	372,030	459,358	1,201,420	2,161,411
New Hampshire.....	5	8	1	23	2	59	24	26		15,065	10,640	26,870	43,700
New Jersey.....	9	15	3	5	2	110	24	47	39	29,800	16,712	22,320	49,116
New York.....	31	2	1			321	104	266	11	94,640	107,044	178,179	363,890
Ohio.....	2					9	9			6,300	3,500	2,315	12,000
Pennsylvania.....	24	4				295	127	162	6	130,350	89,438	151,026	319,819
Rhode Island.....	5	40	1	125	4	133	51	66	16	166,500	47,000	154,321	232,920

[*] BLEACHING STRAW GOODS: See Table IX (B) for Connecticut, Maine, Michigan, New Jersey, and New York. BLOCKS AND SEAMS: See Table IX (B) for Massachusetts, New Jersey, New York, and Ohio. BLEUING: See Table IX (B) for Massachusetts, Missouri, New Jersey, Ohio, and Pennsylvania.

TABLE VIII (C.)—EACH INDUSTRY BY STATES AND TERRITORIES—1870—Continued.

BOOTS AND SHOES.

[Includes all establishments, both large and small, while Boots and Shoes in Table X comprises only those establishments annually producing \$5,000 or over.]

STATES AND TERRITORIES.	Establishments.	STEAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.				CAPITAL. Dollars.	WAGES. Dollars.	MATERIALS. Dollars.	PRODUCTS. Dollars.
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.	Youth.				
The United States.....	23,428	2,902	267	167	24	135,889	113,415	19,113	3,361	48,994,366	51,072,712	93,582,528	181,644,900
Alabama.....	147					278	274	3	1	118,600	52,852	84,588	235,916
Arkansas.....	41					96	92	2	2	19,750	24,331	23,229	80,220
California.....	430					1,526	1,387	112	27	459,554	629,873	966,952	2,214,207
Colorado.....	21					26	26			9,250	11,240	14,175	44,950
Connecticut.....	281	19	2	30	1	2,417	1,755	598	64	585,800	640,774	1,225,048	2,319,536
Delaware.....	67	15	2			373	293	71	9	112,253	141,493	243,131	490,698
District of Columbia.....	153					283	274	5	4	61,225	67,789	102,445	291,136
Florida.....	28					52	51		1	13,340	13,336	15,381	48,714
Georgia.....	244			4	1	576	553	11	12	113,605	102,784	207,539	493,862
Idaho.....	14					26	25			14,950	6,985	11,430	32,207
Illinois.....	1,210					4,660	4,371	59	30	2,100,615	1,084,164	2,079,647	4,443,794
Indiana.....	988					2,792	2,646	24	32	842,497	651,750	1,094,977	2,699,114
Iowa.....	530					1,292	1,272	12	8	401,593	301,174	543,036	1,218,480
Kansas.....	121					300	297		3	111,813	89,389	120,517	303,187
Kentucky.....	420	5				1,150	1,083	48	19	450,271	310,258	430,944	1,144,694
Louisiana.....	204					540	530	4	6	126,520	135,579	162,933	459,721
Maine.....	393	38	6	19	3	2,786	2,213	549	24	871,683	894,837	2,261,229	3,749,710
Maryland.....	812	7	2			3,228	2,815	361	52	767,105	920,145	1,341,163	3,111,076
Massachusetts.....	2,392	2,266	210	94	18	54,831	42,522	11,193	1,116	19,559,738	27,265,283	51,363,406	88,399,583
Michigan.....	765	10	1			2,494	2,492	74	18	1,167,181	708,208	1,109,301	2,532,931
Minnesota.....	172					526	517	6	3	223,589	176,314	341,910	633,165
Mississippi.....	92					165	164		1	45,506	30,302	54,556	159,155
Missouri.....	1,144					2,667	2,500	30	137	1,065,994	909,807	1,822,713	4,099,532
Montana.....	13					27	27			10,700	17,350	18,097	56,090
Nebraska.....	50					125	124	1		74,110	56,365	65,628	195,722
Nevada.....	22					40	40			17,300	19,450	20,600	76,770
New Hampshire.....	257	97	7			3,107	2,539	525	43	1,003,215	1,228,314	3,011,992	6,162,259
New Jersey.....	579	20	2			3,090	2,653	380	57	1,037,405	1,250,720	1,594,905	3,639,076
New Mexico.....	7					8	8			3,450	900	2,639	6,985
New York.....	3,024	298	18	20	1	17,501	14,158	2,192	1,151	6,855,657	6,215,663	10,692,075	22,079,874
North Carolina.....	121					318	293	10	15	118,979	55,627	147,663	304,502
Ohio.....	2,358	48	4			6,738	6,316	340	82	2,058,097	1,747,310	2,834,261	6,539,946
Oregon.....	54					88	87		1	44,525	18,744	31,438	98,312
Pennsylvania.....	3,947	59	11			15,799	13,049	2,358	392	6,375,943	4,818,962	6,932,726	16,864,310
Rhode Island.....	99	10	1			469	416	46	7	98,910	148,651	313,107	570,854
South Carolina.....	60					131	128	1	2	21,660	19,464	20,843	93,843
Tennessee.....	309					707	688	12	7	181,601	178,219	243,981	665,532
Texas.....	98					186	185		1	56,710	34,495	64,802	166,761
Utah.....	38					135	132	2	1	38,595	25,950	29,284	78,943
Vermont.....	212	10	1			751	697	46	8	281,679	207,250	351,138	838,325
Virginia.....	498					850	837	10	3	160,876	105,399	248,564	638,534
Washington.....	14					32	32			17,530	8,510	13,284	39,061
West Virginia.....	252					429	425	1	3	86,195	65,620	140,835	349,018
Wisconsin.....	753					2,352	2,307	27	18	1,082,268	574,942	1,147,648	2,271,425
Wyoming.....	4					12	12			6,200	6,800	18,768	41,640

[*] BOXES, CHEESE.

The United States.....	194	547	40	2,318	136	694	662	11	21	424,375	125,012	242,937	570,840
Connecticut.....	1			20	1	10	5	4	1	4,000	1,600	700	3,500
Illinois.....	4	29	2			13	13			16,200	3,310	9,742	17,100
Massachusetts.....	2			20	2	5	5			1,500	725	1,040	2,775
New Jersey.....	1			60	1	7	4			10,000	6,000	2,000	12,000
New York.....	141	344	22	1,963	117	529	507	7	15	325,165	95,362	196,754	455,730
Ohio.....	28	162	15	50	2	79	79			34,160	12,810	25,448	60,285
Vermont.....	14			205	13	30	30			16,550	3,925	5,647	13,950
Virginia.....	1					2	2			500	100	100	550
Wisconsin.....	2	12	1			10	18			16,300	1,180	1,506	4,950

BOXES, CIGAR.

The United States.....	104	200	17	73	5	783	486	139	158	274,610	242,130	477,409	960,222
California.....	1	25	1			58	53		5	35,000	23,800	22,250	70,000
Connecticut.....	3			46	2	10	9	1		4,600	3,500	24,600	33,000
Delaware.....	1					6	3	2		500	1,300	1,250	3,000
District of Columbia.....	1					2	2			500	400	300	1,200
Illinois.....	5	10	1			42	19	10	13	8,300	8,778	20,665	35,740
Indiana.....	1					2	2			150	500	395	1,550
Iowa.....	2					10	6	2	2	2,200	2,560	2,500	6,000
Kansas.....	1					3	3			500	800	500	1,600
Kentucky.....	1					8	1	4	3	300	500	565	3,640
Louisiana.....	3					9	9			1,000	2,900	3,400	9,900
Maryland.....	5	5	1			43	24	17	2	3,600	7,800	10,770	35,164
Massachusetts.....	2			10	1	3	3			1,400	280	1,920	2,941
Michigan.....	2	20	1			21	6	1	14	15,000	6,000	8,500	20,820
Missouri.....	7	20	1			94	48	20	26	48,200	42,000	87,820	170,200
New Hampshire.....	1			10	1	1	1			1,000	1,000	1,800	1,800
New Jersey.....	2	1				11	6	3	2	1,800	5,650	4,780	12,300
New York.....	23	55	6	6	1	217	156	26	25	97,550	75,729	152,965	302,967
Ohio.....	9	8	1			74	39	22	13	7,100	12,600	26,395	62,110
Pennsylvania.....	32	44	4			143	89	26	28	42,710	32,423	95,264	170,190
Wisconsin.....	2	6	1			26	7	5	14	4,200	4,400	5,300	15,500

[*] BOTTLING MALT LIQUORS AND MINERAL WATERS: See Table IX (B) for Maryland, Massachusetts, and Pennsylvania.

GENERAL STATISTICS OF MANUFACTURES.

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TABLE VIII (C.)—EACH INDUSTRY BY STATES AND TERRITORIES—1870—Continued

[*] BOXES, PAPER.

STATES AND TERRITORIES.	Establishments.	STEAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.				CAPITAL. Dollars.	WAGES. Dollars.	MATERIALS. Dollars.	PRODUCTS. Dollars.
		Horse-power.	Number.	Horse-power.	Number.	ALL.	Males above 16.	Females above 15.	Youth.				
The United States.....	234	122	10	177	9	4,486	1,104	3,062	320	1,148,025	1,222,338	1,553,777	3,917,159
California.....	4	.....	.....	.....	.....	15	0	6	.....	5,500	5,750	6,170	18,000
Connecticut.....	30	8	1	30	1	346	94	244	2	116,550	99,728	156,041	333,345
District of Columbia.....	2	.....	.....	.....	.....	5	2	2	1	800	600	850	3,300
Illinois.....	5	10	1	.....	.....	68	20	43	5	19,000	21,500	35,130	70,900
Kentucky.....	1	.....	.....	.....	.....	1	.....	.....	.....	500	.....	300	750
Louisiana.....	1	.....	.....	.....	.....	7	3	.....	4	150	1,500	500	2,500
Maine.....	5	.....	.....	14	1	55	14	39	2	11,300	13,250	8,150	35,900
Maryland.....	4	2	1	2	1	77	17	60	.....	17,000	11,350	22,600	59,875
Massachusetts.....	39	36	5	.....	.....	753	129	610	14	202,425	186,267	252,267	639,237
Michigan.....	2	10	1	.....	.....	25	7	17	1	6,500	5,126	3,358	11,550
Missouri.....	8	.....	.....	.....	.....	75	24	28	23	12,100	23,100	24,470	67,590
New Hampshire.....	2	.....	.....	40	2	17	10	7	.....	10,800	6,000	6,140	13,500
New Jersey.....	8	6	.....	.....	.....	98	32	52	14	28,850	24,600	36,332	82,914
New York.....	78	12	1	16	2	1,091	478	1,064	149	437,950	532,222	671,463	1,709,907
Ohio.....	6	8	.....	.....	.....	52	17	22	13	16,700	17,572	16,650	56,600
Pennsylvania.....	30	19	5	.....	.....	927	187	714	86	192,400	214,133	222,291	635,351
Rhode Island.....	4	11	1	.....	.....	176	31	145	.....	54,200	49,500	71,360	141,900
Vermont.....	4	.....	.....	75	2	28	19	9	.....	14,500	8,050	12,705	27,000
Virginia.....	1	.....	.....	.....	.....	10	10	.....	.....	800	2,000	3,000	7,000

[†] BOXES, WOODEN PACKING.

The United States.....	489	4,303	195	2,642	148	4,509	4,084	195	230	3,571,942	1,909,088	4,236,745	8,222,433
California.....	8	111	4	.....	.....	195	105	.....	.....	160,500	109,680	123,014	308,778
Connecticut.....	6	20	3	78	3	64	64	.....	.....	48,000	34,275	84,000	151,000
Illinois.....	16	407	13	10	1	266	233	7	26	147,500	87,700	214,280	402,395
Indiana.....	8	51	4	3	1	59	45	12	2	15,900	15,250	31,223	75,301
Iowa.....	1	.....	.....	.....	.....	2	2	.....	.....	1,600	750	1,000	1,000
Kentucky.....	6	36	2	.....	.....	20	19	.....	1	7,800	5,000	7,776	25,189
Louisiana.....	1	.....	.....	.....	.....	30	30	.....	.....	2,400	10,900	31,450	61,500
Maine.....	3	15	1	.....	.....	235	235	.....	.....	165,050	70,545	166,762	273,205
Maryland.....	31	82	1	423	25	63	63	.....	3	63,600	58,476	152,738	260,360
Massachusetts.....	118	141	10	6	1	186	183	.....	.....	779,840	401,837	915,662	1,729,370
Michigan.....	110	1,360	55	960	59	917	859	36	22	24,000	50,060	7,575	38,250
Missouri.....	3	22	2	60	1	69	49	.....	20	137,500	55,700	128,875	302,367
New Hampshire.....	10	68	3	.....	.....	103	88	.....	17	104,570	59,975	83,149	182,156
New Jersey.....	31	210	9	438	24	185	172	7	.....	402,150	121,910	470,651	668,164
New York.....	25	169	7	41	3	247	212	11	24	764,950	530,312	978,778	2,127,953
Ohio.....	107	950	43	204	16	1,121	964	107	50	331,013	110,969	251,117	434,503
Oregon.....	38	301	20	59	3	274	238	10	26	4,840	5,500	7,000	18,140
Pennsylvania.....	42	96	6	6	1	11	11	.....	18	212,250	112,244	276,010	608,202
Rhode Island.....	1	30	6	54	4	245	227	.....	.....	72,400	39,560	115,824	192,240
Tennessee.....	10	90	1	.....	.....	93	85	5	3	1,500	800	5,000	7,500
Vermont.....	1	30	1	.....	.....	2	2	.....	.....	23,200	49,770	93,642	238,786
Virginia.....	8	40	2	220	6	138	126	.....	12	15,600	8,375	14,850	27,050
Wisconsin.....	3	75	1	.....	.....	24	20	.....	4	17,000	6,000	6,400	28,000

GROUP—BRASS, CAST, ROLLED, AND BRASS-WARE.

[Includes Brass and copper tubing, (chiefly brass;) Brass founding and finishing; Brass rolled; and Brass-ware.]

The United States.....	319	2,811	165	836	20	4,793	3,024	336	383	6,793,435	2,411,232	5,252,282	10,459,735
Alabama.....	1	.....	.....	.....	.....	2	1	.....	1	300	200	5,014	7,500
California.....	7	44	6	.....	.....	100	83	.....	17	71,600	61,139	59,390	187,500
Connecticut.....	20	549	9	702	10	863	756	68	39	1,494,600	465,941	1,188,397	2,404,990
District of Columbia.....	1	6	1	.....	.....	32	32	.....	.....	3,000	11,000	14,002	59,500
Illinois.....	5	68	4	.....	.....	115	103	.....	12	111,800	68,020	61,693	180,500
Indiana.....	9	126	8	.....	.....	54	51	.....	3	71,000	26,670	47,532	103,200
Iowa.....	1	4	1	.....	.....	6	6	.....	.....	3,000	2,000	800	5,200
Kansas.....	1	.....	.....	.....	.....	4	4	.....	.....	300	2,000	1,165	4,055
Kentucky.....	3	18	2	.....	.....	11	8	.....	3	9,550	3,000	8,159	17,700
Louisiana.....	2	5	1	.....	.....	7	5	.....	2	2,800	2,500	1,872	6,500
Maine.....	5	20	4	10	1	27	26	.....	1	40,000	9,530	30,712	71,559
Maryland.....	9	15	4	.....	.....	136	108	.....	28	58,000	61,559	85,676	255,435
Massachusetts.....	32	142	12	34	3	550	513	11	26	422,550	250,466	748,561	1,259,305
Michigan.....	6	31	2	5	1	43	43	.....	.....	31,650	20,415	29,088	59,880
Missouri.....	10	57	5	.....	.....	147	129	.....	18	203,500	91,270	101,175	292,500
New Hampshire.....	3	36	2	.....	.....	45	45	.....	.....	19,000	25,000	46,510	92,500
New Jersey.....	21	124	6	40	2	287	175	15	97	236,950	125,065	285,558	499,194
New York.....	67	869	38	.....	.....	1,139,200	726	211	48	1,139,200	557,036	992,290	1,991,767
North Carolina.....	1	.....	.....	.....	.....	2	2	.....	.....	300	300	356	900
Ohio.....	24	154	15	2	1	241	212	.....	29	202,950	119,613	162,825	394,015
Pennsylvania.....	68	457	39	30	2	890	822	21	56	2,205,925	425,140	1,157,622	2,144,055
Rhode Island.....	8	65	4	3	.....	123	112	10	1	369,000	71,316	260,661	393,000
South Carolina.....	1	.....	.....	.....	.....	2	2	.....	.....	4,500	864	332	3,000
Tennessee.....	1	12	1	.....	.....	9	9	.....	.....	20,000	7,000	6,500	16,000
Vermont.....	1	.....	.....	10	.....	3	3	.....	.....	5,000	1,368	2,000	3,500
Virginia.....	1	5	.....	.....	.....	2	2	.....	.....	200	300	375	800
West Virginia.....	1	.....	.....	.....	.....	1	1	.....	.....	200	500	92	740
Wisconsin.....	1	4	1	.....	.....	7	5	.....	2	6,000	2,000	4,725	5,000

[*] BOXES, FANCY: See Table IX (B) for Maine, Maryland, New Hampshire, New Jersey, and New York.

[†] BOXES, WOODEN PACKING, TOBACCO: See Table IX (B) for North Carolina, Ohio, and Virginia.

TABLE VIII (C).—EACH INDUSTRY BY STATES AND TERRITORIES—1870—Continued.

[*] BRASS FOUNDRY AND FINISHING.

STATES AND TERRITORIES.	Establishments.	STEAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.				CAPITAL. Dollars.	WAGES. Dollars.	MATERIALS. Dollars.	PRODUCTS. Dollars.
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.	Youth.				
The United States.....	275	1,822	146	266	6	3,377	3,102	39	236	4,783,585	1,731,306	3,293,629	6,855,756
Alabama.....	1					2	1		1	300	200	5,014	7,500
California.....	6	44	0			97	82		15	71,000	59,505	58,265	174,000
Connecticut.....	16	233	5	200	1	378	346	23	9	594,600	177,641	365,567	737,725
District of Columbia.....	1	6	1			32	32			3,000	11,000	14,002	59,500
Illinois.....	5	68	4			115	103		12	111,800	68,620	61,693	120,500
Indiana.....	7	78	6			44	41		3	52,000	19,150	43,463	82,200
Iowa.....	1	4	1			6	6			3,000	2,000	803	5,200
Kansas.....	1					4	4			300	2,000	1,105	4,055
Kentucky.....	3	19	2			11	8		3	9,550	3,000	8,159	17,700
Louisiana.....	2	5	1			7	5		2	2,800	2,500	1,872	6,500
Maine.....	9	20	4	10	1	27	26		1	40,000	9,530	39,712	71,559
Maryland.....	5	15	4			136	108		28	58,000	61,559	85,670	255,435
Massachusetts.....	30	62	10	29	2	430	401	8	21	218,550	191,414	405,361	776,305
Michigan.....	6	31	2	5	1	43	43			31,650	20,415	29,088	59,880
Missouri.....	10	57	5			147	129		18	203,500	91,470	101,175	292,500
New Hampshire.....	3	36	2			45	45			19,000	25,000	49,510	92,500
New Jersey.....	11	18	3			73	63		10	52,700	36,141	72,080	151,880
New York.....	61	532	32			629	580	7	42	829,200	382,536	601,210	1,287,167
North Carolina.....	1					2	2			200	300	375	900
Ohio.....	22	154	15	2	1	226	207		29	258,950	112,013	158,035	384,715
Pennsylvania.....	63	425	37	10		826	786	1	39	2,118,985	395,780	1,100,467	2,031,075
Rhode Island.....	5	55	4			63	62		1	68,000	42,500	80,905	153,000
South Carolina.....	1					2	2			4,500	854	332	3,000
Tennessee.....	1	12	1			9	9			20,000	7,000	6,500	16,000
Vermont.....	1			10		3	3			5,000	1,368	2,000	3,200
Virginia.....	1	5				2	2			200	300	375	800
West Virginia.....	1					1	1			200	500	192	740
Wisconsin.....	1	4	1			7	5		2	6,000	2,000	4,725	5,000

[†] BRASS-WARE.

The United States.....	30	420	13	335	9	757	540	87	130	1,243,450	380,008	907,908	1,219,013
Connecticut.....	12	316	4	327	8	416	355	39	22	785,000	244,300	694,630	1,331,013
Indiana.....	2	48				10	10			19,000	7,520	4,069	21,000
Massachusetts.....	1			5	1	5	5	3		4,000	1,872	2,400	4,000
New Jersey.....	5	56	2			172	72	15	85	61,950	68,400	23,063	124,606
New York.....	4	27	3			39	33		6	10,000	17,500	41,000	61,000
Ohio.....	1					2	2			1,000	1,000	900	2,800
Pennsylvania.....	2	32	2			53	16	20	17	61,500	17,400	21,200	53,000
Rhode Island.....	3	10		3		60	50	10		301,000	29,016	120,506	238,000

BREAD, CRACKERS, AND OTHER BAKERY PRODUCTS.

The United States.....	3,550	2,370	187	218	2	14,126	12,393	842	086	10,025,966	5,353,184	22,211,856	30,907,704
Alabama.....	14					37	37			23,050	14,927	73,175	101,625
Arizona.....	1					2	2			600	360	3,210	3,210
Arkansas.....	5					8	8			5,050	900	8,940	12,615
California.....	74	67	4			320	311	7	2	280,740	180,376	632,713	1,125,226
Colorado.....	33	49	4			10	10			5,500	4,070	9,750	20,000
Connecticut.....	14					227	202	19	6	114,300	104,360	482,685	739,730
District of Columbia.....	76	8	1			82	64	13	5	57,400	23,544	65,156	121,240
Florida.....	6					251	211	18	22	98,640	66,508	364,108	550,913
Georgia.....	24	11	2			21	20		1	9,650	9,600	27,100	42,900
Illinois.....	128	92	8			73	66	3	4	38,800	21,818	91,000	159,040
Indiana.....	101	86	10			537	476	36	25	363,575	195,231	885,508	1,732,225
Iowa.....	53	20	3			334	316	12	6	225,300	94,099	415,604	685,941
Kansas.....	10					159	154	3	2	134,075	33,232	177,177	315,300
Kentucky.....	35	33	2			43	41	1	1	27,250	11,675	41,145	73,375
Louisiana.....	98	31	4			150	124	12	14	104,375	51,298	198,340	356,468
Maine.....	22	49	9			365	339	9	17	87,250	134,126	516,435	875,261
Maryland.....	150	58	7			138	128	9	3	117,600	58,309	244,073	369,632
Massachusetts.....	144	220	21			489	434	17	37	374,195	124,168	765,914	1,220,399
Michigan.....	82	47	8			1,087	976	89	22	754,650	552,215	2,128,676	3,130,172
Minnesota.....	92	8	1			52	50	1	7	291,672	95,251	459,716	684,450
Mississippi.....	7					14	12	2	1	27,000	10,150	37,355	69,018
Missouri.....	217	118	6			894	700	69	155	3,380	820	4,568	9,500
Montana.....	2					3	3			697,615	473,499	2,061,820	3,160,031
Nebraska.....	16					30	37	2		1,500	450	2,324	4,400
Nevada.....	6					3	3			35,650	13,598	28,200	60,350
New Hampshire.....	14	10	2			76	75	1		3,000	2,300	5,625	15,850
New Jersey.....	138	55	6			550	455	21	74	53,800	30,836	137,630	206,612
New Mexico.....	2					4	4			357,500	196,645	900,922	1,377,339
New York.....	710	516	33	217	2	3,457	2,989	336	132	3,000	1,050	5,000	6,500
North Carolina.....	9					31	30			2,673,142	1,448,312	5,616,332	9,566,133
Ohio.....	270	250	16			975	884	55	30	13,650	8,140	29,420	47,000
Oregon.....	6					19	19			495,522	284,532	1,288,604	2,202,918
Pennsylvania.....	809	340	25			2,494	2,209	90	105	12,770	13,520	25,157	62,316
Rhode Island.....	25	30	2			160	165	3	105	1,920,290	783,411	3,195,673	5,527,291
South Carolina.....	17	20		1		71	65	1	12	146,000	75,302	339,229	541,324
Tennessee.....	20	6	1			106	104	1	5	30,300	21,205	90,210	142,015
Texas.....	14	24	1			38	34	2	1	50,600	50,415	151,067	252,300
Vermont.....	9	166	3			78	73	2	3	35,600	13,080	53,920	93,655
Virginia.....	43	16	2			163	146	8	9	121,000	29,500	149,692	245,570
Washington.....	4					7	7			58,075	46,100	203,854	301,304
West Virginia.....	16					33	33			22,700	2,130	4,525	9,192
Wisconsin.....	59	35	4			191	184	1	6	12,350	8,665	33,560	73,235
										127,250	58,152	250,631	410,257

[*] BRASS AND COPPER TUNING: See Table IX (B) for California, Massachusetts, and Ohio.
 [†] BRASS ROLLED: See Table IX (B) for Connecticut, New Jersey, New York, and Pennsylvania.

TABLE VIII (C.)—EACH INDUSTRY BY STATES AND TERRITORIES—1870—Continued.

BRICK.

STATES AND TERRITORIES.	Establishments.	STEAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.				CAPITAL.	WAGES.	MATERIALS.	PRODUCTS.
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.	Youth.	Dollars.	Dollars.	Dollars.	Dollars.
The United States	3, 114	10, 333	372	218	19	43, 293	39, 541	258	3, 494	20, 504, 238	10, 768, 853	7, 413, 007	29, 028, 359
Alabama	12					157	131	3	23	29, 800	36, 030	17, 930	164, 530
Arkansas	6					77	68		9	23, 775	18, 875	4, 150	41, 000
California	34					61*	610			226, 200	123, 139	106, 750	407, 800
Colorado	6	20				63	63			28, 000	16, 900	10, 200	40, 550
Connecticut	71	40	2	20	2	716	703	3	10	250, 180	196, 508	97, 895	458, 951
Delaware	14	82				365	327		33	210, 692	114, 186	49, 806	218, 496
District of Columbia	13	100	5			427	419		8	91, 700	194, 750	62, 400	257, 890
Florida	4					55	49		6	17, 500	22, 300	18, 250	57, 000
Georgia	41	61	2			860	696	19	145	132, 500	146, 487	54, 981	420, 100
Illinois	240	700	23			2, 203	2, 936	3	264	1, 018, 140	678, 945	361, 010	1, 638, 764
Indiana	275	92	5			1, 896	1, 896		113	536, 792	331, 508	207, 386	924, 264
Iowa	116					971	944	1	26	168, 030	192, 995	96, 849	495, 919
Kansas	27					270	238		32	41, 450	43, 777	106, 845	126, 545
Kentucky	40	29	2			507	399		103	120, 575	101, 026	69, 073	278, 218
Louisiana	22	20	1			401	296	70	35	147, 250	94, 690	58, 782	264, 300
Maine	110	175	2			773	760	2	2	322, 370	134, 208	127, 231	405, 893
Maryland	73	116	5			2, 051	1, 919	1	131	1, 063, 300	528, 283	256, 963	1, 191, 545
Massachusetts	107	823	28	44	3	2, 901	2, 202		90	3, 453, 310	765, 168	978, 508	2, 251, 064
Michigan	136	609	27			1, 584	1, 505	21	58	438, 800	275, 331	128, 665	681, 480
Minnesota	38					377	377			116, 525	69, 746	52, 835	178, 840
Mississippi	12					139	120		18	27, 200	13, 838	6, 370	34, 191
Missouri	160	255	7			2, 198	2, 077	2	119	1, 198, 471	652, 610	446, 639	3, 148, 884
Montana	2					6	6			2, 000	20, 874	16, 823	61, 865
Nebraska	17					109	108	1		800	3, 000	900	4, 500
Nevada	1					9	9			500	113, 040	88, 570	313, 631
New Hampshire	57	55	3			544	544			131, 895	113, 040	88, 570	313, 631
New Jersey	118	1, 119	35			2, 368	2, 215		114	1, 886, 560	679, 157	483, 965	1, 695, 599
New York	320	2, 807	67	80	10	6, 728	6, 161	81	486	3, 416, 250	1, 866, 424	1, 285, 299	4, 489, 202
North Carolina	8					96	79		17	20, 350	10, 160	15, 620	55, 060
Ohio	331	516	27	8	1	2, 409	2, 275	5	129	633, 669	462, 759	294, 420	1, 232, 857
Oregon	5					43	43			10, 400	9, 284	2, 670	6, 071, 209
Pennsylvania	498	1, 868	68	57	3	7, 443	6, 219	4	1, 230	4, 359, 783	2, 357, 691	1, 530, 627	6, 071, 209
Rhode Island	3	100	4			234	216		8	231, 000	44, 372	32, 300	154, 000
South Carolina	4	15	1			38	33	5		5, 100	3, 560	7, 400	23, 300
Tennessee	34	80	2			442	349	3	90	78, 783	68, 768	66, 666	225, 000
Texas	24	24	1			263	218	3	47	82, 175	49, 636	54, 017	172, 670
Utah	1					6	6			1, 200	600	300	1, 000
Vermont	18	7	1			160	162		4	73, 450	31, 620	18, 910	76, 389
Virginia	22	9	1			251	190	20	41	61, 250	31, 393	22, 600	96, 034
Washington	5					34	33	1		5, 500	3, 900	1, 250	9, 593
West Virginia	24	432	14			263	213		49	182, 975	67, 835	28, 562	139, 050
Wisconsin	79	179	12			1, 133	1, 066	2	45	436, 030	198, 445	125, 361	509, 606

BRIDGE-BUILDING.

The United States	64	1, 034	36	40	2	2, 000	2, 069		21	2, 973, 250	1, 123, 353	3, 239, 771	5, 476, 175
Connecticut	1					14	14			8, 500	5, 000	2, 700	16, 500
Delaware	1					118	118			120, 000	67, 394	61, 457	128, 851
Georgia	1					8	8			1, 500	350	800	3, 000
Illinois	3					8	8			2, 000	1, 340	2, 690	9, 250
Iowa	2					12	12			15, 300	1, 920	2, 105	6, 000
Kansas	1					20	20			10, 000	7, 300	5, 000	15, 000
Kentucky	2	18	2			120	120			150, 000	71, 000	182, 325	535, 000
Massachusetts	4	8	1			87	85		2	62, 500	47, 317	105, 543	294, 450
Michigan	4	90	1			119	117		2	203, 300	51, 272	128, 419	216, 805
Missouri	7	650	22			385	385			1, 515, 100	268, 300	1, 540, 305	2, 072, 620
Nebraska	1					3	3			300	2, 000	13, 000	18, 000
New Jersey	1					67	67			200, 000	92, 398	71, 756	107, 871
New York	5	22	2	20	1	52	52			41, 150	26, 700	42, 118	93, 320
Ohio	17	98	3			427	423		4	319, 700	201, 592	339, 410	893, 391
Pennsylvania	4	145	3	20	1	429	416		13	275, 500	249, 500	628, 811	948, 256
Vermont	2					10	10			900	2, 800	11, 275	21, 500
Virginia	3					34	34			8, 500	17, 130	16, 799	39, 103
West Virginia	1	18	1			20	20			3, 000	8, 000	5, 000	13, 400
Wisconsin	4	15	1			157	157			36, 000	80, 930	80, 238	223, 838

[*] BROOMS AND WHISK-BRUSHES.

The United States	635	178	6	118	6	5, 206	3, 056	892	1, 158	2, 015, 602	1, 268, 875	3, 672, 837	6, 622, 285
Alabama	1					2	1	1		500	50	400	875
Arkansas	1					1	1			500		40	860
California	13					73	69		4	84, 000	43, 320	66, 671	164, 885
Connecticut	3					26	14	2	10	10, 600	6, 400	24, 411	41, 000
Delaware	1					2	2			1, 000	360	1, 243	1, 900
District of Columbia	1					8	4		4	10, 000	3, 000	17, 500	22, 000
Georgia	1					1	1			200		350	500
Illinois	69	3				243	220	1	12	84, 090	57, 331	139, 196	295, 231
Indiana	42					115	101		14	31, 098	19, 595	56, 917	111, 669

[*] BRONZE-CASTINGS: See Table IX (B) for Massachusetts, New York, and Pennsylvania.

GENERAL STATISTICS OF MANUFACTURES.

TABLE VIII (C.)—EACH INDUSTRY BY STATES AND TERRITORIES—1870—Continued.

BROOMS AND WHISK-BRUSHES—Continued.

STATES AND TERRITORIES.	Establishments.	STEAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.				CAPITAL. Dollars.	WAGES. Dollars.	MATERIALS. Dollars.	PRODUCTS. Dollars.
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.	Youth.				
Iowa	25					67	56	1	10	16,075	7,657	33,668	62,460
Kansas	11					40	32	8		39,954	7,670	21,917	42,917
Kentucky	6					38	32		6	7,800	8,025	17,563	32,960
Louisiana	5					65	59		6	37,500	23,900	72,550	122,480
Maine	3					27	27			8,500	14,600	46,830	69,000
Maryland	11					218	50		125	70,575	35,836	185,701	277,948
Massachusetts	33					168	166	1	1	78,475	51,775	231,359	322,060
Michigan	31					95	95			38,300	23,212	83,176	166,365
Minnesota	13					24	20	1	3	6,700	1,120	10,945	19,000
Mississippi	1					5	3		2	400	275	308	1,450
Missouri	33					202	175	2	25	136,235	114,225	425,144	746,043
Nebraska	2					5	5			380	400	207	1,025
New Hampshire	6					28	25		3	10,200	3,953	15,150	29,175
New Jersey	9					27	24	1	2	3,450	4,575	18,080	29,124
New York	133	172	5	46	3	3,026	1,180	959	887	1,084,345	670,238	1,651,991	3,159,723
Ohio	78			72	3	283	259	2	22	86,185	64,646	224,261	371,296
Oregon	1					4	4			4,000	1,700	4,000	7,000
Pennsylvania	51					205	192		13	74,760	53,266	209,965	399,145
Rhode Island	2					18	15	3		4,200	6,550	9,004	17,732
South Carolina	1					3	3			1,500	350	1,200	2,000
Tennessee	10	3	1			71	65	6		50,850	26,150	54,368	107,363
Texas	6					18	15	3		3,000	1,365	1,881	7,130
Utah	2					7	4		3	750	509	1,590	2,870
Virginia	4					9	8	1		1,030	830	3,199	4,425
Washington	1					2	2			150	200	280	1,550
Wisconsin	25					80	77		3	27,300	12,790	43,338	82,919

BRUSHES, (NOT WHISK.)

The United States	157	257	18	21	3	2,425	1,461	522	422	1,083,093	601,405	1,312,897	2,621,823
California	1					3	3			4,000	500	1,502	6,500
Connecticut	5	22	2	10	1	81	50	27	4	522,500	26,502	183,617	270,621
District of Columbia	2					9	6		5	5,500	2,500	5,000	8,700
Illinois	6	12	1			76	60	7	9	76,700	31,791	66,848	157,180
Indiana	3	15	2			11	10		1	27,650	4,200	15,637	23,430
Iowa	1					2	2			500		100	600
Kentucky	2					18	11	3	4	2,000	4,380	3,676	9,200
Louisiana	2					4	4			1,500		270	2,630
Maine	3					41	30	11		38,700	20,450	86,836	124,460
Maryland	4					31	18		13	11,500	8,300	15,543	29,000
Massachusetts	13	52	6	5	1	639	420	208	11	199,600	178,332	297,671	659,163
Michigan	1					6	4		2	5,000	1,768	2,500	2,100
Missouri	14					188	100	9	79	104,200	69,629	113,550	299,680
New Hampshire	1			6	1	11	3	8		5,000	1,875	7,500	10,800
New Jersey	10	3				81	60	12	9	42,950	28,761	27,905	72,480
New York	3					14	11		3	17,500	2,900	8,861	13,900
Ohio	15	70	2			536	245	131	160	162,379	91,958	166,225	321,352
Pennsylvania	61	82	5			638	416	100	122	436,864	180,203	296,717	629,227
Rhode Island	5	1				26	20	6		17,560	6,000	9,855	25,700
Tennessee	1					1	1			600		200	1,100
Vermont	1					1	1			200		200	630
West Virginia	2					4	4			500	275	258	2,300
Wisconsin	1					4	4			2,500	1,000	2,600	4,600

GROUP—BUILDING, (NOT MARINE.)

[Includes Bridge-building; Carpentering and building; Marble and stone work; Masonry, brick and stone; Painting; Paperhanging; Plastering; and Plumbing and gasfitting.]

The United States	24,908	10,380	511	2,678	117	112,820	111,366	58	1,396	49,169,863	40,741,376	95,694,695	201,672,541
Alabama	158	6	1			408	408			64,895	153,025	179,444	509,323
Arizona	2					5	5			3,600	2,010	1,950	4,800
Arkansas	73					156	153		3	23,920	35,730	72,582	210,139
California	363	153	11			1,075	1,065		10	398,770	630,096	863,378	2,160,212
Colorado	25					130	130			63,100	96,250	121,980	304,210
Connecticut	589	329	10	70	2	3,108	3,103		8	1,087,120	1,067,935	2,061,630	5,435,205
Delaware	40	11	2			323	323			207,100	140,741	213,482	339,376
District of Columbia	159					321	310		16	405,050	543,551	936,141	1,963,619
Florida	124	14	2			797	768		29	66,680	134,670	370,335	636,425
Georgia	231	10	1			18	18			214,180	231,611	475,017	1,168,933
Idaho	14					18	18			1,775	2,200	16,245	35,400
Illinois	1,437	670	27			5,809	5,727		22	1,950,722	2,240,953	4,342,563	9,410,673
Indiana	1,317	401	21			4,245	4,236		9	786,413	1,136,130	2,081,741	4,916,160
Iowa	1,159	49	3			3,083	3,076		7	418,716	700,795	1,855,319	3,729,440
Kansas	250	31	2			1,084	1,079		5	254,082	394,545	985,578	1,991,417
Kentucky	421	82	7			1,503	1,496		7	528,275	528,583	1,233,617	2,606,631
Louisiana	223	35	5			569	558		11	131,265	103,320	420,563	876,745
Maine	466	9	2	95	5	1,755	1,754	1		404,388	688,920	830,269	2,128,543
Maryland	337	13	2	85	1	1,487	1,473	1		624,707	509,599	1,577,664	2,739,687
Massachusetts	1,618	971	55	124	10	11,221	11,186	6	29	4,161,562	6,331,031	9,663,646	20,221,650
Michigan	1,070	504	19	127	5	4,416	4,387	1	28	1,298,618	1,525,156	2,601,667	5,746,060
Minnesota	315	44	5			963	962		1	157,170	347,708	715,596	1,418,440
Mississippi	219	15	2			369	367		2	111,928	74,832	453,855	722,463

TABLE VIII (C).—EACH INDUSTRY BY STATES AND TERRITORIES—1870—Continued.

BUILDING, (NOT MARINE)—Continued.

STATES AND TERRITORIES.	Establishments.	STEAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.				CAPITAL.	WAGES.	MATERIALS.	PRODUCTS.
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.	Youth.	Dollars.	Dollars.	Dollars.	Dollars.
Missouri	2,304	826	33			9,516	9,092	5	419	4,971,057	4,597,371	12,006,879	25,158,557
Montana	14			20	1	21	21			4,830	6,025	19,220	43,100
Nebraska	117					285	285			66,155	113,387	356,850	651,250
Nevada	26					55	55			13,450	16,900	32,425	104,050
New Hampshire	179	106	4	232	7	800	800			544,075	344,331	457,068	1,070,252
New Jersey	786	300	27	20	2	5,190	5,143	1	46	2,187,142	2,693,513	5,610,181	10,406,351
New Mexico	43					56	56			16,600	9,725	20,063	48,499
New York	2,711	1,590	93	590	37	16,326	16,136	13	177	8,851,068	8,616,929	13,535,874	30,348,481
North Carolina	116	53	3	34	2	326	318		8	85,180	72,232	89,771	242,121
Ohio	2,415	1,421	56	70	3	8,668	8,614	2	52	2,915,681	2,793,449	5,514,905	11,675,375
Oregon	150	8	1			396	395		1	96,195	115,009	280,938	619,352
Pennsylvania	3,023	1,566	70	153	10	17,681	17,353	10	318	12,100,831	8,502,775	18,431,097	38,348,344
Rhode Island	279	499	16	6	1	2,923	2,880	10	33	1,072,555	1,632,245	2,235,974	4,727,696
South Carolina	75	15		9	1	476	471		5	297,535	85,197	182,838	369,150
Tennessee	490	88	5	4	1	1,099	1,092		7	299,644	278,207	610,244	1,473,604
Texas	160	66	3			437	433		4	196,105	144,307	362,070	725,332
Utah	56					72	72			13,705	14,300	44,510	86,020
Vermont	247	329	10	984	26	1,205	1,173		32	1,224,935	459,758	628,147	1,483,838
Virginia	366	73	6	25	1	1,095	1,079		16	209,992	204,667	562,602	1,287,823
Washington	46					74	74			18,535	20,820	45,310	103,023
West Virginia	140	51	3			410	405		5	127,495	117,460	172,064	467,201
Wisconsin	621	44	4	30	2	1,857	1,845		11	592,742	533,439	1,082,417	2,516,092

GROUP—BUILDING-MATERIALS.

[Includes Brick; Building-stone, artificial; Cement; Glass, window; Lumber, planed and sawed; Paints and putty; Paints, lead and zinc; Roofing-materials; Sash, doors, and blinds; and Marble and stone quarrying.]

The United States.....	33,207	389,107	13,751	340,755	17,220	251,582	241,586	1,123	8,273	233,005,203	78,126,900	173,198,451	356,140,945
Alabama	308	3,397	120	1,033	130	1,724	1,673	13	38	858,605	444,325	635,838	1,731,863
Arizona	1	10	1	1	1	16	16			5,000	6,000	1,000	10,000
Arkansas	239	3,375	130	322	24	1,260	1,215	6	39	799,975	305,971	628,769	1,571,703
California	373	7,926	220	3,094	125	5,508	5,465	12	31	4,779,643	2,294,261	2,931,622	7,528,777
Colorado	42	589	25	206	11	299	298	1		191,450	113,511	197,800	465,420
Connecticut	524	1,637	53	7,243	308	3,682	3,667	4	11	3,160,171	1,533,123	1,984,269	4,673,249
Dakota	10	248	0	25	2	68	66		2	37,400	14,256	32,772	72,280
Delaware	105	1,123	44	838	52	830	768		62	678,116	246,205	409,317	873,647
District of Columbia	24	380	12			586	547	26	13	248,600	195,450	252,950	600,800
Florida	111	2,507	70	167	15	1,187	1,154	2	31	785,290	448,020	1,184,738	2,303,980
Georgia	606	6,095	205	4,825	339	4,310	4,064	33	213	2,099,193	1,013,630	2,136,618	5,251,459
Idaho	11	86	5	78	6	50	50			70,750	19,524	21,877	61,180
Illinois	956	17,908	623	867	34	10,937	10,352	6	570	7,934,462	3,621,026	9,531,698	17,349,245
Indiana	2,314	38,258	1,607	5,596	310	13,231	12,736	7	488	8,283,615	2,916,816	7,363,442	16,330,878
Iowa	733	13,923	439	2,613	122	5,487	5,211	18	258	4,750,265	1,562,947	4,300,438	7,698,605
Kansas	230	3,938	156	597	22	1,534	1,494	1	39	763,103	365,848	850,426	1,905,451
Kentucky	632	10,569	406	1,972	105	3,726	3,479	15	232	2,838,286	965,267	2,750,409	5,544,315
Louisiana	193	3,675	151	33	7	1,757	1,631	72	54	852,470	542,295	946,690	2,116,295
Maine	1,339	4,071	103	29,718	1,704	10,560	10,497	4	59	7,989,163	3,143,156	7,474,631	13,268,892
Maryland	516	3,390	133	3,823	278	4,361	4,198	6	177	3,409,755	1,424,304	2,423,696	5,374,161
Massachusetts	982	6,645	210	14,921	740	9,642	9,371	59	212	9,597,499	3,953,457	9,840,608	17,646,657
Michigan	1,934	45,757	1,320	13,460	594	23,556	22,625	84	847	20,716,300	7,473,489	16,206,170	35,849,525
Minnesota	294	5,137	137	4,084	127	3,694	3,641	14	39	3,851,348	1,121,371	2,555,695	5,112,160
Mississippi	291	5,882	204	419	48	2,229	2,163	16	50	1,283,017	636,844	963,443	2,420,258
Missouri	1,096	16,898	646	1,797	87	7,686	7,356	13	317	7,234,771	2,748,026	7,654,054	16,030,614
Montana	36	185	12	383	21	178	178			183,675	88,091	177,648	453,657
Nebraska	71	648	30	358	18	341	340	1		189,100	77,576	137,498	361,650
Nevada	23	386	15	315	9	357	357			229,800	178,356	162,050	507,000
New Hampshire	841	2,277	77	21,825	1,025	4,678	4,648	8	22	3,022,898	1,206,542	2,859,276	5,512,829
New Jersey	544	5,274	175	4,888	274	7,049	6,500	52	437	8,990,790	2,864,168	5,168,548	10,484,342
New Mexico	12	48	2	153	10	63	63			47,100	35,425	40,083	121,225
New York	4,814	32,275	1,090	78,273	3,809	32,876	31,139	134	1,603	29,136,304	10,130,823	23,452,832	45,955,511
North Carolina	550	3,842	146	4,540	341	2,624	2,568	3	53	1,289,900	449,893	1,070,288	2,231,913
Ohio	3,000	44,273	1,910	10,088	595	15,785	15,330	24	441	12,698,019	4,160,129	9,395,044	19,605,922
Oregon	191	1,941	50	3,001	140	812	806	2	4	1,070,462	313,403	418,418	1,191,243
Pennsylvania	4,857	46,509	1,541	56,894	3,220	33,797	32,175	41	1,581	43,546,667	12,016,906	27,870,756	55,630,364
Rhode Island	95	601	25	1,191	69	593	556	1	26	538,000	172,298	426,163	891,642
South Carolina	238	2,467	88	1,720	114	1,415	1,378	6	31	732,525	230,536	632,559	1,313,470
Tennessee	775	8,223	334	4,277	294	3,818	3,658	10	150	2,320,546	839,632	2,095,175	4,584,206
Texas	366	4,082	236	605	31	2,170	2,083	18	69	1,108,216	516,469	864,111	2,452,771
Utah	100	301	18	823	75	566	563		3	349,300	144,253	270,891	673,731
Vermont	793	2,774	74	21,104	844	5,510	5,438	6	66	7,145,601	1,665,013	3,610,450	7,428,470
Virginia	662	4,546	211	6,180	386	2,850	2,757	36	57	1,211,498	460,891	980,072	2,504,047
Washington	62	1,326	33	772	27	580	579	1		1,428,402	428,760	970,369	1,953,655
West Virginia	380	4,111	167	2,602	186	1,892	1,802	3	87	1,374,825	462,253	793,707	1,830,714
Wisconsin	941	18,483	482	12,143	452	15,505	14,070	364	471	14,015,913	4,622,926	8,954,993	18,397,399
Wyoming	8	151	6			213	211	1	1	110,500	104,500	99,000	268,060

TABLE VIII (C).—EACH INDUSTRY BY STATES AND TERRITORIES—1870—Continued.

BUILDING-STONE, ARTIFICIAL.

STATES AND TERRITORIES.	Establishments.	STEAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.				CAPITAL. Dollars.	WAGES. Dollars.	MATERIALS. Dollars.	PRODUCTS. Dollars.
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.	Youth.				
The United States.....	12	40	2			67	67			203,100	32,570	53,945	163,400
Indiana.....	1					6	6			10,000	4,500	7,000	15,000
Iowa.....	2					4	4			2,700	1,600	83,95	3,000
Massachusetts.....	1	15	1			3	3			5,000	1,000	2,450	5,000
Michigan.....	1	25	1			8	8			150,000	4,000	2,000	10,000
New Jersey.....	1					15	15			25,000	12,500	32,000	75,000
New York.....	1					6	6			3,000	5,500	7,000	16,000
Texas.....	4					18	18			2,400	3,170	3,100	38,100
Wisconsin.....	1					7	7			4,000	300	300	700

BUTCHERING.

The United States.....	509	247	18	6	1	1,881	1,851	11	10	2,099,905	546,346	11,039,928	13,626,061
California.....	8					21	21			41,300	6,500	108,475	207,268
Connecticut.....	3					12	12			45,000	4,800	376,000	450,000
District of Columbia.....	12					29	28		1	23,200	6,610	83,873	124,372
Florida.....	1					2	2			200	200	1,500	2,000
Illinois.....	25	60	2			383	381	2		575,800	150,608	3,375,079	4,251,712
Indiana.....	22	4	1			82	76	6		20,540	14,145	136,317	170,401
Iowa.....	5	16	1			18	18			18,800	2,690	69,850	73,180
Kentucky.....	1					6	6			35,600	2,000	67,000	71,300
Louisiana.....	3	40	1			44	44			63,300	13,500	120,600	163,600
Maine.....	17	20	1			51	51			43,000	9,950	558,300	643,995
Maryland.....	24	6	1			77	77			39,020	17,785	108,943	164,465
Massachusetts.....	12	14	1			82	82			106,900	47,930	1,630,110	1,778,608
Minnesota.....	15					67	67			150,125	50,000	150,200	250,330
Mississippi.....	2					3	3			1,500	180	2,200	3,500
Missouri.....	5					13	13			15,250	6,800	111,950	145,061
Montana.....	6					13	13			14,500	5,500	40,750	69,575
Nebraska.....	9	12	1			39	39			53,700	23,610	203,718	311,328
New Hampshire.....	6					10	10			4,200	1,280	27,450	32,780
New Jersey.....	4					15	14	1		17,000	3,352	211,540	232,670
New York.....	70					190	178	1	11	154,450	34,411	641,857	848,216
North Carolina.....	2					2	2			160	2,952	2,952	7,324
Ohio.....	87	15	3			228	226	1	1	134,865	32,537	794,692	992,921
Pennsylvania.....	122	8	2	6	1	280	274		6	286,195	59,892	1,191,694	1,480,408
Rhode Island.....	16					52	52			107,100	20,666	449,278	507,215
Texas.....	7	52	4			117	117			79,150	22,900	405,705	484,775
Vermont.....	1					4	4			12,000	1,200	19,140	21,940
Virginia.....	2					3	3			1,000	100	3,300	7,010
Wisconsin.....	16					38	38			56,650	7,200	147,453	174,367

[*] CARPENTERING AND BUILDING.

The United States.....	17,142	4,674	289	1,140	73	67,864	67,306	5	533	25,110,428	29,169,588	65,943,115	132,901,432
Alabama.....	138	6	1			354	354			51,200	123,675	137,994	477,233
Arizona.....	2					5	5			3,000	2,040	1,930	4,500
Arkansas.....	69					150	147		3	21,375	35,730	71,191	206,139
California.....	266	95	7			663	661		2	197,995	366,686	611,447	1,391,163
Colorado.....	23					83	83			44,900	57,250	62,565	150,610
Connecticut.....	430	160	7	70	2	2,150	2,152		4	625,000	1,163,145	2,040,500	4,015,351
Delaware.....	28					128	123			27,850	39,285	92,140	178,695
District of Columbia.....	68					506	499		7	176,750	323,172	614,495	1,195,738
Florida.....	123	14	2			295	293		2	52,950	123,180	350,235	596,835
Georgia.....	127	10	1			624	607		17	131,938	193,306	436,093	1,097,623
Idaho.....	14					18	18			1,775	2,200	16,245	35,460
Illinois.....	1,089	227	11			3,555	3,527		28	1,097,035	1,367,752	3,369,062	6,785,261
Indiana.....	995	216	10			2,893	2,890		3	541,720	758,847	1,501,329	3,448,059
Iowa.....	839	48	3			2,335	2,328		7	293,220	527,383	1,550,274	2,921,958
Kansas.....	105	6	1			807	802		5	146,678	304,560	878,351	1,735,433
Kentucky.....	318	36	2			1,036	1,033		3	209,690	319,113	841,760	1,692,756
Louisiana.....	100	35	5			464	460		4	109,835	168,587	387,350	755,765
Maine.....	251	5	1	95	5	612	612			139,920	184,090	330,820	768,060
Maryland.....	191					820	820			269,490	275,947	1,025,667	1,699,502
Massachusetts.....	991	468	40	112	8	5,225	5,817		8	1,880,202	3,484,104	6,308,115	12,429,739
Michigan.....	756	348	15	72	2	2,930	2,915		15	730,225	1,014,083	1,973,926	3,976,333
Minnesota.....	223	44	5			676	676			104,860	242,793	577,427	1,067,203
Mississippi.....	195	15	2			321	320		1	80,953	61,832	429,177	655,035
Missouri.....	1,403	36	3			5,017	4,858		159	1,706,665	2,242,622	7,791,594	15,561,056
Montana.....	13			20	1	20	20			4,730	5,425	19,030	40,690
Nebraska.....	89					216	216			45,435	84,637	302,202	555,520
Nevada.....	24					48	48			13,000	14,650	30,925	96,410
New Hampshire.....	10	24	2	132	6	457	457			154,160	204,375	291,431	667,069
New Jersey.....	570	257	24	10	1	3,748	3,717		31	1,428,992	2,033,862	4,443,091	8,105,115
New Mexico.....	38					51	51			15,650	9,725	18,858	41,268
New York.....	1,868	738	56	405	31	8,906	8,716		4	3,765,690	4,441,118	8,026,184	17,306,232
North Carolina.....	98	52	3	34	2	272	267		5	80,765	58,127	77,676	202,601

[*] BUTTONS: See Table IX (B) for Connecticut, Massachusetts, Missouri, New Jersey, New York, and Pennsylvania. CALCIUM LIGHTS: See Table IX (B) for Massachusetts and New York. CANDLES, ADAMANTINE AND WAX: See Table IX (B) for Missouri and New York. CARDS, PLAYING: See Table IX (B) for New York and Pennsylvania. CARDS, OTHER THAN PLAYING: See Table IX (B) for Massachusetts, New York, Ohio, and Pennsylvania.

TABLE VIII (C.)—EACH INDUSTRY BY STATES AND TERRITORIES—1870—Continued.

CARPENTERING AND BUILDING—Continued.

STATES AND TERRITORIES.	Establishments.	STEAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.				CAPITAL. Dollars.	WAGES. Dollars.	MATERIALS. Dollars.	PRODUCTS. Dollars.
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.	Youth.				
Ohio.....	1,613	300	18			4,924	4,906	1	17	1,036,777	1,481,134	3,277,849	6,205,653
Oregon.....	104	3	1			245	247		1	53,395	61,659	194,953	417,152
Pennsylvania.....	1,846	723	37	16	2	10,533	10,436		103	7,671,351	5,335,181	13,772,256	27,336,490
Rhode Island.....	134	444	12	6	1	1,626	1,617		9	671,120	968,681	1,717,532	3,112,581
South Carolina.....	64	15		9	1	431	429		2	230,135	69,097	161,763	313,350
Tennessee.....	333	78	4	4	1	847	840		7	250,505	197,289	491,121	1,149,598
Texas.....	147	66	3			399	396		3	154,065	131,026	312,515	652,067
Utah.....	52					67	67			13,290	42,485	80,020	80,020
Vermont.....	157	46	3	100	7	422	422			73,525	114,245	159,631	395,022
Virginia.....	319	73	6	25	1	915	901		14	174,747	212,490	433,923	1,020,930
Washington.....	40					61	61			12,285	18,320	33,600	87,973
West Virginia.....	121	33	2			344	339		5	114,510	97,935	159,860	421,717
Wisconsin.....	439	17	2	30	2	1,131	1,128		3	234,975	299,041	615,593	1,397,704

[*] CARPETS, RAG.

The United States.....	474	60	2	24	2	1,016	874	116	26	310,744	141,148	498,595	1,005,327
California.....	1					4	4			1,600	2,400	1,043	5,100
Connecticut.....	6					9	8	1		800	1,050	3,289	8,710
Delaware.....	3					6	6			900	1,330	2,103	6,000
District of Columbia.....	1					2	2			100	100	301	975
Illinois.....	21					29	24	4	1	2,780	2,075	14,048	26,182
Indiana.....	11					15	9	5	1	2,045	600	5,415	11,981
Iowa.....	14					21	17	3	1	1,240	1,500	6,079	14,865
Kentucky.....	2					4	3		1	950		900	2,045
Maine.....	2					2	2			275		505	1,650
Maryland.....	19					38	38			12,950	5,150	19,455	32,577
Massachusetts.....	2					5	4	1		400	1,050	1,100	3,200
Michigan.....	9					21	15	3	2	2,165	2,550	6,651	17,703
Minnesota.....	1					2	2			250	400	300	1,500
Missouri.....	10					22	17	4	1	6,395	4,400	8,059	24,650
New Jersey.....	39					78	68	9	1	11,475	13,272	36,834	75,042
New York.....	56	60	2			181	122	56	3	81,225	33,845	90,796	200,341
Ohio.....	55					91	83	5	3	14,685	7,341	43,623	82,016
Pennsylvania.....	212			24	2	472	436	24	12	162,974	63,655	247,379	460,450
West Virginia.....	3					6	6			600	800	7,020	10,500
Wisconsin.....	7					9	8	1		1,475	200	3,644	10,010

CARRIAGE-TRIMMINGS.

The United States.....	44	71	6	55	2	453	241	176	36	326,150	144,278	214,544	590,878
Connecticut.....	7	48	4	53	2	187	92	81	14	187,000	64,473	102,643	251,997
Iowa.....	1					2	2			200	150	350	1,000
Maine.....	8					18	18			4,850	5,350	9,538	26,520
Maryland.....	3					48	24	24		21,500	11,000	16,000	40,000
Massachusetts.....	8					26	26			13,950	17,479	16,125	45,850
Minnesota.....	1					1	1			300		900	
Mississippi.....	1					1	1			100	100	500	1,000
New Jersey.....	6					14	13	1		5,350	3,369	5,959	14,256
New York.....	1	15	1			26	21		5	20,000	10,000	12,000	50,000
Pennsylvania.....	5	8	1			124	37	70	17	72,000	31,320	48,258	152,171
Rhode Island.....	3					6	6			900	1,037	2,941	6,524

CARRIAGES AND SLEDS, CHILDREN'S.

The United States.....	53	366	22	391	21	913	720	89	44	746,628	407,327	495,281	1,432,833
Connecticut.....	2	25	1			12	15	3		9,000	5,400	3,653	13,000
Illinois.....	2	30	2			54	46	5	3	40,000	34,000	44,000	87,000
Kentucky.....	1	16	1			23	24	6	3	25,000	16,000	10,000	40,000
Maine.....	3	13	1	35	2	20	20			3,400	3,625	2,900	9,638
Massachusetts.....	10	4	1	96	7	150	124	26		102,428	60,750	90,567	251,180
Michigan.....	2	5				23	9	2	17	23,500	6,667	6,550	21,200
Missouri.....	2					8	7		1	6,200	2,000	3,109	11,500
New Hampshire.....	3	36	2	21	1	44	37	7		25,500	18,000	4,460	32,500
New Jersey.....	1	7	1			30	22	3	5	21,000	13,060	15,900	40,000
New York.....	9	111	6	15	1	174	141	25	8	179,000	94,853	163,615	490,300
Ohio.....	4	86	3			86	84	1	1	124,500	25,500	50,220	116,688
Pennsylvania.....	7	33	4			61	54	1	6	78,100	34,462	35,131	101,007
Vermont.....	7			225	10	207	197	10		100,000	93,100	65,185	218,522

[*] CARPETS, OTHER THAN RAG: See Table X.

TABLE VIII (C).—EACH INDUSTRY BY STATES AND TERRITORIES—1870—Continued.

[*] CARRIAGES AND WAGONS.

STATES AND TERRITORIES.	Establishments.	STEAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.				CAPITAL. Dollars.	WAGES. Dollars.	MATERIALS. Dollars.	PRODUCTS. Dollars.
		Horse-power.	Number.	Horse-power.	Number.	All	Males above 16.	Females above 15.	Youth.				
The United States.....	11,847	4,169	279	4,651	363	54,928	54,220	76	572	36,563,095	21,272,730	22,787,341	65,362,837
Alabama.....	93	6	1	20	1	311	300	.....	2	137,900	104,153	91,674	310,034
Arkansas.....	30	.....	.....	5	1	90	90	.....	.....	63,795	32,250	34,353	101,525
California.....	84	38	2	.....	.....	640	630	.....	10	780,150	447,336	439,404	1,309,443
Colorado.....	1	.....	.....	.....	.....	6	6	.....	.....	3,500	6,300	2,000	12,000
Connecticut.....	205	185	7	401	24	2,341	2,321	11	9	2,292,810	1,402,034	1,798,299	4,164,480
Delaware.....	50	20	1	.....	.....	714	695	.....	8	517,450	301,352	300,730	842,176
District of Columbia.....	26	.....	.....	.....	.....	174	173	.....	1	164,950	78,414	91,615	248,897
Florida.....	9	.....	.....	.....	.....	13	13	.....	.....	4,150	2,800	1,950	11,400
Georgia.....	178	96	3	50	7	676	656	1	10	267,295	167,715	243,605	664,512
Illinois.....	1,165	606	27	100	5	4,847	4,825	1	21	3,429,436	1,775,940	2,213,297	6,019,291
Indiana.....	770	380	15	285	5	3,325	3,285	2	23	2,196,485	1,034,146	1,276,233	3,116,068
Iowa.....	449	208	17	.....	.....	1,662	1,660	1	1	1,086,882	560,232	739,240	1,952,143
Kansas.....	68	.....	.....	.....	.....	242	242	.....	.....	93,085	85,525	70,546	236,556
Kentucky.....	325	22	3	.....	.....	1,250	1,229	1	20	577,405	439,076	440,170	1,339,909
Louisiana.....	45	20	1	.....	.....	108	107	.....	1	130,858	68,820	51,112	200,220
Maine.....	12	2	.....	493	47	1,123	1,118	.....	5	533,030	350,207	335,544	1,051,488
Maryland.....	133	.....	.....	6	1	681	669	.....	12	297,650	227,170	219,132	667,157
Massachusetts.....	380	110	10	181	23	2,914	2,888	15	11	1,739,091	1,466,959	1,326,968	4,038,656
Michigan.....	531	166	8	94	6	2,339	2,335	.....	4	1,649,800	761,764	862,993	2,393,328
Minnesota.....	162	37	4	6	1	444	442	.....	2	358,168	183,004	176,119	549,568
Mississippi.....	65	34	4	.....	.....	293	291	.....	2	138,495	91,469	74,911	268,031
Missouri.....	531	66	5	.....	.....	2,170	2,094	2	74	1,594,679	949,009	1,305,587	3,253,734
Montana.....	1	.....	.....	.....	.....	15	15	.....	.....	4,000	12,500	20,250	30,250
Nebraska.....	2	.....	.....	.....	.....	31	31	.....	.....	38,000	16,640	9,275	27,500
Nevada.....	3	.....	.....	.....	.....	13	13	.....	.....	21,000	10,100	31,000	60,000
New Hampshire.....	116	84	4	563	38	782	780	1	1	528,555	350,692	320,532	906,334
New Jersey.....	297	5	4	25	2	1,830	1,817	3	10	1,236,150	838,563	787,368	2,281,643
New York.....	1,797	650	52	1,096	88	8,784	8,641	14	129	6,287,140	3,607,747	3,831,757	11,049,345
North Carolina.....	130	16	2	8	1	462	455	.....	7	141,785	105,448	107,863	340,224
Ohio.....	1,221	231	18	28	4	5,094	5,024	4	66	2,964,783	1,671,070	1,537,164	5,049,550
Oregon.....	14	.....	.....	16	2	35	35	.....	.....	24,450	14,900	46,405	66,000
Pennsylvania.....	1,449	524	35	201	21	6,252	6,199	5	48	4,322,517	2,229,441	2,111,361	6,682,302
Rhode Island.....	55	.....	.....	71	8	279	267	1	2	148,900	115,182	112,720	314,139
South Carolina.....	77	5	1	.....	.....	288	288	.....	.....	81,820	63,610	50,033	186,114
Tennessee.....	230	60	5	10	1	818	815	.....	3	495,280	297,546	320,158	938,647
Texas.....	115	15	1	.....	.....	325	321	.....	4	130,583	81,162	94,588	280,124
Vermont.....	162	100	13	980	74	616	611	4	1	465,670	210,981	171,053	620,207
Virginia.....	186	20	1	.....	.....	563	557	2	4	157,565	121,842	117,872	389,663
West Virginia.....	50	206	5	12	1	243	229	.....	14	216,295	100,330	85,889	303,690
Wisconsin.....	485	308	22	60	2	2,184	2,134	.....	50	1,252,476	762,705	900,170	2,596,534

CARS, RAILROAD, AND REPAIRS.

The United States.....	170	5,609	134	163	4	15,931	15,690	20	221	10,632,792	9,659,992	18,117,707	31,070,734
California.....	3	40	1	.....	.....	80	80	.....	.....	270,000	72,171	104,550	329,500
Connecticut.....	7	102	5	.....	.....	206	206	.....	.....	323,272	160,550	136,409	399,459
Delaware.....	3	125	4	.....	.....	734	706	.....	28	495,000	400,860	469,000	947,860
Georgia.....	5	125	5	.....	.....	278	268	.....	10	213,050	208,460	152,025	366,780
Illinois.....	5	205	3	.....	.....	840	848	.....	1	959,000	501,978	492,235	1,010,007
Indiana.....	10	376	9	.....	.....	1,403	1,384	.....	19	625,333	834,124	1,639,340	2,577,726
Iowa.....	1	25	1	.....	.....	139	139	.....	.....	38,000	72,952	88,863	161,815
Kentucky.....	3	42	3	.....	.....	245	245	.....	.....	85,500	107,230	105,170	212,400
Louisiana.....	5	121	3	.....	.....	222	222	.....	.....	175,000	195,115	122,985	368,730
Maine.....	4	84	2	.....	.....	53	53	.....	.....	48,500	41,080	58,025	130,547
Massachusetts.....	8	318	7	.....	.....	999	999	.....	.....	1,395,000	722,855	1,608,920	2,616,022
Michigan.....	3	210	4	.....	.....	823	809	2	12	615,223	466,058	657,282	1,488,742
Minnesota.....	1	.....	.....	25	1	79	79	.....	.....	170,000	52,800	735,500	788,300
Mississippi.....	2	45	2	.....	.....	111	111	.....	.....	122,500	77,000	66,401	147,401
Missouri.....	8	262	5	.....	.....	808	757	.....	51	765,000	623,700	1,328,000	2,492,150
New Hampshire.....	2	225	4	.....	.....	190	190	.....	.....	200,000	100,000	876,250	379,750
New Jersey.....	6	280	7	60	1	978	978	.....	.....	1,841,040	654,707	988,421	1,670,427
New York.....	10	421	7	.....	.....	842	831	.....	11	1,105,000	495,692	621,057	1,479,329
North Carolina.....	6	110	3	.....	.....	200	200	.....	.....	124,000	98,513	73,300	191,213
Ohio.....	11	467	9	.....	.....	1,460	1,460	2	.....	1,355,970	917,565	1,365,089	2,555,855
Pennsylvania.....	49	1,430	34	8	1	4,076	3,975	14	87	3,763,804	2,193,857	5,832,736	9,288,041
South Carolina.....	2	30	2	.....	.....	150	150	.....	.....	335,000	49,300	22,300	71,600
Texas.....	1	25	1	.....	.....	16	16	.....	.....	12,000	8,400	26,530	45,905
Tennessee.....	4	111	4	.....	.....	194	194	.....	.....	160,000	153,412	140,212	293,624
Vermont.....	2	100	1	.....	.....	250	246	2	.....	175,000	120,000	332,470	452,470
Virginia.....	7	250	7	70	1	469	469	.....	.....	1,205,600	258,578	320,458	613,036
West Virginia.....	1	20	1	.....	.....	60	60	.....	.....	30,000	31,735	28,000	59,735
Wisconsin.....	1	.....	.....	.....	.....	15	15	.....	.....	25,000	10,000	15,500	25,500

[*] CAR FIXTURES AND TRIMMINGS: See Table IX (B) for Connecticut and Ohio.

TABLE VIII (C).—EACH INDUSTRY BY STATES AND TERRITORIES—1870—Continued.

CEMENT.

STATES AND TERRITORIES.	Establishments.	STEAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.				CAPITAL Dollars.	WAGES. Dollars.	MATERIALS. Dollars.	PRODUCTS. Dollars.
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.	Youth.				
The United States.....	45	1,190	23	900	23	1,632	1,508	.....	124	1,521,500	691,993	773,102	2,033,693
California.....	1	30	1	.....	.....	8	8	.....	.....	25,000	5,000	12,180	30,000
Indiana.....	3	155	4	.....	.....	105	105	.....	.....	199,000	32,669	100,060	161,050
Kansas.....	1	.....	.....	.....	.....	2	2	.....	.....	2,000	.....	450	1,000
Kentucky.....	2	150	2	185	4	265	223	.....	42	350,200	100,450	90,000	302,000
Maryland.....	2	15	1	40	1	76	76	.....	.....	32,500	26,000	47,700	79,500
Massachusetts.....	2	.....	.....	.....	.....	3	3	.....	.....	2,500	720	1,500	4,500
New Jersey.....	1	20	1	.....	.....	31	31	.....	.....	30,000	20,000	17,675	60,534
New York.....	19	500	7	588	15	967	909	.....	58	738,000	337,594	448,637	1,198,499
Ohio.....	2	41	1	.....	.....	48	28	.....	20	11,000	10,200	17,700	35,200
Pennsylvania.....	6	54	3	32	1	55	51	.....	4	67,300	18,080	11,885	41,760
Tennessee.....	2	85	2	.....	.....	26	26	.....	.....	23,000	8,000	6,050	51,009
Virginia.....	2	.....	.....	25	1	27	27	.....	.....	1,500	7,900	11,470	20,000
Washington.....	1	80	1	.....	.....	4	4	.....	.....	10,000	350	1,550	2,100
West Virginia.....	1	.....	.....	30	1	15	15	.....	.....	30,000	5,000	4,225	15,750

CHARCOAL AND COKE.

The United States.....	107	279	16	96	4	3,473	3,436	.....	37	2,393,083	1,294,707	1,204,779	3,161,104
California.....	2	12	1	.....	.....	12	12	.....	.....	10,500	4,420	6,599	18,220
Connecticut.....	2	.....	.....	.....	.....	23	23	.....	.....	7,300	5,040	7,300	16,800
Indiana.....	3	6	1	.....	.....	33	33	.....	.....	5,300	4,900	2,350	11,400
Kentucky.....	6	.....	.....	.....	.....	48	44	.....	4	5,760	12,915	10,245	29,820
Louisiana.....	7	.....	.....	.....	.....	7	7	.....	.....	700	.....	900	4,600
Maine.....	3	.....	.....	.....	.....	11	11	.....	.....	3,500	2,750	1,838	7,500
Maryland.....	3	.....	.....	.....	.....	75	75	.....	.....	74,000	30,500	19,360	75,480
Massachusetts.....	3	.....	.....	.....	.....	18	16	.....	2	9,800	5,060	4,030	16,430
Michigan.....	4	.....	.....	.....	.....	227	237	.....	.....	20,500	127,270	7,945	173,412
Missouri.....	16	.....	.....	.....	.....	265	265	.....	.....	203,750	84,475	27,200	122,690
New Hampshire.....	9	.....	.....	.....	.....	32	38	.....	.....	16,350	11,835	14,210	30,935
New Jersey.....	8	.....	.....	30	1	56	56	.....	.....	50,200	16,530	34,640	121,600
New York.....	20	15	1	66	3	807	806	.....	1	313,330	258,675	145,577	454,017
North Carolina.....	2	.....	.....	.....	.....	20	20	.....	.....	1,250	1,510	744	3,000
Ohio.....	30	8	1	.....	.....	1,090	1,060	.....	30	307,400	370,648	270,675	763,762
Pennsylvania.....	25	198	11	.....	.....	544	544	.....	.....	1,159,093	283,727	587,162	1,117,886
Rhode Island.....	12	40	1	.....	.....	56	56	.....	.....	28,050	17,300	12,794	40,770
Tennessee.....	2	.....	.....	.....	.....	38	38	.....	.....	65,000	21,152	14,632	49,301
Vermont.....	5	.....	.....	.....	.....	71	71	.....	.....	37,500	23,700	30,500	80,000
Wisconsin.....	5	.....	.....	.....	.....	24	24	.....	.....	4,800	5,130	6,548	13,916

[*] CHROMOS AND LITHOGRAPHS.

The United States.....	91	186	20	.....	.....	1,399	1,244	56	99	1,533,725	837,732	735,810	2,515,684
California.....	1	.....	.....	.....	.....	4	4	.....	.....	5,000	5,000	2,257	8,500
Connecticut.....	2	1	1	.....	.....	34	28	6	.....	45,000	16,200	22,650	51,000
Indiana.....	2	.....	.....	.....	.....	4	4	.....	.....	1,075	2,000	4,075	10,550
Iowa.....	3	.....	.....	.....	.....	12	10	.....	2	8,000	7,000	3,450	17,600
Louisiana.....	1	.....	.....	.....	.....	3	3	.....	.....	1,500	1,200	2,700	7,000
Maryland.....	5	8	1	.....	.....	63	49	2	12	69,050	31,100	22,400	76,600
Massachusetts.....	7	10	2	.....	.....	166	157	1	8	127,810	103,700	91,185	312,300
Michigan.....	2	15	1	.....	.....	50	49	7	.....	42,000	28,180	29,000	67,500
Missouri.....	4	.....	.....	.....	.....	65	54	.....	11	85,000	54,200	67,000	252,500
New York.....	24	96	7	.....	.....	363	321	8	34	327,400	243,200	198,415	607,850
Ohio.....	4	18	2	.....	.....	122	101	4	17	223,000	99,500	94,800	312,000
Pennsylvania.....	34	36	5	.....	.....	464	421	28	15	584,900	232,552	193,378	765,184
Wisconsin.....	2	2	1	.....	.....	43	43	.....	.....	14,000	13,000	6,000	30,000

CIDER.

The United States.....	547	514	48	2,048	173	1,472	1,430	4	29	766,256	144,334	892,820	1,537,214
Connecticut.....	37	18	2	173	16	82	82	.....	.....	80,000	5,260	94,572	138,719
District of Columbia.....	1	.....	.....	.....	.....	3	3	.....	.....	400	1,000	3,000	6,000
Illinois.....	3	.....	.....	.....	.....	7	7	.....	.....	2,700	2,925	2,025	4,170
Indiana.....	2	.....	.....	.....	.....	6	6	.....	.....	2,150	456	2,150	5,560
Kentucky.....	1	.....	.....	.....	.....	1	1	.....	.....	800	.....	250	600
Maine.....	5	.....	.....	.....	.....	14	14	.....	.....	1,709	150	3,910	6,695
Maryland.....	3	.....	.....	5	1	6	6	.....	.....	1,150	678	2,600	4,109
Massachusetts.....	50	31	6	137	13	128	126	.....	2	87,100	11,105	95,037	172,492
Michigan.....	36	32	4	55	5	107	105	.....	2	38,900	6,828	52,398	88,012
Missouri.....	7	.....	.....	.....	.....	76	50	.....	17	95,000	46,400	88,060	195,160
New Hampshire.....	13	.....	.....	95	7	25	25	.....	.....	9,000	875	17,665	28,005
New Jersey.....	43	36	2	126	6	85	85	.....	.....	47,695	5,395	53,027	91,970
New York.....	274	316	25	1,058	99	769	760	4	5	326,521	46,926	369,739	606,524
Ohio.....	19	76	8	.....	.....	49	48	.....	1	35,000	8,352	33,077	60,420
Oregon.....	1	.....	.....	.....	.....	7	7	.....	.....	3,000	1,500	2,741	6,021
Pennsylvania.....	32	5	1	110	14	58	58	.....	.....	21,350	1,874	39,144	69,317
Tennessee.....	4	.....	.....	.....	.....	14	14	.....	.....	7,700	5,500	15,000	25,500
Vermont.....	15	.....	.....	283	12	33	32	.....	1	5,300	1,220	17,135	25,400
Wisconsin.....	1	.....	.....	.....	.....	2	2	.....	.....	500	250	1,250	2,610

[*] CHEESE: See Table X. CHOCOLATE: See Table IX (B) for Louisiana, Massachusetts, New York, and Pennsylvania.

TABLE VIII (C).—EACH INDUSTRY BY STATES AND TERRITORIES—1870—Continued.

[*] CLOTHING, MEN'S.

STATES AND TERRITORIES.	Establishments.	STEAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.				CAPITAL. Dollars.	WAGES. Dollars.	MATERIALS. Dollars.	PRODUCTS. Dollars.
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.	Youth.				
The United States.....	7,838	457	37	96	3	106,679	46,934	58,466	1,279	49,891,080	30,535,879	86,117,231	147,650,378
Alabama.....	27					78	53	25		34,665	19,200	60,945	135,897
Arkansas.....	8					37	21	6		12,000	11,850	18,960	39,900
California.....	108					523	363	161	5	177,503	295,232	470,102	1,080,270
Connecticut.....	189	111	10	6	1	3,112	933	2,147	33	1,166,675	1,053,784	2,519,559	4,120,190
Delaware.....	25					203	62	118	3	89,150	38,131	104,290	186,855
District of Columbia.....	68					297	210	80	7	113,175	106,427	199,582	442,020
Florida.....	15					28	23	6		7,400	7,600	23,973	43,000
Georgia.....	30					113	84	28	1	78,795	54,273	95,653	200,980
Idaho.....	1					1	1			250		200	1,000
Illinois.....	373			75	1	5,939	2,705	3,227	7	2,556,310	1,700,210	4,564,196	7,429,363
Indiana.....	220					1,531	994	536	11	769,309	498,850	1,289,782	2,261,374
Iowa.....	153					596	449	146	1	281,970	173,047	503,052	905,126
Kansas.....	27					153	135	18		110,950	62,574	101,402	213,520
Kentucky.....	133					891	563	232	6	462,132	227,998	568,758	1,068,553
Louisiana.....	87					369	213	155	1	73,765	95,516	160,910	376,723
Maine.....	143					4,563	408	4,092	63	551,610	509,013	1,863,391	2,881,663
Maryland.....	302					7,316	3,627	3,664	25	2,237,950	1,119,908	3,088,368	5,881,633
Massachusetts.....	446	82	8			9,878	3,031	6,730	117	5,096,764	3,815,742	11,913,317	20,212,407
Michigan.....	230					2,363	1,349	964	70	1,038,985	577,926	1,367,169	2,423,170
Minnesota.....	57					215	202	13		104,700	85,748	137,256	304,147
Mississippi.....	27					39	37	2		12,570	6,480	20,970	54,050
Missouri.....	507					3,470	2,323	1,003	144	2,298,025	1,821,959	3,619,435	7,271,962
Nebraska.....	17					47	47			23,040	27,170	36,010	87,365
Nevada.....	7					18	19			9,600	10,320	15,220	42,600
New Hampshire.....	75	60	1			703	179	619		250,340	207,358	451,930	820,714
New Jersey.....	204	30	1			2,455	961	1,460	25	1,061,850	704,789	1,965,350	3,260,325
New Mexico.....	4					6	6			750	620	1,410	3,220
New York.....	1,541	166	15	15	1	28,793	12,307	16,931	195	14,782,043	8,826,008	27,082,394	46,375,369
North Carolina.....	16					64	48	16		14,325	19,670	28,920	72,810
Ohio.....	773					10,632	5,352	5,069	211	4,696,727	2,436,329	7,496,501	12,367,440
Oregon.....	14					49	40	9		27,050	13,550	25,625	60,400
Pennsylvania.....	1,361	8	2			17,073	7,761	9,117	275	9,709,059	4,758,807	12,048,899	21,850,319
Rhode Island.....	73					1,135	423	679	34	474,775	362,032	738,086	1,351,641
South Carolina.....	13					45	43	1		11,100	5,400	16,365	37,209
Tennessee.....	85					238	210	27	1	132,335	105,045	162,994	394,835
Texas.....	33					78	59	19		18,600	18,345	36,861	85,437
Utah.....	10					17	17			2,825	3,820	3,820	10,027
Vermont.....	91					328	131	184	13	151,220	72,950	187,639	361,625
Virginia.....	55					278	196	77	5	60,905	64,730	133,463	290,384
Washington.....	4					6	6			1,150		2,770	5,497
West Virginia.....	41					291	193	98		111,848	84,810	229,566	399,040
Wisconsin.....	232					1,785	1,061	698	26	1,075,185	525,202	1,270,826	2,200,004
Wyoming.....	1					3	3			1,500	2,866	3,249	8,500

CLOTHING, WOMEN'S.

The United States.....	1,847	35	4	125	2	11,696	1,105	10,247	344	3,520,218	2,513,956	6,837,978	12,900,583
Alabama.....	12					23		23		2,120	2,260	2,665	10,200
Arkansas.....	2					9		9		1,600	1,030	4,750	9,000
California.....	69					229	44	185		174,378	84,900	514,350	738,339
Connecticut.....	54			125	2	297	66	230	11	83,445	84,035	143,809	357,469
Delaware.....	17					63	3	60		27,700	10,183	20,315	51,800
Georgia.....	8					21	4	17		4,200	1,544	6,180	12,093
Illinois.....	85					713	19	694		220,945	181,345	614,038	977,642
Indiana.....	38					118	1	116	1	12,350	9,677	36,535	68,413
Iowa.....	43					130		130		25,335	10,823	59,990	98,596
Kansas.....	6					15		15		7,040	5,500	5,465	11,295
Kentucky.....	34					106	3	103		16,975	12,366	72,355	112,900
Louisiana.....	27					72		70	2	11,650	13,470	14,085	47,450
Maine.....	21					75	3	72		11,985	11,710	28,110	56,300
Maryland.....	21					137	8	129		46,875	15,518	97,625	139,020
Massachusetts.....	116					959	62	882	15	190,820	248,268	829,731	1,512,613
Michigan.....	58					210	3	207		46,665	29,655	77,658	153,984
Minnesota.....	4					12		12		1,500	2,290	7,150	12,660
Mississippi.....	1					3		3		500	1,000	3,000	7,000
Missouri.....	157					824	31	793	60	261,050	209,275	634,850	1,080,170
Nebraska.....	20					31	2	29		6,570	3,610	6,450	19,360
New Hampshire.....	12					50	2	48		12,900	8,352	31,500	49,430
New Jersey.....	25					90	1	87	2	7,225	10,392	42,635	74,000
New York.....	446	35	4			4,700	709	3,805	186	1,526,434	1,078,893	2,310,674	4,830,425
Ohio.....	178					1,047	44	967	36	161,407	127,439	497,164	728,623
Oregon.....	15					31		31		6,380	5,650	31,925	50,300
Pennsylvania.....	162					1,049	83	939	27	519,384	244,765	524,336	1,158,217
Rhode Island.....	27					109	9	100		34,700	24,157	49,578	94,425
Tennessee.....	95					249	2	247		46,105	50,000	66,300	202,752
Vermont.....	12					44	1	43		11,350	7,465	30,307	49,817
Virginia.....	51					103	1	99		19,240	10,555	64,277	105,737
Wisconsin.....	31					117	4	112	1	21,390	14,499	38,121	80,454

[*] CLOCK-CASES: See Table IX (B) for Connecticut and New York. CLOCK MATERIALS: See Table IX (B) for Connecticut. CLOCKS: See Table IX (B) for Connecticut, Illinois, Massachusetts, Missouri, New York, Pennsylvania, and Tennessee. CLOTHING, CHILDREN'S: See Table IX (B) for Connecticut, New Jersey, New York, Ohio, and Pennsylvania.

TABLE VIII (C).—EACH INDUSTRY BY STATES AND TERRITORIES—1870—Continued.

COAL-OIL, REFINED.

STATES AND TERRITORIES.	Establishments.	STEAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.				CAPITAL. Dollars.	WAGES. Dollars.	MATERIALS. Dollars.	PRODUCTS. Dollars.
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.	Youth.				
The United States.....	170	4,214	198			1,870	1,834	1	35	6,770,383	1,184,559	21,450,189	26,942,287
Kentucky.....	2	20	1			16	16			55,000	9,100	70,000	116,400
Maine.....	2	175	6			120	120			369,400	90,000	516,997	813,134
Maryland.....	8	81	8			55	55			198,000	23,120	540,171	647,389
Massachusetts.....	8	530	11			155	159		5	466,000	121,940	701,826	1,405,488
Missouri.....	1					2	2			2,000	1,100	4,300	6,000
New Jersey.....	4	23	3			22	22			60,000	10,300	115,579	169,000
New York.....	10	447	20			183	180		3	699,500	109,607	2,236,149	2,702,680
Ohio.....	25	365	24			270	268		2	757,000	157,350	4,490,163	5,388,433
Pennsylvania.....	89	2,341	105			957	932	1	24	4,006,433	632,523	12,345,899	15,251,223
Rhode Island.....	1					3	3			2,000	100	3,850	4,100
Tennessee.....	1	25	1			5	5			30,000	500	3,000	5,100
West Virginia.....	10	187	19			82	81		1	125,050	22,850	320,255	432,650

COFFEE AND SPICES, ROASTED AND GROUND.

The United States.....	156	1,638	117	134	4	1,220	1,054	100	66	3,846,210	670,983	8,171,837	11,266,423
California.....	13	81	7			92	91		1	140,200	44,640	328,665	417,715
Connecticut.....	7	42	4	8	1	27	21	5	1	55,800	12,680	131,250	169,376
District of Columbia.....	1	3	1			5	5			2,000	2,000	36,604	48,736
Illinois.....	7	102	6			69	64	1	4	240,000	42,576	661,475	792,851
Indiana.....	2	32	2			9	7			25,000	3,300	84,250	95,940
Iowa.....	1	10				3	3	2		4,000	1,300	9,100	11,500
Maine.....	4	33	4			21	18	3		13,500	6,300	61,250	86,610
Maryland.....	4	40	4			29	20			120,600	16,123	312,570	360,535
Massachusetts.....	19	161	16	10	1	131	106	25		407,500	63,504	448,070	600,482
Michigan.....	4	24	3			25	23			32,000	11,085	181,234	201,545
Missouri.....	5	50	2			59	37	5	2	162,000	31,426	25,750	101,400
New Jersey.....	11	80	7	1		59	52	3	5	220,800	34,096	471,834	501,300
New York.....	29	351	25	115	2	309	270	3	27	1,513,600	211,085	3,103,260	4,706,200
Ohio.....	13	245	10			123	105	13	5	294,700	60,394	571,494	725,877
Oregon.....	3	3				6	6			204,700	1,500	12,000	24,200
Pennsylvania.....	26	244	18			172	140	40	5	7,300	96,101	1,327,600	1,646,171
Rhode Island.....	1	20	1			9	8	1		1,800	5,300	42,400	60,160
Tennessee.....	2	37	2			4	4			38,500	3,500	43,700	100,000
Wisconsin.....	4	80	3			32	24		8	92,410	22,140	249,031	325,915

COFFINS.

The United States.....	642	359	19	183	13	2,365	2,292	42	31	2,592,862	1,011,397	1,412,078	4,026,989
Alabama.....	8					20	20			23,300	13,600	10,695	42,175
California.....	11					34	34			86,250	23,700	42,335	100,332
Connecticut.....	18	9	1	10	1	100	94	1	5	100,460	49,750	67,460	153,235
Delaware.....	11					25	25			20,700	5,620	7,101	24,105
District of Columbia.....	15					42	41		1	43,300	17,557	16,948	58,597
Georgia.....	2					10	10			5,700	6,200	4,650	13,600
Illinois.....	29					68	68	1	1	45,700	16,220	58,587	107,703
Indiana.....	17					42	42			25,000	12,000	11,681	47,370
Iowa.....	8	14	1			20	20			18,900	7,400	11,030	27,470
Kansas.....	4					13	13			6,000	4,800	1,110	8,450
Kentucky.....	21					42	41		1	43,200	10,200	11,723	40,430
Louisiana.....	7					19	19			7,450	6,620	23,075	39,505
Maine.....	18	15	2	25	2	37	36	1		23,025	7,725	22,029	48,935
Maryland.....	30					66	62		4	23,350	10,708	21,825	64,050
Massachusetts.....	33	12	1			160	153	7		130,650	73,737	88,576	268,164
Michigan.....	15					44	44			38,800	12,610	19,381	51,150
Minnesota.....	3					4	4			3,000	1,000	600	2,050
Mississippi.....	2					5	5			10,500	3,100	4,825	16,700
Missouri.....	31					84	84			101,050	49,333	77,201	205,720
Nebraska.....	1					1	1			400		200	500
Nevada.....	1					2	2			5,000	500	200	1,200
New Hampshire.....	11	3	1	25	1	19	19			11,000	3,575	5,881	15,838
New Jersey.....	25					63	60	1	1	57,900	14,875	33,635	80,614
New York.....	104	124	5	76	5	581	555	13	13	748,900	315,060	467,478	1,240,569
North Carolina.....	5					11	11			3,925	2,001	1,392	13,100
Ohio.....	62	82	5	25	1	303	292	9	2	378,303	116,670	132,662	473,669
Oregon.....	2					4	4			8,200		2,200	6,000
Pennsylvania.....	91	100	3			409	398	8	3	500,903	179,214	184,721	653,718
Rhode Island.....	7					21	21	1		23,500	7,060	21,712	51,505
South Carolina.....	1					2	2			500	600	520	1,400
Tennessee.....	8					31	31			28,100	19,540	20,400	58,700
Texas.....	7					5	5			5,300	2,300	4,850	11,300
Vermont.....	4			22	3	15	15			9,100	2,497	8,850	2,497
Virginia.....	20					35	35			28,250	8,665	10,693	49,823
West Virginia.....	2					2	2			1,050		530	1,600
Wisconsin.....	9					24	24			15,650	6,400	9,795	31,300

GENERAL STATISTICS OF MANUFACTURES.

TABLE VIII (C.)—EACH INDUSTRY BY STATES AND TERRITORIES—1870—Continued.

COLLARS AND CUFFS, PAPER.

STATES AND TERRITORIES.	Establishments.	STEAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.				CAPITAL. Dollars.	WAGES. Dollars.	MATERIALS. Dollars.	PRODUCTS. Dollars.
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.	Youth.				
The United States.....	33	269	21	118	7	2,064	493	1,448	123	1,659,275	575,000	1,307,513	3,042,650
California.....	1	2	1	.....	.....	12	3	8	1	10,000	3,000	9,000	22,350
Illinois.....	1	15	1	.....	.....	34	4	30	.....	32,000	8,000	31,600	45,000
Maine.....	1	10	1	.....	.....	12	4	8	.....	100,000	5,000	21,400	30,000
Massachusetts.....	9	126	7	98	6	329	57	265	7	983,625	108,650	494,285	907,000
Missouri.....	3	2	1	.....	.....	51	17	21	13	35,000	21,800	68,000	125,500
New York.....	15	99	9	20	1	1,504	392	1,010	102	415,650	387,050	642,878	1,511,800
Ohio.....	1	.....	.....	.....	.....	10	4	6	.....	3,000	1,500	8,000	11,000
Pennsylvania.....	1	10	1	.....	.....	75	5	70	.....	65,000	24,000	55,750	200,000
Rhode Island.....	1	5	.....	.....	.....	37	7	30	.....	15,000	12,000	32,000	70,000

[*] CONFECTIONERY.

The United States.....	949	550	41	23	3	5,825	4,151	1,225	449	4,995,293	2,091,826	8,703,500	15,022,643
Alabama.....	8	.....	.....	.....	.....	14	12	.....	2	11,800	3,420	16,420	28,580
Arkansas.....	3	.....	.....	.....	.....	7	7	.....	.....	2,700	2,150	2,905	8,050
California.....	13	5	1	.....	.....	65	52	6	7	123,700	35,165	136,944	260,612
Colorado.....	2	.....	.....	.....	.....	2	2	.....	.....	1,000	1,200	2,600	4,500
Connecticut.....	13	40	1	.....	.....	111	82	26	3	100,400	51,344	194,368	339,523
Delaware.....	2	.....	.....	.....	.....	22	16	2	4	25,572	6,910	19,185	27,662
District of Columbia.....	20	.....	.....	.....	.....	64	58	2	4	42,950	16,915	60,465	112,641
Georgia.....	10	.....	.....	.....	.....	26	24	1	1	21,950	4,730	37,697	69,132
Illinois.....	34	102	5	.....	.....	462	272	81	109	314,650	161,601	1,355,431	1,042,740
Indiana.....	20	.....	.....	.....	.....	107	91	13	3	59,325	32,289	180,031	229,154
Iowa.....	11	.....	.....	.....	.....	30	25	3	2	24,580	9,021	31,552	56,363
Kansas.....	6	.....	.....	.....	.....	21	20	.....	1	15,200	5,800	17,050	33,410
Kentucky.....	19	.....	.....	.....	.....	96	83	8	5	103,100	32,620	176,411	252,311
Louisiana.....	16	.....	.....	.....	.....	81	78	1	2	34,250	27,121	34,658	95,000
Maine.....	15	.....	.....	.....	.....	102	62	23	17	79,934	27,412	137,355	214,500
Maryland.....	13	2	1	23	3	279	235	37	7	249,585	73,450	473,701	733,431
Massachusetts.....	63	76	6	.....	.....	549	363	181	5	309,745	227,778	873,718	1,406,099
Michigan.....	14	.....	.....	.....	.....	89	72	14	3	57,400	30,794	179,769	261,179
Minnesota.....	4	.....	.....	.....	.....	18	16	.....	.....	14,607	6,634	61,805	89,000
Mississippi.....	6	.....	.....	.....	.....	10	6	2	2	7,900	3,380	3,707	7,745
Missouri.....	20	38	5	.....	.....	305	205	49	52	290,250	186,800	602,240	1,274,825
Nebraska.....	3	.....	.....	.....	.....	5	5	.....	.....	1,900	3,050	23,400	35,500
Nevada.....	3	.....	.....	.....	.....	11	.....	.....	.....	9,000	8,800	26,100	40,500
New Hampshire.....	5	.....	.....	.....	.....	37	25	12	.....	23,000	13,200	54,801	85,700
New Jersey.....	26	.....	.....	.....	.....	118	77	31	10	49,375	35,350	165,249	276,541
New York.....	157	227	13	.....	.....	1,398	955	385	58	1,377,700	489,514	1,829,988	3,912,391
North Carolina.....	31	.....	.....	.....	.....	5	5	.....	.....	800	2,785	4,750	4,750
Ohio.....	6	15	2	.....	.....	380	237	89	54	300,900	110,799	462,969	752,409
Oregon.....	4	.....	.....	.....	.....	16	16	.....	.....	19,000	6,120	25,045	43,400
Pennsylvania.....	263	41	6	.....	.....	1,137	824	236	77	1,130,905	390,535	1,195,851	2,491,332
Rhode Island.....	12	.....	.....	.....	.....	59	43	14	2	32,300	17,558	56,741	106,743
Tennessee.....	20	.....	.....	.....	.....	70	66	2	2	48,575	25,005	65,111	115,375
Texas.....	4	.....	.....	.....	.....	22	16	.....	.....	18,500	7,940	18,500	34,325
Vermont.....	3	.....	.....	.....	.....	15	11	4	.....	22,000	6,443	23,999	34,300
Virginia.....	7	.....	.....	.....	.....	22	16	2	4	6,280	4,000	14,000	26,500
West Virginia.....	8	.....	.....	.....	.....	19	19	.....	.....	19,600	6,250	43,485	71,900
Wisconsin.....	10	.....	.....	.....	.....	50	42	1	7	45,400	11,825	74,317	104,870

COOPERAGE.

The United States.....	4,961	3,653	153	2,644	147	23,314	22,764	20	530	9,798,817	7,819,813	12,831,796	20,863,744
Alabama.....	4	20	1	.....	.....	25	25	.....	.....	19,050	8,820	7,940	20,520
California.....	51	130	4	20	1	259	253	.....	6	255,425	136,792	185,333	454,411
Connecticut.....	27	50	2	42	3	150	130	.....	.....	169,247	62,312	66,003	162,194
Delaware.....	4	.....	.....	.....	.....	9	9	.....	.....	3,700	3,180	1,057	7,013
District of Columbia.....	6	.....	.....	.....	.....	9	9	.....	.....	72,050	21,030	34,440	76,340
Florida.....	9	.....	.....	.....	.....	31	26	.....	5	11,090	7,400	6,200	6,150
Georgia.....	7	31	1	.....	.....	37	30	.....	.....	763,637	679,779	1,226,819	2,501,541
Illinois.....	391	93	4	.....	.....	1,868	1,837	.....	31	611,037	584,241	959,743	1,923,878
Indiana.....	357	253	10	.....	.....	425	423	.....	2	122,378	116,812	452,388	463,373
Iowa.....	136	21	2	.....	.....	10	10	.....	.....	3,100	4,050	3,725	12,673
Kansas.....	5	.....	.....	.....	.....	383	368	.....	15	125,663	110,379	169,172	463,373
Kentucky.....	89	20	.....	.....	.....	697	686	.....	2	85,865	192,750	73,612	255,385
Louisiana.....	217	.....	.....	.....	.....	745	734	.....	11	241,350	132,745	277,878	559,068
Maine.....	83	70	2	85	7	850	836	.....	6	438,475	383,934	415,037	873,782
Maryland.....	99	.....	.....	.....	.....	1,139	1,127	.....	8	438,165	383,934	431,894	1,179,753
Massachusetts.....	291	144	6	743	32	338	334	.....	4	126,020	130,137	530,706	1,179,753
Michigan.....	62	63	4	40	1	1	1	.....	.....	59	218,203	457,368	457,368
Minnesota.....	1	.....	.....	.....	.....	4	4	.....	.....	100	250	800	800
Mississippi.....	291	183	3	.....	.....	207	206	.....	1	851,430	670,635	1,107,107	2,234,581
Missouri.....	3	.....	.....	.....	.....	238	230	.....	8	101,060	1,900	3,270	11,150
Nebraska.....	48	44	2	198	11	.....	.....	.....	.....	64,947	80,074	191,800	191,800
New Hampshire.....	37	20	1	.....	.....	.....	.....	.....	.....	104,380	100,795	262,385	403,612

[*] Comps: See Table IX (B) for Connecticut, Massachusetts, Missouri, New York, Pennsylvania, Rhode Island, and Wisconsin.

TABLE VIII (C).—EACH INDUSTRY BY STATES AND TERRITORIES—1870—Continued.

COOPERAGE—Continued.

STATES AND TERRITORIES.	Establishments.	STEAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.				CAPITAL. Dollars.	WAGES. Dollars.	MATERIALS. Dollars.	PRODUCTS. Dollars.
		Horse-power.	Number.	Horse-power.	Number.	ALL.	Males above 16.	Females above 16.	Youth.				
New York.....	870	505	31	835	47	4,332	4,195	4	133	2,233,366	1,350,083	2,558,020	4,945,494
North Carolina.....	43	30	1	.....	.....	138	129	.....	9	23,755	23,066	47,969	101,316
Ohio.....	658	963	32	50	2	3,206	3,148	3	55	1,108,957	1,105,530	1,729,417	3,554,171
Oregon.....	16	35	1	.....	.....	42	42	.....	.....	19,505	14,112	14,896	52,732
Pennsylvania.....	474	327	20	148	11	2,256	2,171	1	84	1,084,385	945,437	1,502,537	3,209,470
Rhode Island.....	18	.....	.....	5	.....	26	26	.....	.....	9,500	9,600	16,389	30,200
South Carolina.....	4	.....	.....	.....	.....	59	59	.....	.....	13,162	13,162	11,901	54,924
Tennessee.....	44	15	1	.....	.....	147	140	.....	1	27,841	42,907	28,021	113,855
Texas.....	4	.....	.....	.....	.....	6	6	.....	.....	1,500	1,100	3,585	16,500
Utah.....	5	.....	.....	.....	.....	6	6	.....	.....	830	150	622	2,800
Vermont.....	59	.....	.....	474	31	137	136	.....	1	87,034	27,525	37,405	104,659
Virginia.....	87	.....	.....	.....	.....	231	222	.....	3	21,015	35,434	43,951	125,133
Washington.....	16	.....	.....	.....	.....	58	58	.....	.....	8,710	11,250	15,649	38,163
West Virginia.....	101	200	6	.....	.....	549	545	.....	4	125,032	140,243	233,523	458,476
Wisconsin.....	250	70	3	4	1	717	690	.....	18	207,040	160,083	201,904	627,190

GROUP—COPPER, MILLED AND SMELTED, AND WROUGHT.

[Includes Copper, milled and smelted; Copper, rolled; and Coppersmithing.]

The United States.....	99	4,373	50	849	17	1,991	1,819	5	167	5,506,800	1,123,558	13,291,289	15,796,750
Arizona.....	1	5	1	.....	.....	2	2	.....	.....	50,000	400	3,200	5,000
California.....	6	20	1	.....	.....	23	23	.....	.....	12,500	15,320	10,171	61,550
Connecticut.....	4	300	1	350	2	136	131	2	3	580,000	92,375	850,810	1,175,400
Delaware.....	1	.....	.....	.....	.....	12	12	.....	.....	10,000	6,000	7,730	14,725
Illinois.....	2	10	2	.....	.....	16	15	.....	1	9,500	7,600	16,542	31,822
Maryland.....	9	40	1	150	3	164	156	1	7	851,700	109,250	1,123,366	1,079,125
Massachusetts.....	12	469	6	160	6	294	294	.....	.....	1,262,250	173,450	1,060,017	1,491,200
Michigan.....	19	2,864	37	.....	.....	636	542	.....	94	1,591,000	350,909	8,499,496	9,260,976
Missouri.....	1	25	1	.....	.....	122	68	2	58	200,000	100,000	250,000	500,000
New Jersey.....	2	200	2	150	5	47	47	.....	.....	151,000	37,000	303,000	506,000
New York.....	18	55	3	.....	.....	174	173	.....	1	173,500	79,023	166,717	223,450
North Carolina.....	2	.....	.....	.....	.....	6	6	.....	.....	4,000	1,850	4,305	9,800
Ohio.....	1	.....	.....	.....	.....	4	4	.....	.....	2,500	1,150	32,800	39,600
Oregon.....	1	.....	.....	.....	.....	4	4	.....	.....	2,000	2,000	500	4,000
Pennsylvania.....	13	320	2	.....	.....	113	112	.....	1	386,950	63,831	302,555	467,525
Rhode Island.....	1	25	1	.....	.....	25	25	.....	.....	65,000	15,000	256,110	335,920
Tennessee.....	5	40	1	39	1	197	197	.....	.....	152,300	66,900	395,070	525,177
Wisconsin.....	1	.....	.....	.....	.....	10	8	.....	2	2,000	1,500	900	5,300

[*] COPPERSMITHING.

The United States.....	65	129	10	60	2	643	571	4	68	739,550	362,554	798,304	1,722,167
California.....	4	.....	.....	.....	.....	16	16	.....	.....	10,000	13,200	14,086	51,350
Connecticut.....	2	.....	.....	50	1	50	45	2	3	80,000	33,500	29,610	250,000
Delaware.....	1	.....	.....	.....	.....	12	12	.....	.....	10,000	6,000	7,730	14,725
Illinois.....	1	10	2	.....	.....	16	15	.....	1	9,500	7,600	16,542	31,822
Maryland.....	7	.....	.....	.....	.....	30	28	.....	2	11,700	9,750	20,701	52,625
Massachusetts (a).....	9	10	3	10	1	97	97	.....	.....	93,500	61,250	94,538	267,350
Michigan.....	1	25	1	.....	.....	122	68	2	58	200,000	100,000	250,000	500,000
Missouri.....	1	.....	.....	.....	.....	4	4	.....	.....	1,000	2,000	3,000	6,000
New Jersey.....	1	.....	.....	.....	.....	6	6	.....	.....	4,000	1,850	4,305	9,800
New York.....	18	55	3	.....	.....	174	173	.....	1	173,500	79,023	166,717	223,450
North Carolina.....	2	.....	.....	.....	.....	6	6	.....	.....	4,000	1,850	4,305	9,800
Ohio.....	1	.....	.....	.....	.....	4	4	.....	.....	2,500	1,150	32,800	39,600
Oregon.....	1	.....	.....	.....	.....	4	4	.....	.....	2,000	2,000	500	4,000
Pennsylvania.....	12	20	1	.....	.....	83	82	.....	1	136,950	38,831	91,275	101,525
Rhode Island.....	3	.....	.....	.....	.....	9	9	.....	.....	2,300	4,900	5,600	14,500
Tennessee.....	5	.....	.....	.....	.....	10	8	.....	2	2,000	1,500	900	5,300
Wisconsin.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

CORDAGE AND TWINE.

The United States.....	201	2,381	36	664	30	3,698	2,115	770	804	3,530,470	1,234,272	5,739,608	8,979,382
Alabama.....	1	.....	.....	.....	.....	2	2	.....	.....	9,000	1,000	6,000	10,000
California.....	2	270	2	.....	.....	162	162	.....	.....	350,000	76,000	668,300	850,000
Connecticut.....	2	.....	.....	82	5	56	27	17	12	38,900	13,700	30,051	55,209
Illinois.....	3	.....	.....	.....	.....	18	17	.....	1	5,800	1,670	3,328	7,350
Indiana.....	3	50	1	.....	.....	37	31	5	1	18,200	8,380	8,480	17,880
Iowa.....	1	.....	.....	.....	.....	2	1	.....	.....	200	.....	320	688
Kansas.....	1	.....	.....	.....	.....	3	3	.....	.....	600	300	1,200	.....
Kentucky.....	9	29	2	.....	.....	120	69	3	45	89,100	32,105	96,468	178,182
Louisiana.....	2	.....	.....	.....	.....	4	3	.....	.....	3,000	500	822	2,160
Maine.....	4	97	3	15	1	44	44	.....	.....	64,000	13,900	112,950	154,200
Maryland.....	7	.....	.....	.....	.....	46	34	.....	12	22,150	8,331	24,862	44,645

(a) Includes FIRE-EXTINGUISHERS of Table IX (B).

[*] COPPER, MILLED AND SMELTED: See Table IX (B) for Arizona, California, Maryland, Massachusetts, Michigan, Rhode Island, and Tennessee. COPPER, ROLLED: See Table IX (B) for Connecticut, Maryland, Massachusetts, New Jersey, and Pennsylvania.

TABLE VIII (C.)—EACH INDUSTRY BY STATES AND TERRITORIES—1870—Continued.

CORDAGE AND TWINE—Continued.

STATES AND TERRITORIES.	Establishments.	STEAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.				CAPITAL.	WAGES.	MATERIALS.	PRODUCTS.
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 13.	Youth.	Dollars.	Dollars.	Dollars.	Dollars.
Massachusetts	33	1,069	10	208	9	968	643	231	114	666,000	395,273	1,961,410	2,886,848
Michigan	4					12	10		2	5,700	2,500	9,223	14,669
Minnesota	1					2				200		500	1,590
Missouri	17					145	101	1	44	87,780	57,460	164,380	272,400
New Hampshire	1					3	5			3,000	2,451	3,373	7,680
New Jersey	19	110	3	62	2	376	173	121	82	434,830	89,939	642,472	872,546
New York	45	441	6	135	7	1,006	399	278	329	812,450	228,420	818,669	1,553,329
Ohio	18	18	2	22	1	245	164	32	59	109,166	75,701	147,060	307,692
Pennsylvania	17	272	6	140	4	373	200	96	77	771,834	150,512	1,012,666	1,701,511
Rhode Island	1					3				1,200	900	1,210	2,625
Tennessee	2					5	5			2,120	722	2,440	6,200
Texas	1	25	1			10	5	2	12	24,000	1,060	7,950	15,600
Virginia	1					4	2	1		500	1,200	500	2,225
West Virginia	1					3				650	150	772	1,332
Wisconsin	5					15	10		5	9,130	2,110	8,170	13,050

CORDIALS AND SIRUPS.

The United States	33	27	4		258	195	51	22	527,100	118,847	505,398	953,271
California	1				2	2			1,000	180	1,342	2,500
Connecticut	2				4	4			1,300	500	2,740	4,200
Illinois	5	8	1		72	39	26	7	60,000	18,980	204,500	271,625
Louisiana	2	4	1		21	21			12,000	16,000	8,200	39,000
Maryland	2				16	15		1	29,000	6,300	15,574	27,696
Massachusetts	3				29	17	12		103,000	27,100	87,122	279,000
Missouri	1	5	1		12	11		1	4,500	9,000	6,000	21,000
New Jersey	1				2	2			100	500	200	800
New York	11				86	62	11	13	310,700	36,825	167,210	287,150
North Carolina	1	10	1		4	4			600	562	860	1,500
Ohio	2				3	3			900	700	7,050	13,300
Pennsylvania	2				7	5	2		4,000	2,200	4,660	7,200

[*] COTTON GOODS, (NOT SPECIFIED BELOW.)

[Cotton goods, in Table X, includes Cotton goods, (not specified,) less some inconsiderable products; Cotton batting and wadding; and Cotton thread, twine, and yarns of Table VIII, (C).]

The United States	819	44,874	402	94,253	1,110	120,442	40,746	66,870	21,826	133,238,797	37,280,856	106,307,962	168,457,353
Alabama	10	150	2	774	12	961	281	415	265	900,000	190,579	691,615	987,067
Arkansas	2	15	1	10	1	17	8	3	6	13,000	4,160	13,760	23,562
Connecticut	79	585	11	9,405	135	10,849	3,903	4,187	2,750	10,973,900	2,870,434	7,741,551	12,305,101
Delaware	6	500	5	370	6	726	225	286	215	1,165,000	190,069	704,733	1,060,898
Georgia	25	240	3	2,515	50	2,579	1,089	961	520	3,064,050	572,925	2,284,150	3,333,647
Illinois	2			90	2	59	10	28	21	112,000	17,500	121,000	182,000
Indiana	4	1,081	7	80	2	504	119	179	206	551,500	113,200	542,875	778,047
Iowa	1	6	1			6	3	3		1,500	275	4,950	7,000
Kentucky	5	330	5	60	1	269	77	71	121	405,000	57,951	373,048	493,800
Louisiana	3	195	3			186	93	37	56	482,000	48,200	120,085	184,350
Maine	20	320	2	7,008	83	9,379	2,584	6,223	572	9,789,685	2,550,597	6,671,280	11,739,781
Maryland	22	1,510	8	1,091	21	2,860	688	1,452	720	2,734,250	671,933	3,400,426	4,852,603
Massachusetts	160	10,705	99	30,398	203	41,455	12,886	23,313	5,356	42,153,175	12,914,023	35,477,617	56,285,980
Mississippi	5	270	3	96	3	265	78	83	99	751,500	61,833	123,568	234,445
Missouri	3	375	3			361	107	154	100	480,200	120,300	481,745	798,050
New Hampshire	35	915	7	17,767	94	12,541	3,751	7,400	1,300	13,331,710	3,989,853	12,318,447	16,989,072
New Jersey	14	1,175	10	840	13	2,249	773	986	490	1,550,000	629,171	3,326,762	3,326,167
New York	67	4,833	35	5,079	78	8,909	2,514	4,430	1,965	8,209,236	2,569,731	6,711,378	10,740,961
North Carolina	23	80	2	1,430	20	1,351	232	850	269	668,500	173,367	917,979	1,280,035
Ohio	4	165	2	51	2	303	156	55	92	204,500	62,129	230,630	332,300
Pennsylvania	121	7,089	106	1,666	33	12,281	3,729	5,965	2,587	11,940,141	3,386,248	10,021,161	16,626,101
Rhode Island	140	7,337	71	10,732	166	16,872	5,628	8,034	3,150	18,243,300	5,228,650	13,286,315	22,072,293
South Carolina	12			953	14	1,123	229	508	326	1,337,000	237,620	761,469	1,529,937
Tennessee	25	470	9	627	18	638	283	440	166	932,630	108,856	570,779	806,570
Texas	4	268	4			291	184	52	55	496,000	68,211	216,519	374,598
Utah	3			30	3	16	10	2	4			7,031	16,893
Vermont	8	50	1	600	12	451	125	242	84	670,000	125,000	292,269	546,510
Virginia	11	210	2	750	10	1,741	921	507	313	1,128,000	229,750	937,820	1,435,600

COTTON BATTING AND WADDING.

The United States	27	240	14	161	11	244	159	31	54	276,800	78,876	533,451	720,117
Illinois	3	47	3			39	16	3	20	39,000	8,000	56,525	97,000
Maine	1					3	1		2	2,000	600	4,500	5,000
Massachusetts	7	90	3	120	7	125	84	25	16	96,500	47,223	302,585	384,000
New Hampshire	1			10		1	1			1,000		400	600
New Jersey	1	6	1			5	4	1		4,000	2,000	8,774	13,540
New York	2			9		3	2		1	1,100	300	6,400	8,500
Ohio	2	80	2			29	22		7	101,200	11,400	112,004	149,255
Pennsylvania	10	17	5	22	4	29	29	2	8	32,000	9,348	42,153	61,562

[*] COTTON-CUTTING: See Table IX (B) for Connecticut, Massachusetts, New Jersey, New York, Pennsylvania, and Vermont. COSTUMES: See Table IX (B) for Maryland, Massachusetts, New York, and Pennsylvania.