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# THE STATISTICS OF MANUFACTURES.

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# REMARKS ON THE TABLES OF MANUFACTURING INDUSTRY.

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## 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 underestimate 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, 33 $\frac{1}{2}$  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,

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\* 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 uncontestedly 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.\*

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\* 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. Increases-

\* 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 manufacture 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
	170,726,528
	4,403,051,970

Deduct on account of butchering.....	\$13,686,061
Value of cloth printed.....	36,838,007
Increase in reported production of carpenters, coopers, &c.....	177,569,242
Increase due to special administrative measures.....	250,000,000
	478,093,310
Total production of the United States, 1860, as published.....	3,924,958,660
	1,885,861,676
	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 .....	169,691	\$73,438,952	\$14,418,908	\$143,130,692	\$128,717,784	\$55,278,832	\$31.30	\$10.07	\$61.37	\$843.51	\$758.54
II .....	110,504	35,080,863	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	535,487,704	351,944,670	184,820,137	31.20	34.28	65.48	1,376.84	904.93
IV .....	1,453,056	541,078,362	1,529,537,058	2,701,440,948	1,171,903,890	630,825,628	20.29	56.62	76.91	1,659.10	806.51
V .....	101,504	31,734,815	707,361,378	841,005,063	133,043,685	101,908,870	3.77	84.10	87.87	8,285.44	1,316.64
	2,223,679	\$49,060,545	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, \$2,396,850; 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 4½ 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 to 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.

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And there is an apparent excess of.....	14,680,000 pounds.
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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
	14,500,000 pounds.

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"Showing an actual discrepancy of (about  $\frac{5}{6}$  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 QUADRUPLED.			NUMBER OF ESTABLISHMENTS IN SPECIFIED INDUSTRIES WHICH WERE TRIPLED.		
			Total.	On account of quadruples.	On account of triplicates.	All industries.	Agricultural implements; cars, rail road; iron, castings; and machinery.	Cars, railroad; iron, forged; iron, castings; and machinery.	All industries.	Agricultural implements; iron, castings; and machinery.	Iron, rolled; iron, castings; and machinery.
The United States	247,012	250,883	3,871	6	132	3,733			66		
1 Alabama	2,127	2,188	61			61			39		
2 Arkansas	1,068	1,070	11			11			4		
3 California	3,945	3,984	39			39			2		
4 Connecticut	5,082	5,128	46			46			1		
5 Delaware	786	800	14			14			1		
6 District of Columbia	951	952	1			1					
7 Georgia	3,741	3,830	95			95					
8 Illinois	12,491	12,597	106		4	102					
9 Indiana	11,622	11,847	225		14	211					
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					
15 Maryland	5,759	5,812	53			53					
16 Massachusetts	13,128	13,212	84			84					
17 Michigan	9,264	9,455	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					
25 New Jersey	6,534	6,636	102		22	80			1		
26 New York	35,693	36,206	513		22	491			11		
27 North Carolina	3,625	3,642	17			17			11		
28 Ohio	22,254	22,773	519		22	497			11		
29 Oregon	954	969	15			15					
30 Pennsylvania	36,489	37,200	711	6	28	677	2	1	14	4	3
31 Rhode Island	1,843	1,850	7			7			2		
32 South Carolina	1,553	1,584	31		2	29			1		
33 Tennessee	5,192	5,317	105		2	103			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		
39 Washington	264	269	5			5					1
40 Wisconsin	6,915	7,013	98			98					1

\* 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.

## REMARKS ON THE TABLES OF MANUFACTURING INDUSTRY.

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TABLES VIII.—(A) and (B).

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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.

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## GENERAL STATISTICS OF MANUFACTURES.

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

STATES AND TERRITORIES.	1870*												
	Establish- ments.	STEAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.				CAPITAL.	WAGES.	MATERIALS.	PRODUCTS.
		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	2,053,990	1,615,598	323,770	114,628	2,118,208,769	775,584,343	2,483,427,242	4,232,325,442
1 Alabama .....	2,188	7,740	295	11,011	724	8,248	7,196	664	388	5,714,032	2,927,068	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	236	1,545	128	3,206	3,077	47	82	1,782,913	673,063	2,536,998	4,029,234
4 California .....	3,984	18,493	604	6,877	271	25,302	24,040	873	479	39,728,203	13,136,732	35,351,193	66,594,556
5 Colorado .....	256	1,433	49	702	31	876	874	2	.....	2,835,605	528,221	1,503,280	2,852,820
6 Connecticut .....	5,128	25,979	711	54,305	1,988	89,523	61,684	20,810	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	4,920	234	9,710	7,705	1,199	836	10,839,093	3,692,195	10,206,397	16,791,382
9 District of Columbia..	952	789	54	1,100	15	4,085	4,333	216	136	5,021,925	2,007,600	4,754,883	9,292,173
10 Florida .....	659	3,172	126	538	79	2,749	2,670	20	59	1,670,930	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	1,205	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	19,953	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	1,000	58,852	54,412	2,272	2,168	52,052,425	18,366,780	63,135,492	108,617,278
15 Iowa .....	6,566	25,298	899	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	6,360	254	1,789	62	6,844	6,599	118	127	4,319,060	2,377,511	6,112,163	11,775,833
17 Kentucky .....	5,390	31,926	1,147	7,640	450	30,636	27,687	1,150	1,790	29,277,809	9,444,524	29,497,535	54,625,800
18 Louisiana .....	2,557	24,924	887	142	23	30,071	23,637	4,210	2,924	18,313,974	4,593,470	12,412,023	24,161,005
19 Maine .....	5,550	9,465	354	70,108	2,700	49,180	34,310	13,448	1,422	39,796,190	14,282,205	49,379,757	79,497,521
20 Maryland .....	5,612	13,961	531	18,461	937	44,860	34,061	8,278	2,521	36,438,729	12,683,817	46,807,032	76,593,613
21 Massachusetts .....	13,212	78,502	2,396	105,854	3,157	270,380	179,032	86,229	14,119	231,677,862	118,051,886	334,413,929	533,912,568
22 Michigan .....	9,435	70,956	2,915	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	13,054	434	11,290	10,892	259	139	11,903,729	4,052,837	13,842,002	23,110,700
24 Mississippi .....	1,231	10,010	384	2,453	225	5,941	5,500	191	250	4,501,714	1,517,428	4,304,206	8,154,758
25 Missouri .....	11,871	48,418	1,639	6,644	388	65,354	55,904	3,884	5,500	80,257,244	31,053,445	115,533,269	206,213,420
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	2,065	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	.....	5,127,793	2,498,473	10,315,984	15,870,539
29 New Hampshire .....	3,342	8,787	280	68,291	2,312	40,783	25,820	12,775	2,179	36,023,743	13,823,001	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	32,048,409	103,415,245	160,237,732
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	452,065,453	785,194,651
33 North Carolina .....	3,642	6,041	306	26,211	1,825	13,622	11,330	1,492	861	8,140,473	2,195,711	12,824,693	19,021,327
34 Ohio .....	22,773	120,577	4,586	44,746	2,157	137,202	110,686	11,575	5,941	141,923,964	49,066,488	157,131,097	269,713,610
35 Oregon .....	960	2,471	88	5,806	236	2,884	2,753	67	64	4,370,849	1,120,173	3,410,756	6,877,387
36 Pennsylvania .....	37,200	221,936	6,230	141,982	7,003	310,487	250,543	43,712	19,232	406,821,845	127,976,504	421,197,673	711,894,344
37 Rhode Island .....	1,850	20,546	402	18,481	456	40,417	28,804	14,752	5,861	66,557,392	19,354,256	73,154,100	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	9,858,981
39 Tennessee .....	5,317	18,467	732	19,514	1,340	10,412	17,663	1,089	660	15,595,205	5,390,630	19,657,027	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	11,517,302
41 Utah .....	533	331	21	2,160	192	1,534	1,465	43	26	1,391,898	395,305	1,238,252	2,343,019
42 Vermont .....	3,270	6,425	180	44,897	1,984	18,686	16,301	1,573	513	20,320,637	6,264,581	17,007,769	32,184,606
43 Virginia .....	5,933	8,410	396	41,202	2,229	26,974	22,175	2,259	2,540	18,455,400	5,343,609	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	40,996	2,114	1,500	41,981,872	13,575,642	45,851,266	77,214,326
47 Wyoming .....	32	310	13	34	2	502	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.

## GENERAL STATISTICS OF MANUFACTURES.

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

Establishments.	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	1,009,855,715	378,878,966	1,031,605,092	1,885,861,670	123,025	957,059	731,137	235,922	533,245,351	236,735,404	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	530	3,450,000	1,105,824	2,924,960	4,538,876
518	1,877	1,831	46	1,316,610	454,240	1,280,503	2,880,578	261	842	812	30	305,015	159,876	215,789	537,908
8,468	49,220	49,171	55	22,043,096	28,402,287	27,051,674	68,253,928	1,003	3,964	3,964	.....	1,006,197	3,717,180	1,201,154	12,862,522
3,010	64,469	44,003	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
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	4,649,290
429	3,148	2,653	495	2,905,865	1,130,154	2,884,185	5,412,102	403	2,570	2,034	536	1,001,575	757,584	1,405,871	2,600,258
185	2,454	2,297	157	1,874,125	619,840	874,506	2,447,969	103	991	876	115	547,060	190,452	230,611	668,335
1,800	11,575	9,493	2,083	10,890,875	2,925,148	9,986,532	16,925,564	1,529	8,368	6,650	1,718	5,456,483	1,709,664	3,404,917	7,082,075
4,268	22,908	22,480	479	27,548,563	7,637,921	35,558,763	57,580,886	3,162	11,559	11,066	493	6,217,765	3,204,336	8,050,327	10,534,272
5,323	21,295	20,563	732	18,451,121	6,318,335	27,149,597	49,893,469	4,303	14,440	13,748	692	7,750,402	3,728,844	10,309,700	18,725,423
1,030	6,307	6,142	165	7,247,130	1,922,417	8,612,259	13,971,395	522	1,707	1,687	20	1,292,875	473,016	2,356,881	3,551,783
344	1,735	1,700	35	1,084,935	880,340	1,444,975	4,357,408	.....	.....	.....	.....	.....	.....	.....	16
3,450	21,258	10,587	1,671	20,256,579	6,020,082	22,295,759	37,931,240	3,600	21,470	19,576	1,900	11,810,462	5,106,048	12,165,075	21,710,212
1,744	8,789	7,873	916	7,151,173	3,683,670	6,738,486	15,587,473	1,008	6,217	5,458	759	5,032,424	2,033,928	2,450,508	6,779,417
3,810	34,619	24,897	0,792	22,044,020	8,368,691	21,553,066	38,193,254	3,074	28,020	21,853	6,167	14,699,152	7,485,588	13,553,144	24,681,057
3,083	28,403	21,630	6,773	23,230,608	7,190,672	25,494,007	41,735,157	3,725	30,219	22,729	7,483	14,934,450	7,403,832	17,690,836	33,043,892
8,176	217,421	146,268	71,153	132,702,327	56,960,013	135,053,721	255,545,922	8,852	177,461	107,784	69,077	88,040,292	41,954,736	85,856,771	157,743,994
3,448	23,190	22,144	1,040	23,808,296	6,735,047	17,635,611	33,658,356	2,033	9,344	8,990	354	6,503,600	2,717,121	6,136,328	11,169,002
562	2,123	2,104	19	2,388,310	712,214	1,904,070	3,373,172	5	63	63	.....	94,000	18,510	34,300	58,300
976	4,775	4,573	203	4,384,492	1,618,320	3,146,636	6,590,687	947	3,154	3,046	108	1,815,820	771,528	1,275,771	2,912,068
3,157	19,681	18,628	1,053	20,034,290	6,660,910	23,840,941	41,782,731	2,923	15,608	14,880	928	8,576,607	4,693,648	12,708,351	24,324,418
107	336	334	2	206,575	105,332	237,915	607,328	.....	.....	.....	.....	.....	.....	.....	26
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	27	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	28	
2,502	32,340	18,379	10,961	23,274,094	8,110,561	20,530,857	37,586,453	3,211	27,092	14,103	12,989	18,242,114	6,123,876	12,745,460	23,164,503
4,173	56,027	43,108	13,829	40,521,048	16,277,337	41,420,100	70,306,104	4,207	37,830	20,068	8,762	22,203,258	9,364,740	22,011,871	39,851,256
82	1,074	1,044	30	2,008,350	341,306	367,892	1,240,123	23	81	81	.....	68,300	20,772	110,220	249,010
22,624	230,112	170,885	53,327	172,895,659	65,446,750	214,813,061	378,870,939	23,553	199,349	147,737	51,612	99,904,405	49,131,000	134,655,074	237,597,249
3,689	14,217	12,103	2,115	9,693,703	2,689,441	10,203,228	16,678,698	2,663	14,601	12,473	2,128	7,456,860	2,383,456	4,602,501	9,111,050
11,123	75,602	65,740	9,853	57,295,303	22,302,969	69,800,270	121,601,148	10,629	51,401	47,054	4,437	20,019,538	13,467,156	34,678,010	62,692,270
300	978	968	10	1,337,238	635,256	1,431,952	2,976,761	59	285	285	.....	843,600	368,620	809,560	2,336,040
23,363	222,132	182,593	39,539	190,055,904	60,309,165	153,477,698	290,121,188	21,605	146,766	124,688	22,078	94,473,810	37,163,232	87,206,377	155,044,910
1,191	32,490	20,795	11,695	24,278,205	8,760,125	19,858,515	40,711,296	864	20,967	12,923	8,044	12,935,676	5,047,080	13,160,703	22,117,088
1,230	6,904	6,096	898	6,031,756	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
2,572	12,528	11,583	946	14,426,261	3,370,687	9,416,514	17,987,925	2,887	13,039	11,080	959	6,527,729	2,247,492	5,166,886	9,725,608
983	3,449	3,338	111	3,272,450	1,162,756	3,367,372	6,577,202	309	1,066	1,042	24	539,200	322,368	394,642	1,168,538
148	359	380	9	443,350	231,701	439,512	900,153	14	51	51	.....	44,400	9,084	337,381	201,920
1,883	10,497	8,563	1,934	9,498,617	3,004,986	7,608,858	14,637,807	1,849	8,445	6,894	1,551	5,001,377	2,209,348	4,172,559	8,570,920
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	29,603,507
52	870	866	4	1,296,200	453,601	502,021	1,406,021	.....	.....	.....	.....	.....	.....	.....	44
3,064	15,414	14,641	773	15,831,581	4,268,708	17,137,334	27,849,467	1,262	6,089	5,798	201	3,382,148	1,712,496	5,414,931	9,933,068

<sup>†</sup>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. 30, 3d 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, 123,020; hands employed, total, 958,079; male, 732,157; female, 225,922; capital, \$633,245,351; wages, \$286,759,464; materials, \$555,174,320; products, \$1,019,109,616.

## GENERAL STATISTICS OF MANUFACTURES.

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.					
						All.		Youth.					
All industries . . . . .	252,148	1,215,711	40,191	1,130,431	51,018	2,053,990	1,615,598	323,770	114,628	2,118,208,709	775,584,343	3,488,427,242	4,232,325,442
Acid, pyroligneous (a) . . . . .	5	—	—	15	1	29	29	—	—	31,500	9,464	27,400	68,920
sulphuric (a) . . . . .	4	29	3	73	1	162,000	162,000	—	—	55,900	51,280	212,150	—
Agricultural implements . . . . .	2,076	15,873	676	10,209	420	25,249	24,634	12	603	34,834,600	12,151,504	21,473,025	52,066,875
Alarms, burglar and till . . . . .	5	—	3	46	44	—	—	2	—	72,000	31,864	27,780	91,000
Ammunition, cartridges . . . . .	8	110	3	13	9	462	249	214	6	570,430	344,515	552,095	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	276,331	369,004	866,125
limbs . . . . .	24	10	1	78	70	1	7	—	—	122,300	36,079	59,894	160,416
Artists' materials (b) . . . . .	8	40	4	50	38	3	9	—	—	43,800	20,062	21,680	94,150
Ashes, pot and pearl . . . . .	105	16	1	278	277	—	—	1	—	175,183	41,434	193,081	327,071
Awnings and tents . . . . .	45	—	—	219	162	49	8	—	—	132,475	87,424	371,077	625,269
Babbitt metal and solder . . . . .	8	—	—	34	33	—	—	1	—	152,650	15,610	246,513	300,900
Bagging, flax, hemp, and jute . . . . .	33	725	15	335	11	3,170	1,718	863	580	3,158,101	958,106	2,624,652	4,507,664
Bags, paper . . . . .	39	321	17	137	6	444	205	206	33	473,100	134,932	1,053,463	1,483,063
Bakeries . . . . .	39	230	14	125	4	1,007	486	502	109	1,290,500	452,517	3,827,678	8,261,679
Bark, ground . . . . .	30	80	5	10	1	235	167	58	10	294,450	88,107	600,691	895,433
Base-ball goods . . . . .	33	513	13	169	14	133	—	—	—	332,760	47,060	194,491	372,829
Baskets . . . . .	137	553	21	230	10	920	755	73	92	376,945	224,878	158,109	594,739
Bee-hives . . . . .	15	11	2	31	3	33	32	—	—	15,350	3,172	8,439	21,452
Bellows . . . . .	13	15	2	—	—	117	110	—	—	101,200	67,360	100,735	257,673
Bells . . . . .	31	55	2	150	10	389	329	47	13	517,000	185,751	512,537	1,023,010
Beltng and hose, (leather) . . . . .	91	303	13	42	3	608	754	8	—	2,118,577	454,187	3,231,204	4,558,043
Billiard & bagatelle tables, cues & materials . . . . .	39	86	4	—	—	503	493	—	—	895,000	383,768	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	638	66	55,982	52,527	9	446	15,977,902	9,246,549	13,293,007	41,828,296
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	100	—	66	34	—	—	17,100	29,000	52,505	108,010
Blocks and spars . . . . .	9	78	7	15	1	64	62	—	2	66,250	31,914	28,565	95,065
Blueing . . . . .	11	60	1	—	—	54	36	11	7	52,500	17,975	37,422	62,100
Boats . . . . .	174	1,446	45	13	2	2,351	2,350	1	30	1,065,193	1,225,996	1,214,016	3,200,775
Bookbinding . . . . .	500	753	77	—	—	5,497	2,972	3,175	—	530,510	3,191,410	8,026,870	14,077,309
Boot and shoe findings . . . . .	271	310	32	223	14	2,773	1,045	1,442	296	858,560	792,957	1,817,028	3,389,001
Boots and shoes . . . . .	93,425	2,902	267	167	24	135,889	113,415	19,113	3,301	48,994,366	51,972,712	93,582,528	181,644,090
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	125,012	242,937	370,840
cigar . . . . .	104	240	17	73	5	783	420	139	158	274,610	242,130	477,409	900,932
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	1,009,088	4,236,745	8,222,433
paper . . . . .	234	192	16	177	9	4,466	1,104	3,062	320	1,148,035	1,222,338	1,553,777	3,917,159
Brass and copper tubing . . . . .	3	80	2	—	—	121	114	—	7	203,000	60,434	345,875	500,000
founding and finishing . . . . .	275	1,882	146	266	6	3,377	3,103	39	230	4,783,585	1,711,300	3,293,629	6,855,756
rolled . . . . .	11	360	4	235	5	448	228	210	10	563,800	233,484	704,870	1,251,966
ware (e) . . . . .	30	489	13	365	9	757	540	87	130	1,243,450	326,008	907,908	1,849,013
Bread, crackers, and other bakery products . . . . .	3,550	2,370	167	218	12	14,136	12,598	842	686	10,025,066	5,353,184	22,211,856	36,937,704
Brick . . . . .	3,114	10,333	372	218	10	43,293	38,341	258	3,494	20,504,324	10,768,853	7,413,037	29,028,350
Bridge-building . . . . .	64	1,034	36	40	2	2,090	2,009	—	21	2,973,250	1,123,353	3,239,771	5,476,175
Bronze castings . . . . .	9	45	2	—	—	187	156	29	2	530,300	111,714	63,375	280,400
Brooms and whisk-brushes . . . . .	635	176	6	118	6	5,206	3,056	992	1,158	2,019,602	1,268,875	3,072,837	6,622,295
Brushes, (not whisk) . . . . .	157	257	18	21	3	2,425	1,481	522	422	1,683,993	691,405	1,312,897	2,094,823
Building-stone, artificial . . . . .	12	40	2	—	—	67	67	—	—	202,100	32,570	53,945	163,400
Butchers . . . . .	509	247	18	6	1	1,831	1,831	11	19	2,090,905	546,346	11,039,928	13,636,061
Buttocks . . . . .	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	1	10	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	150,240	422,000	751,000
Carpentering and building . . . . .	17,142	4,654	289	1,140	73	67,864	67,306	5	553	25,110,428	29,169,588	65,943,115	132,901,433
Carpets, rug . . . . .	474	66	2	24	2	1,016	874	116	20	310,744	141,148	498,395	1,005,327
other than rag . . . . .	215	3,017	45	702	18	12,098	6,808	4,316	974	13,540,730	4,681,718	13,577,993	21,761,573
Carriage trimmings . . . . .	44	71	6	55	2	433	241	176	36	326,150	144,278	214,544	590,878
Carriages and sleds, children's . . . . .	53	366	22	391	21	913	780	89	44	746,638	407,327	495,281	1,432,833
wagons . . . . .	11,847	4,160	270	4,651	363	54,928	54,280	76	572	36,563,095	21,272,730	22,747,341	45,362,837
Car fixtures and trimmings . . . . .	3	55	3	—	—	123	102	20	—	192,000	63,566	73,061	208,010
Cars, railroad and repairs (d) . . . . .	170	5,095	134	163	4	15,931	15,690	20	221	16,632,792	9,650,992	18,117,707	31,070,734
Cement . . . . .	45	1,190	23	900	23	1,632	1,508	—	124	1,521,500	631,993	773,192	2,033,993
Charcoal and coke (e) . . . . .	167	379	16	96	4	3,473	3,436	—	37	5,393,083	1,294,707	1,204,770	16,771,663
Cheese . . . . .	1,313	1,872	261	119	16	4,607	3,272	1,279	56	3,690,075	706,666	14,089,284	16,771,663
Chocolate . . . . .	9	290	7	210	9	199	104	87	8	377,000	75,700	605,149	940,259
Chromos and lithographs . . . . .	91	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	803,820	1,537,914
Clock-cases . . . . .	3	4	2	63	4	68	65	1	2	75,700	27,784	71,470	111,430
materials . . . . .	15	34	4	92	11	207	172	29	6	197,230	101,790	160,568	401,160
Clocks . . . . .	20	502	12	277	14	1,330	1,177	66	87	852,700	805,340	818,409	2,509,643
Clothing, children's . . . . .	20	—	—	—	—	1,449	895	553	1	332,300	210,700	677,475	1,009,873
men's . . . . .	7,838	457	37	96	3	106,679	46,934	58,466	1,279	49,511,080	30,535,479	86,117,231	147,050,378
women's . . . . .	1												

## GENERAL STATISTICS OF MANUFACTURES.

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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.				
Cordage and twine.	201	2,381	36	664	30	3,698	2,115	779	804	3,530,470	1,234,272	5,739,605	8,979,382
Cordials and sirups.	33	27	4	258	185	51	29	527,100	118,847	505,395	935,271	426,165	1,117,463
Cork-cutting.	27	147	11	14	2	482	245	121	116	347,400	144,518	426,739	754,530
Costumes.	4	—	—	28	8	8	19	1	1	17,600	2,775	3,406	9,500
Cotton goods, (not specified) (e)	819	44,874	402	94,253	1,110	120,442	40,746	66,870	21,826	133,288,797	37,250,856	106,307,962	168,457,353
butting and wadding.	27	240	14	161	11	244	158	31	51	276,800	78,876	533,451	720,117
thread, twine, and yarns.	123	2,093	40	4,620	123	6,077	2,052	2,938	1,087	7,392,295	1,743,651	5,135,303	8,796,217
Croquet sets.	8	80	3	38	3	121	104	4	13	51,000	50,900	74,226	172,080
Crucibles.	10	155	7	—	—	119	112	—	7	699,000	125,182	538,712	1,117,463
Cutlery.	82	953	40	1,034	32	2,111	1,896	150	65	2,246,830	973,854	762,029	2,682,903
and edge-tools, (not specified).	102	452	21	1,547	55	2,317	2,070	76	171	1,890,717	1,157,904	862,014	2,739,998
Dentistry, mechanical.	650	6	2	—	—	1,020	991	15	14	621,762	184,272	411,531	1,634,844
Dentists' materials.	10	32	2	—	—	346	264	72	10	833,200	242,836	181,108	579,361
Drain-pipe.	68	339	15	110	3	758	733	2	23	977,375	316,521	415,360	1,294,256
Drugs and chemicals (b).	292	3,637	114	445	17	4,729	4,026	452	251	12,750,800	2,141,248	11,681,405	19,417,194
Dye woods, stuffs, and extracts.	10	1,004	22	565	7	548	517	5	26	1,237,500	300,755	1,255,444	2,653,300
Edge-tools and axes.	97	1,292	36	4,431	119	3,520	3,470	11	39	4,210,205	1,497,703	2,413,555	5,482,539
Emery, reduced and ground.	5	145	5	100	3	25	25	—	—	157,000	17,320	70,650	133,760
wheels.	6	92	2	75	3	41	41	—	—	282,500	31,252	53,840	156,300
Enameling.	12	218	11	—	—	274	233	13	8	393,000	137,385	718,394	1,070,733
Engraving.	157	151	13	—	—	1,407	1,047	269	91	1,744,795	1,022,090	452,072	2,093,482
Envelopes and stencil-cutting.	136	13	4	10	1	431	381	5	45	244,000	155,968	103,035	509,644
Explosives and fireworks.	22	129	14	30	1	910	245	627	38	875,000	316,158	1,298,139	2,277,541
Fancy articles.	21	73	3	60	5	363	209	82	73	600,100	196,497	307,369	880,159
Fans.	13	77	2	32	2	101	82	91	15	172,650	65,433	77,627	188,830
Feathers, cleaned, dressed, and dyed.	19	32	2	—	—	117	31	43	45	28,000	23,426	37,279	92,100
Fences, patent.	4	25	2	8	1	583	290	272	21	474,050	144,097	467,200	850,945
Fertilizers, (not plaster, ground).	196	2,307	69	644	33	2,501	2,470	19	12	4,305,048	766,712	3,894,025	5,815,118
Tiles.	121	780	30	216	18	1,581	1,356	69	166	1,659,370	638,949	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	674	673	142	39	391,695	181,105	841,205	1,302,501
and oysters, canned.	17	207	6	—	—	1,587	731	554	282	574,200	96,409	940,302	1,471,300
Flax, dressed.	90	503	28	1,064	72	765	700	13	53	521,701	209,943	384,334	815,010
and linen goods (d).	10	593	7	1,105	16	1,746	473	750	514	2,325,250	424,946	1,141,467	2,178,773
Flouring and grist mill products.	23,573	168,736	5,383	407,950	21,213	58,448	57,795	91	563	151,565,370	14,577,533	367,392,129	44,925,143
Food preparations, animal.	85	426	32	87	5	523	512	55	15	672,056	276,437	1,545,450	2,328,780
vegetable.	33	308	9	340	12	559	511	331	17	618,216	177,062	746,899	1,246,202
Fruits & vegetables, canned & preserved.	97	742	45	—	—	5,669	1,658	3,434	777	2,335,025	771,643	3,034,846	5,425,677
Furniture, (not specified).	5,423	14,811	704	6,920	406	40,534	38,023	657	1,874	35,740,029	17,901,379	21,669,937	57,926,347
chairs.	529	3,203	117	4,740	184	12,402	6,073	3,168	2,319	7,643,881	3,522,940	9,797,743	10,567,104
iron bedsteads.	2	6	1	—	—	15	15	—	—	16,000	9,000	11,151	28,570
Furs, dressed.	182	76	6	24	2	267	260	—	7	548,000	141,919	194,409	566,463
Galvanizing.	9	48	4	—	—	146	141	—	5	206,000	88,650	584,936	796,320
Gas.	390	2,747	100	21	2	8,723	8,703	—	18	71,773,694	6,546,734	10,869,373	32,045,851
Gasometers.	2	7	2	—	—	30	30	—	—	35,000	15,000	74,000	140,000
Gas-retorts.	5	192	3	—	—	177	176	—	1	863,000	142,220	356,846	665,225
Gilding.	39	661	27	50	1	2,400	2,020	257	123	2,340,530	952,424	1,626,519	4,061,378
Glass, cut.	29	180	21	—	—	293	257	2	26	100,250	102,824	132,529	335,527
plate.	5	52	2	4	1	200	193	—	5	136,700	157,576	178,526	470,873
stained.	18	44	3	—	—	170	156	10	4	148,800	99,739	207,277	297,480
ware, (not specified).	114	1,044	55	42	3	12,308	8,494	668	3,143	10,385,882	5,953,423	4,376,897	14,300,949
window.	35	381	20	110	2	25,859	2,403	37	419	3,244,500	1,503,277	1,400,760	3,811,303
Gloves and mittens.	921	3	1	86	4	4,058	1,127	2,804	37	2,340,530	980,549	1,384,146	3,998,521
Glo. (e).	70	1,049	27	2	1	830	683	27	88	1,954,800	303,673	828,981	1,769,003
Gold and silver, reduced and refined.	12	506	10	—	—	165	164	—	1	292,030	110,118	673,020	848,501
Gold leaf and foil.	51	98	4	—	—	613	373	189	51	412,905	204,408	621,773	1,411,431
Grease and tallow.	62	233	13	—	—	442	339	62	21	841,980	184,787	5,114,863	6,035,845
Grindstones.	10	136	6	—	—	236	226	—	10	83,600	50,600	33,833	163,700
Gunpowder.	33	943	16	2,770	125	939	926	4	9	4,060,400	570,279	2,970,747	4,011,839
Gunsmithing.	615	70	15	103	8	1,052	1,063	7	13	603,770	225,879	227,151	559,692
Hair-cloth.	5	15	1	170	4	244	87	154	3	235,500	81,860	351,822	467,730
work.	230	55	3	7	1	1,651	597	940	114	706,875	416,204	883,421	1,971,839
Hand-stamps.	8	5	1	2	1	20	28	—	1	14,100	10,350	16,721	42,700
Hardware.	580	5,610	243	3,308	155	14,236	11,713	1,344	1,344	13,869,315	6,845,640	9,185,061	22,337,339
saddlery.	153	680	29	200	13	4,506	2,129	184	253	1,482,225	1,062,659	1,257,947	3,292,133
Hat materials.	62	433	11	108	8	1,014	722	146	146	1,168,635	537,287	9,074,959	3,925,763
Hats and caps.	483	2,112	64	186	10	16,173	8,817	6,301	1,025	6,498,571	6,374,490	12,900,473	24,848,167
Hatters' tools.	7	17	3	8	1	1,141	1,121	27	24	30,175	12,900	18,013	44,190
Heating-apparatus.	59	239	18	—	—	37	37	—	—	85,000	19,500	32,630	187,306
Hemlock-bark extract.	2	140	2	—	—	138	135	1	2	164,000	39,000	526,734	743,040
Hides and tallow.	12	84	6	—	—	189	176	3	10	126,500	77,425	120,587	281,750
Hinges, wrought and cast.	6	135	4	—	—	286	216	52	18	155,175	80,260	74,980	256,942
Hones and whetstones.	39	126	10	320	10	185	72	67	46	185,630	72,648	90,655	263,582
Hoops and eyes.	9	3	1	54	5	4,345	1,138	2,921	2,866	1,707,600	1,045,188	2,760,577	4,758,230
Hoop-skirts and corslets.	194	353	13	2	1	4,275	124	1,748	952	2,545,211	10,931,260	9,429,085	9,835,823
Hosiery.	248	2,223	81	4,275	124	37,920	3,721	3,599	5	4,050,603	1,544,896	2,924,713	5,285,157
Hubs, spokes, bows, shafts, wheels, & felloes.	302	4,706	189	1,912	98	3,257	12,740	485	43	601,773	150,355	194,156	920,994
Hunting and fishing tackle.	33	258	8	72	5	485	370	63	43	44,000	40,600	62,163	125,250
Ice, (by patented process).	4	72	4	—	—	97	96	—	1	2,486,604	2,559,877	7,434,742	14,566,374
Iridia-rubber and elastic goods.	56	4,412	49	1,864	35	6,025	3,030	2,640					

## 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.	WAGES.	MATERIALS.	PRODUCTS.		
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 16.						
Iron, bolts, nuts, washers, and rivets.	93	2,480	69	743	24	4,423	3,632	89	702	4,263,327	1,665,426	4,021,070	7,191,151	
nails and spikes, cut and wrought	142	10,775	101	2,503	65	7,770	6,062	351	1,327	9,091,912	3,961,172	18,792,383	24,823,006	
pipe, wrought	23	1,715	26	25	1	2,129	1,988		141	5,311,095	1,155,910	4,872,907	7,369,194	
railing, wrought (a)	74	197	27	3	1	630	605		25	405,290	321,101	533,116	1,265,756	
ship-building and marine engines.	1	100	2			352	352			750,000	210,000	187,000	472,000	
Ivory work.	20	205	13	75	6	272	236	33	3	580,350	172,968	635,435	1,080,910	
Japanned ware.	21	42	3			158	127	19	12	140,000	64,810	83,189	216,145	
Jewelry, (not specified), and instrument cases.	681	805	78	111	13	10,091	8,141	1,545	403	11,787,936	4,433,235	9,187,364	22,104,032	
Kaolin and ground earths.	52	529	15	672	28	183	153	16	14	79,900	65,108	65,061	216,997	
Kindling-wood.	70	627	48	36	3	701	523	2	176	562,750	253,150	486,642	930,294	
Lamp-black.	9	43	3			56	56			93,000	20,734	107,565	193,800	
Lamps, lanterns, & locomotive head-lights.	40	154	16	10	1	558	490	36	32	680,300	286,843	403,295	995,289	
Lapidary work.	13	10	1	22	2	88	81	5	2	34,400	38,800	37,184	107,300	
Lasts.	60	465	32	180	10	510	484	2	24	330,800	262,912	137,657	665,703	
Lead, bar and sheet.	5	46	2	35	1	39	39			246,000	22,500	693,789	717,70	
pigs.	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	9,303,869	12,861,959	
shot.	7	170	5			55	47	1	7	330,000	34,755	969,180	1,218,354	
Leather tanned.	4,237	19,572	1,045	14,202	855	29,784	20,423	98	263	42,720,505	7,934,416	63,060,491	86,170,883	
curried.	3,093	2,692	174	887	55	10,047	9,997	57	63	12,403,785	4,155,114	43,565,593	54,191,167	
morocco, tanned and curried.	113	683	48	16	3	3,006	2,740	182	64	3,854,072	1,678,926	6,683,066	9,997,460	
patent and enameled.	26	354	14	45	1	523	509		19	906,000	341,445	211,749	4,018,115	
dressed skins.	110	206	15	626	26	898	844	16	38	1,340,450	397,574	2,039,735	2,850,972	
Leather-board.	8	80	4	495	13	94	87	5	2	268,000	88,300	135,675	342,500	
Ligature-rods.	25	47	6			204	183			510,275	83,110	453,700	1,374,631	
Lime.	1,001	425	17	56	3	6,450	6,402	3	45	5,34,154	1,936,158	4,458,542	8,917,405	
Liquors, distilled.	719	12,553	411	811	55	5,131	5,068	6	57	15,545,116	2,019,810	19,720,432	36,191,133	
malt.	1,972	10,438	726	324	30	12,443	12,320	29	94	48,770,435	6,753,602	28,177,684	53,706,643	
vinous.	398	39	4			1,466	1,426	32	28	2,334,394	230,650	1,203,172	2,925,238	
Locksmithing and bell-hanging.	191	63	7			555	518	1	36	220,955	160,709	170,168	603,149	
Looking-glasses and picture frames.	11	25	2			206	193			229,000	106,722	197,061	458,800	
Lumber, planed.	320	1,107	49	93	4	3,557	2,976	190	415	2,500,020	1,628,653	2,466,313	5,962,235	
sawed.	1,13	25,608	842	3,651	193	13,040	13,064	52	524	18,007,041	6,223,076	28,728,348	42,170,702	
Machinery, (not specified).	25,817	314,774	(1,109)	320,728	16,559	140,871	145,926	682	3,263	143,309,082	39,966,817	103,102,393	200,852,527	
Machinery, (not specified).	15	110	5	53	3	126	121		5	94,150	42,345	241,037	306,600	
Machinery, (not specified).	1,737	17,429	981	6,707	356	30,784	30,183	93	505	40,383,960	17,812,493	22,573,692	54,429,634	
cotton and woolen.	338	3,383	146	2,643	115	8,918	8,438	326	154	10,003,424	4,632,913	5,216,874	13,311,118	
fire-engines.	9	25	3	413	8	838	831		7	986,000	307,414	913,833	1,636,580	
railroad repairing.	150	5,760	160	282	5	20,015	19,866	6	123	32,924,761	12,541,818	11,952,940	27,565,050	
Malt.	663	11,076	515	704	33	22,702	22,444	8	510	25,937,452	12,572,244	19,734,404	41,570,264	
Mats and rugs.	208	1,159	82	220	11	1,640	1,634		6	8,017,248	700,624	9,002,034	12,016,515	
Maps and atlases.	18	20	1			181	101	65	15	380,500	87,562	129,162	393,447	
Marble and stone work, (not specified).	923	4,231	141	1,406	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	8,916,654	
Masonry, brick and stone.	2,204	32	4			11,043	10,931			2,546,425	4,271,700	7,015,782	14,587,185	
Matches.	75	350	29	449	19	2,556	609	1,089	858	1,521,802	616,714	1,170,666	3,540,008	
Mats and rugs.	15	26	3			158	113	16	20	88,400	55,800	135,728	257,081	
Ment, cured and packed, (not specified).	17	128	6			499	257	165	77	1,549,100	173,180	2,531,652	3,760,893	
packed, beef.	36	925	15			435	423	4	8	436,700	111,595	1,524,650	1,950,306	
pork.	206	1,861	86			5,551	5,375	22	154	20,078,957	1,722,326	46,577,664	50,429,331	
Meters, gas and water.	1	20	1			75	75			100,000	70,000	170,000	420,000	
gas.	12	172	11			577	569	6	2	936,000	365,240	435,155	1,000,190	
water.	2	5	1			12	12			15,000	6,700	6,508	32,000	
Military goods.	6	24	3			91	69	12	10	98,200	66,426	141,550	283,630	
Millinery (b).	1,603	18	4			7,203	804	6,106	235	2,435,926	1,156,531	3,365,132	6,513,222	
Millstones.	19	195	5			317	316			813,100	191,913	375,575	819,350	
Millwrighting.	189	71	9	116	10	507	503		4	133,120	208,817	384,737	850,941	
Mineral and soda waters.	387	165	23	3	1	2,383	2,128	16	230	3,462,300	923,703	1,687,931	4,222,278	
Mops and dusters.	4	3	1	14	1	40	17	23	7	16,803	8,700	30,700	49,875	
Musical instruments, (not specified).	83	207	10	355	19	1,059	1,019	21	19	1,351,600	631,634	933,657	2,019,464	
melodeons, house-organs, and materials.	22	135	7	23	2	401	393	8	10	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.	156	829	36	23	3	4,141	4,054	19	68	6,019,311	3,071,392	2,924,777	8,329,504	
Mucilage and paste.	7	18	4			21	19			21,510	3,900	81,857	125,850	
Mustard, ground.	15	79	11			94	92			105,950	43,036	108,835	307,009	
Noodles and pins.	39	126	13	370	20	636	573	226	57	616,050	286,123	355,407	955,654	
Nets, fish and scine.	9	2				20	18	34	39	7	101,325	20,648	105,108	157,037
Nickel, smelted.	1	50	1			33	33			55,000	9,900	48,110	66,190	
Nitro-glycerine.	3	32	2			34	30	2	2	39,500	24,100	127,600	225,700	
Oars.	25	238	10	99	5	191	186	3	2	158,749	61,210	45,845	178,139	
Oil, animal.	58	396	24			543	461	45	34	2,072,532	298,975	7,582,576	9,728,607	
fish.	101	1,051	57	30	2	1,487	1,468	12	7	1,490,131	277,895	2,782,361	3,903,139	
lubricating.	3	5	1			9	8			12,200	4,200	6,7050	87,500	
vegetable, (not specified).	16	199	7	103	6	111	111			352,400	60,138	514,909	772,524	
earstar.	6	191	8			94	76			479,800	46,936	537,250	737,700	
cotton-seed.	26	1,149	21	65	2	664	639	10	15	1,295,350	292,032	1,333,631	2,205,610	
essential.	118	34	7			2,365	2,365			145,475	32,804	274,058	631,445	
linseed.	77	1,825	39	843	36	945	924	11	10	3,802,956	458,387	7,216,414	8,881,962	
Oil-cloth, silk.	1					2	2			500	400	300	1,400	
Oil floor-cloth.	34	424	25			1,411	1,343	17	51	2,237,000	687,288	2,548,768	4,211,579	
Painting.	3,040	19	3			10,964	10,728	28	208	2,797,306	4,169,839	4,190,473	13,244,498	
Paints, (not specified).	68	1,731	57	365	9	1,098	968	9	31	3,742,150	5			

## GENERAL STATISTICS OF MANUFACTURES.

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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.					
				X									
Pencils, lead.....	7	265	6	1	1	156	61	95	•	241,150	48,150	44,510	160,800
indelible.....	1	55	1	60	2	24	19	5	20,000	3,000	13,000	30,000	
Penholders, wooden.....	4	22	1	5	1	242	199	30	13	32,500	7,200	11,500	34,000
Pens and pencils, gold.....	21	56	3	5	1	257	47	195	15	263,250	133,550	151,740	467,380
steel.....	3	36	2	100	2	140	63	46	41	175,000	60,000	49,943	180,000
Percussion-caps.....	2	1	1	100	2	727	320	371	36	145,000	70,500	153,800	250,000
Perfumery, cosmetics, and fancy soaps.....	64	123	8	1	1	196	134	60	2	1,172,900	260,415	892,210	2,029,582
Photographs.....	10	16	4	1	1	66	1	1	1	245,40	103,000	174,233	331,915
Photographs.....	1,090	1	1	2,800	2	260	452	89	2	995,220	786,702	1,054,401	3,643,887
Pipes, tobacco.....	31	323	15	15	1	481	360	35	86	178,600	214,924	93,899	447,330
Plaster, ground.....	321	1,907	44	4,338	207	1,513	1,468	3	22	2,341,260	533,407	1,430,140	2,691,851
Plastering.....	691	54	2	80	6	2,404	2,404	60	60	333,462	900,355	907,524	2,639,025
Plated ware.....	203	1,229	61	650	22	4,235	3,425	654	156	4,586,125	2,350,129	3,771,931	8,142,150
Plumbing and gasfitting.....	703	356	36	12	2	4,733	4,582	1	900	3,711,667	2,277,644	5,167,323	10,391,471
Poetick-books.....	60	1	1	733	1	394	203	46	1	351,225	293,255	467,922	1,108,320
Polishing preparations.....	321	85	4	33	3	98	73	16	9	370,600	37,087	211,696	323,015
Portable forces.....	4	12	1	1	1	25	25	1	1	20,900	11,730	13,975	53,030
Preserves and sauces.....	30	67	8	1	1	335	105	121	19	411,100	113,427	814,770	1,242,836
Printers' fixtures.....	21	15	3	28	3	88	80	6	1	55,260	33,034	33,640	116,119
Printing cotton and woolen goods.....	42	7,153	130	2,603	19	8,804	6,092	1,393	1,409	13,367,553	3,428,089	40,373,658	54,446,044
Printing and publishing, (not specified) (a).....	311	2,698	187	20	1	10,668	8,715	1,231	719	16,899,993	7,155,322	11,398,131	28,995,214
books.....	40	458	28	1	1	1,390	920	352	118	12,189,993	760,275	1,523,773	3,569,823
newspaper.....	1,199	3,133	302	74	9	13,130	11,343	718	1,069	14,947,987	8,168,515	8,709,632	25,393,620
Pumps.....	609	1,440	174	15	4	5,555	4,458	499	508	6,007,354	2,710,234	2,966,709	8,511,134
Putty.....	445	1,379	102	958	52	1,903	1,817	7	81	1,735,894	663,594	970,547	2,818,457
Quartz, milled.....	13	74	6	1	1	83	91	1	1	231,600	42,590	264,250	305,250
Quicksilver, melted.....	4	64	1	18	1	256	248	8	1	3,500,000	181,000	837,700	1,027,000
Regalia and society banners and emblems.....	29	31	5	1	1	410	150	237	23	251,650	114,703	307,295	626,476
Roofing-materials (b).....	198	442	27	274	15	1,919	1,889	13	22	2,448,600	883,341	1,293,110	3,257,403
Saddlery and harness.....	7,607	172	12	43	3	23,557	22,716	375	466	13,935,901	7,046,207	16,068,810	32,700,981
Safes, doors, and vaults, (fire-proof).....	65	659	35	10	1	1,639	1,599	1	39	2,075,200	917,263	967,819	2,728,316
Sails.....	170	1	1	1	1	808	836	44	28	589,290	455,575	1,230,346	2,255,446
Salvators.....	4	41	3	1	1	63	63	1	1	140,700	33,530	164,600	231,647
Salt.....	282	3,276	102	44	3	2,921	2,858	7	56	6,561,615	1,147,910	1,760,670	4,820,629
ground.....	15	277	10	32	2	116	115	25	6	515,670	69,166	205,039	376,160
Salt-peter.....	4	10	1	1	1	10	10	1	1	32,000	4,800	57,410	66,910
Sand and emery paper and cloth.....	1,605	27,061	909	7,758	367	20,379	19,496	43	840	21,230,800	10,059,812	17,561,814	36,625,806
Sash, doors, and blinds.....	72	1,303	40	246	13	1,593	1,457	8	130	2,883,391	995,609	1,332,801	3,173,269
Saws.....	49	308	16	205	10	1,004	955	7	41	1,019,500	666,451	920,870	2,623,116
School slates and slate pencils.....	23	108	4	234	17	338	271	11	57	384,620	113,236	81,355	266,553
Screws.....	18	978	11	138	3	1,582	921	476	182	9,147,980	664,408	1,248,135	3,425,473
Sewing-machine fixtures.....	20	490	13	75	1	1,130	1,075	11	44	701,900	638,973	585,900	1,749,658
Sewing-machines.....	49	1,688	37	145	6	7,291	6,798	334	24	8,759,431	5,142,248	3,055,760	14,097,416
Ship building, ship materials, & repairs (c).....	762	3,311	110	109	6	11,063	10,978	9	63	9,102,335	5,594,686	8,253,324	17,910,538
Shouldy.....	56	284	10	1,487	53	632	419	171	43	815,930	198,372	1,082,003	1,264,632
Shoe-pegs.....	26	257	10	365	18	279	175	98	6	169,000	78,031	63,736	264,247
Shovels and spades.....	13	611	11	540	21	849	837	2	10	757,100	459,100	1,424,944	2,345,536
Show-cases.....	47	9	2	1	1	353	340	1	12	176,300	219,384	416,466	838,059
Silk goods, (not specified).....	53	672	28	457	26	4,174	1,209	2,903	704	4,010,036	1,328,389	4,136,812	7,036,457
sewing and twist.....	35	450	20	332	21	2,523	465	1,308	600	2,923,500	634,915	4,197,752	5,622,875
Silverware.....	55	361	35	10	1	845	747	59	9	1,382,550	542,113	1,222,428	2,344,357
Skeeters, wooden, for butchers & packers.....	2	1	1	45	2	18	11	7	1	20,000	11,400	3,100	23,000
Small beer.....	59	4	1	1	1	166	138	5	23	101,250	34,412	80,108	225,376
Soap and candles.....	614	3,009	158	20	1	4,424	3,828	300	285	10,454,800	1,925,951	15,232,587	23,533,327
Soap-stone stoves, fire-places, sinks, and cisterns.....	9	50	1	87	2	74	74	1	1	127,500	38,444	98,325	180,115
Soda-water apparatus.....	13	97	9	1	1	307	300	1	6	424,150	140,751	304,246	813,075
Spectacles and eye-glasses.....	31	51	9	2	1	258	237	10	11	183,825	133,553	183,820	429,859
Starch.....	195	653	40	3,564	181	2,072	1,712	317	43	2,741,675	900,719	3,884,909	5,904,422
Steel, (not specified).....	5	700	8	75	3	165	165	3	3	1,305,000	158,200	233,250	654,000
Bessemer.....	3	3,210	19	100	1	320	320	4	47	855,000	176,000	1,373,812	1,818,320
cast.....	2	7,557	53	75	2	1,893	1,842	4	47	3,970,400	1,256,632	3,417,028	6,026,500
forged.....	2	100	1	1	1	47	42	5	5	203,000	60,300	121,013	201,200
Steel springs.....	41	976	26	207	6	1,021	996	25	25	2,426,500	601,706	1,662,020	2,958,693
Stereotyping and electrotyping.....	36	91	6	1	1	766	659	15	92	1,033,200	446,532	290,774	1,075,030
Stone and earthen ware.....	777	1,556	82	129	8	6,116	5,059	316	741	5,291,398	2,147,173	1,702,703	6,045,536
Straw goods.....	75	341	24	35	2	14,023	1,958	12,594	343	2,110,350	1,232,870	3,661,760	7,282,066
Sugar and molasses, raw cane.....	713	12,320	509	1	1	2,209	15,723	3,701	1,770	10,248,475	2,120,119	6,063,271	10,363,368
refined cane.....	59	9,655	119	12	1	4,597	4,494	20	83	20,545,920	3,177,285	66,890,431	105,941,011
beet and grape.....	2	200	12	1	1	116	66	25	25	6,735,350	8,000	90,740	110,720
sorghum.....	317	272	17	138	17	1,169	1,038	51	80	143,057	30,616	162,267	344,008
Sumac, ground.....	19	208	10	95	6	85	84	1	1	167,450	31,325	164,706	261,100
Tar and turpentine.....	237	177	26	15	1	2,634	2,520	81	31	902,225	470,294	2,146,030	3,585,925
Taxidermy.....	8	1	1	1	1	18	18	18	1	20,200	5,700	11,464	20,030
Tin, copper, and sheet-iron ware.....	6,640	1,230	68	270	6	25,623	24,201	631	991	21,027,670	5,150,357	19,067,015	40,036,811
Trunks, valises, and satchels.....	61	352	30	10	2	1,431	838	310	274	1,767,100	546,535	1,782,829	3,337,274
Trusses, bandages, and supporters.....	512	2,320	146	362	23	20,368	9,750	4,860	5,758	11,768,714	4,670,095	20,351,607	36,258,177
Type founding.....	4,631	16	2	30	1	26,049	2,409	2,615	2,025	11,368,516	2,088,700	12,592,171	32,166,593
Umbrella furniture.....	10	135	8	30	1	1,331	1,229	413	180	3,677,998	1,530,275	1,510,046	578,865
Umbrellas and canes.....													

## 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.	WAGES.	MATERIALS.	PRODUCTS.	
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.					
Watch and clock repairing.	1,103	1	1	10	1	2,025	1,966	13	46	1,355,170	459,492	332,729	1,827,993
cases.	49	5	3	32	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	1,802	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	160,644	262,000
Wheelbarrows.	23	213	10	297	15	238	204	8	26	243,750	111,390	166,420	472,720
Wheelwrighting.	3,013	554	32	983	75	6,989	6,915	11	63	2,830,316	1,353,474	1,907,418	5,846,943
Whips.	43	117	4	17	3	377	320	134	33	332,031	194,261	173,391	475,651
and canes.	60	25	3	108	6	584	401	177	6	551,530	260,983	330,111	707,467
Willow ware (a).	168	25	2	28	2	839	565	68	226	208,755	171,213	143,634	510,930
Wire.	32	2,082	23	745	25	1,733	1,475	236	32	2,520,800	1,078,184	2,955,925	5,030,581
insulated.	2	—	—	10	1	11	10	1	—	12,000	4,800	8,060	27,817
work (b).	141	470	22	422	20	2,526	1,316	1,053	157	1,667,900	719,633	1,548,006	2,959,827
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	76	3,386	165	3,169	2,708	67	394	2,814,592	1,210,268	1,623,694	4,142,124
Wood pulp.	8	—	—	1,689	14	111	111	—	—	101,000	60,178	29,500	172,350
turned and carved (c).	733	3,830	221	4,323	235	4,103	3,777	103	223	2,751,544	1,499,565	1,648,008	4,059,191
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	3,504,032	4,675,926
Woolen goods.	1,938	32,195	835	52,906	1,548	77,870	40,852	27,531	9,487	97,173,452	36,648,272	93,400,684	151,298,196
Worsted goods.	102	3,352	71	4,634	40	12,020	3,864	7,152	1,904	10,085,778	4,368,857	14,308,198	22,090,331
Zinc, smelted and rolled.	11	134	4	100	4	316	302	1	13	620,020	159,516	764,508	1,167,947
statuary and building ornaments.	2	10	1	—	—	38	36	—	2	38,500	10,000	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*.

## GENERAL STATISTICS OF MANUFACTURES.

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

MECHANICAL AND MANUFACTURING INDUSTRIES.	Establishments.	HANDS EMPLOYED.			WAGES.	MATERIALS.	PRODUCTS.			
		All.		Female.						
		Male.								
All industries.....	140,433	1,311,246	1,040,349	270,897	1,009,855,715	378,878,966	1,031,605,092			
Agricultural implements, miscellaneous.....	1,046	7,100	7,098	2	5,201,016	2,334,172	2,508,192			
fanning-mills.....	47	177	177		59,500	53,087	197,672			
grain-cradles and scythe-smiths.....	47	219	219		141,482	71,646	218,687			
grain-drills.....	10	112	112		73,800	44,448	153,765			
handles, plow, and other.....	83	320	319	1	221,530	111,336	315,872			
hoes.....	5	163	163		117,500	59,220	294,175			
mowing and reaping machines.....	73	2,421	2,421		2,039,000	863,884	1,696,116			
plows, harrows, and cultivators.....	423	2,297	2,297		1,894,334	840,262	2,655,248			
rakes.....	83	219	219		105,585	57,936	35,933			
straw-cutters.....	2	45	45		34,000	10,200	33,650			
thrashers, horse-powers, and separators.....	163	1,741	1,740	1	1,534,467	627,945	643,781			
Alcohol.....	22	208	208		897,000	89,068	3,567,003			
Ammunition.....	5	119	101	18	117,500	40,308	75,010			
Anchors and chains.....	17	116	116		127,300	46,068	73,982			
Anvils and vises.....	2	26	26		90,000	11,640	38,300			
Aquariums.....	1	3	3		2,000	1,200	3,000			
Arrow-root.....	1	10	6	4	1,000	1,008	1,376			
Artificial eyes.....	1	2	2		4,000	1,800	590			
Limbs.....	5	39	35	4	35,000	23,544	10,050			
Artists' materials.....	8	43	38	5	14,500	15,500	11,966			
Ashes, pot and pearl.....	212	423	418	5	199,590	106,900	254,729			
Asphaltum work.....	1	4	4		700	3,000	4,090			
Automaton pressmen.....	1	3	3		1,700	1,200	1,700			
Awnings and tents.....	17	94	63	31	30,200	30,732	48,351			
Axes.....	10	130	136		142,050	50,004	140,137			
Bagging.....	34	767	661	126	505,250	141,636	803,800			
Bags.....	19	112	72	40	82,000	43,968	607,755			
Baking, and yeast cakes and powders.....	5	17	6	11	26,250	3,180	28,820			
Bank locks.....	1	18	18		25,000	5,760	14,010			
Barilla.....	1	10	10		30,000	4,848	25,000			
Bark, ground.....	36	64	64		80,000	15,968	83,270			
sumac, and sumac prepared.....	4	12	12		11,700	2,520	10,900			
Barley, pearl.....	3	9	9		18,000	3,300	41,500			
Larytes.....	1	40	40		5,000	12,000	5,000			
Baskets.....	87	437	375	62	106,070	120,462	62,205			
Bath-tubs.....	1	50	50		20,000	12,000	42,600			
Bead-work.....	8	40	3	37	24,200	6,624	15,911			
Bed-springs.....	15	61	51	10	31,000	22,908	109,401			
Bee-hives.....	12	33	33		18,900	19,406	20,966			
Bellows.....	16	78	78		40,000	31,218	70,865			
Bells.....	9	60	60		84,700	20,484	139,193			
Belt clasps and slides.....	1	14	7	7	4,000	2,700	1,150			
Belts, children's.....	1	170	4	166	60,000	20,925	185,000			
Benzoline.....	1	1	1		100	240	757			
Billiard-cues.....	2	4	4		4,000	1,380	3,600			
and bagatelle tables.....	23	298	298		285,100	139,176	340,265			
Blacking.....	13	176	82	94	177,400	40,312	188,600			
and water-proof composition.....	5	9	5	4	5,650	2,208	6,778			
Blacksmithing.....	7,504	15,720	15,719	1	4,940,750	4,827,303	3,417,007			
Blacksmiths' tools.....	1	2	2		500	864	625			
Block-letters.....	4	34	33	1	12,700	15,936	5,633			
Blocks, pumps, and spars.....	101	370	370		255,350	150,500	154,051			
Bolts, nuts, washers, and rivets.....	54	1,504	1,492	12	1,235,300	426,090	988,903			
Bone-black.....	8	78	78		144,100	20,460	128,500			
boiling.....	5	38	38		23,500	12,150	74,080			
Bookbinders' machinery.....	4	47	46	1	26,000	19,062	6,300			
tools.....	1	5	5		3,000	1,800	660			
Bookbinding and blank books.....	269	4,777	2,045	2,732	1,054,830	1,048,030	1,554,082			
Boot and shoe patterns.....	2	4	4		960	1,206	3,000			
Boots and shoes.....	12,486	123,026	94,512	28,514	23,357,627	30,938,020	42,728,174			
Bottle molds.....	1	7	7		5,000	2,640	6,000			
Boxes, cheese.....	101	225	224	1	137,575	59,186	53,452			
cigar.....	1	4	4		10,350	8,748	16,535			
packing.....	10	22	22		331,196	358,658	612,123			
paper.....	110	1,601	1,595	9	1,057,840	467,350	1,219,036			
sugar.....	1	4	4		1,500	1,200	1,600			
tobacco.....	13	100	100		21,395	35,928	42,985			
Box-shoosk.....	5	102	102		65,600	34,920	104,160			
Brass and bell founding.....	7	30	30		38,500	10,836	31,062			
and copper-tubing.....	1	45	45		140,000	24,000	201,000			
and German silver, rolled.....	11	945	909	36	2,086,000	344,424	1,425,560			
book clasps and badges.....	2	22	22		4,500	5,400	3,376			
founding and brass ware.....	183	1,492	1,492		1,226,460	557,412	1,414,339			
ornaments.....	1	3	3		2,000	1,152	500			
wire and wire cloth.....	2	52	48	4	45,000	19,464	28,535			
Bread and crackers.....	1,930	6,514	6,176	338	3,903,189	2,086,148	10,634,199			
Brick.....	1,593	20,456	20,046	440	7,130,128	3,888,106	2,928,025			
machinery and tools.....	2	16	16		13,000	6,240	12,109			
Bridges.....	5	96	96		61,500	51,720	85,840			
Bronze powders.....	4	6	6		10,000	3,600	5,000			
Broom-handles.....	3	18	18		7,500	3,636	2,150			
Brooms.....	223	1,181	1,144	40	505,713	287,528	874,046			
Brush-blocks.....	6	23	23		34,800	5,316	4,010			
handles and stocks.....	1	4	4		3,039	1,200	715			
Brushes.....	121	2,378	1,675	703	913,630	594,116	993,939			
Buttons.....	43	1,161	487	674	553,550	260,206	358,385			
Calico-printing.....	23	3,894	3,330	564	3,307,230	1,048,504	3,789,763			
Cameras.....	2	25	25		30,000	12,450	6,733			
Camphene and burning-fluid.....	33	174	174		505,490	73,740	2,332,452			
Candle-molds.....	1	4	4		3,000	1,920	2,250			
Candle, adamanntine.....	5	215	181	34	605,000	62,688	850,020			
wax.....	1	2	2		1,000	600	750			
Candlesticks.....	1	11	8	3	5,000	3,444	6,500			
Cap fronts.....	1	10	6	4	600	2,508	3,740			
Car-brakes.....	1	3	3		500	1,200	10,000			
linings.....	2	20	20		9,569	7,050	4,907			

\* 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.

## GENERAL STATISTICS OF MANUFACTURES.

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	7	1,923,700	210,120	1,243,200	1,996,350
Cars, omnibuses, and repairing	62	3,174	3,172	7	2,053,717	1,297,452	1,841,344	4,302,613
Card-boards	6	24	24		8,000	7,620	9,136	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	113,030	38,360	158,000	264,000
Carpentering	1,323	9,006	8,998	8	3,251,327	3,868,672	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	91,010	118,000
sweepers	1	4	2	2	1,000	984	2,000	4,000
Carpets	216	6,083	3,912	2,771	4,791,938	1,546,328	4,419,561	7,860,351
Carriages	3,017	27,461	27,304	157	14,131,537	10,001,891	9,085,301	26,948,905
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	105,696	74,047	239,396
Cement	14	740	738	2	759,200	206,400	262,920	767,080
pipe	2	4	4		800	1,212	750	2,361
Chalk and crayons	2	9	9		5,000	2,700	4,773	17,000
prepared	1	4	4		1,000	600	1,830	5,250
Charcoal	60	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	3,076	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	1,340	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	66,880
Chrome-mining	1	32	32		10,600	6,144	11,352	15,000
Churns	11	27	27		10,775	7,772	22,629	66,332
Cider	71	149	149		85,670	23,700	67,413	125,747
refined	16	35	35		31,000	11,352	22,549	40,286
Cigars	1,478	7,097	7,966	731	3,035,555	2,531,354	3,511,312	9,068,778
Cisterns	25	59	59		22,750	26,844	60,027	153,700
Clay-mining	5	68	68		89,500	24,384	32,063	105,660
Clock-cases	3	26	26		12,500	14,160	17,410	40,500
Clocks	92	975	935	40	576,100	391,320	474,068	1,187,550
Cloth-finishing	2	12	10	2	4,500	3,180	3,100	8,250
Clothing, ladies'	168	5,739	889	4,830	1,421,650	1,193,032	3,323,335	7,181,039
men's	4,014	114,800	41,837	72,963	27,246,003	19,850,426	44,149,752	60,830,555
Clover-hulling	7	85	23	62	39,500	15,864	54,473	83,769
seed cleaning	28	28	28		26,200	3,788	32,063	41,218
Couch lace	7	10	10		10,000	2,600	10,750	16,700
Coal, anthracite	176	25,126	25,126		13,880,250	5,503,124	1,637,898	11,860,574
bituminous	446	11,360	11,343	17	15,548,420	4,147,110	1,115,074	8,374,063
Cocoa	2	7	5	2	25,500	2,610	14,750	21,750
Coffee and spices, ground	85	510	487	23	1,003,150	192,218	2,725,012	3,502,181
essence of	9	85	51	34	62,600	18,864	63,760	107,600
roasters	1	1	1		600	336	225	1,410
roasting	7	34	33	1	49,500	11,688	498,988	570,297
Collins	210	688	671	17	603,950	297,564	312,838	1,024,953
Collis-screws	1	11	9	2	10,000	3,312	4,200	10,520
trimmings	4	23	20	3	6,300	4,236	6,785	16,650
Coke	21	198	198		62,300	61,368	73,552	169,844
Comb-plates	1	3	3		1,000	1,060	1,200	2,700
Combs, shell and other	66	930	800	130	721,700	304,716	614,431	1,314,968
Confectioners' tools	1	3	3		1,000	1,410	6,600	25,000
Confectionery	541	2,340	1,875	465	1,568,478	688,423	2,990,186	5,361,100
Cooperage	2,707	13,750	13,741	9	4,333,546	4,924,704	4,105,203	11,343,921
Coopers' tools	4	12	12		1,000	4,128	1,894	9,100
Copper and brass ware	47	5,153	5,111	42	8,587,500	1,816,160	506,814	145,000
mining	2	260	260		1,250,000	95,280	1,454,750	3,361,932
rolled	5	153	153		1,220,000	61,800	1,082,450	1,800,000
sheet and bolt	10	473	472		1,355,000	176,720	4,237,567	4,945,360
smelting	2	33	32		100,000	14,400	107,450	162,000
work	70	592	592		587,550	239,056	602,981	1,281,262
Coppersmithing	100	3,478	2,630	618	2,038,280	906,216	5,605,320	7,813,339
Cordage	13	86	78	8	32,300	21,285	54,911	141,000
Corks	1	3	3		5,000	1,440	825	3,000
Cormulon	1	196	113	83	92,700	40,380	83,620	177,000
Cotton bags	54	444	378	66	365,400	122,484	628,209	889,414
batting and wadding	101	6,000	2,549	3,451	4,239,060	1,182,000	3,613,142	6,569,093
braid, thread, lines, twine, and yarn	2	129	58	71	53,000	25,956	32,720	158,392
cordage	32	215	133	82	166,300	45,240	144,476	257,630
coverlets	18	87	68	19	34,975	21,288	45,420	102,675
darned carding	3	90	29		6,000	4,836	23,973	54,482
ginning	89	271	265	6	92,657	52,044	307,746	533,635
gins	57	616	614	2	758,825	206,160	297,488	1,152,315
goods	803	114,955	43,406	71,549	93,143,750	23,488,562	52,606,701	107,337,783
lamp-wick	2	73	43	30	70,000	8,700	52,909	119,124
mosquito-netting	2	129	58	71	53,000	25,956	32,720	158,392
pressing	5	64	64		149,700	25,920	3,610	89,650
table-cloths	13	74	68	6	23,550	15,900	18,127	40,318
Crucibles	3	59	59		110,000	25,200	58,700	150,000
Cured hair	7	45	40	5	65,500	12,744	78,728	106,869
Curtain fixtures	2	5	5		1,800	2,204	730	5,197
Curtains	3	17	17		4,500	4,200	3,830	14,000
Cutlery	1	9	4	5	2,500	1,896	1,200	3,503
Cudl try	51	1,338	1,305	33	869,800	472,021	433,402	1,306,225
Dippers, corno-nut	134	229	229	3	147,120	115,636	134,531	414,554
Drain-pipe, wooden	1	6	6		4,000	2,160	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
Drags, 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	1,020	1,300	9,000
Dyeing and bleaching.	102	3,203	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	1,454,191
Eave-troughs.	2	11	11	—	2,500	3,013	2,390	14,600
Edge-tools and axes.	166	2,660	2,600	—	2,146,499	1,056,935	1,270,171	3,243,992
Electro-magnetic machines.	4	13	12	—	16,500	5,040	13,655	59,000
Embroidery.	3	81	3	78	11,000	14,244	13,400	56,216
Emery.	2	14	14	—	30,000	5,680	26,000	50,000
Enameling.	1	7	6	1	3,000	2,762	1,800	10,000
Engravers' blocks and wood.	2	12	12	—	25,600	4,104	4,750	12,700
Engraving and die-sinking.	191	724	706	18	431,650	330,524	157,171	829,140
calico.	2	5	4	1	3,100	2,250	600	3,900
Envelopes and cards, embossed.	16	432	150	282	309,600	117,180	433,637	763,500
Fans.	1	6	4	2	1,000	696	400	2,500
Felting.	2	39	12	27	3,000	4,050	2,930	56,050
Fertilizers.	2	14	14	—	16,500	5,520	15,430	31,500
Filter bags.	47	308	308	—	466,000	95,016	500,816	891,344
Fire-arms.	230	2,056	1,086	70	2,512,781	885,898	376,913	2,362,681
bomb-lances.	1	12	12	—	40,000	5,400	10,000	50,000
brick.	27	468	468	—	528,700	120,247	197,670	493,460
clay.	2	3	3	—	2,000	900	—	1,558
engines.	13	563	563	—	474,500	272,400	209,894	705,550
escapes.	1	1	1	—	700	210	225	700
Fire-works.	9	133	119	91	82,300	37,950	48,120	173,100
Fisheries.	1,970	30,983	29,452	931	17,919,959	6,077,677	4,302,355	14,224,405
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	7,050	11,057	29,400
Flags and banners.	9	77	48	29	50,200	26,088	34,330	90,600
Flinx-dressing.	32	115	115	—	56,636	29,839	77,468	165,404
Flour and meal.	13,268	27,082	27,026	56	84,585,004	8,721,391	208,497,309	248,580,305
Flowers.	3	7	7	—	9,000	2,038	9,500	16,500
Fly-nets.	4	88	14	74	15,800	14,488	8,926	32,100
Foundry-fittings.	7	30	30	—	74,500	12,900	44,096	105,950
Furnaces, ranges, registers, and ventilators.	39	348	348	—	336,260	164,932	319,893	888,283
Furniture, cabinet, school, and other.	3,594	27,106	25,132	1,974	13,629,526	8,909,998	8,181,250	25,632,293
polish.	1	10	7	3	10,000	2,200	31,370	44,100
Furs.	95	1,293	496	707	1,163,600	268,574	1,782,923	3,115,755
Gas-fixtures, lamps, and chandeliers.	33	1,632	1,628	4	1,310,350	370,684	633,782	2,355,900
illuminating.	221	5,730	5,730	—	28,848,726	2,321,336	3,667,630	12,016,353
works, portable.	1	2	2	—	7,000	900	2,000	4,000
Gasometers and tanks.	7	373	373	—	336,500	169,196	277,016	565,500
Ginseng.	3	5	5	—	10,000	1,560	4,520	6,650
Glass.	112	9,016	8,765	251	6,133,666	2,903,832	9,014,393	8,775,175
sand.	1	3	3	—	50	730	—	800
Glaziers' diamonds.	3	11	11	—	11,500	3,540	9,500	27,250
Globes, terrestrial and celestial.	1	7	4	3	4,000	1,740	1,550	10,000
Gloves and mittens.	126	1,420	453	976	594,825	330,419	537,559	1,156,705
Glue.	62	875	865	10	1,052,900	305,964	537,376	1,185,625
Gold and silver assaying and refining.	13	274	223	51	755,300	242,710	669,055	1,140,700
leaf and foil.	23	226	145	81	140,250	77,509	293,696	481,072
mining.	7,203	44,316	44,261	55	12,066,791	23,601,630	16,561,756	47,163,170
Grain-brushing.	2	4	4	—	1,350	300	1,250	1,800
Granular fuel.	3	9	9	—	6,300	2,496	735	15,400
Grates and fenders.	16	186	186	—	153,500	71,862	124,895	362,900
Grease.	6	18	18	—	26,100	8,940	97,520	123,500
Grindstones and grindstone quarrying.	11	145	145	—	100,800	41,640	12,860	67,040
Gum and gum cleaning.	2	52	14	38	30,000	9,912	113,375	199,500
Gum looks and materials.	3	9	8	1	3,700	3,324	1,780	6,270
Gunpowder.	58	747	737	10	2,305,700	291,144	1,812,230	3,223,090
Guittapercha 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
jewelry.	8	42	17	25	27,000	10,630	15,830	45,600
Handles.	14	70	78	1	45,100	28,732	21,885	89,313
Handspikes.	1	3	3	—	800	1,152	960	4,060
Hardware.	443	10,721	9,458	1,263	6,707,000	3,443,664	4,402,958	10,903,106
Hat and bonnet blocks.	5	12	12	—	5,300	4,336	1,367	10,100
bodies.	3	80	68	12	81,000	33,240	505,320	637,460
tips.	1	3	3	—	500	1,056	800	2,500
Hats and caps.	655	11,764	7,521	4,243	4,154,372	3,815,824	8,252,380	16,037,782
Hatters' trimmings.	3	9	6	3	6,500	2,448	9,100	15,700
Hay-pressing.	7	31	31	—	30,735	9,012	35,536	61,049
Hemp-dressing.	1	10	10	—	3,000	2,400	40,000	60,600
hemp.	2	7	6	1	3,000	2,340	5,500	8,000
Hides and tallow.	12	81	81	—	264,000	31,350	874,666	1,143,027
Hoisting apparatus and machines.	4	18	18	—	8,500	11,250	9,644	33,200
Hombin.	1	1	1	—	1,000	928	1,300	1,775
Hooks and eyes.	5	117	60	57	139,860	34,824	66,390	194,290
Horse-covers.	1	51	1	50	10,000	7,560	123,600	145,000
shoe nails.	24	94	94	—	21,000	33,852	27,518	81,706
shoes.	10	93	93	—	29,200	34,704	45,753	106,533
Hosiery.	107	9,103	2,780	6,323	4,035,510	1,061,972	3,204,417	7,280,006
Huskies, prepared.	8	40	40	—	11,500	12,298	14,350	40,355
Hydraulic cases.	1	4	4	—	1,500	1,820	4,000	8,220
Hydrants.	1	4	4	—	16,000	1,500	2,636	9,000
Ice.	52	1,765	1,765	—	494,900	86,272	47,882	451,255
India-rubber goods.	27	2,768	1,795	973	3,534,000	794,570	3,058,360	5,642,700
Ink, printing.	16	70	79	—	245,700	33,294	498,505	502,000
writing.	13	66	58	8	33,650	18,422	47,344	119,558
Instruments.	116	742	710	32	827,000	294,238	239,787	1,626,163
Iron, cast.	1,405	26,961	26,940	91	24,368,243	10,328,732	15,521,619	36,138,073
forged, rolled, and wrought.	402	22,014	21,902	52	23,343,073	7,436,538	21,961,437	36,537,259
Iron-ore.	150	3,206	3,206	—	2,195,527	912,250	439,562	2,405,392
pigs.	260	15,927	15,874	73	24,672,824	4,545,430	12,293,030	20,850,120
steelmans.	1	300	300	—	100,000	146,400	585,050	914,700
Isinglass.	1	16	10	—	3,000	1,920	667	3,750
Ivory-black.	1	6	6	—	5,000	2,040	2,000	6,000
Jack-screws.	1	2	2	—	4,500	900	700	2,350
Japanned ware.	11	240	224	16	114,400	63,294	91,821	247,960
Jewelers' dies, tools, and machinery.	6	16	16	16	10,400	6,132	5,418	14,840

## GENERAL STATISTICS OF MANUFACTURES.

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	5,103,500	10,415,811
boxes and cases . . . . .	14	52	70	12	23,650	26,876	23,120	83,816
Keys, metallic . . . . .	1	12	12	—	5,000	3,600	8,000	15,600
Kindling-wood . . . . .	32	416	416	—	175,700	131,692	280,273	613,315
Lampblack . . . . .	15	84	81	3	110,300	29,676	48,698	124,610
Lamp-fixtures . . . . .	1	1	1	—	1,000	300	1,500	2,000
trimmings . . . . .	1	70	70	9	25,000	34,488	51,750	100,000
Lamps . . . . .	30	374	344	30	235,800	133,618	242,536	578,020
Lapidaries' work . . . . .	7	29	29	—	13,400	14,700	14,004	36,850
Lasts and boot-trees . . . . .	77	434	434	—	210,081	134,884	93,618	484,279
Laundry-work . . . . .	3	176	111	165	19,600	24,840	165,830	212,600
Lead, manufactures of . . . . .	14	310	314	2	1,730,963	103,056	2,670,453	3,166,029
Lead, mining and smelting . . . . .	64	361	361	—	350,802	90,096	954,121	1,176,675
Leather . . . . .	5,040	22,679	22,622	57	35,655,370	6,933,740	44,520,737	67,306,452
belting and hose . . . . .	46	354	339	25	588,000	134,452	915,271	1,481,750
morocco . . . . .	123	2,601	2,279	322	2,813,800	893,078	3,618,181	5,910,773
patent and enameled leather . . . . .	12	865	865	—	1,039,000	317,460	1,395,400	2,101,250
skin-dressing . . . . .	13	101	92	9	117,450	31,230	278,341	380,272
Life-preservers . . . . .	1	3	3	—	1,500	1,728	2,262	6,220
Lightning-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	326	261	660,000	95,220	288,575	655,000
Liquor-coloring . . . . .	1	2	2	—	2,000	600	1,000	6,000
Liquors, bottled . . . . .	12	50	50	—	32,650	18,204	34,804	82,610
cordials . . . . .	3	13	13	—	7,975	4,536	11,216	30,900
distilled . . . . .	1,193	5,416	5,405	11	11,545,675	1,753,445	18,330,713	26,768,225
malt . . . . .	1,269	6,433	6,412	21	15,782,342	2,305,970	9,987,993	21,310,933
rectified . . . . .	232	688	685	3	2,571,245	283,610	6,351,972	7,691,707
wine . . . . .	32	106	102	4	306,310	48,208	196,075	400,791
Lithography . . . . .	53	766	760	26	445,250	338,668	229,206	648,230
Locksmithing and bell-hanging . . . . .	49	203	203	—	137,780	76,992	49,255	105,071
Locomotive engines and repairing . . . . .	19	4,174	4,174	—	3,492,592	1,594,468	2,411,954	4,866,900
Looking-glass and picture frames . . . . .	199	1,896	1,884	12	1,005,983	704,274	1,226,831	2,654,192
Lumber, planed . . . . .	466	3,717	3,715	2	4,138,996	1,322,438	8,291,497	11,539,736
sawed . . . . .	19,699	71,878	71,207	671	72,503,694	20,647,807	43,156,993	93,338,000
Lye, condensed . . . . .	1	5	5	—	10,000	1,800	52,780	62,500
Macaroni and vermicelli . . . . .	6	60	29	31	24,600	20,400	40,360	111,600
Machinery, cotton and woolen . . . . .	102	4,813	4,370	443	2,492,088	1,619,052	1,911,786	4,862,704
hay and cotton presses . . . . .	2	12	12	—	3,500	7,050	6,330	31,000
paper . . . . .	3	33	33	—	45,000	14,232	13,673	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	5,860	2,550	12,756
steam-engines, &c . . . . .	1,177	36,198	36,190	8	33,382,080	14,409,390	17,438,620	40,757,496
stump-machines . . . . .	1	8	8	—	900	3,360	3,160	7,210
turbine water-wheels . . . . .	2	50	50	—	43,000	15,600	35,009	96,700
wood-working . . . . .	9	78	78	—	34,000	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	500	5,250
Mall . . . . .	85	589	589	—	2,125,750	189,800	2,305,299	3,238,857
kilns . . . . .	2	9	9	—	2,300*	2,310	2,400	7,000
Map mounting and coloring . . . . .	1	2	2	—	200	816	200	2,000
Maps . . . . .	15	900	900	110	218,500	69,108	115,555	301,500
Marble and stone work . . . . .	1,866	15,379	15,365	14	8,864,675	5,672,211	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	170,450	220,720	688,566
Mats and rugs . . . . .	9	165	161	4	34,700	20,692	42,850	107,036
Mattresses and beds . . . . .	36	93	72	21	35,735	23,901	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	220	1,077,985	373,127	1,492,348	3,465,594
Metal caps and labels . . . . .	1	4	4	—	500	960	1,200	3,700
Metal cocks and faucets . . . . .	10	299	299	—	175,500	135,024	107,798	431,445
repaired and white . . . . .	7	40	40	—	226,200	21,348	226,150	330,500
spinning . . . . .	1	2	2	—	1,000	720	1,594	4,048
type . . . . .	1	6	6	—	50,000	2,304	50,640	68,000
Military goods . . . . .	15	209	174	35	407,500	76,328	107,350	209,856
Milk, condensed . . . . .	1	10	9	1	24,600	3,300	25,000	48,000
Millinery and dressmaking goods . . . . .	967	4,746	132	4,614	1,373,777	887,702	2,153,192	4,543,284
Mills and mill furnishing . . . . .	35	1,034	111	923	365,900	293,508	733,965	1,483,154
Milwrighting . . . . .	21	162	162	—	163,245	65,952	100,329	270,644
Mineral water . . . . .	40	333	329	4	274,950	99,356	175,115	482,054
water apparatus . . . . .	123	727	720	7	585,860	241,292	451,458	1,415,426
Molasses, refined . . . . .	2	34	33	1	53,500	10,080	7,300	30,000
Money-drawers . . . . .	2	21	21	—	10,500	6,384	87,030	98,600
Molding-sand . . . . .	1	8	8	—	600	2,900	540	16,800
Mowing-machine knives . . . . .	3	15	15	—	5,650	3,600	4,000	13,600
Musical instruments, miscellaneous . . . . .	53	263	263	—	181,650	103,740	90,038	315,500
melodeons . . . . .	49	451	447	4	416,400	230,352	214,980	646,675
organs . . . . .	20	265	265	—	184,600	112,764	111,395	324,756
piano-fortes . . . . .	110	3,482	3,479	3	3,644,250	1,023,604	1,727,885	5,260,907
Instrument materials . . . . .	34	292	287	5	189,220	148,668	179,051	411,456
Music-printing . . . . .	2	11	11	—	18,000	5,280	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	2,395,872	6,060,195	9,857,223
Needles . . . . .	1	3	3	—	700	600	310	1,0-0
Needle-threaders . . . . .	1	4	4	—	500	1,200	525	2,080
Nets . . . . .	1	32	32	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	18,880	3,396	35,626
Oakum . . . . .	14	196	196	—	191,400	40,044	245,050	348,401
Oats . . . . .	4	10	10	—	5,100	3,456	3,180	9,355
Ochre . . . . .	1	2	2	—	1,500	480	420	1,080
Oil, castor . . . . .	8	97	97	—	137,400	41,196	239,840	320,370
coal . . . . .	64	932	923	—	3,240,518	330,360	2,167,103	4,254,987
cocoa-nut . . . . .	1	3	3	—	3,000	600	2,000	4,000

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

	Establishments.	HANDS EMPLOYED.			CAPITAL.	WAGES.	MATERIALS.	PRODUCTS.
		All.	Male.	Female.				
MECHANICAL AND MANUFACTURING INDUSTRIES.								
Oil and enameled cloth.	41	1,228	1,205	23	1,265,700	420,972	1,055,012	2,916,416
cloth, silk	1	4	4	—	1,500	840	4,838	7,000
cotton-seed	7	183	183	—	351,000	76,956	498,060	741,000
fish, whale and other	48	337	335	2	1,968,201	138,276	5,236,405	6,000,377
floor cloth	8	310	310	—	341,000	96,334	420,063	685,800
kerosene	14	551	551	—	2,085,000	216,924	805,124	2,142,033
lard	20	151	147	4	512,950	51,112	2,131,141	2,552,510
linseed	94	814	808	6	2,592,550	284,694	5,044,207	5,981,843
neatsfoot	4	15	15	—	10,000	3,024	8,533	15,826
Resin	14	77	77	—	560,000	32,732	204,326	518,430
stones	1	2	2	—	1,000	360	200	2,500
tanks	1	3	3	—	1,500	720	1,637	2,410
water	1	3	3	—	6,000	1,440	15,800	20,000
Oils, chemical	1	20	20	—	100,000	6,020	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	370,085	335,112	915,339
Paint-mills	1	4	4	—	4,000	1,920	1,242	6,000
Paints	45	563	562	1	1,615,300	213,861	1,507,238	2,574,055
Paper	555	10,911	6,519	4,392	14,052,683	2,707,212	11,692,266	21,216,802
bags	2	14	5	9	11,000	2,460	12,200	21,500
clay	1	6	6	—	10,000	1,872	1,000	7,500
hangings	26	1,294	1,203	91	1,037,600	338,224	1,153,670	2,148,800
ruling	1	4	4	—	500	720	500	1,600
shades	1	25	13	12	10,000	6,300	5,000	25,000
staining	3	27	25	2	17,000	7,260	14,026	28,500
Patterns and models	48	240	240	—	101,050	111,732	32,221	236,080
Pearl goods	12	112	97	15	16,300	26,976	17,675	59,416
Perfumery and fancy soaps	33	535	261	274	597,000	146,076	400,194	1,222,400
Photographic materials	12	551	255	296	198,000	123,900	175,821	408,250
Photographs	249	653	580	73	417,250	359,854	923,237	1,000,647
Piano-forte stools	1	5	5	—	1,500	2,400	1,860	7,800
Pins	7	253	88	165	200,000	65,820	272,422	432,500
Pipes, clay	1	3	3	—	500	684	150	3,750
meerschaums	1	2	2	—	800	810	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	307	866	864	2	1,023,930	232,500	522,826	1,110,854
Plaster, and manufactures of	11	49	49	—	7,150	21,540	16,104	40,500
Plastering	1	4	4	—	2,500	960	300	3,000
Plugs and wedges	2	48	48	—	101,600	15,000	16,833	53,030
Plumbago, black and silver lead	1	35	35	—	14,000	7,200	26,905	40,000
Plumber's materials	291	1,345	1,345	—	707,470	523,050	931,920	2,113,701
Plumbing and gasfitting	46	620	433	397	203,960	156,906	354,264	706,037
Pocket-hooks, portemonnaies, and wallets	3	236	234	12	360,000	109,680	81,195	243,000
Porcelain ware	2	24	24	—	23,060	6,420	15,000	34,000
Potters' clay and materials	557	2,908	2,836	72	1,341,774	934,918	517,113	2,463,681
Pottery and stoneware	7	237	143	94	245,500	60,280	142,315	320,000
Powder-flasks and percussion-caps	1	5	5	—	4,000	3,600	4,000	18,000
Prepared moss	8	37	27	—	13,900	10,656	11,690	31,500
Printers' chases, furniture, and rollers	1,606	20,159	17,626	2,333	10,692,318	7,588,096	12,844,283	31,063,598
Printing and publishing	14	707	707	—	1,015,000	259,684	145,320	943,450
Lithographic presses	352	7,470	6,680	798	11,484,896	1,388,100	24,894,624	31,086,433
Provisions	1	2	2	—	3,000	624	1,000	3,000
Pump logs	1	2	2	—	453,740	198,856	229,198	685,024
Pumps and hydraulic rams	133	534	534	—	11,500	2,700	18,220	35,720
Patty	3	9	9	—	3,112,000	159,000	166,100	382,000
Quicksilver	3	335	335	—	6,500	2,424	12,160	15,501
Quilts	2	20	1	19	17,000	12,984	14,547	56,860
Razor-strops	9	57	28	29	83,650	41,814	70,727	162,550
Refrigerators and water-coolers	13	93	92	1	12,000	5,508	12,600	26,900
Regalias, banners, and flags	6	23	10	13	529,700	79,836	1,630,777	1,788,126
Rice-cleaning	23	442	229	213	115,000	16,560	648,200	723,200
flour	1	96	76	20	72,400	147,588	906,059	506,350
Rigging	20	294	294	—	332,300	193,996	533,155	1,024,019
Roofing	36	554	554	—	1,478,184	4,150,305	6,606,415	14,169,037
Saddlery and harness	3,621	12,285	11,963	322	182,676	110,920	435,291	
harness materials	74	495	480	15	137,850	55,000	52,650	140,000
Sad-irons	3	152	152	—	3,000	720	2,500	4,000
Safes, cheese	1	2	2	—	1,026,800	471,924	737,513	1,910,079
fire-proof	36	1,093	1,093	—	4,100	8,910	5,132	21,200
provision	4	25	25	—	10,500	8,820	47,245	70,940
Safety-fuse	3	32	14	18	40,000	8,820	40,000	
Sails	153	643	641	2	312,075	267,485	820,322	1,328,146
Saleritum	11	178	173	6	275,000	89,119	439,010	1,176,000
Salt	399	2,213	2,100	23	3,692,215	371,954	1,034,780	2,289,504
ground	9	51	37	14	83,700	18,852	95,140	107,408
Salpeter and nitrate of soda	1	2	2	—	3,000	1,032	18,000	23,500
Sand-paper	3	21	18	3	42,500	7,308	24,700	54,350
washed	4	31	31	—	44,760	7,936	6,750	132,500
Sash, doors, and blinds	986	7,406	7,399	7	5,410,457	2,745,567	3,965,365	9,589,007
metal	3	6	6	—	4,000	2,460	5,008	12,000
Satinet printing	7	111	103	8	120,000	39,723	95,032	222,420
Saws	42	259	756	3	770,200	281,302	553,123	1,237,063
Scales and balances	43	725	725	—	744,300	280,015	336,160	1,222,560
School apparatus	3	30	23	7	8,300	9,936	5,560	24,000
Scythe rifles	1	2	1	1	500	480	165	1,400
stones	12	20	20	—	7,700	8,676	2,020	16,735
Scythes	22	474	474	—	607,025	173,723	214,037	553,733
Seal and copying presses	3	17	17	—	19,000	7,650	8,500	39,400
Seeds, garden and flower	2	28	13	15	35,000	19,500	—	45,500
Sewing-birds	1	12	10	2	12,000	4,560	8,850	17,000
machines	1	20	20	—	20,000	6,000	33,750	50,000
machines	12	135	117	18	46,700	42,588	18,714	97,326
machines	74	2,287	2,250	28	1,426,550	1,000,956	647,963	4,247,820
machine shuttles	1	10	10	—	1,500	3,810	319	8,000
Shingles and lath	605	2,190	2,177	19	1,128,470	552,819	632,821	4,865,507
Ship and boat building	614	9,360	9,239	1	3,472,815	4,151,509	4,774,586	11,667,661

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

MECHANICAL AND MANUFACTURING INDUSTRIES.	Establishments.	HANDS EMPLOYED.			CAPITAL.	WAGES.	MATERIALS.	PRODUCTS.
		All.	Male.	Female.				
Shoddy.	30	290	141	149	123,500	54,124	227,925	403,590
Shoe and boot tips	1	15	15	—	25,000	8,184	31,400	149,730
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	304	387	7	139,800	120,396	73,096	339,039
Shoulder-braces	1	3	1	2	100	480	200	800
Shovels, spades, forks, and hoes	53	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	85,240
Sieve-hoops	2	7	7	—	9,000	2,208	1,300	5,830
Signs	20	83	83	—	11,500	39,016	24,095	85,200
Silk and fancy goods, fringes, and trimmings	95	2,781	940	1,841	1,262,780	647,933	1,527,769	2,092,032
sewing and twist	42	2,570	583	1,996	1,675,900	387,312	2,375,521	3,506,240
Silver, manufactures of	106	1,344	1,283	61	1,712,030	550,140	2,266,764	3,571,654
mining	6	250	250	—	694,000	52,200	99,000	1,040,000
plated and Britannia ware	128	2,499	2,172	327	1,537,540	932,756	1,733,806	3,076,460
Sirups, other than sorghum	7	21	21	—	73,200	16,476	96,122	172,630
Skirt-supporters	2	21	11	10	4,500	4,368	4,300	15,000
Slate quarrying	22	370	308	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 syrup	8	25	25	—	9,300	4,602	4,903	23,870
Speaking-tubes	1	2	2	—	400	900	460	2,000
Spelter	1	6	6	—	5,000	2,161	2,420	10,800
Splints	2	14	14	—	7,200	5,520	7,515	27,040
Spokes, hubs, felloes, shafts, and bows	215	1,635	1,635	—	1,423,700	509,179	702,324	2,213,840
Sponges	1	250	250	—	14,000	60,000	—	73,000
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	113,862	330,600
rods	5	67	62	5	87,000	28,360	75,685	149,400
Starch	167	1,073	1,063	10	3,051,710	298,526	1,389,000	2,823,258
Stationery	32	392	365	27	144,400	106,380	81,167	325,338
Staves, heading hoops, and shooks	295	1,788	1,787	1	897,726	501,809	772,039	1,711,743
Steam and gas fittings and valves	18	426	396	30	929,000	192,292	177,004	507,400
heaters and heating apparatus	9	234	234	—	275,500	75,540	189,876	516,070
water-gauges	1	5	5	—	2,000	2,400	362	5,310
Steel, and manufactures of	17	889	871	18	1,666,900	338,880	858,274	1,879,840
Steering apparatus	1	3	3	—	1,500	792	950	3,500
Stencils and brads	4	8	8	—	2,150	3,420	1,340	7,675
Stencil tools	1	12	12	—	7,000	3,120	2,120	35,100
Stereoscopic cases	1	1	1	—	500	600	730	1,200
Stereotyping and electrotyping	41	305	305	—	126,500	120,840	60,507	280,300
Stone-cutters' tools	1	1	1	—	800	360	100	850
Stove-polish	10	55	40	15	30,500	15,352	42,320	121,350
Straw-hornet bleaching	3	50	23	97	2,500	12,238	3,170	18,500
goods	39	7,604	601	6,803	1,250,700	1,354,232	2,520,416	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	2,250
evaporators	2	27	27	—	11,000	9,456	11,060	31,000
molds	3	75	75	—	8,000	29,800	29,945	90,000
refining	39	3,484	3,484	—	9,087,600	1,358,328	34,103,767	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	44,900
Teeth, porcelain	11	176	92	84	304,000	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	149,735	30,248	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	3,488	11,226	11,156	70	9,079,766	4,056,480	7,699,047	16,718,358
foil	1	30	30	—	100,000	11,400	92,000	120,000
Tinned iron ware	1	66	66	—	17,000	16,740	23,700	50,030
Timmers' tools and machines	1	1	1	—	100,000	54,600	34,743	128,035
Tobacco and snuff	6	135	135	—	4,056,480	3,571,294	13,024,058	21,820,535
Torpedoes	3	11	11	—	2,200	1,920	628	4,275
Toy books and games	10	116	65	51	38,000	8,400	30,000	70,000
Toys	1	15	9	6	47,000	32,928	37,130	104,000
tin	3	105	105	—	28,500	9,420	3,505	10,000
Trunk and carpet-bag frames	151	2,092	1,793	299	935,600	692,572	1,380,444	2,836,909
Trunks, carpet-bags, and valises	1	2	2	—	2,000	702	900	2,800
Trunks, seamen's chests	1	88	38	50	28,300	25,488	29,440	77,860
Trusses, bandages, and supporters	18	3	3	—	550	1,200	542	2,300
Truss hoops	2	3	3	—	89,550	88,608	130,155	233,204
Turning, Ivory and bone	19	307	293	14	988,328	585,740	836,484	2,084,325
scroll-sawing, and molding	253	1,667	1,667	—	957,648	394,968	250,094	986,306
Turpentine, crude	1,082	2,108	2,102	6	4,007,238	760,412	4,320,519	6,423,379
distilled	596	4,167	4,032	135	1,113,600	416,404	357,600	1,276,570
Type and type and stereotype founding	32	1,107	795	312	1,080,650	126,024	1,540,413	2,402,730
wooden	2	30	32	7	12,000	8,208	61,860	90,000
Umbrella furniture	6	209	163	46	26,500	11,520	5,000	25,000
Umbrellas and parasols	66	1,961	551	1,410	38,852	43,380	41,977	134,100
Upholstery	199	1,427	876	551	1,038,600	433,980	2,015,633	2,948,362
Valentines	1	9	9	—	740,330	425,452	1,705,634	2,920,188
Vanes, weather	1	2	2	—	7,000	2,100	3,000	12,000
Vault-lights	1	30	30	—	1,500	1,200	2,025	4,500
Varnish	48	315	312	3	1,080,650	10,800	1,000	40,000
Vats	1	18	18	—	1,000	10,800	4,000	40,000
Veneers	25	194	192	2	507,300	88,500	585,187	1,021,700
Venetian blinds	31	138	106	32	48,200	43,384	49,747	134,740
Vinegar	126	319	308	11	428,200	107,340	411,273	923,822
Vagrants and carts	3,305	9,641	9,639	2	4,501,068	3,415,925	2,812,081	8,703,937
Washing blues	1	1	1	—	500	288	1,700	3,000
machines and clothes-dryers	29	85	85	—	34,700	20,194	24,624	87,565
Watches, watch repairing, and materials	94	833	710	123	773,611	359,940	705,178	1,524,700
Watch-engraving	2	3	3	—	2,200	1,738	200	2,000
guards	1	28	22	6	1,200	2,736	2,400	12,000
Watchmakers' lathes	2	7	7	—	1,700	2,400	159	4,750

## 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.	WAGES.	MATERIALS.	PRODUCTS.
		All.	Male.	Female.				
Water-closets.	3	35	35		\$23,000	\$11,040	\$34,930	\$5,300
Lime.	29	1,054	1,034		405,400	230,556	291,798	928,292
Wax-work.	1	1	1		100	312	100	600
Webbing.	10	279	169	170	202,400	63,492	131,210	303,010
Well curbs.	8	15	15		7,100	5,304	10,670	29,630
Whalebone and rattan.	3	50	43	7	69,010	12,720	86,843	132,331
Whetstones.	1	15	15		15,000	2,400	5,000	15,000
Whips, whip-lashes, sockets, and canes.	71	1,170	730	450	372,467	240,658	323,708	852,150
White-lead.	36	994	992	2	2,453,147	387,240	3,524,633	5,380,347
Whitesmithing.	4	9	8	1	1,300	3,504	2,000	10,000
Whiting.	8	45	45		62,500	18,720	37,678	195,000
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	629,063	279,540	1,133,805	2,013,133
cloth.	7	40	36	4	28,900	11,904	24,295	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	130,060	214,450	478,543
Wired steel.	1	1	1		400	460	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	660	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	1,080,085	286,267	1,759,135	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	9,016,593	35,652,701	60,685,190
yarn.	33	763	370	393	675,700	191,661	934,186	1,320,027
Worsted goods.	3	2,978	1,101	1,277	3,230,000	543,684	2,442,775	3,701,378
Zinc ore.	2	52	52		53,100	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	36,050	95,000	250,000

## GENERAL STATISTICS OF MANUFACTURES.

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

MECHANICAL AND MANUFACTURING INDUSTRIES.	Number of estab- lishments.	All hands.	Male hands.	Female hands.	CAPITAL. Dollars.	COST OF LABOR. Dollars.	COST OF RAW MATERIAL. Dollars.	VALUE OF PRODUCT. Dollars.
All industries.....	123,033	966,969	741,671	225,398	533,214,250	936,745,858	555,180,300	1,019,178,131
Agricultural implements.....	1,333	7,220	7,211	9	3,564,202	2,167,988	2,445,765	6,842,611
Arrowroot.....	2	29	27	2	6,000	9,600	7,200	28,800
Artificial flowers.....	23	434	62	372	44,100	45,792	52,785	10,120
Asheries.....	569	1,024	1,020	4	485,700	243,672	812,190	1,401,533
Awning and sacking bottoms.....	6	20	18	2	5,000	5,448	9,570	31,200
Bagging rope, and cordage.....	417	6,057	5,258	799	3,341,506	1,192,788	5,612,347	8,002,893
Bakers.....	2,037	6,727	6,351	376	3,390,824	1,960,416	8,367,370	13,394,229
Bark-mills.....	32	89	87	2	105,450	18,652	95,029	193,110
Barrel-heading.....	24	108	108	—	—	17,510	31,930	40,750
Baskets.....	67	203	190	13	—	38,975	56,032	40,410
Bellows.....	7	16	16	—	—	7,700	6,504	13,536
Blacksmiths.....	10,373	25,002	24,983	19	5,884,149	6,508,032	5,111,388	16,048,536
Bleachers and dyers.....	16	565	519	46	563,600	161,688	333,924	666,830
Blocks and pumps.....	203	783	774	9	339,690	287,736	250,088	878,021
Block letters.....	3	14	14	—	11,200	5,280	7,550	29,500
Blocks and spars.....	2	8	8	—	4,500	3,840	5,500	12,000
Bobbins and spools.....	2	9	8	1	8,000	4,036	1,700	6,000
Bonnets, straw braid, &c.....	68	3,771	303	3,468	330,350	592,824	932,674	1,687,218
Bookbinders and blank-books.....	235	3,468	1,778	1,690	1,063,703	901,401	1,560,330	3,295,678
Bone-dust.....	3	16	16	—	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	53,067,408
Boxes, band and fancy.....	82	718	303	415	136,210	139,764	187,796	434,104
cheese.....	40	99	99	—	31,060	22,368	14,318	46,195
Brass foundries.....	206	891	878	13	353,156	286,500	500,470	1,033,741
Breweries.....	148	1,078	1,666	19	1,585,000	501,672	2,112,592	3,625,618
Bricks.....	431	2,347	2,316	11	4,072,350	654,144	3,055,266	5,728,568
fire.....	1,603	17,345	16,726	619	4,367,912	4,235,088	1,474,023	6,610,731
Brimstone refiners.....	4	28	28	—	14,450	5,748	2,165	12,000
Britannia and plated ware.....	2	20	20	—	16,000	11,520	50,500	20,000
Brooms.....	91	1,270	1,120	156	592,150	414,140	760,978	1,535,765
Brushes.....	303	1,184	1,174	10	314,985	265,642	528,842	940,768
Burr millstones.....	146	2,405	1,500	905	710,800	533,460	338,359	1,573,579
Buttons.....	9	55	55	—	34,100	17,400	25,825	55,000
Cabinet ware.....	50	1,088	467	621	393,000	225,130	324,837	664,359
Calico printers.....	4,242	22,010	20,997	1,013	7,303,356	6,038,568	6,089,546	17,663,054
Card-machines.....	42	4,080	3,351	729	3,928,800	1,088,904	10,463,044	13,050,805
Cards, playing.....	31	160	146	14	213,850	57,216	207,220	393,823
Carpenters and builders.....	4	291	66	155	147,000	43,380	105,260	176,800
Carpets.....	2,700	15,282	15,276	6	3,280,308	5,509,320	7,011,930	16,886,819
Carpet-weaving.....	116	6,186	3,881	2,305	3,652,981	1,246,560	3,075,502	5,402,634
Cars, railroad.....	16	37	37	—	8,386	8,112	22,416	36,025
Carvers.....	41	1,554	1,554	—	896,015	664,708	1,393,076	2,493,558
Cement, for building purposes.....	37	108	108	—	40,080	78,516	26,057	144,850
Chandlers.....	35	407	407	—	301,525	117,924	238,157	509,110
Charcoal.....	467	2,816	2,660	156	4,143,400	775,300	7,006,767	10,199,730
Cheese.....	140	767	767	—	270,225	176,770	161,608	386,051
Cheaceuticals.....	8	55	43	12	11,951	11,676	54,419	67,210
Chocolate.....	170	1,389	1,335	54	2,335,715	492,560	3,253,380	4,979,630
Chrome mining.....	3	34	17	17	56,000	8,520	94,600	121,000
Cider-bottling.....	4	47	47	—	2,900	10,080	5,610	24,400
Clocks.....	10	33	33	—	21,500	8,544	14,485	20,772
Clock-cases.....	23	800	777	23	499,800	278,58	456,834	1,181,500
springs.....	5	53	49	4	12,600	16,260	12,690	38,000
Cloth-dressers.....	6	76	62	14	23,300	23,338	34,875	72,087
Clothers and tailors.....	30	36	36	—	20,275	9,612	39,870	65,160
Couches and carriages.....	4,278	96,551	35,051	61,500	12,509,161	15,032,340	25,730,258	48,311,700
Couch lacq.....	1,892	14,040	13,982	58	4,973,707	4,268,904	3,955,680	11,073,630
Coal-mining.....	4	66	35	31	30,200	19,272	20,228	47,458
Coffee and spice.....	510	15,119	15,112	6	8,317,501	4,069,188	246,414	7,173,750
Coke.....	48	317	305	12	438,662	99,900	643,254	1,240,614
Combs.....	151	1,728	1,426	362	633,637	3,444	6,083	15,250
Confectioners.....	383	1,733	1,398	345	1,035,551	458,904	1,091,924	3,040,671
Coopers.....	2,002	11,916	11,900	16	2,363,040	3,201,204	2,644,582	7,126,317
Copper and brass.....	175	2,390	2,388	9	2,850,981	956,044	3,062,661	4,942,901
Corks.....	3	23	11	12	1,650	6,168	3,450	12,000
Cork-cutters.....	11	81	70	2	41,750	25,152	53,633	196,890
Corsets.....	8	86	30	56	8,650	10,728	9,364	28,990
Cottams.....	1,074	97,930	35,295	62,661	76,032,578	17,267,112	37,770,064	65,501,687
and woolens, mixed.....	103	4,568	2,667	1,901	1,711,720	808,752	2,321,986	3,693,731
Curled hair.....	6	247	147	100	166,825	48,216	176,352	279,600
Cutlery and edge-tools.....	401	4,275	4,247	28	2,321,835	1,420,844	1,439,462	3,813,241
Daguerreotypes.....	74	158	141	17	89,925	70,500	99,789	250,267
Die-sinkers.....	2	3	3	—	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	—	357,330	24,120	658,452	791,030
Dyers.....	46	460	434	26	331,950	127,320	754,379	1,086,795
Earthen ware.....	30	139	139	—	57,325	42,168	17,103	100,556
Electro-magnetic instruments.....	2	4	4	—	3,750	1,500	1,450	5,160
Engravers.....	112	460	433	47	172,065	227,776	130,714	566,645
Envelopes.....	2	42	6	36	10,360	7,620	17,180	45,000
Tire-engines.....	16	248	248	—	152,700	93,312	116,267	296,230
hose.....	2	12	12	—	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	32,000	15,084	25,500	50,000
dressers and spinners.....	4	262	160	102	135,700	61,128	180,000	301,868
Flour and grist mills.....	11,691	23,310	23,260	50	54,415,581	5,680,164	113,036,698	136,056,736
Fringes, gimp, and tassels.....	38	886	205	681	244,350	142,628	233,660	583,000
Furriers.....	49	1,078	648	430	1,116,800	248,724	643,170	1,595,695
Gas fixtures.....	30	952	950	2	6,674,000	390,684	503,074	1,021,746
fixtures.....	20	241	241	—	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.

## GENERAL STATISTIC OF MANUFACTURES.

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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.
Gas-meters.	2	92	92	—	70,000	33,600	42,760	114,660
Gilders.	2	4	4	—	400	1,600	4,500	4,100
Glass cutters.	94	5,068	5,571	97	3,402,350	2,094,576	1,556,833	4,611,156
Gloves.	8	174	173	—	176,600	60,300	71,133	165,950
Glue.	110	1,938	329	1,609	181,200	233,486	322,837	708,184
Gold-beaters.	47	391	378	13	519,950	29,432	371,616	651,405
Gold-beaters.	20	164	107	57	62,500	52,506	216,350	336,065
Gold-beaters.	1,015	4,884	4,804	80	1,814,012	3,639,832	55,711	9,551,923
Gold-beaters.	7	30	30	—	8,200	14,053	75,670	252,460
Grindstones.	3	10	10	—	4,500	4,740	9,500	16,500
Gum and varnish.	3	4	4	—	1,550	1,506	10,500	15,375
Guns.	317	1,547	1,547	—	577,509	518,292	269,673	1,173,014
Hardware.	340	7,030	6,149	881	3,530,025	1,973,904	3,015,658	6,957,770
Hats and caps.	1,048	15,200	6,974	8,226	4,427,798	3,179,700	7,100,032	14,319,861
Hose, riveted.	2	9	9	—	6,500	3,280	7,250	20,500
Hosiery.	35	2,325	835	1,490	541,735	360,336	415,113	1,655,162
India-rubber goods.	34	2,568	1,010	1,558	1,455,700	537,933	1,605,725	3,631,345
Ink.	14	53	49	4	116,650	21,558	72,673	213,614
and lamp-black.	3	13	13	—	16,500	4,596	29,318	62,624
Iron forges.	375	7,775	7,698	77	8,517,611	2,310,760	5,333,563	9,063,705
Iron founders.	1,319	18,969	18,938	31	14,729,749	6,259,912	8,534,024	20,111,517
Furnaces.	404	21,054	20,817	207	16,648,350	5,011,300	7,548,112	13,401,897
Manufactures.	99	1,082	1,079	3	603,500	400,728	596,864	1,425,313
Mining.	197	2,105	2,102	3	923,775	596,566	63,651	1,217,863
Rolling.	64	3,820	3,800	20	5,214,700	1,451,748	4,353,150	6,936,681
Japanners.	9	132	108	14	69,200	31,668	48,410	121,230
Lamp-black.	5	24	23	1	41,250	7,056	21,925	42,230
Lamps.	26	938	918	20	456,300	290,424	490,864	1,000,622
and ethereal oil.	2	8	8	—	6,000	2,562	7,951	13,750
Lasts.	43	284	284	—	122,450	104,152	35,421	240,936
Lead.	156	753	737	16	603,196	181,736	1,582,555	2,150,668
Pipe.	10	71	71	—	272,250	26,004	678,330	971,165
Leather belting.	4	18	15	3	26,000	7,056	75,635	105,500
Legs, artificial.	3	15	15	—	2,700	5,880	1,400	14,300
Lime.	761	2,832	2,834	4	1,124,072	735,746	1,165,775	2,285,212
Lithographers.	11	162	104	58	76,600	51,285	49,650	135,000
Locomotives.	3	802	802	—	445,000	231,840	320,440	650,020
Looking-glasses and picture-frames.	108	963	881	79	445,240	347,976	544,959	1,852,746
Loom-finishers.	3	43	8	35	10,600	7,260	4,954	15,460
Harness.	3	31	6	25	4,600	4,776	2,296	9,712
Pickers.	2	29	29	29	31,000	10,668	25,160	35,500
Lumber, sawing and planing.	17,893	52,218	51,706	452	40,038,427	13,622,052	27,593,720	52,520,566
Machinists and millwrights.	1,062	27,892	27,834	58	19,225,918	9,630,912	11,367,723	27,952,314
Maltsters.	11	73	73	—	371,800	18,236	365,000	41,035
Maps.	3	89	86	63	8,200	21,024	6,275	42,100
Matches, friction.	60	1,021	491	540	169,130	154,630	135,514	437,823
Mathematical instruments.	90	664	624	40	326,550	90,612	165,656	703,750
Masts and spars.	39	154	154	—	124,130	63,216	89,719	189,482
Mats.	3	9	9	—	2,000	948	1,900	1,900
Mica.	2	3	3	—	2,000	1,457,355	266,458	3,508,405
Medicines, drugs, and dye-stuffs.	143	827	693	134	3,639	2,000	4,600	10,500
Military equipments.	2	8	8	—	3,639	1,457,355	266,458	1,457,355
Milliners.	204	74	74	130	203,000	43,430	102,900	183,000
Millstones.	532	3,869	181	3,683	660,193	616,826	1,486,865	2,761,529
Mineral water and pop.	23	87	87	—	81,835	32,508	61,701	164,870
Morocco cases.	64	589	570	19	228,650	153,916	313,631	760,459
Dressers.	5	36	26	19	13,560	8,820	14,705	31,900
Musical instruments.	116	1,967	1,796	171	1,357,750	624,772	666,168	2,386,715
Nails.	204	2,331	2,331	24	1,545,935	1,054,728	1,812,972	4,438,976
Oakum.	87	5,231	5,237	4	4,428,498	23,500	13,450	25,000
Pickers.	5	36	36	—	38,500	13,020	33,928	70,575
Oars.	12	128	120	8	56,000	34,785	34,916	88,300
Other.	2	10	10	—	11,000	2,704	2,200	9,000
Oil, castor.	23	147	147	11	152,820	43,824	447,065	594,059
Lard.	41	193	182	11	362,950	143,664	1,477,615	1,948,934
Hipseed.	168	479	477	2	896,650	105,468	6,402,870	7,539,350
Whale.	50	544	492	52	2,791,060	13,128	44,103	65,074
Miscellaneous.	10	58	58	—	35,200	17,654	823,106	1,256,994
Oil-cloths.	56	650	648	2	640,700	5,064	5,500	75,000
Paints.	4	22	22	—	13,000	3,450	10,802	19,500
Palmetto splitters.	2	14	6	6	4,000	2,870	2,870	10,187,177
Paper.	443	6,785	3,635	2,950	7,260,634	1,497,702	5,555,925	21,350
Cards.	2	35	13	22	21,000	7,320	314,291	741,530
Stainers.	39	603	753	50	517,760	160,288	886,495	1,365,300
Patent leather.	20	837	687	150	392,160	262,248	3,965	22,210
Patterns.	6	31	31	—	4,300	11,604	3,500	6,700
Pearl-workers.	2	4	4	—	1,700	1,500	59,014	85,303
Pens and pencils.	4	58	58	—	43,000	13,625	15,370	30,000
Percussion-caps.	29	158	125	63	137,550	40,720	163,820	255,250
Perfumes and fancy soap.	6	211	125	86	163,000	54,552	257,895	366,103
Pickles and preserves.	4	205	59	207	164,800	52,104	137,860	291,320
Pins.	4	7	7	7	2,600	3,420	2,200	7,510
Plaster casts.	149	381	381	—	410,440	106,092	329,063	442,914
Plaster, (gypsum).	124	1,040	1,037	3	646,225	377,944	1,375,410	2,315,071
Plumbers.	37	770	609	161	144,750	142,356	362,775	573,510
Pocket-books.	183	3,276	3,267	9	3,482,500	1,231,576	9,451,996	11,881,624
Pork and beef packing.	484	2,246	43	77,544	607,418	275,083	1,466,983	1,466,983
Potties.	54	579	576	3	1,178,223	192,544	560,917	1,459,572
Powder, gun.	26	375	241	134	148,300	115,805	59,558	247,209
Printers, lithographic and copper-plate.	673	8,208	6,989	1,272	5,862,715	2,737,305	4,414,225	11,756,519
and publishers.	30	148	143	24	8,500	2,012	5,311	163,919
Pumps.	3	42	18	24	20,000	2,100	21,150	21,300
Pyrotechnists.	2	8	8	—	20,000	2,100	2,367	22,569
Red lead.	6	22	22	70	12,200	7,751	8,367	22,760
Reeds.	6	83	13	70	5,000	12,300	36,800	42,400
Regalia.	4	200	200	—	210,030	31,451	1,462,000	32,000
Rice mills.	8	57	57	—	5,600	—	—	—
Riggers.	—	—	—	—	—	—	—	—

## GENERAL STATISTICS OF MANUFACTURES.

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

MECHANICAL AND MANUFACTURING INDUSTRIES.	Number of estab- lishments.	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	12,598	360	3,969,379	3,154,008	4,427,006	9,935,474
Sails.	183	848	838	10	266,380	349,644	880,414	1,054,503
Salt-bags.	24	23	2	23	2,300	3,112	12,170	16,550
Salt and salt-refining.	340	2,786	2,699	87	2,040,860	733,360	1,051,419	2,177,945
Sand-paper.	2	6	6		9,000	864	3,200	6,000
Sash and blinds.	433	2,497	2,448	49	1,066,355	840,924	859,837	2,277,061
Scales and beams, (weighers).	22	402	402		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	3	3	5	5,600	1,776	11,235	17,050
Silversmiths, Jewelers, &c.	583	5,262	4,873	380	3,828,170	2,131,296	4,920,619	9,401,765
Shingles.	520	2,127	2,127		823,940	425,328	406,932	985,957
Shingle-machine.	1	5	5		300	1,440	2,256	5,000
Ship-building and boats.	892	12,620	12,623	6	5,189,309	5,932,576	7,286,401	16,595,683
Shoe-pegs.	24	126	111	15	35,750	33,084	13,238	73,918
Shot.	5	73	69	4	945,500	18,580	760,431	988,550
Skin-dressers.	22	216	195	21	192,000	49,548	391,138	525,370
Slates.	6	109	109		50,000	23,100	13,174	46,700
Slate-pencils.	3	39	19	20	4,000	7,704	1,800	15,000
quarries.	5	80	80		59,000	21,528	650	29,056
Spice.	6	19	19		12,830	6,084	41,644	57,900
mills.	9	55	55		64,300	16,140	204,244	248,405
Starch.	146	694	686	8	692,675	193,224	799,459	1,261,468
Stationers.	8	225	99	126	113,000	45,708	207,775	332,900
Staves.	63	361	361		53,735	47,484	11,360	104,992
and shooks.	99	428	428		104,153	130,344	190,141	438,794
Steel-furnaces.	5	40	40		52,300	16,176	133,420	172,080
works.	2	11	11		32,510	4,488	37,740	53,400
Stone and marble quarries.	1,144	10,001	9,996	5	4,032,182	3,431,194	2,475,760	8,180,115
Stoves and ranges.	230	4,227	4,227		3,170,475	1,617,274	2,013,943	6,194,748
Sugar-refiners.	23	1,656	1,644	12	2,669,000	604,948	7,662,685	9,898,800
Sumacs.	9	25	25		15,550	13,276	24,360	36,731
Surgical instruments.	37	300	189	111	101,450	94,044	80,987	259,400
Suspenders.	5	362	35	327	29,800	33,756	75,300	171,000
Tanners and curriers.	6,528	22,575	22,451	124	20,602,945	5,606,110	22,865,233	37,702,333
Thread.	5	99	42	57	66,108	21,792	31,400	73,400
Timber-hewers.	129	414	414		222,479	67,508	14,742	132,246
Tin and sheet-iron works.	2,280	7,393	7,365	28	4,129,587	2,363,100	4,305,389	8,933,188
Tobacconists.	1,418	14,236	12,261	1,975	5,008,295	2,420,203	7,341,728	13,491,147
Tress-hoops.	6	20	20		1,100	4,668	1,650	9,700
Trunks and carpet-bags.	116	1,320	1,056	264	356,660	386,160	765,816	1,558,388
Trusses.	4	17	6	11	4,000	4,296	4,050	16,500
Turners.	440	1,651	1,624	27	663,615	493,020	407,043	1,374,449
bone and horn.	5	24	24		3,500	6,036	4,280	13,800
iron.	7	52	52		17,800	18,492	16,907	57,000
ivory.	7	147	147		30,900	33,604	56,880	111,880
Turpentine.	856	3,437	3,360	68	1,063,692	447,348	1,484,318	2,855,057
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	761,700	433,548	1,399,607	2,505,632
United States armories.	2	341	341		899,760	171,144	59,948	308,630
Upholsterers.	155	1,512	804	708	565,635	365,580	983,961	1,790,683
Vegetable extracts.	24	71	71		30,450	16,384	23,080	58,050
Wall-paper.	6	93	91	2	49,500	25,872	52,335	107,040
Washing-fluid.	2	40	29	11	17,500	13,440	109,100	215,000
Weavers.	153	532	377	155	126,290	102,204	134,480	310,109
Webbing.	2	34	9	25	8,000	6,408	11,024	15,400
Whalebone.	11	200	100	1	85,100	30,252	295,885	412,000
Wheelwrights.	4,926	11,549	11,542	7	3,146,211	3,157,544	1,886,551	6,627,451
Wigs and curl's.	25	108	40	68	33,900	25,680	36,383	60,210
Whips and canes.	70	1,051	519	533	198,805	195,084	237,643	575,271
White lead.	51	1,508	1,508		3,124,800	512,988	3,541,072	5,242,913
White and lock smiths.	82	415	413	2	14,093	140,712	110,155	355,137
Whiting.	6	27	27		31,150	10,896	33,000	76,700
Willow ware.	3	4	4		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	246,805	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	739,025	235,972	1,251,550	1,739,476
cleaners and pullers.	3	11	11		5,000	3,144	27,125	36,900
Wooleens, carding, and pulling.	1,817	44,695	20,919	14,976	26,071,542	7,167,900	24,912,455	39,848,557
Miscellaneous.	564	4,980	4,247	742	4,045,370	2,231,378	3,249,944	10,050,504

OF MANUFAC

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TABLE VIII (C).

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GENERAL STATISTICS OF MANUFACTURES

FOR

EACH SPECIFIED INDUSTRY,

(BY STATES AND TERRITORIES,)

AT THE CENSUS OF 1870.

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## REMARKS ON TABLE VIII (C.)

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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.	STEAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.			CAPITAL.	WAGES.	MATERIALS.	PRODUCTS.	
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.	Youth.				
The United States....	24	10	1			78	70	1	7	122,300	36,079	59,804	166,416
District of Columbia.....	1					2	2			200	1,000	300	2,200
Indiana.....	1					4	4			5,500	1,100	4,575	4,575
Maine.....	1					1	1			300		250	1,000
Massachusetts.....	1					9	8	1		22,000	3,851	1,852	14,318
Michigan.....	1					3	3			4,000	936	1,000	3,000
Missouri.....	1					9	9			5,500	4,500	2,500	14,100
New Hampshire.....	1					2	2			800	1,000	500	2,500
New York.....	6	10	1			21	17		4	62,350	11,500	48,025	93,693
Ohio.....	5					6	5		1	3,650	1,102	1,345	5,180
Pennsylvania.....	5					19	17		2	17,500	11,100	2,272	23,500
Wisconsin.....	1					2	2			300	1,000	750	2,250

## [†] AWNINGS AND TENTS.

The United States....	45					210	162	49	8	133,475	87,424	371,077	625,200
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	4,900	23,000	37,200
Massachusetts.....	4					24	23	2		7,000	12,750	20,385	39,000
New Jersey.....	2					13	3	10		10,250	2,598	14,051	
New York.....	17					89	65	21	3	59,275	43,668	228,687	350,200
Ohio.....	4					18	12	6		3,700	3,600	6,990	16,425
Oregon.....	1					3	3			5,000	1,000	40,000	56,000
Pennsylvania.....	10					47	43	3	2	37,050	17,400	31,320	82,093
Wisconsin.....	1					3	1	2		300	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	15,330	189,100	276,000
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	3	80	2	84	68	10	6	125,550	31,100	138,700	242,000
Missouri.....	1	5	1			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	35	15	70,000	20,650	190,051	252,835
Ohio.....	5	26	2	44	3	56	21	24	8	30,000	10,500	120,322	170,000
Oregon.....	1					2	1	1		300	100	6,500	7,200
Pennsylvania.....	7	12	2			76	18	58		91,000	18,092	239,508	281,000
Rhode Island.....	1	1				5	2	2	1	10,500	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	8,201,679
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	1,388	4,976
Kentucky.....	2					18	15		3	4,000	2,800	16,400	21,100
Maryland.....	2	5	1			88	23	63		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	101,500	3,300	17,000	25,975
Missouri.....	6	35	3			320	101	133	66	511,000	102,600	1,464,100	5,037,230
New York.....	8	23	4	30	1	408	193	202	14	353,000	149,766	1,482,303	2,002,928
Ohio.....	3	20	1			97	11	10	6	24,000	5,400	47,250	60,000
Oregon.....	1					2	2			2,500	550	6,037	15,030
Tennessee.....	1					10	13	3	4	3,000	3,000	31,000	36,700
Washington.....	1					10	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 THIEF: 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.

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

## GENERAL STATISTICS OF MANUFACTURES.

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

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.				
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	1,232	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	.....	2	322,760	47,069	194,491	372,820
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	.....	.....	26,000	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	205	5	68	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	594,739
Connecticut .....	9	40	3	40	2	91	48	41	2	97,370	28,300	19,255	84,450
Delaware .....	4	90	2	.....	.....	76	76	.....	.....	21,150	11,660	11,785	36,940
Illinois .....	2	.....	.....	.....	.....	3	2	.....	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	15	1	.....	.....	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	121	4	12	64,700	63,928	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	2,798	15,490
New York .....	34	40	2	75	2	102	131	26	35	47,780	29,815	24,598	85,009
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	300	2,000
Utah .....	2	.....	.....	.....	.....	3	3	.....	.....	320	150	155	996
Vermont .....	5	.....	.....	60	2	39	39	.....	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	8,450	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	.....	.....	8	1	2	2	.....	.....	1,500	130	525	1,050
Missouri .....	1	.....	.....	.....	.....	1	1	.....	.....	1,000	.....	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	200	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	.....	.....	300	400	48,300	975
New York .....	4	.....	.....	.....	.....	54	54	.....	.....	33,000	33,000	48,300	111,200
Pennsylvania .....	2	10	1	.....	.....	11	9	2	.....	25,000	4,960	19,310	27,000
Tennessee .....	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.

## GENERAL STATISTICS OF MANUFACTURES.

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

## BELLS.

STATES AND TERRITORIES.	Establishments.	STEAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.			CAPITAL.	WAGES.	MATERIALS.	PRODUCTS.	
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 15.	Females above 15.	Youth.				
The United States.....	31	55	8	150	10	389	329	47	13	517,000	185,751	512,537	1,023,010
Connecticut.....	12	2	.....	150	10	221	173	42	6	233,500	88,095	144,974	340,100
Illinois.....	1	.....	.....	.....	.....	11	11	.....	.....	15,000	7,000	10,500	40,000
Kentucky.....	12	.....	.....	.....	.....	10	10	.....	.....	5,400	3,550	3,662	10,650
Massachusetts.....	3	.....	.....	.....	.....	16	11	5	.....	10,000	7,750	13,386	28,760
Minnesota.....	1	.....	.....	.....	.....	1	1	.....	.....	500	.....	500	1,500
Missouri.....	4	17	2	.....	.....	62	56	.....	6	65,000	42,400	89,490	204,000
New York.....	5	30	5	.....	.....	55	57	.....	1	174,000	33,456	230,550	317,000
Ohio.....	1	.....	.....	.....	.....	2	2	.....	.....	2,500	1,000	4,000	13,000
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	4,559,043
California.....	1	.....	.....	.....	.....	14	14	.....	.....	21,000	7,000	40,400	54,000
Connecticut.....	8	50	1	14	1	108	107	.....	1	200,500	70,900	667,000	850,500
Illinois.....	1	.....	.....	.....	.....	7	7	.....	.....	20,000	4,000	33,932	34,000
Indiana.....	2	.....	.....	.....	.....	9	9	.....	.....	23,000	4,800	39,420	53,000
Kentucky.....	1	.....	.....	.....	.....	4	4	.....	.....	3,000	1,100	15,600	18,000
Maine.....	6	13	1	20	1	33	33	.....	.....	58,500	11,900	44,725	77,000
Maryland.....	4	.....	.....	.....	.....	16	16	.....	.....	28,500	7,700	19,060	38,912
Massachusetts.....	16	50	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	.....	.....	125,000	36,000	75,000	150,000
New Hampshire.....	5	.....	.....	5	.....	17	16	.....	1	28,000	6,800	30,790	115,460
New Jersey.....	4	.....	.....	.....	.....	23	23	.....	.....	44,000	11,820	100,385	194,000
New York.....	19	107	4	.....	.....	210	207	.....	3	657,500	135,480	931,950	1,377,100
North Carolina.....	1	4	.....	.....	1	1	1	.....	.....	1,000	100	5,900	12,000
Ohio.....	4	15	2	.....	.....	70	54	6	10	90,000	37,114	240,745	334,463
Pennsylvania.....	15	.....	.....	.....	.....	99	97	2	.....	336,300	50,942	355,300	510,313
Rhode Island.....	2	19	1	.....	.....	58	57	.....	1	157,077	24,707	120,934	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	1,693,943
California.....	6	.....	.....	.....	.....	44	43	.....	1	52,000	38,620	26,880	91,654
Illinois.....	2	.....	.....	.....	.....	57	57	.....	.....	70,500	46,110	210,060	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	3	3	170,000	57,760	51,200	189,750
Missouri.....	2	.....	.....	.....	.....	10	10	.....	.....	55,000	5,900	54,000	131,000
New York.....	14	35	2	.....	.....	170	167	.....	3	240,000	144,916	238,418	624,545
Ohio.....	2	.....	.....	.....	.....	86	83	.....	3	103,000	63,316	139,996	276,034
Pennsylvania.....	4	.....	.....	.....	.....	13	13	.....	.....	15,500	6,400	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	153	13	266,750	107,450	425,716	817,768
Illinois.....	2	.....	.....	.....	.....	7	6	1	.....	2,875	2,530	5,625	14,000
Indiana.....	1	.....	.....	.....	.....	4	4	.....	.....	675	500	500	1,500
Maryland.....	1	.....	.....	.....	.....	3	3	.....	.....	1,000	720	1,720	9,000
Massachusetts.....	10	5	2	.....	.....	35	31	4	.....	56,500	18,600	61,080	148,696
Missouri.....	1	.....	.....	.....	.....	5	4	1	.....	5,000	3,500	9,500	16,000
New Jersey.....	1	.....	.....	.....	.....	2	2	.....	.....	1,000	400	1,190	4,000
New York.....	6	25	1	.....	.....	62	25	36	1	47,200	17,750	91,000	148,450
Pennsylvania.....	9	61	5	.....	.....	184	56	117	11	151,000	62,250	254,087	460,322
Rhode Island.....	1	.....	.....	.....	.....	3	3	.....	.....	1,500	1,200	2,303	9,800

## GENERAL STATISTICS OF MANUFACTURES.

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

## BLACKSMITHING.

STATES AND TERRITORIES.	Establishments,	STEAM-ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.			CAPITAL.	WAGES.	MATERIALS.	PRODUCTS. Dollars.	
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.					
The United States.	26,364	747	69	623	66	52,962	52,527	9	446	15,977,002	8,246,549	13,923,907	41,824,200
Alabama.	299			5	1	504	501	1	3	96,092	83,349	98,869	360,840
Arizona.	4					10	10			4,600	5,840	17,900	33,500
Arkansas.	204					388	385			64,032	48,094	73,124	271,764
California.	433	4	1			812	808			417,415	272,125	308,270	1,161,790
Colorado.	39					64	64			37,530	27,435	37,059	117,700
Connecticut.	346	1	1	89	5	815	812	3	3	270,220	210,482	203,809	703,088
Delaware.	69	15	1			203	202			80,412	48,218	49,972	155,954
District of Columbia.	71					174	170			41,275	40,807	44,207	151,258
Florida.	70					114	113	1		24,025	17,235	29,075	86,175
Georgia.	513					1,050	1,068	3	9	135,300	147,705	168,714	630,445
Idaho.	25					50	50			18,575	14,693	32,029	76,686
Illinois.	1,486	71	6			2,860	2,793			943,000	448,630	809,184	2,450,903
Indiana.	1,332	144	3			652	641	1	10	741,946	357,780	616,807	1,816,637
Iowa.	856					1,607	1,602			491,562	206,923	438,176	1,320,019
Kansas.	214					432	430			116,617	86,608	113,654	373,506
Kentucky.	1,002	23	4			1,970	1,958			405,735	248,821	443,200	1,361,050
Louisiana.	172					372	363			93,550	75,292	80,536	297,250
Maine.	604	22	2	15	3	1,283	1,270			417,595	175,418	346,101	1,012,117
Maryland.	615					1,329	1,320			245,876	171,157	237,683	762,165
Massachusetts.	651	57	9	109	9	1,652	1,849			715,067	650,058	565,637	1,934,118
Michigan.	904	14	3			1,997	1,983			729,338	381,145	505,769	1,581,357
Minnesota.	310			10	1	630	625			255,511	131,717	229,193	628,923
Mississippi.	295					542	535	1	6	116,975	75,478	120,299	360,912
Missouri.	1,380	11	1			2,681	2,600			849,555	554,597	766,314	2,357,911
Montana.	36					55	55			27,820	19,960	41,766	143,913
Nebraska.	90					188	188			77,210	71,343	105,447	237,960
Nevada.	33					90	90			31,000	50,140	38,485	141,800
New Hampshire.	303			98	13	596	593		3	211,000	112,719	144,844	465,501
New Jersey.	707	13	2	3	1	1,480	1,406			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	6,043	6,581	1	61	2,379,453	1,331,846	1,573,728	5,373,671
North Carolina.	236	20		50	3	519	504			33,185	72,022	70,037	257,302
Ohio.	2,406	45	5			4,270	4,228	1	41	1,089,692	518,223	938,602	3,090,456
Oregon.	118	10	1			199	198			90,063	42,139	112,629	286,176
Pennsylvania.	3,520	190	20	65	7	6,990	6,938			2,219,735	1,199,047	1,775,502	5,398,459
Rhode Island.	130			14	3	341	333			89,650	110,401	106,651	337,731
South Carolina.	147					345	338			39,960	40,486	38,998	151,322
Tennessee.	719			8	2	1,445	1,433			230,897	163,041	250,983	673,888
Texas.	350					761	744			177,238	99,605	190,883	534,250
Utah.	68					136	136			37,000	19,697	31,694	96,587
Vermont.	355			25	3	759	757		2	273,065	140,302	137,529	566,189
Virginia.	825			5	1	1,451	1,435		16	189,408	102,782	218,630	729,128
Washington.	31					57	57			30,500	23,960	33,095	85,761
West Virginia.	290	37	3			475	470	1	4	60,285	51,315	99,470	323,014
Wisconsin.	200	28	2			1,644	1,640			391,370	217,401	467,210	1,361,241
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	3,279	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		146	42		150,100	81,352	2,541,985	2,849,543
Delaware.	1			20	1	188	9	7	7	30,000	8,033	171,619	192,049
District of Columbia.	3	20	1			12		3		4,700	4,660	2,050	12,640
Georgia.	2	6	1			4	4			1,000	600	560	3,360
Illinois.	3	7	1			13	10	3		1,703	4,500	5,050	14,785
Indiana.	1					2	2			500	300	300	1,000
Iowa.	2					4	4			800	1,000	535	4,000
Kentucky.	2					2	2			250		1,300	2,800
Louisiana.	2	2	1			4	4			600	1,000	700	2,700
Maine.	11	11	2	200	1	153	110	19	15	261,700	64,180	2,560,467	2,707,600
Maryland.	15	17	3			34	31	2	1	4,250	8,918	6,490	32,090
Massachusetts.	32	1,753	19	187	4	1,387	1,048	207	42	1,063,650	608,348	20,623,653	22,252,429
Michigan.	1					1	1			2,300		300	1,000
Minnesota.	1					1	1			1,200		1,500	1,500
New Hampshire.	5					1	1			4,850	4,650	170,478	185,500
New Jersey.	12	200	7	220	4	285	207	53	25	281,450	113,875	4,572,329	4,889,325
New York.	29	353	14	80	1	308	292	90	16	482,050	105,002	2,550,250	2,938,315
Ohio.	8	9	1			28	23	5		5,850	11,450	5,353	31,580
Pennsylvania.	79	754	34	38	2	799	699	47	53	1,912,800	352,887	6,087,364	7,385,114
Rhode Island.	18	973	14	316	7	260	618	108	54	1,474,000	316,094	13,842,020	15,138,723
Virginia.	4	60	1	15	1	36	35	1		23,200	5,700	13,225	31,500

## 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.	WAGES.	MATERIALS.	PRODUCTS.	
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.					
The United States.	174	1,446	45	13	2	2,331	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	104,833	166,899	424,386
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	28,059	64,970
Minnesota.	4					12	12			3,450	2,750	2,030	7,100
Missouri.	5	402	10			226	212		14	350,200	192,800	196,850	537,600
New York.	25	26	3	10	1	374	370	1	3	205,400	170,107	248,129	548,320
Ohio.	46	430	12			762	762			674,418	360,439	295,805	851,060
Oregon.	1					1	1			200			236
Pennsylvania.	27					140	140			49,550	37,675	81,204	169,810
Tennessee.	1	35	1			50	50			10,000	35,000	20,000	150,000
Texas.						6	6			500	2,700	3,656	8,500
Vermont.						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	86,300
Wisconsin.	7	96	3			208	208			54,400	139,210	59,055	273,000

## BOOKBINDING.

The United States.	500	773	77			7,697	3,972	3,175	550	5,319,410	3,095,821	8,020,870	14,077,309
Alabama.	2					7	2	4	1	2,900	1,450	6,300	8,000
Arkansas.	1					5	4	1		1,500	2,500	1,359	4,000
California.	10	7	2			114	50	38	17	56,500	58,760	68,493	171,942
Colorado.	1					2				2,000	1,800	300	3,000
Connecticut.	10	38	4			261	69	171	1	149,046	97,495	385,981	532,410
Delaware.	2					16	6	9	1	8,000	2,500	5,340	8,600
District of Columbia.	2					10	10			4,500	3,103	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	35,500
Illinois.	34	30	2			329	176	184	29	189,450	130,957	676,203	490,575
Indiana.	11	30	3			133	66	21	26	75,400	59,970	112,226	236,100
Iowa.	14	9	2			77	53	10	14	72,600	25,800	42,503	101,300
Kansas.	6					25	16	5	4	15,200	13,900	15,215	35,200
Kentucky.	4					133	78	43	12	100,000	68,000	258,425	353,200
Louisiana.	1					2	2			100	400	250	1,090
Maine.	10	5	1			50	26	23	1	18,700	13,350	21,576	51,410
Maryland.	16					125	76	46	3	41,350	38,904	30,470	69,374
Massachusetts.	65	94	10			1,078	483	577	18	492,300	478,310	585,070	1,446,073
Michigan.	16					76	52	16	8	48,313	20,262	49,012	90,766
Minnesota.	5	3	1			50	35	5	10	66,750	30,875	37,400	66,500
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	20,350	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	1,085,078	668,048	2,961,396	4,557,119
North Carolina.	4					36	27	2	7	16,900	15,800	20,010	54,000
Ohio.	37	51	5			526	242	156	198	352,250	197,326	425,060	922,934
Oregon.	3					7	6	1		4,000	1,350	5,198	9,500
Pennsylvania.	91	153	19			1,877	930	803	144	1,040,807	674,254	1,019,081	3,568,623
Rhode Island.	5	3				63	34	29		49,600	29,300	43,460	95,000
Tennessee.	9	24	2			105	62	34	9	65,400	49,550	75,047	166,550
Texas.	2					4	3		1	550	2,600	17,713	32,200
Vermont.	3					17	10	7		7,000	5,000	24,020	43,200
Virginia.	5					53	17	10	17	7,750	10,340	17,587	32,800
Wisconsin.	12					66	42	14	10	24,100	20,507	28,335	81,000

## 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	10,600	30,600	50,601
Delaware.	4					14	11	3		4,700	4,900	8,085	22,400
Illinois.	2					30	11		19	2,000	1,960	860	3,865
Louisiana.	6	11	3	10	1	97	40	22	35	2,050	2,150	6,120	14,735
Maine.	6					40	8	32		16,295	30,075	16,000	57,735
Maryland.	3					40	8	32		2,000	5,760	13,673	28,260
Massachusetts.	170	190	22	6	3	1,612	591	268	153	372,030	459,358	1,201,420	2,161,411
New Hampshire.	5	8	1	23	2	59	24	26		15,065	10,040	26,470	43,700
New Jersey.	9	15	3	5	2	110	24	47	39	29,800	16,713	22,320	49,110
New York.	31	2	1			321	104	200	11	94,640	107,044	175,179	383,820
Ohio.	2					9	9			6,300	3,500	2,315	12,000
Pennsylvania.	24	4	1			295	197	162	6	120,350	89,458	151,026	319,819
Rhode Island.	5	40	1	125	4	133	51	66	16	166,500	47,000	154,321	222,920

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

## GENERAL STATISTICS OF MANUFACTURES.

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.		WAGES.		MATERIALS.		PRODUCTS.	
		Horse-power.	Number.	Horse-power.	Number.	All	Males above 16.	Females above 15.	Youth.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	
The United States....	23,428	2,902	267	167	24	135,889	113,415	19,113	3,361	48,994,366	51,972,712	93,582,528	181,644,090			
Alabama.....	147					273	274	3	1	118,600	52,852	84,588	235,916			
Arkansas.....	41					96	92	2	2	19,750	24,331	23,229	80,230			
California.....	420					1,526	1,337	112	27	489,854	629,873	966,952	2,214,807			
Colorado.....	21					26	26			9,250	11,240	14,175	44,050			
Connecticut.....	281	19	2	30	1	2,417	1,755	598	64	585,800	640,774	1,223,048	2,319,536			
Delaware.....	67	15	2			373	293	71	9	112,233	141,493	243,131	490,698			
District of Columbia.....	153					283	274	5	4	61,925	67,789	102,445	201,136			
Florida.....	23					52	51		1	13,340	13,336	15,381	48,714			
Georgia.....	244			4	1	576	553	11	12	113,665	102,784	207,539	493,862			
Idaho.....	14					36	25		1	14,050	6,985	11,430	32,367			
Illinois.....	1,210					4,660	4,571	59	30	2,100,615	1,084,164	2,070,647	4,413,794			
Indiana.....	983					2,702	2,646	24	32	842,497	651,750	1,094,977	2,699,114			
Iowa.....	530					1,292	1,273	12	8	401,593	301,174	543,036	1,218,480			
Kansas.....	121					300	297		3	111,812	88,389	120,517	303,187			
Kentucky.....	420					1,150	1,083	48	19	450,271	310,458	430,944	1,144,684			
Louisiana.....	204	5				540	530	4	6	126,520	135,570	163,933	459,721			
Maine.....	303	38	6	19	3	2,786	2,213	549	24	871,633	894,887	2,261,229	3,749,710			
Maryland.....	812	7	2			3,238	2,815	361	52	767,195	920,145	1,341,163	3,111,076			
Massachusetts.....	2,303	2,266	210	94	18	54,831	42,532	11,193	1,116	19,559,738	27,265,283	51,363,406	88,399,583			
Michigan.....	765	10	1			2,494	2,402	74	18	1,167,181	708,208	1,109,301	2,552,931			
Minnesota.....	172					526	517	6	3	223,589	176,314	341,910	653,165			
Mississippi.....	92					165	164		1	45,506	30,302	54,556	159,155			
Missouri.....	1,144					2,667	2,500	30	137	1,065,094	909,807	1,822,713	4,099,592			
Montana.....	13					37	27			10,700	17,350	18,997	50,090			
Nebraska.....	50					125	124	1		74,110	56,305	63,628	193,722			
Nevada.....	22					40	40			17,300	19,450	29,600	76,770			
New Hampshire.....	257	97	7			3,107	2,539	525	43	1,003,915	1,928,314	3,011,902	6,162,259			
New Jersey.....	579	20	2			3,090	2,633	380	57	1,037,405	1,250,720	1,504,905	3,039,076			
New Mexico.....	7					8	8			3,430	900	2,639	6,985			
New York.....	3,024	298	18	20	1	17,501	14,158	2,192	1,151	6,855,037	6,215,063	10,602,975	22,070,874			
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	2,058,007	1,747,310	2,834,261	6,559,946			
Oregon.....	54					88	87		1	44,525	18,744	31,438	98,312			
Pennsylvania.....	3,047	59	11			15,799	13,049	2,358	392	6,375,943	4,818,902	6,932,736	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	21,600	19,464	29,843	93,843			
Tennessee.....	309					707	688	12	7	181,601	178,219	243,981	667,522			
Texas.....	98					168	185		1	50,710	34,405	64,802	166,761			
Utah.....	38					135	132	2	1	38,595	25,950	29,284	76,943			
Vermont.....	213	10	1			751	697	46	8	281,079	207,250	351,138	838,325			
Virginia.....	408					850	837	10	3	160,876	105,399	248,504	638,534			
Washington.....	14					32	32			17,530	8,510	13,284	30,061			
West Virginia.....	252					439	425	1	3	86,195	65,620	140,835	349,018			
Wisconsin.....	753					2,352	2,307	27	18	1,082,298	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....	104	547	40	2,318	136	604	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	60,885		
Vermont.....	14			205	13	30	20			16,550	3,925	5,647	13,050		
Virginia.....	1					2	2			500	100	100	350		
Wisconsin.....	2	12	1			19	18		1	16,300	1,180	1,506	4,950		

## BOXES, CIGAR.

The United States....	104	200	17	73	5	783	486	139	158	274,610	342,130	477,409	960,933		
California.....	1	25	1			58	53		5	35,000	23,800	22,850	70,000		
Connecticut.....	3			40	2	10	9	1		4,600	3,500	24,650	33,000		
Delaware.....	1					6	3	2	1	500	1,300	1,250	3,000		
District of Columbia.....	1					2	2			500	400	300	1,200		
Illinois.....	5	16	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	6,600		
Kansas.....	1					3	3			500	500	800	1,600		
Kentucky.....	1					8	1	4	3	300	500	565	3,640		
Louisiana.....	3					9	9			1,000	2,030	3,400	9,900		
Maryland.....	5	5	1			43	24	17	2	3,600	7,880	16,770	35,164		
Massachusetts.....	2			10	1	3	3			1,400	200	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	42,200	42,000	87,630	170,200		
New Hampshire.....	1			10	1	1	1			1,000	1,000	1,000	1,8,0		
New Jersey.....	2		1			11	6	3	2	800	5,050	4,780	12,300		
New York.....	23	55	6	6	1	217	156	26	35	97,550	75,739	152,965	303,967		
Ohio.....	9	8	1			74	39	22	13	7,100	18,600	26,395	62,110		
Pennsylvania.....	32	44	4			143	89	26	23	42,710	32,433	65,264	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.		WAGES.		MATERIALS.		PRODUCTS.	
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.	Youth.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	
The United States.....	234	193	16	177	9	4,486	1,104	3,002	320	1,148,025	1,322,338	1,553,777	3,917,159			
California.....	4					15	9	6		5,500	5,750	6,170	18,000			
Connecticut.....	30	8	1	30	1	346	94	244	8	116,550	99,728	156,041	333,345			
District of Columbia.....	2					5	2	1		800	600	850	3,300			
Illinois.....	5	10	1			68	20	43	5	10,000	21,500	35,130	76,300			
Kentucky.....	1					1	1			500		300	760			
Louisiana.....	1					7	3	4		150	1,500	500	2,500			
Maine.....	5		14	1	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	252,237	630,237			
Michigan.....	2	10	1			25	7	17	1	6,500	5,126	3,358	11,500			
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	0,140	13,500			
New Jersey.....	8	6				98	32	52	14	98,850	24,600	36,332	82,914			
New York.....	78	12	1	16	2	1,601	478	1,064	149	437,050	532,222	671,403	1,709,907			
Ohio.....	6	8				52	17	22	13	16,700	17,572	16,650	56,600			
Pennsylvania.....	30	19	5			987	187	714	86	192,400	214,133	226,291	635,351			
Rhode Island.....	4	11	1			176	31	145		54,200	40,500	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	4,500	4,084	195	230	3,571,942	1,909,088	4,826,745	8,222,433		
California.....	8	111	4			195	193			160,500	109,680	183,014	368,778		
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	15,230	31,533	75,300		
Iowa.....	1					2	2			1,000	750	100	1,000		
Kentucky.....	6	36	2			20	19		1	7,800	5,000	7,776	25,189		
Louisiana.....	3	15	1			30	30			2,400	10,900	31,650	61,500		
Maine.....	31	83	1	483	25	235	235			165,050	70,545	166,763	273,905		
Maryland.....	18	141	10	6	1	186	183			63,600	58,476	152,738	260,350		
Massachusetts.....	110	1,360	55	960	59	917	859	36	22	779,840	401,837	915,932	1,729,370		
Michigan.....	3	22	2	60	1	49	49			24,000	20,600	7,575	38,250		
Missouri.....	10	68	3			105	88		17	137,500	55,700	128,875	302,367		
New Hampshire.....	31	210	9	438	24	165	178	7		104,570	52,975	83,149	182,156		
New Jersey.....	25	169	7	41	3	247	212	11	24	402,150	121,910	470,651	668,164		
New York.....	107	950	43	204	16	1,121	964	107	50	764,920	530,312	978,778	2,127,953		
Ohio.....	38	301	20	59	3	274	238	10	26	331,012	110,969	231,117	434,503		
Oregon.....	2	4	1	6	1	11	11			4,840	5,500	7,960	18,140		
Pennsylvania.....	49	96	6			245	227		18	212,250	112,244	270,010	608,202		
Rhode Island.....	10	90	6	54	4	93	85	5	3	72,400	39,800	115,824	193,210		
Tennessee.....	1	30	1			9	2			1,500	800	5,000	7,500		
Vermont.....	8	40	12	230	6	138	126		12	93,200	49,770	93,642	238,780		
Virginia.....	3	75	1			94	20		4	15,000	8,575	14,930	27,050		
Wisconsin.....	2	25	1			21	19		2	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	4,703	3,984	336	383	6,793,435	2,411,233	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	50,390	187,500		
Connecticut.....	29	549	9	702	10	863	756	68	39	1,494,600	465,941	1,188,397	2,404,900		
District of Columbia.....	1	6	1			32	32			3,600	11,000	14,002	59,500		
Illinois.....	5	68	4			115	103		19	111,800	68,020	61,693	180,500		
Indiana.....	9	126	8			54	51		3	71,000	26,670	47,532	103,400		
Iowa.....	1	4	1			6	6			3,000	2,000	800	5,200		
Kansas.....	1					4	4			300	2,000	1,105	4,055		
Kentucky.....	3	18	2			11	8		3	9,550	3,000	8,150	17,700		
Louisiana.....	2	5	1			7	5		2	2,200	2,500	1,872	6,500		
Maine.....	9	20	4	10	1	97	96		1	40,000	9,530	39,712	71,550		
Maryland.....	5	15	4			136	108		28	58,500	61,550	85,676	235,435		
Massachusetts.....	32	142	12	34	3	550	513	11	26	422,550	250,460	742,561	1,250,305		
Michigan.....	6	31	2	5	1	43	43			31,650	20,415	29,088	59,860		
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	236,050	125,065	235,558	499,194		
New York.....	67	869	38			985	726	211	48	1,139,200	557,036	992,290	1,991,707		
North Carolina.....	1					2	2			300	356	900	900		
Ohio.....	24	154	15	2	1	241	212	21	29	262,950	119,613	162,885	394,015		
Pennsylvania.....	68	457	39	30	2	890	823	21	56	2,205,985	425,140	1,157,622	2,144,055		
Rhode Island.....	8	65	4	3		123	112	10	1	369,000	71,316	290,861	303,000		
South Carolina.....	1					2	2			4,500	864	332	3,000		
Tennessee.....	1	12	1			2	2			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	500	375	800		
West Virginia.....	1					1	1			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.

## GENERAL STATISTICS OF MANUFACTURES.

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.				
						All.							
The United States...	273	1,882	146	266	6	3,377	3,102	39	236	4,783,583	1,731,306	3,293,629	6,855,756
Alabama...	1					2	1	1		300	200	5,014	7,500
California...	6	44	6			97	82	15		59,505	58,265	174,000	
Connecticut...	16	233	5	200	1	378	346	23	9	594,600	177,611	365,567	737,723
District of Columbia...	1	6	1			32	32			3,600	11,000	14,002	50,500
Illinois...	5	68	4			115	103		12	111,800	65,620	61,683	180,500
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	603	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	15,700
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	38,712	71,559
Maryland...	5	15	4			136	108	8	21	58,000	61,539	85,676	255,485
Massachusetts...	30	62	10	29	2	430	401	8		218,550	191,414	405,361	770,305
Michigan...	6	31	2	5	1	43	43			31,650	20,415	29,088	59,689
Missouri...	10	57	5			147	129		18	203,530	91,270	101,175	292,500
New Hampshire...	3	36	2			45	45			19,000	25,000	46,510	92,500
New Jersey...	11	18	3			73	63		10	52,700	36,141	72,080	151,600
New York...	61	532	32			630	580	7	43	820,200	382,336	601,310	1,287,107
North Carolina...	1					2	2			200	300	356	900
Ohio...	22	134	15	2	1	236	207		29	258,050	118,013	158,035	384,515
Pennsylvania...	63	425	37	10		836	786	1	39	2,118,085	395,780	1,104,167	2,030,055
Rhode Island...	5	55	4			63	62		1	68,030	42,300	60,395	153,000
South Carolina...	1					2	2			4,500	654	332	3,000
Tennessee...	1	12	1			9	9			20,000	7,000	5,500	16,000
Vermont...	1					3	3			5,000	1,368	2,000	3,000
Virginia...	1	5				2	2			200	300	375	600
West Virginia...	1					1	1			200	500	92	740
Wisconsin...	1	4	1			7	5		2	6,000	2,030	4,725	5,000

## [†] BRASS-WARE.

The United States...	30	420	13	335	9	757	540	87	130	1,243,450	386,008	907,908	1,819,013
Connecticut...	12	316	4	327	8	416	355	30	22	785,000	244,300	694,630	1,331,013
Indiana...	2	48	2			10	10			19,000	7,520	4,069	21,000
Massachusetts...	1			5	1	5	3			4,000	1,872	2,400	9,000
New Jersey...	5	56	2			172	72	15	85	61,950	68,400	23,063	124,600
New York...	4	27	3			39	33		6	10,000	17,500	41,080	63,600
Ohio...	1					2	2			1,000		900	2,800
Pennsylvania...	2	32	2			53	16	20	17	61,500	17,400	21,280	53,000
Rhode Island...	3	10		3		60	50	10		301,000	29,016	120,566	234,000

## BREAD, CRACKERS, AND OTHER BAKERY PRODUCTS.

The United States...	3,550	2,370	187	218	2	14,126	12,393	842	686	10,025,966	5,353,184	22,211,856	38,907,704
Alabama...	14					37	37			23,050	14,927	73,175	101,625
Arizona...	1					2	2			600	360	1,440	3,216
Arkansas...	5					8	8			5,050	900	8,040	12,615
California...	74	67	4			320	311	7	2	280,740	166,376	632,713	1,105,826
Colorado...	4					10	10			5,530	4,070	9,750	20,000
Connecticut...	33	40	4			227	202	19	6	114,300	104,366	482,685	739,730
Delaware...	14					82	64	13	5	57,400	24,544	65,156	121,240
District of Columbia...	76	8	1			251	211	18	22	98,010	66,508	364,188	550,913
Florida...	6					21	20		1	9,650	6,800	27,300	42,900
Georgia...	24	11	2			73	66	3	4	38,800	21,818	91,900	159,040
Illinois...	198	92	8			537	476	36	25	363,575	195,231	685,528	1,732,295
Indiana...	101	86	10			334	316	12	6	525,300	94,090	415,586	685,941
Kansas...	53	26	3			150	154	3	2	134,075	33,932	177,177	315,330
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	51,208	108,330	186,268
Maine...	22	49	9			365	339	9	17	87,250	134,166	516,435	875,261
Maryland...	159	58	7			133	133	7	3	117,800	58,309	244,073	369,652
Massachusetts...	144	220	21			489	434	17	37	374,195	124,168	765,914	1,920,390
Michigan...	82	47	8			1,087	976	89	22	735,650	552,915	2,128,676	3,130,172
Minnesota...	22	8	1			306	208	1	7	201,672	95,251	450,716	683,456
Mississippi...	7					52	50	1	1	27,000	10,150	37,355	69,018
Missouri...	217	118	6			14	12	2	3	3,380	830	4,508	9,500
Montana...	2					894	700	60	125	697,615	473,499	2,061,820	3,160,053
Nebraska...	16					3	3			1,500	450	2,324	4,469
Nevada...	6					30	37	2		35,650	13,598	28,200	60,350
New Hampshire...	14	10	2			13	13	1		3,000	2,300	5,625	15,850
New Jersey...	138	55	6			76	75	1		53,500	30,836	137,620	206,612
New Mexico...	2					550	455	21	74	357,500	196,645	900,922	1,377,336
New York...	710	516	33	217	2	3,457	2,980	336	132	3,030	1,050	5,000	6,500
North Carolina...	9					31	30	1		13,650	8,140	20,420	47,000
Ohio...	270	250	16			975	884	55	30	495,522	284,532	1,288,604	2,202,018
Oregon...	6					19	19			12,770	13,520	25,157	62,345
Pennsylvania...	808	340	25			2,494	2,200	90	105	1,920,290	783,411	3,195,678	5,507,901
Rhode Island...	25	30	3	1		180	165	3	12	146,100	75,302	339,929	541,324
South Carolina...	17	20	1			71	65	1	5	36,200	21,205	90,210	142,045
Tennessee...	29	6	1			106	104	1	1	50,600	50,415	151,087	227,300
Texas...	14	24	1			38	34	2	2	35,600	13,080	53,920	93,685
Vermont...	9	166	3			78	73	2	3	121,000	29,500	140,692	245,150
Virginia...	43	16	2			163	146	8	9	58,075	46,100	203,654	301,264
Washington...	4					33	33			22,700	2,130	4,635	9,192
West Virginia...	16					191	184	1	6	127,250	58,152	250,641	410,287

[\*] 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.				
The United States....	3,114	10,333	372	218	19	43,293	30,541	258	3,494	20,504,238	10,768,853	7,413,097	29,028,359
Alabama.....	12					157	131	3	23	29,800	36,030	17,930	164,530
Arkansas.....	6					77	68	1	9	23,775	18,875	4,150	41,000
California.....	34					61*	610			226,200	129,139	166,750	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	458,051
Delaware.....	14	82	4			365	327		38	210,692	114,186	49,806	218,406
District of Columbia.....	13	100	5			427	419		8	91,700	124,730	62,400	257,800
Florida.....	4					55	49		6	17,500	22,300	18,250	57,000
Georgia.....	41	61	3			880	606	19	145	132,500	146,487	34,081	420,100
Illinois.....	240	700	23			3,293	2,936	3	264	1,018,140	678,945	361,010	1,038,764
Indiana.....	275	92	5			35,009	1,896			530,792	331,598	207,386	984,264
Iowa.....	116					971	944	1	26	168,030	192,995	96,849	425,919
Kansas.....	27					270	238		32	41,450	43,777	23,769	100,845
Kentucky.....	40	29	3			507	399			120,575	101,026	69,079	278,218
Louisiana.....	22	20	1			401	296	70	35	147,250	94,600	58,763	264,300
Maine.....	110	175	3			773	760	2	2	322,370	134,208	127,231	405,693
Maryland.....	73	116	5			2,051	1,919	1	131	1,063,300	586,283	236,903	1,191,545
Massachusetts.....	107	823	28			2,901	2,803		90	2,435,310	765,168	978,508	2,251,984
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	1	18	27,200	13,838	6,370	34,191
Missouri.....	186	233	7			2,198	2,077	2	119	1,198,451	652,610	446,639	3,148,854
Montana.....	2					8	8			675	1,126	450	4,500
Nebraska.....	17					100	108	1		92,000	20,874	16,823	61,865
Nevada.....	1					9	9			800	3,000	000	4,500
New Hampshire.....	57	55	2			544	544			131,805	112,040	88,570	313,631
New Jersey.....	118	1,119	35			2,366	2,245	7	114	1,886,500	670,157	483,965	1,695,539
New York.....	320	2,807	67	89	10	6,728	6,161	81	486	3,416,230	1,886,424	1,245,209	4,489,202
North Carolina.....	8					96	79		17	20,350	10,100	15,620	55,660
Ohio.....	331	516	27	8	1	2,409	2,275	5	129	633,609	462,758	294,420	1,252,857
Oregon.....	5					43	43			10,400	9,284	2,670	21,342
Pennsylvania.....	458	1,868	68	57	3	7,443	6,219	4	1,920	4,559,733	2,337,691	1,630,527	6,071,209
Rhode Island.....	3	100	4			294	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	60,080	225,000
Texas.....	24	24	1			263	218	3	47	83,175	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	31,020	18,910	76,380
Virginia.....	22	9	1			251	180	20	41	61,250	31,303	22,600	96,034
Washington.....	5					34	33	1		5,500	3,000	1,250	9,563
West Virginia.....	24	432	14			262	213		49	182,975	67,835	28,562	139,050
Wisconsin.....	70	170	12			1,133	1,086	2	45	456,050	198,445	125,361	509,600

## BRIDGE-BUILDING.

The United States....	64	1,034	36	40	2	2,090	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			350	800	3,000	
Illinois.....	3					8	8			2,000	1,340	2,600	9,250
Iowa.....	2					12	13			15,300	1,920	3,205	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			62,500	47,317	105,543	294,450
Michigan.....	4	90	1			119	117			203,300	51,972	138,419	216,805
Missouri.....	7	630	23			385	385			1,513,100	268,309	1,510,305	2,072,620
Nebraska.....	1					3	3			300	2,000	13,000	18,000
New Jersey.....	1					67	67			200,009	92,388	71,756	107,871
New York.....	5	22	2	20	1	52	52			41,150	26,700	42,118	93,320
Ohio.....	17	68	3			427	423		4	319,700	201,592	339,410	803,391
Pennsylvania.....	4	145	3	20	1	420	416		13	275,500	249,500	298,811	949,256
Vermont.....	2					10	10			900	2,800	11,275	21,500
Virginia.....	3					34	34			8,500	17,130	10,709	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	80,920	80,258	223,838

## [\*] BROOMS AND WHISK-BRUSHES.

The United States....	635	178	6	118	6	5,206	3,056	992	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	-----	4,0	600
California.....	13					73	69	4		84,000	43,320	66,671	164,885
Connecticut.....	3					26	14	2	10	10,600	6,460	24,441	41,000
Delaware.....	1					2	2			1,000	360	1,243	1,900
District of Columbia.....	1					8	4			10,000	3,000	17,500	22,000
Georgia.....	1					1	1			200	-----	350	500
Illinois.....	69	3				243	230	1	12	84,030	57,331	139,196	295,231
Indiana.....	42					115	101		14	31,088	19,593	56,917	111,660

[\*] 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.					
Iowa.....	25					67	56	1	10	16,075	7,657	33,688	62,460
Kansas.....	11					40	32	8	—	39,954	7,670	21,917	42,917
Kentucky.....	6					38	32	—	6	7,800	8,025	17,503	32,900
Louisiana.....	5					65	59	—	6	37,500	23,900	72,550	125,400
Maine.....	3					27	27	—	—	5,500	14,600	46,830	60,000
Maryland.....	11					218	20	—	128	70,575	35,836	185,701	276,944
Massachusetts.....	33					168	166	1	1	79,475	54,775	233,359	322,040
Michigan.....	31					95	95	—	—	38,300	23,212	85,176	166,335
Minnesota.....	13					24	20	1	3	6,700	1,120	10,945	19,900
Mississippi.....	1					5	3	—	2	400	275	308	1,450
Missouri.....	33					202	175	2	25	136,235	114,925	425,144	746,043
Nebraska.....	2					5	5	—	—	380	400	267	1,025
New Hampshire.....	6					23	25	—	3	10,200	3,953	15,150	29,175
New Jersey.....	9					27	24	1	2	3,450	4,575	18,089	29,124
New York.....	133	172	5	46	3	3,026	1,160	950	887	1,084,345	670,238	1,651,991	3,451,523
Ohio.....	78					283	239	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	193	—	13	74,760	53,266	200,985	320,145
Rhode Island.....	2					18	15	3	—	4,200	6,530	9,001	17,732
South Carolina.....	1					3	3	—	—	1,500	350	1,260	3,000
Tennessee.....	10	3	1	—	—	71	65	6	—	50,850	26,150	54,308	107,363
Texas.....	6					18	15	3	—	3,000	1,365	1,481	7,160
Utah.....	2					7	4	—	3	750	500	1,590	2,670
Virginia.....	4					9	8	1	—	1,030	839	3,199	4,425
Washington.....	1					2	2	—	—	150	200	280	1,550
Wisconsin.....	25					80	77	—	3	27,300	12,700	43,338	84,814

## BRUSHES, (NOT WHISK.)

The United States.....	157	257	18	21	3	2,425	1,481	522	422	1,083,903	601,405	1,312,897	3,694,823
California.....	1	22	2	10	1	3	3	—	—	4,000	500	1,502	6,510
Connecticut.....	5	22	2	10	1	81	50	27	4	522,500	26,502	183,637	270,631
District of Columbia.....	2	—	—	—	—	9	4	—	5	5,300	2,500	5,000	8,700
Illinois.....	6	12	1	—	—	76	60	7	9	76,700	31,791	66,834	157,180
Indiana.....	3	15	2	—	—	11	10	—	1	27,050	4,200	15,607	23,430
Iowa.....	1	—	—	—	—	2	2	—	—	500	—	100	600
Kentucky.....	2	—	—	—	—	18	11	3	4	2,000	4,380	3,670	9,200
Louisiana.....	2	—	—	—	—	4	4	—	—	150	1,000	270	2,630
Maine.....	3	—	—	—	—	41	30	11	—	38,700	20,450	86,438	123,400
Maryland.....	4	—	—	—	—	31	18	—	—	11,500	8,300	15,533	29,000
Massachusetts.....	13	52	6	5	1	639	420	208	11	199,600	178,332	297,671	650,163
Michigan.....	1	—	—	—	—	6	4	—	2	5,000	1,768	2,500	2,100
Missouri.....	14	—	—	—	—	188	100	9	79	104,200	98,620	113,550	290,600
New Hampshire.....	1	—	—	—	—	11	3	8	—	5,000	1,875	7,500	10,700
New Jersey.....	10	3	—	—	—	81	60	12	9	42,950	28,761	27,905	75,480
New York.....	3	—	—	—	—	14	11	—	3	17,500	2,900	8,861	13,900
Ohio.....	15	70	9	—	—	536	245	131	160	162,370	91,958	106,525	321,352
Pennsylvania.....	61	82	5	—	—	638	416	100	123	436,864	180,293	496,717	639,127
Rhode Island.....	5	1	—	—	—	26	20	6	—	17,560	6,000	9,155	25,100
Tennessee.....	1	—	—	—	—	1	1	—	—	600	—	200	1,100
Vermont.....	1	—	—	—	—	1	1	—	—	200	—	246	680
West Virginia.....	2	—	—	—	—	4	4	—	—	500	275	258	2,300
Wisconsin.....	1	—	—	—	—	4	4	—	—	2,500	1,000	2,000	4,603

## GROUP—BUILDING, (NOT MARINE.)

(Includes Bridge-building; Carpentry and building; Marble and stone work; Masonry, brick and stone; Painting; Paperhanging; Plastering; and Plumbing and gasfitting.)

The United States.....	94,908	10,380	511	2,678	117	112,820	111,366	58	1,390	49,168,863	49,741,376	95,694,685	301,572,541
Alabama.....	158	6	1	—	—	408	408	—	—	64,895	153,025	179,444	509,363
Arizona.....	2	—	—	—	—	5	5	—	—	3,000	2,010	1,950	4,700
Arkansas.....	73	—	—	—	—	1,075	1,065	—	10	23,920	35,730	72,583	210,139
California.....	363	133	11	—	—	130	130	—	—	308,770	630,090	868,376	9,160,212
Colorado.....	35	—	—	—	—	323	323	—	8	63,100	96,250	121,950	303,210
Connecticut.....	589	329	10	70	2	3,108	3,100	—	—	1,087,120	1,007,935	2,003,650	5,435,305
Delaware.....	40	11	2	—	—	1,007	984	7	16	207,100	140,741	213,482	550,376
District of Columbia.....	133	—	—	—	—	321	319	—	2	405,050	543,551	936,144	1,905,619
Florida.....	134	14	2	—	—	797	768	—	29	214,180	231,611	475,017	1,162,933
Georgia.....	231	10	1	—	—	18	18	—	—	1,775	2,200	16,245	35,400
Idaho.....	14	—	—	—	—	569	558	—	11	131,205	103,320	420,563	856,745
Illinois.....	1,437	670	27	—	—	5,809	5,727	—	82	1,950,722	2,240,953	4,342,563	9,410,033
Indiana.....	1,317	401	21	—	—	4,245	4,236	—	9	786,413	1,196,130	2,081,711	4,916,500
Iowa.....	1,150	48	3	—	—	3,083	3,078	—	7	418,716	700,765	1,855,319	3,739,440
Kansas.....	250	31	2	—	—	1,084	1,079	—	5	254,052	389,543	955,278	1,991,517
Kentucky.....	421	69	5	—	—	1,503	1,498	—	7	528,275	558,583	1,233,647	2,406,641
Louisiana.....	223	35	5	—	—	569	558	—	—	1,311,205	103,320	420,563	856,745
Maine.....	406	9	2	95	5	1,755	1,754	—	1	404,388	688,920	830,269	2,158,543
Maryland.....	337	13	2	85	1	1,487	1,473	—	13	624,707	509,569	1,577,634	2,735,167
Massachusetts.....	1,618	971	55	124	10	11,231	11,180	6	29	4,161,562	6,331,031	9,663,646	20,524,030
Michigan.....	1,070	504	19	127	5	4,416	4,387	1	28	3,298,618	1,535,156	2,801,667	5,746,030
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	458,855	722,303

## GENERAL STATISTICS OF MANUFACTURES.

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 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, Dollars.	WAGES, Dollars.	MATERIALS, Dollars.	PRODUCTS, Dollars.	
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.					
Missouri . . . . .	2,304	826	33	20	1	9,516	9,092	5	4,971,057	4,597,371	12,606,879	25,158,557	
Montana . . . . .	14			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	1,070,259	
New Jersey . . . . .	786	300	27	20	2	5,190	5,143	1	2,187,142	2,693,513	5,610,181	10,406,351	
New Mexico . . . . .	43			56	56				16,600	9,725	20,003	48,499	
New York . . . . .	2,711	1,500	93	590	37	16,926	16,136	13	8,831,068	8,616,229	13,533,874	30,346,481	
North Carolina . . . . .	116	52	3	34	2	328	318		85,160	72,232	89,771	212,121	
Ohio . . . . .	2,415	1,421	56	70	3	8,668	8,614	2	2,015,681	2,793,449	5,514,905	11,675,875	
Oregon . . . . .	150	8	1			396	395		96,195	115,009	280,938	619,352	
Pennsylvania . . . . .	3,023	1,506	70	153	10	17,681	17,353	10	13,100,831	8,502,775	18,431,097	38,342,344	
Rhode Island . . . . .	279	490	16	6	1	2,923	2,850	10	1,072,555	1,632,245	2,235,074	4,727,696	
South Carolina . . . . .	75	15		9	1	476	471		5	297,335	55,197	369,838	369,150
Tennessee . . . . .	430	88	5	4	1	1,099	1,092		7	299,644	278,207	610,244	1,473,804
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	86,090
Vermont . . . . .	247	329	10	984	26	1,205	1,173			1,224,935	459,758	628,147	1,483,838
Virginia . . . . .	366	73	6	25	1	1,095	1,079			200,902	264,667	562,603	1,287,623
Washington . . . . .	46					74	74			18,535	20,890	45,310	103,923
West Virginia . . . . .	140	51	3			410	403			127,435	117,469	172,004	407,201
Wisconsin . . . . .	621	44	4	30	2	1,857	1,845	1		502,742	533,439	1,082,417	2,510,092

## 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	8,873	233,005,203	78,126,900	173,198,451	356,140,945
Alabama . . . . .	308	3,307	120	1,933	130	1,724	1,673	13	38	858,605	444,323	635,838	1,731,863
Arizona . . . . .	1	10	1			16	16			5,000	6,000	1,000	10,000
Arkansas . . . . .	929	3,375	130	322	24	1,920	1,915	6	39	799,975	305,971	693,760	1,571,703
California . . . . .	373	7,926	220	3,094	125	5,503	5,465	12	31	4,770,642	2,294,261	2,931,623	7,528,777
Colorado . . . . .	42	589	25	206	11	290	298	1		191,450	113,511	197,500	463,490
Connecticut . . . . .	524	1,637	53	7,843	398	3,682	3,667	4	11	3,106,171	1,533,123	1,981,260	4,673,940
Dakota . . . . .	10	248	9	25	2	68	68		2	37,400	14,256	32,772	72,290
Delaware . . . . .	105	1,123	44	838	52	830	768		63	678,116	246,203	400,317	873,647
District of Columbia . . . . .	24	380	12			586	547	23	13	248,600	195,450	253,050	600,900
Florida . . . . .	111	2,507	70	167	15	1,187	1,154	2	31	785,200	448,620	1,184,738	2,303,960
Georgia . . . . .	606	6,095	205	4,625	339	4,316	4,064	33	213	2,098,183	1,013,630	2,130,618	5,251,459
Idaho . . . . .	11	86	5	78	6	50	50			70,750	19,524	21,677	61,160
Illinois . . . . .	956	17,908	623	867	34	10,937	10,352	6	570	7,934,408	3,524,026	9,531,638	17,349,945
Indiana . . . . .	2,314	32,258	1,607	5,506	310	13,231	12,736	7	488	8,293,215	2,916,810	7,303,442	16,330,078
Iowa . . . . .	733	13,923	439	2,013	192	5,487	5,211	18	258	4,730,265	1,502,947	4,300,438	7,698,605
Kansas . . . . .	230	3,938	156	507	22	1,534	1,494	1	39	763,105	365,848	850,426	1,905,451
Kentucky . . . . .	632	10,569	406	1,972	105	3,736	3,470	15	232	2,838,286	965,207	2,750,409	5,544,315
Louisiana . . . . .	193	3,675	151	33	7	1,757	1,631	72	34	832,470	542,295	946,600	2,116,295
Maine . . . . .	1,339	4,071	103	39,718	1,704	10,560	10,497	4	5,789,163	3,143,156	7,474,031	13,208,892	
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	9,649	9,371	59	212	9,597,409	3,053,457	9,840,608	17,646,657
Michigan . . . . .	1,934	45,757	1,320	13,460	594	23,556	22,625	64	847	20,716,300	7,473,489	16,206,170	35,849,535
Minnesota . . . . .	294	5,137	137	4,084	127	3,694	3,641	14	39	3,551,348	1,121,371	2,555,605	5,112,160
Mississippi . . . . .	291	5,852	204	410	48	2,229	2,163	16	50	1,923,017	636,844	963,443	2,420,558
Missouri . . . . .	1,096	16,998	646	1,797	87	7,686	7,356	13	317	7,234,771	2,748,020	7,654,054	16,030,614
Montana . . . . .	36	185	123	383	21	178	178			153,675	88,091	177,648	453,057
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			929,800	178,356	162,050	507,000
New Hampshire . . . . .	641	2,277	77	21,825	1,025	4,678	4,648	8	22	3,023,898	1,206,542	2,859,276	5,512,829
New Jersey . . . . .	544	5,274	175	4,888	274	7,040	6,560	52	437	8,900,790	2,864,158	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	3,800	32,870	31,139	134	1,603	20,136,304	10,130,824	23,452,832	45,955,511
North Carolina . . . . .	550	3,842	146	4,540	341	2,624	2,568	3	53	1,289,900	449,803	1,070,988	2,231,913
Ohio . . . . .	3,000	44,973	1,910	10,068	595	15,785	15,320	24	441	12,698,019	4,160,129	9,395,044	16,605,929
Oregon . . . . .	191	1,941	50	3,001	140	812	806	2	4	1,070,402	313,403	418,418	1,191,243
Pennsylvania . . . . .	4,857	46,509	1,541	56,894	3,220	33,707	32,175	41	1,551	43,546,667	12,016,906	27,270,256	55,630,364
Rhode Island . . . . .	95	601	25	1,191	60	583	556	1		538,000	172,208	486,163	891,642
South Carolina . . . . .	238	2,407	88	1,720	114	1,415	1,378	6	31	722,523	230,536	634,559	1,313,470
Tennessee . . . . .	775	8,233	334	4,277	294	3,818	3,658	10	150	2,320,546	839,032	2,095,175	4,534,206
Texas . . . . .	366	4,082	236	605	31	2,170	2,083	18	60	1,108,216	516,429	814,111	2,432,771
Utah . . . . .	100	301	18	823	75	566	563		3	349,300	144,253	270,901	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 . . . . .	663	4,546	211	6,180	386	2,850	2,757	36	57	1,211,408	460,691	920,072	2,504,047
Washington . . . . .	62	1,326	33	772	27	580	579	1		1,498,402	488,760	970,300	1,953,655
West Virginia . . . . .	380	4,111	167	2,602	186	1,892	1,802	3	87	1,374,825	402,253	793,707	1,830,714
Wisconsin . . . . .	941	18,483	482	12,143	452	15,503	14,670	364	471	14,015,913	4,622,980	8,934,993	18,357,399
Wyoming . . . . .	8	151	6			213	211	1		110,500	104,500	99,000	268,060

## GENERAL STATISTICS OF MANUFACTURES.

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.	WAGES.	MATERIALS.	PRODUCTS.	
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.	Youth.				
The United States	12	40	2			67	67			202,100	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	.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	2,009,905	546,346	11,030,938	13,696,061
California	8					21	21			41,300	6,500	108,475	207,308
Connecticut	3					12	12			45,000	4,800	376,000	450,600
District of Columbia	12					20	28	1		23,200	6,610	83,875	124,372
Florida	1					2	2			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	73,130
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	164,405
Massachusetts	12	14	1			83	82			106,900	47,930	1,630,110	1,778,608
Minnesota	15					67	67			150,125	50,060	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	311,348
New Hampshire	6					10	10			4,200	1,280	27,450	32,730
New Jersey	4					15	14	1	11	17,000	3,352	211,540	232,670
New York	76					190	178	1	11	154,450	34,411	641,857	843,216
North Carolina	2					2	2			160	160	2,952	7,324
Ohio	87	15	3			228	226	1	1	134,865	32,537	794,692	992,931
Pennsylvania	122	8	2	6	1	280	274		6	286,195	59,892	1,191,694	1,490,408
Rhode Island	16					52	52			107,100	20,666	449,278	507,215
Texas	7	52	4			117	117			79,150	22,900	403,705	484,775
Vermont	1					4	4			12,000	1,200	19,140	21,940
Virginia	2					3	3			1,000	100	3,300	7,040
Wisconsin	16					38	38			56,030	7,200	147,433	174,367

## [\*] CARPENTERING AND BUILDING.

The United States	17,142	4,634	289	1,140	73	67,864	67,306	5	553	25,110,428	29,169,583	65,943,115	133,901,432
Alabama	138	6	1			354	354			51,900	123,675	127,994	437,233
Arizona	2					5	5			3,000	2,40	1,930	4,360
Arkansas	69					150	147	3		21,375	35,730	71,191	206,159
California	200	95	7			663	661	2		197,995	360,686	611,417	1,391,163
Colorado	23					83	83			44,900	57,250	62,505	130,610
Connecticut	430	160	7	70	2	2,150	2,152	4		635,000	1,103,145	2,040,500	4,015,351
Delaware	28					128	128			27,850	30,928	92,140	172,695
District of Columbia	68					500	490	7		176,750	323,172	614,495	1,195,728
Florida	123	14	2			295	293	2		52,950	123,180	350,235	506,895
Georgia	187	10	1			634	607	17		131,938	193,396	436,093	1,007,623
Idaho	14					18	18			1,775	2,200	16,245	35,400
Illinois	1,080	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	738,847	1,501,329	3,418,939
Iowa	880	48	3			2,335	2,329	7		293,220	537,388	1,550,274	2,981,958
Kansas	105	6	1			807	803	5		146,678	304,560	878,351	1,725,433
Kentucky	348	36	2			1,030	1,033	3		209,600	310,113	841,760	1,602,750
Louisiana	100	35	5			454	450	4		109,835	168,587	387,350	765,725
Maine	251	5	1	95	5	612	612			139,920	184,090	330,820	768,060
Maryland	191					820	820			249,400	273,947	1,025,667	1,699,502
Massachusetts	901	468	40	112	8	5,825	5,817	8		1,880,203	3,484,104	6,305,115	12,429,739
Michigan	756	348	15	72	2	2,930	2,915	15		730,223	1,014,083	1,973,026	3,976,333
Minnesota	223	44	5			676	676			104,860	242,793	577,497	1,067,203
Mississippi	195	15	2			321	320	1		80,953	61,832	420,177	655,035
Missouri	1,403	36	3			5,017	4,858	159		1,706,665	2,242,822	7,701,594	15,561,086
Montana	13			20	1	20	20			4,730	5,425	19,020	40,600
Nebraska	89					216	216			45,435	64,837	302,292	535,520
Nevada	24					48	48			13,000	14,650	30,925	96,400
New Hampshire	120	24	2	132	6	457	457			154,180	204,375	201,431	667,060
New Jersey	570	237	24	10	1	3,748	3,717	31		1,488,993	2,033,862	4,443,091	8,103,155
New Mexico	38					51	51			15,650	9,725	18,858	44,268
New York	1,863	738	56	405	31	8,806	8,716	4		3,765,690	4,441,118	8,026,184	17,306,239
North Carolina	98	52	3	34	2	272	267	5		80,765	68,127	77,076	208,601

[\*] 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.

## GENERAL STATISTICS OF MANUFACTURES.

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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.					
Ohio.....	1,613	300	18	.....	.....	4,924	4,906	1	17	1,036,777	1,481,134	3,277,849	6,805,053
Oregon.....	104	8	1	.....	.....	248	247	.....	1	53,395	61,050	194,983	417,152
Pennsylvania.....	1,846	725	37	16	2	10,538	10,436	.....	103	7,671,351	5,335,181	13,772,286	27,336,490
Rhode Island.....	134	444	12	6	1	1,620	1,617	.....	9	671,120	908,081	1,717,632	3,112,881
South Carolina.....	64	15	9	1	1	431	429	.....	2	286,135	69,097	161,763	313,350
Tennessee.....	333	78	4	4	1	847	840	.....	7	250,503	197,989	401,121	1,149,593
Texas.....	147	66	3	.....	.....	399	396	.....	3	154,065	131,020	312,515	652,067
Utah.....	52	.....	.....	.....	.....	67	67	.....	.....	13,280	13,300	42,485	80,020
Vermont.....	157	46	3	100	7	492	492	.....	.....	73,525	114,245	150,031	395,662
Virginia.....	319	73	6	25	1	915	901	.....	14	174,747	212,490	433,823	1,020,930
Washington.....	40	.....	.....	.....	.....	61	61	.....	.....	12,285	16,320	35,600	57,973
West Virginia.....	121	33	2	.....	.....	344	339	.....	5	114,610	97,935	159,960	421,717
Wisconsin.....	439	17	2	30	2	1,131	1,128	.....	3	231,975	296,041	615,503	1,307,704.

## [\*] CARPETS, RAG.

The United States.....	474	60	2	24	2	1,016	874	116	26	310,744	141,148	498,595	1,005,397
California.....	1	.....	.....	.....	.....	4	4	.....	.....	1,600	2,400	1,043	5,100
Connecticut.....	6	.....	.....	.....	.....	9	8	1	.....	600	1,680	3,290	8,710
Delaware.....	3	.....	.....	.....	.....	6	6	.....	.....	900	1,930	2,103	6,000
District of Columbia.....	1	.....	.....	.....	.....	2	2	.....	.....	100	100	361	975
Illinois.....	21	.....	.....	.....	.....	29	24	4	1	2,780	2,075	14,048	26,182
Indiana.....	11	.....	.....	.....	.....	15	9	5	1	2,043	600	5,415	11,081
Iowa.....	14	.....	.....	.....	.....	21	17	3	1	1,940	1,500	6,079	14,865
Kentucky.....	2	.....	.....	.....	.....	4	3	.....	.....	950	900	2,045	5,650
Maine.....	2	.....	.....	.....	.....	2	2	.....	.....	975	505	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	6,051	17,703
Minnesota.....	1	.....	.....	.....	.....	2	2	.....	.....	250	400	300	1,500
Missouri.....	10	.....	.....	.....	.....	23	17	4	1	6,395	4,400	8,059	24,010
New Jersey.....	39	.....	.....	.....	.....	78	68	9	1	11,475	13,272	36,834	75,042
New York.....	56	60	2	.....	.....	181	123	56	3	81,935	32,845	90,798	200,341
Ohio.....	55	.....	.....	.....	.....	91	83	5	3	14,685	7,341	43,623	82,016
Pennsylvania.....	212	.....	.....	94	2	472	436	24	12	168,974	63,053	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	1,600
Maine.....	8	.....	.....	.....	.....	18	18	.....	.....	4,650	5,350	9,538	26,580
Maryland.....	3	.....	.....	.....	.....	48	24	24	.....	21,500	11,000	16,000	40,000
Massachusetts.....	8	.....	.....	.....	.....	26	26	.....	.....	13,050	17,479	16,125	45,850
Minnesota.....	1	.....	.....	.....	.....	1	1	.....	.....	300	200	200	900
Mississippi.....	1	.....	.....	.....	.....	1	1	.....	.....	100	100	503	1,000
New Jersey.....	6	.....	.....	.....	.....	14	13	1	.....	5,350	3,369	5,969	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	31,350	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	92	391	91	913	780	89	44	746,628	407,327	495,281	1,432,833
Connecticut.....	2	25	1	.....	.....	18	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	.....	.....	33	24	0	3	25,000	16,000	10,000	40,000
Maine.....	3	13	1	35	2	20	20	.....	.....	3,400	3,635	2,900	6,638
Massachusetts.....	10	4	1	96	7	150	104	26	.....	102,428	60,750	90,567	251,180
Michigan.....	2	5	.....	.....	.....	29	9	2	17	23,500	6,667	6,550	21,200
Missouri.....	2	.....	.....	.....	.....	8	7	.....	1	6,200	2,000	3,100	11,500
New Hampshire.....	3	36	9	20	1	44	37	7	.....	25,500	18,000	4,460	32,500
New Jersey.....	1	7	1	.....	.....	30	22	3	5	21,000	13,000	15,900	40,000
New York.....	9	111	6	15	1	174	141	25	8	179,000	94,883	163,615	400,300
Ohio.....	4	86	3	.....	.....	86	84	1	1	194,500	25,500	50,220	116,688
Pennsylvania.....	7	33	4	.....	.....	61	54	1	6	78,100	34,402	35,131	101,007
Vermont.....	7	.....	.....	225	10	207	197	10	.....	109,000	93,100	65,183	218,823

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

## GENERAL STATISTICS OF MANUFACTURES.

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.					
The United States.....	11,847	4,169	279	4,651	363	54,928	54,280	76	572	36,563,095	21,272,730	22,787,341	65,362,837
Alabama.....	93	6	1	20	1	311	309	.....	2	137,900	104,153	91,674	310,034
Arkansas.....	30	.....	5	5	1	90	90	.....	.....	62,705	32,250	34,353	101,525
California.....	84	38	2	.....	.....	640	630	.....	10	780,150	447,336	430,404	1,300,443
Colorado.....	1	.....	.....	6	6	3,500	3,300	.....	.....	3,500	2,000	2,000	12,000
Connecticut.....	205	185	7	401	24	2,341	2,321	11	9	2,202,810	1,402,034	1,705,299	4,164,450
Delaware.....	50	20	1	.....	.....	714	695	8	11	517,450	301,352	360,730	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	26	2	50	7	670	650	1	19	267,295	187,715	243,605	664,512
Illinois.....	1,165	600	37	100	5	4,847	4,825	1	21	3,420,426	1,775,946	2,213,297	6,019,991
Indiana.....	770	380	15	285	5	3,325	3,295	2	28	2,196,485	1,034,146	1,276,233	3,616,068
Iowa.....	449	203	17	.....	.....	1,662	1,660	1	1	1,036,882	566,222	739,240	1,952,143
Kansas.....	68	.....	.....	.....	.....	242	242	.....	.....	93,095	85,525	70,546	230,956
Kentucky.....	325	23	3	.....	.....	1,250	1,239	1	20	577,405	439,076	440,170	1,339,009
Louisiana.....	45	20	1	.....	.....	108	107	.....	1	130,858	68,820	51,112	200,290
Maine.....	291	12	2	433	47	1,123	1,118	.....	5	533,030	356,207	335,544	1,051,458
Maryland.....	133	.....	6	1	681	669	.....	12	297,630	297,170	210,132	667,157	
Massachusetts.....	326	119	10	181	23	2,914	2,888	15	11	1,720,091	1,486,959	1,326,968	4,038,056
Michigan.....	531	166	8	94	6	2,239	2,235	4	4	1,649,860	701,764	862,903	2,393,398
Minnesota.....	102	37	4	6	1	444	442	.....	2	358,168	183,004	176,119	549,568
Mississippi.....	85	34	4	.....	.....	293	291	.....	2	138,495	91,469	74,911	268,031
Missouri.....	531	66	5	.....	.....	2,170	2,094	2	74	1,504,079	949,609	1,303,587	3,253,734
Montana.....	1	.....	.....	.....	.....	15	15	.....	.....	4,000	12,500	10,250	30,250
Nebraska.....	2	.....	.....	.....	.....	31	31	.....	.....	38,000	16,640	9,275	57,500
Nevada.....	3	.....	.....	.....	.....	13	13	.....	.....	21,000	18,100	81,000	100,000
New Hampshire.....	116	84	4	563	38	782	780	1	1	528,555	356,692	320,532	906,334
New Jersey.....	267	5	1	25	2	1,830	1,817	3	10	1,236,150	838,563	787,368	2,281,643
New York.....	1,707	650	52	1,096	68	8,784	8,641	14	129	6,287,140	3,607,747	3,831,737	11,049,345
North Carolina.....	130	16	2	8	1	462	455	.....	7	141,755	105,448	107,853	340,224
Ohio.....	1,221	231	18	28	4	5,094	5,024	4	66	2,964,733	1,671,070	1,537,164	5,049,550
Oregon.....	14	.....	16	2	35	.....	35	.....	.....	24,450	14,900	13,906	46,405
Pennsylvania.....	1,449	524	35	201	21	6,252	6,199	5	48	4,322,517	2,229,441	2,111,361	6,683,302
Rhode Island.....	55	.....	71	8	270	267	1	2	148,900	115,182	112,720	314,130	
South Carolina.....	77	5	1	.....	.....	288	288	.....	.....	81,830	63,610	50,033	180,114
Tennessee.....	220	60	5	10	1	818	815	.....	3	495,280	297,546	320,158	938,647
Texas.....	115	15	1	.....	.....	325	321	.....	4	130,585	81,163	94,588	280,124
Vermont.....	102	100	13	980	74	616	611	4	1	465,670	210,981	171,053	620,207
Virginia.....	186	20	1	.....	.....	563	557	2	4	157,505	131,842	117,872	380,063
West Virginia.....	50	206	5	12	1	243	239	.....	4	216,295	100,330	85,889	303,690
Wisconsin.....	483	308	23	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	5,600	134	163	4	15,931	15,690	20	221	16,632,702	9,650,902	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	.....	28	323,272	160,550	136,409	399,459
Delaware.....	3	125	4	.....	.....	734	706	.....	.....	405,000	400,860	489,000	947,860
Georgia.....	5	185	5	.....	.....	278	268	10	213,050	208,400	153,025	360,780	1,010,007
Illinois.....	5	205	3	.....	.....	840	848	1	959,000	501,978	402,235	1,010,007	1,010,007
Indiana.....	10	376	9	.....	.....	1,403	1,384	19	12	625,333	824,124	1,639,340	2,577,726
Iowa.....	1	25	1	.....	.....	130	130	.....	.....	38,000	72,952	68,863	161,815
Kentucky.....	3	42	3	.....	.....	245	245	.....	.....	85,500	107,230	105,170	219,400
Louisiana.....	5	121	3	.....	.....	232	232	.....	.....	175,000	195,115	123,985	368,730
Maine.....	4	84	2	.....	.....	53	53	.....	3	48,500	41,980	58,025	130,547
Massachusetts.....	8	318	7	.....	.....	999	999	.....	.....	1,395,000	722,855	1,608,920	2,616,922
Michigan.....	3	210	4	.....	.....	823	809	2	12	615,223	406,058	687,922	1,488,742
Minnesota.....	1	.....	25	1	79	79	79	.....	.....	170,000	52,800	735,500	788,300
Mississippi.....	2	45	2	.....	.....	111	111	.....	51	122,500	77,000	66,401	141,401
Missouri.....	8	262	5	.....	.....	808	757	.....	.....	765,000	623,700	1,328,000	2,403,150
New Hampshire.....	2	225	4	.....	.....	190	190	.....	.....	200,000	100,000	256,250	379,750
New Jersey.....	6	280	7	60	1	978	978	.....	.....	1,841,040	654,707	988,481	1,670,427
New York.....	10	421	7	.....	.....	842	831	11	1,105,000	495,692	621,057	1,470,329	1,470,329
North Carolina.....	6	110	3	.....	.....	200	200	.....	.....	124,000	98,813	73,300	191,213
Ohio.....	11	467	9	.....	.....	1,462	1,460	9	87	1,355,970	917,505	1,363,099	2,355,855
Pennsylvania.....	49	1,430	34	8	1	4,076	3,975	14	87	3,763,804	2,183,857	5,832,736	9,288,041
South Carolina.....	2	30	2	.....	.....	150	150	.....	.....	335,000	49,200	32,300	71,400
Texas.....	1	23	1	.....	.....	16	16	.....	.....	12,000	8,400	26,530	45,905
Tennessee.....	4	111	4	.....	.....	194	194	.....	.....	160,000	153,412	140,212	203,624
Vermont.....	2	100	1	.....	.....	250	246	2	2	175,000	120,000	332,470	452,470
Virginia.....	7	250	7	70	1	469	469	.....	.....	1,205,600	258,578	330,458	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.

## GENERAL STATISTICS OF MANUFACTURES.

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

## CEMENT.

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.				
The United States.....	45	1,190	23	900	23	1,632	1,508	.....	1,521,500	691,093	773,192	2,033,603
California.....	1	30	1	.....	.....	8	8	.....	25,000	5,000	12,180	30,000
Indiana.....	3	155	4	.....	.....	105	105	.....	199,000	32,669	100,980	184,050
Kansas.....	1	.....	.....	.....	.....	2	2	.....	2,000	.....	450	1,000
Kentucky.....	2	150	2	185	4	265	233	42	350,200	160,480	90,900	303,000
Maryland.....	2	15	1	40	1	76	76	.....	32,000	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	560	7	588	15	967	909	58	738,000	337,564	448,837	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	11,855	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	5,060	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	1,204,770	3,161,104
California.....	2	12	1	.....	.....	12	12	.....	10,500	4,420	6,589	18,220	
Connecticut.....	2	.....	.....	.....	.....	23	23	.....	7,300	5,040	7,300	16,800	
Indiana.....	3	6	1	.....	.....	33	33	4	5,300	4,900	2,550	11,400	
Kentucky.....	6	.....	.....	.....	.....	48	44	5,760	12,915	10,245	29,820		
Louisiana.....	7	.....	.....	.....	.....	7	7	.....	900	400	4,000		
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	5,080	4,030	16,430	
Michigan.....	4	.....	.....	.....	.....	227	237	.....	29,500	127,270	7,045	173,412	
Missouri.....	16	.....	.....	.....	.....	265	265	.....	203,750	84,475	27,900	122,696	
New Hampshire.....	9	.....	.....	.....	.....	38	38	.....	16,350	11,835	14,910	30,935	
New Jersey.....	8	.....	.....	30	1	56	56	.....	50,200	16,530	34,640	129,690	
New York.....	20	15	1	66	3	207	206	1	313,330	238,073	145,577	454,037	
North Carolina.....	2	.....	.....	.....	.....	29	20	.....	1,250	1,510	744	3,000	
Ohio.....	30	8	1	.....	.....	1,090	1,060	30	307,400	370,648	270,675	765,762	
Pennsylvania.....	25	198	11	.....	.....	544	544	.....	1,159,093	285,727	587,162	1,117,896	
Rhode Island.....	12	40	1	.....	.....	56	56	.....	28,050	17,300	12,794	40,770	
Tennessee.....	2	.....	.....	.....	.....	38	38	.....	65,000	21,153	14,932	49,301	
Vermont.....	5	.....	.....	.....	.....	71	71	.....	37,500	28,760	30,500	60,000	
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	2,237	8,500	
Connecticut.....	2	1	1	.....	.....	34	28	6	45,000	16,200	22,650	51,000	
Indiana.....	3	.....	.....	.....	.....	4	4	2	1,075	2,000	4,075	10,550	
Iowa.....	3	.....	.....	.....	.....	12	10	2	8,000	7,900	3,430	17,000	
Louisiana.....	1	.....	.....	.....	.....	3	3	.....	1,500	1,200	1,260	2,700	
Maryland.....	5	8	1	.....	.....	63	49	2	69,050	31,100	22,400	76,000	
Massachusetts.....	7	10	2	.....	.....	106	157	1	127,810	103,700	91,185	312,300	
Michigan.....	2	15	1	.....	.....	56	49	7	42,000	93,180	29,000	67,500	
Missouri.....	4	.....	.....	.....	.....	65	54	11	85,000	54,200	67,000	95,500	
New York.....	24	96	7	.....	.....	363	321	8	34,372,400	243,230	198,415	607,850	
Ohio.....	4	18	2	.....	.....	192	101	4	223,000	99,500	94,800	312,000	
Pennsylvania.....	34	36	5	.....	.....	464	491	28	584,900	232,532	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	1,439	4	20	706,256	144,334	892,820	1,537,214
Connecticut.....	37	18	2	173	16	82	82	.....	80,000	5,260	94,572	139,719	
District of Columbia.....	1	.....	.....	.....	.....	3	3	.....	400	1,000	3,000	6,000	
Illinois.....	3	.....	.....	.....	.....	7	7	.....	2,700	525	2,025	4,170	
Indiana.....	2	.....	.....	.....	.....	6	6	.....	2,150	450	2,150	5,560	
Kentucky.....	1	.....	.....	.....	.....	1	1	.....	800	.....	250	600	
Maine.....	5	.....	.....	.....	.....	14	14	1	1,700	150	3,910	6,095	
Maryland.....	3	.....	.....	5	1	6	6	1	1,150	678	2,600	4,108	
Massachusetts.....	50	31	6	137	13	198	126	2	87,100	11,105	95,037	172,402	
Michigan.....	36	32	4	55	5	107	105	2	38,390	6,928	52,398	68,012	
Missouri.....	7	.....	.....	95	7	76	59	17	95,000	46,400	88,080	105,160	
New Hampshire.....	13	36	2	126	6	85	85	.....	47,905	5,305	53,027	91,970	
New Jersey.....	43	316	25	1,058	99	769	760	4	326,521	46,986	369,759	606,524	
New York.....	274	316	25	1,058	99	49	48	1	35,000	8,332	33,077	60,430	
Ohio.....	19	76	8	.....	.....	7	6	1	3,000	1,500	2,741	6,621	
Oregon.....	1	.....	.....	.....	.....	58	58	1	21,350	1,874	39,144	69,317	
Pennsylvania.....	32	5	1	116	14	58	58	.....	7,700	5,500	15,000	25,500	
Tennessee.....	4	.....	.....	283	12	33	32	1	5,300	1,230	17,135	25,400	
Vermont.....	15	.....	.....	.....	.....	2	2	.....	500	250	1,250	2,610	
Wisconsin.....	1	.....	.....	.....	.....	2	2	.....	.....	.....	.....	.....	

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

## GENERAL STATISTICS OF MANUFACTURES.

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 16.					
The United States.....	7,838	457	37	96	3	106,679	46,934	58,466	1,270	40,801,080	30,535,879	86,117,231	147,650,378
Alabama.....	27					78	53	25	.....	34,665	10,200	60,945	135,867
Arkansas.....	8					27	21	6	.....	12,000	11,850	18,960	39,900
California.....	108					528	363	161	5	177,603	295,232	470,102	1,020,270
Connecticut.....	189	111	10	6	1	3,112	933	2,147	32	1,166,675	1,053,784	2,519,559	4,120,100
Delaware.....	25					203	82	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	22	6	.....	7,400	7,600	23,975	43,000
Georgia.....	39					113	84	28	1	78,795	54,273	95,653	200,080
Idaho.....	1					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.....	229					1,531	984	536	11	769,309	498,850	1,289,782	2,261,374
Iowa.....	153					596	449	146	1	281,970	173,047	503,052	905,136
Kansas.....	27					153	135	18	.....	110,950	62,574	101,402	213,520
Kentucky.....	133					801	563	232	6	462,132	227,998	568,758	1,068,258
Louisiana.....	67					369	213	135	1	73,765	95,516	160,910	376,723
Maine.....	143					4,563	408	4,092	63	551,610	509,013	1,863,391	2,881,863
Maryland.....	303					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	11,013,317	20,212,407
Michigan.....	230					2,353	1,349	964	70	1,038,985	577,926	1,367,168	2,423,170
Minnesota.....	57					215	202	13	.....	104,700	85,748	137,256	304,117
Mississippi.....	27					39	37	2	.....	12,570	6,380	20,970	54,050
Missouri.....	507					3,470	2,323	1,003	144	2,298,025	1,621,939	3,019,435	7,271,962
Nebraska.....	17					47	47	47	.....	23,040	27,170	36,010	87,305
Nevada.....	7					18	18	18	.....	9,600	10,320	15,230	42,600
New Hampshire.....	75	60	1			793	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	6	.....	750	620	1,410	3,280
New York.....	1,541	166	15	15	1	28,703	12,307	16,231	195	14,782,043	8,826,008	27,982,394	46,375,369
North Carolina.....	16					64	48	10	.....	14,325	10,570	28,920	72,810
Ohio.....	773					10,632	5,532	5,069	211	4,696,727	2,436,329	7,496,501	12,367,440
Oregon.....	14					40	40	9	.....	27,050	12,550	25,625	60,400
Pennsylvania.....	1,364	8	2			17,973	7,761	9,917	275	9,709,059	4,758,897	12,036,899	21,850,319
Rhode Island.....	73					1,135	422	679	34	474,775	362,032	738,086	1,351,641
South Carolina.....	13					45	43	1	1	11,100	5,400	16,365	37,209
Tennessee.....	85					238	210	27	1	132,335	105,045	162,994	314,835
Texas.....	33					78	59	19	.....	18,800	18,345	36,861	85,457
Utah.....	10					17	17	17	.....	2,825	3,820	3,850	10,927
Vermont.....	51					328	131	184	13	151,220	72,950	157,639	361,025
Virginia.....	95					278	196	77	5	60,905	64,730	133,485	290,384
Washington.....	4					6	6	6	.....	1,150	2,770	5,497	5,497
West Virginia.....	41					291	193	98	.....	111,548	84,310	229,566	399,049
Wisconsin.....	232					1,785	1,061	698	26	1,075,185	525,202	1,270,828	2,200,004
Wyoming.....	1					3	3	3	.....	1,500	2,886	3,249	8,500

## CLOTHING, WOMEN'S.

The United States.....	1,847	35	4	125	2	11,606	1,105	10,247	344	3,590,918	2,513,956	6,827,978	12,900,583
Alabama.....	12					23	23	23	.....	2,120	2,260	2,665	10,200
Arkansas.....	2					9	9	9	.....	1,600	1,010	4,750	9,000
California.....	69					239	44	185	.....	174,378	84,200	514,350	738,330
Connecticut.....	54					297	66	230	11	83,445	84,035	143,809	357,469
Delaware.....	17					63	3	60	.....	27,700	10,183	50,315	51,800
Georgia.....	8					21	4	17	.....	4,200	1,544	6,180	13,002
Illinois.....	65					713	19	694	.....	220,045	181,345	614,088	977,042
Indiana.....	38					118	1	116	1	18,350	9,677	36,535	68,413
Iowa.....	43					130		130	.....	25,335	10,833	50,990	98,596
Kansas.....	6					15		15	.....	7,040	2,500	5,465	11,295
Kentucky.....	34					106	3	103	.....	16,975	12,306	72,355	112,900
Louisiana.....	27					72		70	2	11,650	13,470	14,085	47,450
Maine.....	21					75	3	72	.....	11,085	11,710	28,110	56,300
Maryland.....	21					137	8	120	.....	46,875	15,518	97,635	139,090
Massachusetts.....	116					959	62	682	15	190,820	248,268	889,731	1,512,613
Michigan.....	68					210	3	207	.....	46,605	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	5,000	7,000
Missouri.....	157					884	31	793	60	261,050	200,275	634,850	1,080,170
Nebraska.....	20					31	2	29	.....	6,510	3,610	6,450	19,360
New Hampshire.....	12					50	2	48	.....	12,000	8,332	31,500	49,430
New Jersey.....	25					90	1	87	2	7,925	10,392	42,035	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.....	173					1,047	44	967	36	161,407	127,439	407,164	728,663
Oregon.....	15					31		31	.....	6,380	5,650	31,925	50,300
Pennsylvania.....	162					1,049	83	939	27	519,384	244,765	584,336	1,158,237
Rhode Island.....	27					109	9	100	.....	34,700	21,157	49,573	94,425
Tennessee.....	95					249	2	247	.....	46,105	50,090	66,300	202,772
Vermont.....	12					44	1	43	.....	11,350	7,465	30,307	49,817
Virginia.....	51					103	1	99	3	10,240	10,555	64,277	105,737
Wisconsin.....	31					117	4	112	1	21,300	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.

## GENERAL STATISTICS OF MANUFACTURES.

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 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.					
The United States.....	170	4,214	198			1,870	1,834	1	35	6,770,383	1,184,550	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			198,060	23,120	546,171	647,339
Massachusetts.....	8	530	11			155	150	5		466,000	121,940	701,826	1,405,489
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		691,500	109,607	2,236,149	2,702,680
Ohio.....	25	385	24			270	268	2		757,000	157,359	4,496,163	5,388,473
Pennsylvania.....	89	2,341	105			957	932	1	24	4,604,433	638,583	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	123,050	32,850	320,255	432,630

## COFFEE AND SPICES, ROASTED AND GROUND.

The United States.....	156	1,638	117	134	4	1,220	1,054	100	66	3,846,210	870,983	8,171,837	11,966,423
California.....	13	81	7			92	91	1		140,200	44,610	328,665	417,715
Connecticut.....	7	42	4	8	1	27	21	5	1	55,800	12,680	131,850	169,356
District of Columbia.....	1	3	1			5	5			2,000	2,000	36,604	46,736
Illinois.....	7	102	6			69	64	1	4	240,000	42,576	601,475	798,851
Indiana.....	2	32	2			9	7	2		25,000	3,300	84,250	95,940
Iowa.....	1	10	1			3	3			4,000	1,300	9,160	11,500
Maine.....	4	33	4			21	18	3		13,500	8,300	61,850	86,610
Maryland.....	4	40	4			29	29			130,000	10,123	312,570	360,535
Massachusetts.....	19	161	16	10	1	131	106	25		407,500	63,504	418,070	699,483
Michigan.....	4	24	3			25	23			32,000	11,008	181,234	201,545
Missouri.....	5	50	2			50	37	5	8	162,000	31,426	85,750	191,400
New Jersey.....	11	80	7	1		59	52	2	5	920,900	34,096	471,834	501,380
New York.....	29	351	25	115	2	309	270	3	27	1,513,600	211,095	3,105,260	4,700,260
Ohio.....	13	245	10			123	105	13	5	294,700	60,394	571,494	726,877
Oregon.....	3	3	1			6	6			7,300	1,500	18,900	24,900
Pennsylvania.....	26	244	18			217	172	40	5	446,400	96,101	1,327,800	1,646,171
Rhode Island.....	1	20	1			9	8	1		1,800	5,300	42,400	60,000
Tennessee.....	2	37	2			4	4			38,500	3,500	43,700	106,000
Wisconsin.....	4	80	3			32	24		8	92,410	22,140	249,031	325,915

## COFFINS.

The United States.....	642	359	10	183	13	2,365	2,293	42	31	9,592,862	1,011,397	1,412,078	4,096,069
Alabama.....	8					20	20			23,300	13,000	10,095	42,175
California.....	11					34	34			86,250	23,700	42,335	100,332
Connecticut.....	16	9	1	10	1	100	94	1	5	100,400	40,750	67,460	151,295
Delaware.....	11					25	25			20,700	5,000	7,101	24,105
District of Columbia.....	15					42	41		1	43,300	17,567	16,948	58,597
Georgia.....	2					10	10			5,700	6,200	4,050	13,800
Illinois.....	29					70	68	1	1	45,700	16,220	58,587	147,705
Indiana.....	17					42	42			25,000	12,000	11,681	47,370
Iowa.....	8	14	1			20	20			18,900	7,460	11,930	27,470
Kansas.....	4					13	13			6,000	4,000	1,110	8,450
Kentucky.....	21					42	41		1	43,200	10,260	11,783	46,430
Louisiana.....	7					19	19			7,450	6,000	23,075	38,505
Maine.....	18	15	2	25	2	37	36	1		23,025	7,725	22,929	48,635
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			38,600	12,610	19,331	51,150
Minnesota.....	3					4	4			3,000	1,000	600	2,050
Mississippi.....	3					5	5			16,500	3,100	4,635	16,700
Missouri.....	31					84	84			101,050	40,233	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			11,600	3,575	5,681	15,838
New Jersey.....	25					62	60	1	1	57,900	14,875	33,655	80,614
New York.....	104	124	5	76	5	581	555	13	13	749,900	315,060	467,478	1,240,569
North Carolina.....	5					11	11			3,925	2,000	1,302	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			400	398	8	3	500,900	179,214	184,121	653,718
Rhode Island.....	7					23	21	1		23,500	7,060	21,719	51,505
South Carolina.....	1					2	2			500	600	520	1,400
Tennessee.....	8					31	31			28,100	10,540	20,400	58,700
Texas.....	4					5	5			5,300	2,200	4,950	11,300
Vermont.....	7			22	3	15	15			9,100	2,638	2,497	8,850
Virginia.....	20					35	35			28,250	8,665	19,693	49,623
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.	WAGES.	MATERIALS.	PRODUCTS.	
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.	Youth.				
The United States....	33	260	21	118	7	2,064	493	1,448	123	1,650,275	575,000	1,367,513	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	108,050	498,285	907,000
Missouri.....	3	2	1	.....	.....	51	17	21	13	35,000	91,600	68,000	125,500
New York.....	15	90	9	20	1	1,504	302	1,010	102	415,650	387,050	642,875	1,541,800
Ohio.....	1	10	1	.....	.....	10	4	6	.....	3,000	1,500	8,600	11,000
Pennsylvania.....	1	10	1	.....	.....	75	5	70	.....	65,000	28,080	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	1,925	449	4,995,293	2,001,826	8,703,560	15,093,643
Alabama.....	8	.....	.....	.....	.....	14	12	.....	2	11,800	3,420	16,420	28,590
Arkansas.....	3	.....	.....	.....	.....	7	7	.....	.....	2,800	2,150	8,905	8,050
California.....	18	5	1	.....	.....	65	52	6	7	123,500	35,165	136,914	299,612
Colorado.....	1	.....	.....	.....	.....	2	2	.....	.....	1,000	1,200	2,600	4,500
Connecticut.....	13	40	1	.....	.....	111	82	26	3	100,100	51,344	194,368	339,353
Delaware.....	2	.....	.....	.....	.....	22	16	2	4	25,572	6,910	19,185	25,682
District of Columbia.....	20	.....	.....	.....	.....	64	58	2	4	42,950	16,915	60,405	112,641
Georgia.....	10	.....	.....	.....	.....	26	24	1	1	21,950	4,730	37,697	60,132
Illinois.....	24	102	5	.....	.....	402	272	81	109	314,050	161,601	1,355,331	1,945,710
Indiana.....	30	.....	.....	.....	.....	107	91	13	3	59,325	32,250	180,031	29,154
Iowa.....	11	.....	.....	.....	.....	30	25	3	2	24,650	9,024	31,552	56,263
Kansas.....	6	.....	.....	.....	.....	21	20	.....	1	15,200	5,800	17,010	33,410
Kentucky.....	19	.....	.....	.....	.....	96	83	8	5	103,100	32,620	176,411	252,311
Louisiana.....	16	.....	.....	.....	.....	81	78	1	2	34,250	27,124	39,658	95,000
Maine.....	15	.....	.....	.....	.....	102	62	23	17	70,934	27,412	137,355	214,550
Maryland.....	52	2	1	23	3	279	235	37	7	24,585	73,450	475,701	733,331
Massachusetts.....	63	76	6	.....	.....	549	363	181	5	300,745	297,778	873,718	1,065,098
Michigan.....	14	.....	.....	.....	.....	89	72	14	3	57,400	30,794	179,769	261,179
Minnesota.....	4	.....	.....	.....	.....	18	18	.....	.....	14,607	6,634	61,805	80,000
Missouri.....	6	.....	.....	.....	.....	10	6	2	2	7,900	390	3,707	7,715
Nebraska.....	20	35	5	.....	.....	306	205	49	52	290,250	186,800	602,240	1,974,835
Nevada.....	3	.....	.....	.....	.....	5	5	.....	.....	1,900	3,050	23,400	35,500
New Hampshire.....	3	.....	.....	.....	.....	11	11	.....	.....	9,000	8,800	26,100	40,500
New Jersey.....	26	.....	.....	.....	.....	37	25	13	10	23,000	13,200	54,804	85,700
New York.....	157	227	13	.....	.....	1,398	955	385	58	1,377,700	489,514	1,820,988	3,942,391
North Carolina.....	3	.....	.....	.....	.....	5	5	.....	.....	1,000	800	2,785	4,550
Ohio.....	61	15	2	.....	.....	380	237	89	54	300,900	110,799	402,969	752,409
Oregon.....	4	.....	.....	.....	.....	16	16	.....	.....	19,000	6,120	25,045	43,400
Pennsylvania.....	268	41	6	.....	.....	1,137	894	236	77	1,130,903	390,635	1,195,851	2,491,353
Rhode Island.....	12	.....	.....	.....	.....	50	43	14	2	32,300	17,558	56,741	100,149
Tennessee.....	20	4	1	.....	.....	70	66	2	2	48,575	35,005	63,111	113,375
Texas.....	4	.....	.....	.....	.....	23	16	11	4	18,500	7,640	18,560	33,325
Vermont.....	3	.....	.....	.....	.....	15	11	4	2	22,000	6,300	40,120	56,500
Virginia.....	7	.....	.....	.....	.....	23	16	2	4	6,280	6,443	33,999	34,360
West Virginia.....	8	.....	.....	.....	.....	19	19	19	1	10,000	6,250	43,485	71,200
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	9,708,817	7,810,813	12,831,790	20,863,734	
Alabama.....	4	20	1	.....	.....	25	25	.....	.....	19,050	8,820	7,940	20,520	
California.....	51	130	4	90	1	239	253	.....	6	255,425	130,792	185,343	474,411	
Connecticut.....	27	50	2	42	3	150	150	.....	.....	169,297	52,312	66,903	162,198	
Delaware.....	4	.....	.....	.....	.....	9	9	.....	.....	3,700	3,180	1,037	7,013	
District of Columbia.....	6	.....	.....	.....	.....	55	55	9	1	1,275	1,275	1,000	6,150	
Florida.....	9	.....	.....	.....	.....	9	9	9	.....	11,000	9,250	27,925	45,389	
Illinois.....	7	31	1	.....	.....	31	26	5	5	7,400	0,200	1,720	4,550	
Indiana.....	391	93	4	.....	.....	2,037	2,030	2	5	763,637	670,779	1,236,819	3,501,531	
Iowa.....	357	233	10	.....	.....	1,868	1,837	31	31	611,037	584,211	950,743	1,841,878	
Kansas.....	136	21	2	.....	.....	425	423	2	2	192,378	116,812	233,458	452,389	
Kentucky.....	5	.....	.....	.....	.....	10	10	3	100	4,050	3,725	12,673	24,000	
Louisiana.....	59	20	2	.....	.....	383	383	15	125,663	110,379	169,172	463,373	525,395	
Maine.....	217	31	3	85	7	388	386	2	85,865	192,730	73,612	531,963	571,782	
Maryland.....	68	70	2	.....	.....	697	696	1	241,350	132,745	277,878	531,963	571,782	
Massachusetts.....	93	273	11	743	32	745	734	11	290,451	275,217	415,037	871,792	911,731	
Michigan.....	291	144	6	.....	.....	850	836	6	438,475	383,934	434,074	1,142,731	1,142,731	
Minnesota.....	62	63	4	40	1	1,139	1,137	4	4	438,165	325,096	530,746	1,170,768	1,170,768
Mississippi.....	1	.....	.....	.....	.....	1	334	4	126,020	130,137	218,203	457,336	457,336	
Missouri.....	291	183	3	.....	.....	1,536	1,411	4	121	851,430	670,635	1,107,107	2,234,561	2,234,561
Nebraska.....	3	44	2	198	11	4	4	1	1,250	1,900	3,270	11,150	11,150	
New Hampshire.....	48	44	2	198	11	207	206	1	101,060	64,947	80,674	191,000	191,000	
New Jersey.....	37	20	1	.....	.....	238	230	8	104,380	100,705	202,385	403,612	403,612	

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

# GENERAL STATISTICS OF MANUFACTURES.

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

## COOPERAGE—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.				
New York.....	870	505	31	835	47	4,332	4,195	4	133	2,223,366	1,350,083	2,558,020	4,945,434
North Carolina.....	43	30	1	138	129	23	23	9	23,755	23,066	47,960	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	2,250	2,171	1	84	10,505	14,112	14,896	52,752
Pennsylvania.....	474	327	20	148	11	2,260	2,171	1	84	1,084,385	945,437	1,502,537	3,200,470
Rhode Island.....	4	5	—	26	26	—	—	—	—	9,500	9,600	16,380	30,200
South Carolina.....	18	—	—	59	59	—	—	—	—	13,636	13,182	11,901	54,924
Tennessee.....	44	15	1	147	140	—	—	1	—	27,841	42,967	28,031	113,955
Texas.....	4	—	—	6	6	—	—	—	—	1,500	1,100	3,585	16,500
Utah.....	5	—	—	6	6	—	—	—	—	830	130	892	2,900
Vermont.....	59	—	—	474	31	137	136	1	—	87,034	27,525	37,405	104,050
Virginia.....	87	—	—	231	228	—	—	3	—	21,015	35,434	43,951	125,133
Washington.....	16	—	—	58	55	—	—	—	—	8,710	11,250	15,649	38,163
West Virginia.....	101	200	6	—	—	545	545	4	—	125,632	140,243	233,583	488,476
Wisconsin.....	250	70	3	4	1	717	690	—	18	207,040	160,083	291,904	627,190

## GROUP—COPPER, MILLED AND SMELTED, AND WROUGHT.

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

The United States.....	99	4,373	59	849	17	1,901	1,819	5	107	5,506,800	1,123,558	13,291,280	15,706,750
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	130	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	31,862
Maryland.....	9	40	1	150	3	164	150	1	7	851,700	100,250	1,125,366	1,079,125
Massachusetts.....	12	400	6	160	6	204	204	—	—	1,262,250	173,430	1,060,017	1,491,260
Michigan.....	19	2,864	37	—	—	636	542	94	—	1,591,000	350,909	8,490,490	9,260,976
Missouri.....	1	25	1	—	—	128	68	2	58	200,000	100,000	250,000	500,000
New Jersey.....	2	200	2	150	5	47	47	—	—	151,600	37,000	303,000	506,000
New York.....	18	55	3	—	—	174	173	1	—	173,500	70,023	166,717	283,450
North Carolina.....	2	—	—	—	—	6	6	—	—	4,000	1,850	4,305	9,800
Ohio.....	1	—	—	—	—	4	4	—	—	2,500	1,150	32,800	39,650
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	—	—	50	1	16	16	—	—	10,000	13,200	14,086	51,350
Connecticut.....	2	—	—	—	—	50	45	2	3	80,000	33,500	89,610	230,000
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	31,862
Maryland.....	7	—	—	—	—	30	28	2	—	11,700	9,730	20,701	52,625
Massachusetts (a).....	9	19	3	10	1	97	97	—	—	93,500	61,250	94,538	267,350
Missouri.....	1	25	1	—	—	128	68	2	58	200,000	100,000	250,000	500,000
New Jersey.....	1	—	—	—	—	4	4	—	—	1,600	2,000	3,000	6,000
New York.....	18	55	3	—	—	174	173	1	—	173,500	79,023	166,717	283,450
North Carolina.....	2	—	—	—	—	6	6	—	—	4,000	1,850	4,305	9,800
Ohio.....	1	—	—	—	—	4	4	—	—	2,500	1,150	32,800	39,650
Oregon.....	1	—	—	—	—	4	4	—	—	2,000	2,000	500	4,000
Pennsylvania.....	12	20	1	—	—	83	82	1	—	136,950	38,831	91,975	191,525
Tennessee.....	3	—	—	—	—	9	9	—	2	3,300	4,900	5,600	14,500
Wisconsin.....	1	—	—	—	—	10	8	—	2	2,000	1,500	900	5,300

## 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	8,079,392
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.....	8	—	—	82	5	56	27	17	12	38,900	13,700	30,031	55,200
Illinois.....	5	—	—	—	—	18	17	1	—	5,300	1,670	3,358	7,350
Indiana.....	3	50	1	—	—	37	31	5	1	18,300	8,380	8,480	17,880
Iowa.....	1	—	—	—	—	2	1	1	—	200	—	320	688
Kansas.....	1	—	—	—	—	3	3	—	—	600	300	300	1,200
Kentucky.....	9	20	2	—	—	120	69	3	46	80,100	32,105	96,468	178,182
Louisiana.....	2	—	—	—	—	4	3	—	1	3,000	500	823	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.

## GENERAL STATISTICS OF MANUFACTURES.

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. Dollars.	WAGES. Dollars.	MATERIALS. Dollars.	PRODUCTS. Dollars.	
		Horse-power.	Number.	Horse-power.	Number.	All.	Males above 16.	Females above 15.					
Massachusetts . . . . .	32	1,069	10	208	9	988	643	231	114	666,900	395,273	1,901,410	2,880,948
Michigan . . . . .	4					12	10	2	5,700	2,500	9,223	14,609	
Minnesota . . . . .	1					2	1	1	200		500	1,569	
Missouri . . . . .	17					145	101	44	87,780	57,480	164,360	272,400	
New Hampshire . . . . .	1					8	5	3	3,000	2,481	3,373	7,000	
New Jersey . . . . .	12	110	3	62	3	376	173	121	89	434,850	99,039	646,473	872,544
New York . . . . .	45	441	6	135	7	1,006	369	273	320	812,450	289,420	818,669	1,553,339
Ohio . . . . .	18	18	2	22	1	245	104	22	59	109,186	75,701	147,000	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	3		1,200	900	1,210	2,035	
Tennessee . . . . .	2					5	5		2,120	720	2,440	6,200	
Texas . . . . .	1	25	1			19	5	2	12	24,000	1,000	7,950	15,000
Virginia . . . . .	1					4	2	1	1	500	1,200	500	2,225
West Virginia . . . . .	1					3	1		650	150	773	1,333	
Wisconsin . . . . .	5					15	10		9,150	2,110	8,170	13,050	

## CORDIALS AND SIRUPS.

The United States . . . . .	33	27	4			258	185	51	22	527,100	118,847	505,398	955,271
California . . . . .	1					2	2			1,000	180	1,342	2,500
Connecticut . . . . .	2					4	4			1,300	500	2,730	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			29,200	6,300	15,574	27,998
Massachusetts . . . . .	3					29	17	12		103,000	27,100	87,192	219,000
Missouri . . . . .	1	5	1			13	11			4,500	9,000	6,000	21,000
New Jersey . . . . .	1					2	2			100	200	800	
New York . . . . .	11					86	62	11	13	310,700	30,825	167,210	287,150
North Carolina . . . . .	1	10	1			4	4			600	562	880	1,500
Ohio . . . . .	2					3	3			900	700	7,020	13,300
Pennsylvania . . . . .	2					7	5	2		4,000	2,200	4,600	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	37,260,856	106,307,902	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	4,100	13,760	22,563
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	280	215	1,165,000	190,069	704,733	1,060,898
Georgia . . . . .	25	240	3	2,515	50	2,570	1,089	961	520	3,064,050	572,825	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	60	2	504	119	179	206	551,500	113,200	543,875	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	57,051	375,048	498,960
Louisiana . . . . .	3	195	3			186	93	37	56	482,000	48,200	136,085	184,350
Maine . . . . .	20	320	2	7,908	83	9,370	2,564	6,223	572	9,769,085	2,550,597	6,671,280	11,739,781
Maryland . . . . .	22	1,510	5	1,001	21	2,800	688	1,452	720	2,734,250	671,933	3,409,426	4,832,808
Massachusetts . . . . .	160	10,705	99	30,398	203	41,455	12,886	23,213	5,356	42,153,175	12,914,023	35,477,617	56,285,550
Mississippi . . . . .	5	270	3	96	3	265	78	88	99	751,500	61,233	123,568	234,445
Missouri . . . . .	3	375	3			361	107	154	100	450,200	120,300	481,745	798,050
New Hampshire . . . . .	35	915	7	17,767	94	12,541	3,751	7,490	1,300	13,331,710	3,089,853	12,316,447	16,999,073
New Jersey . . . . .	14	1,175	10	840	13	2,949	773	986	400	1,550,000	620,171	2,326,167	
New York . . . . .	67	4,833	35	5,079	78	8,909	2,514	4,430	1,965	8,203,236	2,560,731	6,711,378	10,740,961
North Carolina . . . . .	28	80	2	1,430	29	1,351	232	850	269	968,500	173,367	917,970	1,280,035
Ohio . . . . .	4	165	2	51	2	303	156	55	92	924,500	62,120	220,650	332,300
Pennsylvania . . . . .	121	7,089	106	1,686	33	12,981	3,720	5,965	2,587	11,040,141	3,386,248	10,021,161	16,626,101
Rhode Island . . . . .	140	7,337	71	10,732	166	16,872	5,688	8,034	3,150	18,843,300	5,928,650	13,072,303	
South Carolina . . . . .	12			935	14	1,123	289	508	326	1,337,000	257,620	761,469	1,520,937
Tennessee . . . . .	25	470	9	627	18	838	223	440	166	932,650	168,856	570,779	906,370
Texas . . . . .	4	268	4			201	184	52	55	406,000	68,211	216,519	374,598
Utah . . . . .	3			30	3	16	10	2	4	42,000	6,300	7,051	16,803
Vermont . . . . .	8	50	1	600	12	451	125	242	84	670,000	125,000	292,269	546,510
Virginia . . . . .	11	210	2	750	19	1,741	921	507	313	1,192,000	220,750	937,820	1,435,800

## COTTON BATTING AND WADDING.

The United States . . . . .	27	240	14	161	11	244	159	31	54	270,800	78,876	533,451	720,117
Illinois . . . . .	3	47	3			39	16	3	20	30,000	8,000	50,525	97,000
Maine . . . . .	1					3	1			2,000	600	4,500	5,000
Massachusetts . . . . .	7	90	3	120	7	125	84	25	16	90,500	47,928	302,585	384,030
New Hampshire . . . . .	1			10		1	1			1,000		4,300	4,000
New Jersey . . . . .	1	6	1			5	4	1		4,000	2,000	8,774	13,540
New York . . . . .	2			9		3	2			1,100	300	6,400	8,500
Ohio . . . . .	2	80	2			29	22			101,200	11,400	112,094	149,285
Pennsylvania . . . . .	10	17	5	92	4	39	20	2	8	33,000	9,348	42,153	61,562

[\*] CORK-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.