
APPENDICES

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APPENDIX A.—SCHEDULES.

The information contained in the statistics of manufactures for 1909 was collected by means of a general schedule, which was used in every manufacturing establishment, and certain supplementary schedules. The general schedule is here reproduced.

In addition to the general schedule there was a special schedule entitled "Administrative and general office schedule." This schedule was used generally in cases where companies controlled a number of factories from a central office and did not make a distribution of the general expenses of such office among the separate reports for the different plants. This schedule, which was used for reporting the capital of the company as a whole, the employees at the central office, their salaries and wages, and the miscellaneous expenses, is here reproduced.

Other supplemental schedules were used for particular industries and were designed to develop statistics peculiar to the different industries to which they relate, such as the quantities and values of materials and products, and in some cases data with regard to the mechanical equipment of the plant. These special schedules are very numerous and for lack of space can not be reproduced in full. The supplemental schedule used in the cotton manufactures is, however, given for the purpose of illustrating the general character of these supplemental schedules.

Following is a list of the industries and products for which supplemental schedules were used, the character of the schedule being in each case similar to that for cotton, but the contents varying to suit the conditions peculiar to each industry.

Agricultural implements. Automobiles. Beet-sugar factories. Bicycles and motorcycles. Boots and shoes. Brick, tile, terra cotta, fire-clay products, and pottery. Butter, cheese, and condensed-milk factories. Cane-sugar mills. Canning and preserving, fish and oysters. Canning and preserving, fruits and vegetables. Carriages and wagons. Cars, steam and street railroad. Cement. Chemical manufactures. Coke. Copper smelters. Copper refineries. Cotton manufactures. Cottonseed-oil mills.	Dyestuffs and extracts. Electrical machinery and apparatus. Essential-oil factories. Explosives. Fertilizers. Flax, hemp, and jute manufactures. Flour and grist mills. Gas, manufactured. Glass works. Hosiery and knit goods. Ice, manufactured. Iron and steel, blast furnaces. Lead smelters. Lead refineries. Leather gloves and mittens. Leather, tanned and curried. Lime. Lumber and timber products. Metal-working machinery. Oilcloth, linoleum, and artificial leather. Paints and varnishes. Paper and pulp mills.	Petroleum, refining. Phonographs and graphophones. Pianos and organs. Printing and publishing and the periodical press. Railroad repair shops. Rice, cleaning and polishing. Salt works. Shipbuilding. Silk manufactures. Slaughterhouses (hides and skins). Slaughtering and meat packing. Soap. Starch and glucose factories. Steel works and rolling mills. Sulphuric, nitric, and mixed acids. Tin-plate and terneplate works. Turpentine and rosin. Wire. Wood distillation. Wool manufactures. Zinc smelters.
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SCHEDULES.

GENERAL SCHEDULE.

1. DESCRIPTION OF ESTABLISHMENT If the information given on this schedule embraces more than one factory, mill, or plant, give the name and location of each under "Remarks" on the last page.

Name of establishment.....

Name of owner.....

Location of establishment. (State..... County.....
 City or town..... Street and No.....

Is establishment located within the corporate limits of the city or town?.....

Post-office address of general office.....

Period covered by this report: From....., 19....., to....., 19.....

Character of organization.....

The answer should relate to the last day of the period covered by the report and should be one of the following: *Individual, general partnership, limited partnership, incorporated company, cooperative association, or other.*

Number of proprietors and partnership members, if a nonincorporated organization.....

Give number of members on last day of period covered by this report. If partnership, give both active and silent partners. If cooperative society, give number of members of society. Men..... Women.....

Number of stockholders, if an incorporated organization.....

Give number of stockholders on the last day of the period covered by this report.

Character of industry.....

Specify the kind of goods manufactured and kind of work done in general order of their importance. The name of the general class of articles manufactured is not sufficiently definite. If establishment as reported on this schedule embraces more than one factory, mill, or plant engaged in different lines of work, state that fact. Return with the schedule a card, catalogue, or other printed matter describing the business.

WASHINGTON, D. C., January 5, 1910.

The census of manufactures is taken in conformity with the requirements of the act of Congress approved July 2, 1909. Reports are required on this schedule for all establishments that were in operation during any portion of the year ending December 31, 1909, but the statistics may pertain to the business year which most nearly conforms to the calendar year. The law makes it obligatory upon every manufacturer to furnish census data.

All answers will be held absolutely confidential. No publication will be made in the census reports disclosing the name or operations of individual establishments in any particular. The act of Congress provides that the Bureau of the Census shall not permit any other than the sworn employees of the bureau to examine the individual reports. It also provides that any employee who shall, without the authority of the Director of the Census, publish or communicate any information coming into his

APPENDIX A—MANUFACTURES.

possession, shall be guilty of a misdemeanor, and upon conviction be fined not to exceed \$1,000, or be imprisoned not to exceed two years, or both, in the discretion of the court.

Amounts and values are to be obtained from book accounts, if such accounts are available. Each question should be answered. If any question is found not applicable and no amounts are reported, write the word "None." Do not duplicate any item of expense.

E. DANA DURAND,
Director of the Census.

2. TIME IN OPERATION AND HOURS WORKED:

Number of days in operation during the year

Give the number of days the plant, or any part of it, was in operation during the year. Days when the establishment was shut down for repairs, or for other causes, and there was no production should not be included. Do not include Sundays and holidays, unless plant was in actual operation.

Number of hours normally worked by wage earners: (a) Per shift

Give the prevailing practice followed during the year, without attempting to indicate variations from this practice. All that it is desired to know is the practice generally prevailing in respect to the hours of labor of employees.

3. CAPITAL INVESTED: AMOUNT OF CAPITAL INVESTED—OWNED AND BORROWED. The answer should show the total amount of capital, both owned and borrowed, on the last day of the business year reported. All the items of fixed and live capital may be taken at the amounts carried on the books. If land or buildings are rented, that fact should be stated and no value given. If a part of the land or buildings is owned, the remainder being rented, that fact should be so stated and only the value of the owned property given. Do not include securities and loans representing investments in other enterprises.

Land, buildings, machinery, and tools	\$
Materials, stocks in process, finished products, fuel, and miscellaneous supplies	\$
Cash, plus trading and operating accounts and bills receivable	\$
Total	\$

4. SALARIED EMPLOYEES: NUMBER, DECEMBER 15, 1909, AS PER PAY ROLL. If data are not obtainable for that day or month, give the data for nearest representative or normal day, and state day and month here

	Men.	Women.
Salaried officers of corporations		
Superintendents and managers		
Clerks, stenographers, salesmen, and other salaried employees		
Total		

5. WAGE EARNERS, INCLUDING PIECEWORKERS: NUMBER, DECEMBER 15, 1909, AS PER PAY ROLL. If data are not obtainable for that day or month, give data for same day as for Inquiry 4. Include overseers and foremen receiving wages and performing work similar to men over whom they have charge; those whose duties are wholly supervisory should be reported under second item of Inquiry 4.

	Men.	Women.
16 years of age and over		
Under 16 years of age		
Total		

6. WAGE EARNERS, INCLUDING PIECEWORKERS: NUMBER, AS PER PAY ROLLS OR TIME RECORDS ON FIFTEENTH DAY OF EACH MONTH OF THE PERIOD COVERED BY THIS REPORT. If data are not obtainable for that day, give data for nearest representative day.

MONTH.	Num-ber.	MONTH.	Num-ber.	MONTH.	Num-ber.	MONTH.	Num-ber.
January		April		July		October	
February		May		August		November	
March		June		September		December	

7. SALARY AND WAGE PAYMENTS: TOTAL AMOUNTS PAID IN SALARIES AND WAGES DURING THE YEAR COVERED BY THIS REPORT. Do not include amount paid for contract work, if not done by the regular employees, as the amount paid for such work should be reported under Inquiry 9.

Salaried officers of corporations	\$
Superintendents and managers	\$
Clerks, stenographers, salesmen, and other salaried employees	\$
Wage earners, including pieceworkers	\$
See note to Inquiry 5 as to overseers and foremen.	
Total	\$

8. MATERIALS, MILL SUPPLIES, AND FUEL: TOTAL COST OF ALL USED DURING THE YEAR COVERED BY THIS REPORT. This inquiry relates to all materials and mill supplies of every description, whether raw or partly manufactured, or whether entering into the product, used as containers, or consumed in the process of manufacture, and all fuel whether used for heat or power or in process of manufacture, as in making coke, gas, or pig iron. The data should embrace the cost only of these articles that were actually used during the year covered by the report. Materials produced by the establishment itself and used by it for further manufacture should not be included. If freight paid on materials is kept in a separate account, enter in the proper line below; otherwise include the cost in answers to the first two items.

Total cost of all materials (other than fuel) and mill supplies used during the year	\$
Cost of fuel and rent of power	\$
Amount paid, if any, for freight on above which has not already been included	\$

Total cost of materials, mill supplies, and fuel, and freight on same

Give names of principal materials used

9. MISCELLANEOUS EXPENSES: AMOUNT PAID DURING THE YEAR FOR THE FOLLOWING ITEMS. This should include all items of expense incident to the year's business not accounted for under Inquiries 7 and 8. It should not include interest, whether on bonds or otherwise, or dividends on stock, or allowances for depreciation.

Rent of factory or works	\$
Taxes: (a) Internal revenue (Federal)	\$
(b) Other	\$

Rent of offices and buildings, other than factory or works, rent of machinery, royalties, use of patents, insurance, ordinary repairs of buildings and machinery, advertising, traveling expenses, and all other sundry expenses

Contract work, not included in answer to Inquiry 7

Total

10. PRODUCTS: VALUE OF PRODUCTS AND WORK PERFORMED DURING THE YEAR. Give the selling value or price at the factory or works, and account for all products manufactured during the year (whether sold or not), including by-products. The principal products should be enumerated separately and the total value given for each, which value should include that of the containers, if sold with the goods. Under "All other products, including amounts received for custom work and repairing," should be reported the total value of all products, other than those for which separate values are given, together with amounts received for custom work and repairing and work done on materials furnished by others.

.....	\$
.....	\$
All other products (including amounts received for custom work and repairing)	\$
Total value of all products	\$

11. POWER: MECHANICAL POWER EMPLOYED FOR MANUFACTURING PURPOSES. Give all mechanical power employed, either owned or rented, including the number and horsepower of all engines, motors, water wheels, etc., used for manufacturing purposes.

CLASS.	Number.	Total horsepower.
a. Power owned:		
Engines—		
Steam		
Gas (include all internal-combustion engines)		
Water wheels (irrespective of ownership of water power)		
Water motors (irrespective of ownership of water supply)		
Other power (specify kind)		
Total		
Electric motors (run by current generated by establishment reporting)		
b. Power rented from other establishments—		
Electric motors (include motors owned by the establishment but operated by rented power)		
Other power (specify kind)		

Name of stream or lake from which water is obtained to generate power, whether direct or electric. (Give answer regardless of question whether power is owned or rented from others.)

Name and address of establishment supplying rented power:

12. FUEL USED: QUANTITY OF EACH KIND USED FOR ALL PURPOSES.

	Unit of measure.	Quantity.
Coal, anthracite ¹	Ton	
Coal, bituminous ¹	Ton	
Coke ¹	Ton	
Wood	Cord	
Oil	Gallon	
Gas	1,000 ft.	
Other (state kind)		

¹ State whether tons reported are "long" or "short" tons.

13. REMARKS:

CERTIFICATE: This is to certify that the information contained in this schedule and in the supplemental schedule, if any, is complete and correct to the best of my knowledge and belief.

(Signature of special agent or enumerator.)

(Signature of person furnishing the information.)

(Title and address.)

ADMINISTRATIVE AND GENERAL OFFICES, 1909.

SUPPLEMENTAL SCHEDULE.

Name of company or owner.....

General office: State..... City or town..... Street and No.....

(The statement relative to confidential treatment of information furnished in the General Schedules applies equally to information furnished in this schedule.)

When two or more manufacturing plants, mines, quarries, or reduction works are operated from a central office, the capital, employees, and expenses of such office which can not be assigned to any of the plants should be reported on this schedule. No data reported in this schedule should be included in the reports for the different plants, for which separate reports are to be made.

1. CAPITAL INVESTED: Amount of capital invested—owned and borrowed. The answer should show the total amount of capital, both owned and borrowed, on the last day of the business year reported. All the items of fixed and live capital may be taken at the amounts carried on the books. If lands or buildings are rented, that fact should be stated and no value given. If a part of the land or buildings is owned, the remainder being rented, that fact should be so stated and only the value of the owned property given. Do not include securities and loans representing investments in other enterprises.

Land, buildings, machinery, and tools..... \$.....

Materials, stocks in process, finished products, fuel, and miscellaneous supplies..... \$.....

Cash, plus trading and operating accounts and bills receivable..... \$.....

Total..... \$.....

2. SALARIED EMPLOYEES AND WAGE EARNERS: Number, December 15, 1909, as per pay roll. Account for all persons not included in the separate reports for the individual plants. If data are not obtainable for the day or month mentioned, give the data for the nearest representative or normal day, and state day and month here:

Men. Women.

Salaried officers of corporations.....

Superintendents, managers, engineers, and other technical experts.....

Clerks, stenographers, salesmen, and other salaried employees.....

Total.....

Other employees, janitors, etc.....

3. SALARY AND WAGE PAYMENTS: Total amounts paid in salaries and wages during the period covered by this report. Classification should conform to Inquiry 2. Do not include amount paid for contract work, if not done by the regular employees, as the amount paid for such work should be reported under Inquiry 4.

Salaried officers of corporations..... \$.....

Superintendents, managers, engineers, and other technical experts..... \$.....

Clerks, stenographers, salesmen, and other salaried employees..... \$.....

Other employees, janitors, etc..... \$.....

Total..... \$.....

4. MISCELLANEOUS EXPENSES: All items of general expenses not accounted for under Inquiry 3, or included in the separate reports for the individual plants, must be reported here. It should not include interest, whether on bonds or otherwise, or dividends on stock, or allowances for depreciation.

Taxes..... { a. Internal revenue (Federal)..... \$.....
b. Other..... \$.....

Amount paid for rent of offices and buildings, rent of machinery, royalties, use of patents, insurance, advertising, office supplies, law expenses, injuries and damages, telegraph and telephone service, gas, and all other sundries not reported elsewhere..... \$.....

Contract work not included in answer to Inquiry 3..... \$.....

Total..... \$.....

5. NAME AND LOCATION OF THE MANUFACTURING PLANTS, MINES, QUARRIES, OR REDUCTION WORKS CONTROLLED FROM THE OFFICE REPRESENTED BY THIS REPORT: If there is not sufficient space here, give information on additional sheets and attach.

NAME.	LOCATION.

CERTIFICATE: This is to certify that the information contained in this schedule is complete and correct to the best of my knowledge and belief.

(Signature of person furnishing information.)

(Signature of special agent or enumerator.)

(Title and address.)

COTTON MANUFACTURES, 1909.

SUPPLEMENTAL SCHEDULE.

Name of establishment.....

Name of owner.....

Location of mill. { State..... County.....
Post office..... Street and No.....

(The statement relative to confidential treatment of information furnished in the General Schedule applies equally to information furnished in this schedule.)

1. MATERIALS USED: Give the quantity and cost of the principal materials used during the year, as indicated. Do not duplicate materials by including materials manufactured by this establishment during the year and used by it in the manufacture of products reported in answer to Inquiry 4.

The total cost of all materials, including fuel, mill supplies, freight, etc., should appear only in the General Schedule.

KIND.	Quantity (net pounds).	Cost.
Cotton, domestic..... No. of bales.....		\$.....
Cotton, Egyptian or other foreign..... No. of bales.....		\$.....
Dyed, bleached, and other treated cotton, not made in this establishment.....		\$.....
Raw silk.....		\$.....
Cotton yarn, not made in this establishment.....		\$.....
Other fibers (state kind):.....		\$.....
Silk yarn, not made in this establishment.....		\$.....
Spun silk yarn, not made in this establishment.....		\$.....
Other yarns, not made in this establishment (state kind):.....		\$.....
Cotton waste, not made in this establishment.....		\$.....
Starch.....		\$.....
Chemicals and dyestuffs.....		\$.....

2. MACHINERY USED:

KIND.	Number.		KIND.	Number.
	Mule.	Frame.		
Spindles which have consumed some cotton during the year.....			Looms on plain cloths:	
			Less than 28 inches wide.....	
Spindles which have consumed no cotton during the year.....			From 28 to 32 inches wide.....	
			From 32 to 36 inches wide (inclusive).....	
Total.....			More than 36 inches wide.....	
			Looms—On twills, including sateen.....	
Twisting and doubling spindles.....			On fancy weaves.....	
Spindles consuming fibers other than cotton.....			On tapes and other narrow goods.....	
			On bags and other special fabrics.....	

APPENDIX A—MANUFACTURES.

3. YARN PRODUCED, whether for sale or for use in this establishment (pounds):
 Number 20 and under; Numbers 21 to 40; Numbers 41 to 60;
 Numbers 61 to 80; Number 81 and over

4. PRODUCTS: Give the quantity and selling value or price at the mill and account
 for all products and by-products manufactured during the year for sale (whether
 sold or not).

The total value of products in this schedule must agree with the total in the General
 Schedule.

KIND.	Unit of measure.	Quantity.	Value or price at mill.
Plain cloths for printing or converting:			
Not finer than No. 28 warp.....	Square yards..		\$.....
Finer than No. 28 warp.....	Square yards..		\$.....
Brown or bleached sheetings and shirt- ings.	Square yards..		\$.....
Twills and sateens.....	Square yards..		\$.....
Fancy woven fabrics.....	Square yards..		\$.....
Ginghams.....	Square yards..		\$.....
Duck:			
Sail.....	Square yards..		\$.....
Other.....	Square yards..		\$.....
Drills.....	Square yards..		\$.....
Ticks, denims, and stripes.....	Square yards..		\$.....
Cottonades.....	Square yards..		\$.....
Napped fabrics.....	Square yards..		\$.....
Corduroy, cotton velvet, and plush.....	Square yards..		\$.....
Mosquito and other netting.....	Square yards..		\$.....
Upholstery goods:			
Tapestries (piece goods and curtains).	Square yards..		\$.....
Chenille curtains.....	Square yards..		\$.....
Lace and lace curtains.....	Square yards..		\$.....
Other, including covers.....	Square yards..		\$.....
Bags and bagging.....	Square yards..		\$.....
Cotton towels and toweling.....	Square yards..		\$.....

KIND.	Unit of measure.	Quantity.	Value or price at mill.
Tape and webbing.....	Pounds.....		\$.....
Yarns manufactured for sale.....	Pounds.....		\$.....
Thread.....	Pounds.....		\$.....
Dyed, bleached, or other prepared cotton (state kind).	Pounds.....		\$.....
Twine.....	Pounds.....		\$.....
Cordage and rope manufactured for sale..	Pounds.....		\$.....
Batting and wadding.....	Pounds.....		\$.....
Cotton waste not used for further manu- facture.	Pounds.....		\$.....
Other cotton products (state kind).....			\$.....
All other products.....			\$.....
Total.....			\$.....

5. SPINNERS AND WEAVERS: Of the number of wage earners reported in answer
 to Inquiry 5 of the General Schedule for this establishment, state as nearly as pos-
 sible the number who were spinners or weavers (estimate will be accepted).

CLASS.	MEN.		WOMEN.		CLASS.	MEN.		WOMEN.	
	16 years and over.	Un- der 16 years.	16 years and over.	Un- der 16 years.		16 years and over.	Un- der 16 years.	16 years and over.	Un- der 16 years.
Spinners, mule..					Weavers.....				
Spinners, frame..									

6. Do you bleach, dye, or print your own goods? Do you bleach, dye,
 or print for others? Do you do custom spinning or weaving?

APPENDIX B.—INSTRUCTIONS TO SPECIAL AGENTS.

The following instructions to special agents and clerks employed in taking the census of manufactures and mines and quarries are hereby approved. The canvass will be made under the supervision of the chief statistician for manufactures, and all special agents and clerks engaged in field work must follow the instructions of that official.

There is but a limited time in which to complete this work, and it is essential that all employees exert themselves to the utmost. Those who do good work will be reassigned to other districts and retained in the service until the work is finished.

DAILY REPORTS AND CORRESPONDENCE.

1. **Daily reports.**—All special agents must make daily work reports (Form 8-185c) for every day they are actually employed and for which compensation is claimed, including Sundays, whether work or travel is actually performed on Sunday or not. The daily reports of the agents working under the supervision of chief special agents, together with all schedules taken daily, as herein provided, must be forwarded at the close of the day to the chief special agent in charge of the state, city, or district. Chief special agents must make weekly reports by letter, showing the progress of the work, and must forward daily by registered mail all schedules and daily reports received from the assistant agents. The daily reports and schedules secured by agents who do not work under the direction of a chief special agent must be forwarded daily to the Bureau of the Census.

2. **Registered mail.**—All schedules must be forwarded by registered mail in the return penalty envelope furnished for that purpose.

3. **Requests for supplies.**—Letters relative to the progress of the work and requests for supplies, instructions, etc., must be addressed to the Director of the Census, Washington, D. C. Inquiries or requisitions of any character must not be made upon the daily report, but should be made in a separate letter.

4. **Date of completing work.**—All special agents must give sufficient notice of the date they will complete the work to which they are assigned, so that they may be assigned to other territory without loss of time.

LISTS AND CANVASS OF ESTABLISHMENTS.

5. **Index cards.**—To assist in the canvass of establishments, each special agent will be furnished with index cards containing the names and addresses of establishments located in his district. These cards will be arranged by localities and as nearly as possible in the order in which the special agent will visit the establishments with the least expenditure of time. When it is found necessary to change the prescribed route to save time, or for other reasons, the office must be notified by letter. The special agents who do not work under the supervision of a chief special agent will be furnished a typewritten list of the cards so that they can keep a record of the disposition of each card. This list must be returned to the office upon the completion of the canvass in each district.

6. **Unlisted establishments.**—Although the list so furnished has been made as complete as possible, it has not been practicable to secure absolute accuracy and completeness, and special agents must be constantly on the alert to discover establishments not named on the cards. They will be held strictly accountable for a complete canvass of the district to which they are assigned. They must make careful inquiry at each estab-

lishment for other manufactories located in that vicinity; and in rural districts they should be on the lookout for establishments in adjoining towns for which they have no cards. Where additional establishments are found, returns must be obtained for them, and in all such cases the entry "No index card for this establishment" must be made on the bottom of the title-page of the schedule.

7. **Cards for nonmanufacturing establishments.**—On the other hand, it is possible that some establishments for which index cards are furnished the agent may be found to be engaged in industries (see pars. 23 to 32) which are to be omitted from the census of manufactures. In such cases a notation must be made on the card and daily report stating the reasons why the report was not secured. It is not sufficient to state: "Not a manufacturing establishment." The character of the business must be briefly and accurately described by such a notation as the following: "Retail confectioner," "Restaurant," "Caterer," "Carpenter shop," "Custom gristmill at remote point" (see par. 32), "Dyeing and cleaning wearing apparel," "Drug store," "Product less than \$500," etc.

8. **Return of cards.**—Special agents in every instance will be held to a strict accountability for all index cards assigned them. A return must be secured from each establishment or a satisfactory explanation given on the back of the card, such as mentioned in paragraph 7, if the establishment is not a manufacturing establishment, or such as: "General office located at _____, where information must be secured;" or "Establishment removed to _____" (giving date of removal and stating whether manufacturing was done at the place of canvass during the year 1909).

Each index card is numbered and the same number is on the typewritten list of establishments. This number must in all cases be written in the upper right-hand corner of the schedule and the left-hand margin of the daily report.

Each card must be returned either attached to the appropriate schedule or with such an explanation as above indicated. For certain large cities, where there is a chief special agent, the cards should be retained by him until the completion of the canvass.

9. **Change in name of establishment.**—If a change has been made in the name or location of the factory since the index card was prepared, or if a report is secured for an establishment under a different name from that appearing on the card, the card must be changed to agree with the new conditions and the daily report must state this change. No erasures, however, are to be made on the index card.

10. **Establishments having office outside district.**—The office has endeavored to ascertain the name and location of all factories for which the census reports will be made from a central office. The cards for such factories are stamped "Central office." The special agents must visit these plants and ascertain definitely whether the census report will or will not be made at the central office. If it will be made at the central office, the agent will take no further action in regard to it, unless the "Central office" also is in his district, but report the fact on his daily report as indicated above. In some cases where plants are controlled from a central office the Bureau of the Census has been advised that the census report will be made at the plant. In such cases the card has been stamped "information at the plant," and the agent will be expected to obtain from the plant all information required to complete the report. In case the special agent discovers an establishment in his district for which the reports must be secured elsewhere, and which has not been indicated on the index card as a "Cen-

tral office" as above indicated, the facts must be reported on the index card and on the daily report and the card must be returned. It is important that the *precise* address (street number or room in office building) of such office be stated. If, in such cases, answers to any of the inquiries can be obtained at the factory canvassed, they should be obtained and the partially prepared schedule forwarded with full explanation. These facts should also be reported to the office and to the agent in charge of the city where the report is to be secured by the use of postal cards, Form 8-1619 or 8-1616. The agent will then take no further action with regard to securing the report unless he receives further instructions.

11. **Factories outside agent's district.**—Reports must not be secured from the office of any establishment having no factory within the limits of the district being canvassed unless the index card states that the report must be secured at the office or special instructions are received. In the absence of such instructions it may be assumed that the establishment will make report to the agent for the place where the factory is located.

12. **Additional factories of same owner.**—It will frequently be found that the individual or company reporting to the agent operates also a factory, or factories, outside of the agent's district. Where it is found that reports for such a factory can be secured only at the office the agent is visiting, he should obtain the report and call attention to it on his daily work report, so that proper notice may be given to the agent in the district where the factory is located. Each report of a factory outside the district of the agent must be taken under the local name of such factory and show its location by state, city, or town, etc. The correct location of the factory is of vital importance and must be carefully reported. If, on the other hand, the reports for these outside factories must be secured at the factories themselves, a slip should be attached to the report secured for the local factory, giving the location of each of the outside factories, and the name and the place where the information can be obtained.

13. **Idle establishments.**—All establishments that commenced operations or did any work during the census year ending December 31, 1909, must be reported, whether they were in operation at the time of canvass or at the end of the year 1909 or not. No report should be secured for establishments which were closed or idle during the whole of the census year nor for abandoned or dismantled establishments.

METHOD OF SECURING SCHEDULES.

14. **Mailing of schedules to manufacturers.**—A few days prior to the day when a given concern is to be canvassed the chief special agent (or the local special agent not working under a chief special agent) should mail to the owner a copy of the General Schedule, with the appropriate supplemental schedule if one is required, together with a request (on a form to be furnished by the Census Bureau) that it be filled out for the special agent on his arrival. The envelopes inclosing the schedules and letter from the director will be addressed and arranged in packages corresponding with the arrangement of the index cards. The agents can then mail them as the canvass progresses, so that they will be received by the manufacturer a few days before he calls.

15. **Forwarding of schedules by manufacturers.**—In some cases the manufacturer may (although manufacturers are requested not to do so) have already forwarded his schedule to Washington before the agent arrives. If the agent is satisfied that the schedule has been sent by mail, and if the manufacturer declines to make a duplicate report, he must immediately notify the office by the use of postal card Form 8-1617, enter the fact on his daily report, and make the following entry on the index card: "Report sent by mail." In some cases the replies to the preliminary circular may be confused with the schedule. The agent must be certain that this is not the case before concluding that the report has been mailed. The agent should not accept a promise that the schedule will be sent to him or to Washington later, but should secure it in person.

16. **Schedules previously prepared by manufacturers.**—In case the manufacturer has already filled the schedule when the agent arrives, the agent should question him as to the source and accuracy of the information and should explain the meaning of any question concerning which the manufacturer is in doubt, and generally assure himself that the schedule has been filled out properly.

If a manufacturer insists upon sending his report to the Census Bureau by mail and not give it to the special agent, the agent should see that the schedule is properly prepared, furnish an addressed official envelope, and, if possible, see that the package is deposited in the mail. He must also give the name of the establishment on his daily report, with the statement that the schedule had been sent by mail.

17. **Promptness of agents.**—In many cases the schedule will not be ready when the agent arrives. In that event he should proceed to get the information immediately. The agent should, in every case, secure the schedule on his first visit, or in the case of large or complex establishments requiring more than one visit, should at least begin the actual work of compiling the data on his first visit. For a large majority of establishments the report can be prepared from information obtained from a short conversation. The making of future appointments for the preparation of the report should be avoided, as such appointments are very apt to lead to further delay.

It is not necessary that the agent shall enter into profuse explanations or give time to anything beyond the necessary work of interrogation. He should be prompt and decisive in announcing his object and making his inquiries, but in so doing he should be careful not to arouse antagonism or give offense.

18. **Answers to inquiries to be taken from books of accounts and records.**—The information secured must be accurate. In drafting the schedule every effort has been made to frame the inquiries in such a form that the answers to them can generally be taken directly from the books of accounts and the records of the establishment canvassed. The agent may find a disposition on the part of persons furnishing the information to give general statements or estimates, claiming that they approximate very closely the exact figures. In no case should these general statements or estimates be accepted where it is possible to secure the answers directly from the books of accounts and records. The fact that the consultation of such books and records may involve a greater expenditure of time and trouble is no justification for failure to secure the exact answers in such manner.

In the case of pay rolls and time records it will doubtless be necessary in many cases for the agent to perform the required work in person.

19. **Erroneous statements.**—The special agent must not accept answers which he knows, or has reason to believe, are false. He has a right to a true statement on every matter respecting which he is bound to inquire. In most cases if his informant gives him a round number (e. g., 6,000 or 200,000) it is likely to be only an estimate, and should not be accepted if more precise data can be secured. If any person should persist in making statements which are obviously erroneous, the special agent should enter upon the schedule the facts as nearly as he can ascertain them by his own observation or by inquiry of creditable persons and state how the information was secured. Chief special agents will when necessary take up such particular cases in person.

20. **Compulsory feature of census.**—It will generally be found that the person called upon will give the information without objection or delay. Special agents are therefore cautioned not to obtrude unnecessarily the compulsory feature of the law. Only where the information required by law is positively refused need the penalties of noncompliance be referred to. The special agent will then quietly but firmly point out the consequences of persistent refusal, quoting, if necessary, the provision of the law.

21. **Information confidential.**—Special agents are prohibited by law from delegating to any other person their authority to enter establishments and collect information.

Attention is called to the penal provisions in the census act, one of which provides that information gained by a special agent or by any other employee in the performance of his duties must not be disclosed to any person not authorized to receive the same, under a penalty of \$1,000 and imprisonment for two years.

If manufacturers or others furnishing data object to a supposed disclosure of the secrets of their business, the special agent should assure them that the results of their individual business will not be made public and should call attention to the statement to that effect on the title-page of the schedule and to the provisions of the law. The agent may also explain that the information will not be used for the purposes of taxation, nor in any manner to identify the operations of the individual establishments, and will not be disclosed to any other bureau of the Federal Government. The intent of the law, which will be strictly carried out, is to prevent the disclosure of information which might operate to the detriment in any way of the person or establishment supplying the same.

WHAT CONSTITUTES A FACTORY—ESTABLISHMENTS NOT TO BE CANVASSED.

22. **Census confined to factories.**—The census is confined to manufacturing establishments conducted under the factory system as distinguished from the neighborhood, hand, and building industries. No precise definition of a factory for census purposes can be given, but the following instructions relative to the omission of certain classes of establishments will show the general line of division. In cases where there is reasonable doubt as to whether an establishment should be taken or omitted, a report should be secured and explanation made under "Remarks" on the last page of the schedule of the reasons why it should or should not be classed as a factory.

23. **Very small establishments.**—Do not report very small establishments having an annual product of less than \$500. This does not apply to establishments idle during a portion of the year or new establishments started during the year, and which for that reason did not have a product in excess of that amount, but are capable of producing an annual product of \$500 or more, nor does it apply to mines and quarries.

24. **Building trades.**—Establishments engaged in the various building industries must not be reported. This applies particularly to the following:

- Architects.
- Bridge building.
- Building and construction work.
- Carpenter shops and contracting carpenters.
- Electric wiring and construction work.
- Excavating, well digging, etc.
- Masonry, brick and stone builders and contractors.
- Moving and raising buildings.
- Painting—house, sign, theatrical scenes, etc.
- Paper hanging.
- Paving and the laying of artificial stone, concrete, etc.
- Plastering and stuccowork.
- Plumbing, gas fitting, steam fitting, etc.
- Roofing, laying of roofing of any character.
- Railroad construction.
- Stage carpentering.

Establishments engaged in manufacturing supplies used in building should, however, be included—for example, planing mills making supplies for carpenters; brick manufacturers; cutting of marble and stone, whether at quarries or separate establishments; manufacturers of paving materials, paints, plumbing supplies, electrical apparatus and appliances; shops where roofing, cornices, etc., are manufactured; coppersmithing and sheet-iron work establishments, should be reported. If the building materials are manufactured by an establishment which is also engaged in the construction of buildings, bridges, etc., the report should relate only to the manufacturing part of the business.

25. **Custom work on wearing apparel.**—Establishments doing strictly *custom work*, i. e., work to the order of the individual buyer *on wearing apparel* of all sorts, should not be reported. This applies to the following classes of establishments, among others:

- Boot and shoe custom and repair shops.
- Custom tailoring shops.
- Dressmaking.
- Dyeing and cleaning establishments.
- Fur stores making and repairing garments for individual customers.
- Millinery establishments.

Establishments engaged in manufacturing the same classes of articles for the general trade should be reported—for example, boot and shoe factories; establishments manufacturing ready-made clothing, whether for men or women; establishments manufacturing fur goods for the trade; and establishments manufacturing millinery goods for the trade, should be reported. Contract clothing manufacturers who manufacture garments from materials furnished by others must be reported. Dye works, bleacheries, and print works engaged in dyeing, bleaching, or refinishing fabrics and the products of textile mills must be reported.

The phrase "the general trade," as used in these instructions, means those who again sell the goods, whether at wholesale or at retail, as distinguished from the individual customer buying goods to special order for his own use.

26. **Retail stores.**—Retail stores which incidentally manufacture small quantities of goods which they sell must not be reported. This applies to the following classes of establishments, among others:

- Confectionery stores.
- Drug stores.
- Furniture stores.
- Hair-work stores.
- Hairdressing establishments, etc.
- Jewelry stores.
- Opticians.

Establishments making these same articles for the general trade must be reported.—In particular, some retail jewelers, druggists, and opticians also are large manufacturers of the goods which they retail or sell to other dealers, and should be reported.

27. **Miscellaneous hand trades.**—The small hand trades, engaged chiefly in repair work or work to the individual order, should not be included. This applies, among others, to the following:

- Awning and tent makers.
- Bicycle repairing.
- Blacksmith and wheelwright shops.
- Hand-engraving and diesinking shops.
- Harness shops.
- Locksmith and gunsmith shops.
- Photography.
- Picture framing.
- Furniture-repairing and upholstery shops.
- Rag carpets, not made in factories.
- Sewing-machine repair shops.
- Taxidermists.
- Typewriter repairing.
- Tin shops.
- Undertakers.

Establishments engaged in these same industries, which manufacture goods for general trade, must be included.—Thus, awnings made for the trade should be reported, also boiler works and foundry and machine shops must be reported, also establishments where five or more vehicles were made during the year, harness and saddlery factories making goods for the general trade, manufacturers of looking-glass and picture frames for the general trade, and tin shops where goods are made in considerable quantities. When engraving and diesinking are done by lithographing or printing establishments, this work must be included in their total business; diesinking shops using machinery must be reported.

28. **Special omitted industries.**—The following industries, although sometimes referred to as manufacturing industries, are not so considered by the Census Bureau, and no reports must be secured for them:

Cotton cleaning and rehandling.
Cotton compressing.
Cotton ginning.
Dentistry.
Dressing, packing, and shipping of poultry.
Electric light and power stations.
Fisheries.
Florists and floral designs.
Hay and straw baling.
Ice harvesting.
Junk shops.
Kindling wood.
Map mounting.
Packing and shipping of fruits and vegetables.
Professional services.
Rectifying and blending of liquors.
Retail butchers.
Salting hides.
Tobacco stemming and rehandling.

In addition to the industries indicated above for which reports should not be secured, attention is called to the following, which likewise should not be reported:

Bottling should not be reported unless it is done by establishments in which the spirituous or malt liquors, mineral waters, soda waters, sirups, tinctures, beverages, etc., are manufactured. In such cases the report should cover both the manufacture and bottling operations of the entire establishment.

Dairies should not be reported, although they may manufacture some butter or cheese from surplus milk and cream. Cheese and butter factories operated as such, however, must be reported, although they may sell some milk and cream.

Manufacture of ice cream must not be reported. The reason for this omission is that, as a rule, the industry is carried on in connection with the general confectionery business, and if reports were secured from the few establishments that make a specialty of the manufacture of ice cream the statistics would have no significance.

Manufacturing carried on in educational, eleemosynary, and penal institutions must not be reported. If, however, a private manufacturing concern has all or a portion of its work done by convict labor, a report must be secured and the amount paid for such labor reported as an expenditure for contract work.

29. **Distinction between farm and factory products.**—The manufacture of butter, cheese, cider, vinegar, wine, and other products may be carried on either upon farms or in factories. In the former case the products will be classed as agricultural and no report is required, but in the latter they will be classed with those reported under the head of manufactures. Returns will accordingly be made upon the manufacturing schedule of all factories engaged in the manufacture of these and similar products. *Factories canning fruits and vegetables, etc., for the trade must be reported, even though carried on in connection with a farm.*

30. **Sugar, molasses, sirup, sorghum.**—Where mills exist on farms for the manufacture of sugar, molasses, sirup, or sorghum such mills will not be deemed to be "factories" if they confine their operations to the treatment of cane grown on the farm on which they are located, and no schedule for manufactures should be obtained for them. If, however, a mill, whether located on a farm or not, treats cane grown on farms other than the one on which it is located it should be treated as a factory and a schedule obtained for it.

31. **Reason for omitting establishments specified.**—The object of the omission from the census of the classes of establishments indicated by the foregoing lists is to confine the census as far as possible to an enumeration of the factory industries. In many instances the same industry is carried on in large and small establishments, and, except as stated in paragraph 23, no distinction is made in the size of the establishment to be reported. It is in cases

where the manufacture is incidental to a mercantile business that the agents are most often called upon to exercise discretion in regard to securing the report. The sale of the product is incidental to all manufacturing, but the sale of products bought from others is mercantile business and is not to be included except under very special conditions. (See par. 45.)

32. **Small custom mills.**—Flour, feed, and grist mills and sawmills, whether they be custom mills grinding or sawing for toll or purely local custom or merchant mills selling their product in general trade, must be reported. In some cases, however, small custom gristmills or sawmills may be located in remote places where there are no other industries. If the agent is reliably informed that such a mill is a small one and is engaged wholly or principally in custom work, and if he finds that it would require more than a day to visit the point and secure the report, and that there are no other industries in the neighborhood, he should not canvass the establishment. He should, however, ascertain by inquiries the probable output of the mill and make a memorandum thereof on the index card, returning the card to the chief special agent or to the Census Bureau, with a notation explaining why the mill was not canvassed. Upon receipt of this card the office will endeavor to secure the report by correspondence. Such uncanvassed establishments for which no index card has been furnished to the agent should be covered by his daily work report.

33. **Lumber industry special schedule.**—In reporting establishments engaged in the manufacture of lumber or other products from logs or bolts, or those engaged in getting out saw logs or other timber products, the special schedule for "Lumber and timber products" should be used instead of the regular General Schedule. On this special schedule the general and supplemental inquiries have been combined.

34. **Pulp wood.**—Timber camps engaged wholly or chiefly in preparing wood for consumption in the manufacture of paper pulp must be reported on the general schedule of manufactures only.

35. **Turpentine industry.**—The operation of stills for the production of turpentine and naval stores is frequently associated with the operation of a turpentine forest, and in such cases a combined report for the entire business should be made unless the books permit an accurate separation of the two branches.

36. **Annual reports of forest products.**—The Bureau of the Census collects annual statistics concerning lumber, lath, shingles, cross-ties, telegraph and telephone poles, pulp wood, tan bark, cooperage stock, manufacture of veneer, and the consumption of wood in wood distillation. These statistics are reported on small card schedules collected by mail, and some of the establishments may claim that they have made the census report, having in mind this card report. In such cases the matter should be explained and reports secured on the regular census blanks. Inquiry should also be made for the card schedule for 1909, and if it has not been returned the agent should secure it and inclose it with the other schedules, making proper notation in his daily report.

37. **Printing and publishing establishments.**—Printing and publishing establishments, whether engaged in printing alone, publishing alone, or both of these lines of work, and all book-binding establishments, must be reported. The solicitation of contracts for printing when no work is done in the preparation of the manuscript, printing, binding, and circulation, etc., however, must not be reported.

38. **Steam laundries.**—All *steam* laundries, except those operated in connection with hotels or institutions, must be reported on the General Schedule. Make only one entry for value of products, which should be amount received for work done.

WHAT CONSTITUTES AN ESTABLISHMENT—DIVIDED ESTABLISHMENTS.

39. **Definition of establishment.**—The term "establishment," as a unit of enumeration for this census, is deemed to be one or more factories, mills, or plants owned or controlled by one individual, partnership, corporation, or other owner, located in the same town or city, and for which one set of books of account is kept.

40. **Separate sets of books.**—When the owner operates two or more plants in the same town or city, and maintains separate sets of books for each, they should be treated as separate establishments, but if one set of books only is kept they should be treated as one establishment.

41. **Separation of localities.**—It is necessary, however, to publish separate statistics for the different states and for all cities with a population of 8,000 and over. Therefore, when the same owner operates two or more plants in different states or cities or operates one plant in a city and another outside of that city, *only one set of books being kept for all the plants*, one report must be prepared covering the entire establishment, and also additional reports covering the plant or plants in each state or city. All estimates necessary to make the complete reports for the separate plants must be carefully prepared in consultation with the person who furnishes the information and marked "Estimate."

42. **Separation of industries.**—It is also necessary to publish separately the statistics for the different industries as defined by the Census Bureau. Therefore, when two or more distinct industries, such as those indicated by the supplemental schedules, are carried on under the same ownership with only a single set of books, one report must be prepared covering the entire establishment, and additional separate reports for the different industries must be prepared in the same way as described in the preceding paragraph.

43. **Reports for same ownership.**—All reports for plants conducted under the same ownership, whether covered by a single set of books or by separate sets of books, must be fastened together and proper notation made of the fact in the daily report of the special agent.

44. **Establishments engaged in manufacturing and also in other business.**—A considerable number of establishments will be found which are engaged in manufacturing, and at the same time in some other nonmanufacturing branch of business or industry, with only a single set of books covering the combined business. In those cases where the other branches of business are incidental to the manufacturing business, or are insignificant in importance, the schedule should cover the entire business. In other cases where the other business is of importance the agent should prepare a schedule covering the manufacturing, following the instructions in paragraph 42.

The following cases will illustrate such combinations of manufacturing with other industries:

- Coal mining and the manufacture of coke.
- Mining of iron ore and the manufacture of pig iron.
- Cultivation of vegetables and fruits and canning of the same.
- Catching of fish and oysters and canning of the same.

In these and similar cases a separate report for the manufacturing business must be carefully prepared, all estimates marked "Estimate," and the basis of the estimates described under "Remarks" or on a separate sheet. The value of materials produced by the establishment itself and used in its manufacturing may be taken either at the cost of production, including freight charges to point of consumption, or at the market value at the point of consumption, but preferably at the market value.

45. **Combined manufacturing and mercantile business.**—Some establishments are engaged both in manufacturing and in mercantile business; that is, they not merely sell their own products, but also buy the finished products of others for sale. As already stated in paragraphs 26 and 31, where the manufacturing is insignificant in quantity and merely incidental to the mercantile business, no schedule should be secured. On the other hand, where the mercantile business is insignificant and merely incidental to the manufacturing, a single report should be secured covering the entire business, and no attempt should be made to separate the items as between the two branches of the business, but the facts should be noted on the schedule. In such cases finished products bought for sale should be reported as materials and the sales thereof as manufactured product of the establishment. In some instances factories of considerable size are conducted in connection with large

mercantile establishments, such as department stores. Such factories must be reported, although all of the product may be disposed of in the store, which is operated under the same ownership.

PREPARATION OF THE GENERAL SCHEDULE.

46. **General schedule required for each establishment.**—A General Schedule must be prepared for each establishment reported except sawmills (see par. 33) and, in addition, such special supplemental schedule or schedules as may apply to the industry, if any.

47. **Instructions to be strictly followed.**—The instructions printed on these schedules must be strictly followed by the agent. In a few industries instructions regarding certain points in the General Schedule are stated in the supplemental schedule. The instructions set forth below are additional to those there given and in no way modify them.

INQUIRY 1.—DESCRIPTION OF ESTABLISHMENT.

48. **Name of establishment.**—As separate reports are to be obtained for different establishments when conducted under the same ownership, the name of the establishment should be given as well as that of the owner.

49. **Name of owner.**—The answer desired is the name of the person, partnership, corporation, etc., operating the establishment, whether such operator owns the plant or merely leases it.

50. **Location of establishment.**—The exact location of the plant or plants covered by the report must be shown by the answers to this inquiry, and to the one "*Is establishment located within the corporate limits of the city or town?*" Precise information relative to these points must be given in order that the statistics of manufactures may be presented by cities or other civil divisions. When the establishment is on the boundary line, or part of the plant is located in one civil division and part in another, or there are any other complications, full information on this subject must be given under "Remarks."

51. **Post-office address of the general office.**—For the majority of the establishments this will be the same as the *Location of the establishment*, but in many cases they are different and inquiry should be made to develop this fact.

52. **Period covered by this report.**—Wherever possible the report should cover a period of twelve months, whether the establishment was in active operation during the whole of such period or not, and the answer to this question should show the whole period covered. In case, however, the establishment has been in active operation only a small portion of the twelve months, as often happens in seasonal industries such as canning, etc., that fact should be stated under "Remarks." In the case of establishments beginning operations for the first time during the year it will not be possible, however, to make the report cover the whole of the year. In such cases the answer to this question should show the period actually covered, and the fact should be noted under "Remarks" that the data relate to an establishment which began operations during the year.

It will be found that the ownership of some of the establishments canvassed has changed hands during the year. If the present proprietor can furnish data for the entire period they should be obtained from him, and the report should thus cover the combined operations of the establishment during the year while under the management of his predecessor as well as under his own management. If this can not be done the former proprietor should be located and the report for the other portion of the year obtained from him. If this is impracticable the present owner should be asked to give such information as he possesses regarding the general character and volume of business under the former owner, and the facts should be reported by the agent on a sheet attached to the schedule covering the present ownership.

The period covered, where possible, should be that of the year ending December 31, 1909. In the majority of cases the data can be secured for this year, for the business year of most estab-

lishments will correspond to the calendar year. Where, however, the business year of the establishment does not correspond to the calendar year, the data may be secured for such completed business year as corresponds most nearly to the calendar year 1909.

53. **Character of organization.**—This must be stated as one of the five kinds named in the schedule, or, if it is some other form, such other form must be definitely described.

54. **Number of proprietors and partnership members.**—The answer must show the number of individual proprietors and the number of members of all forms of ownership except incorporated companies.

55. **Number of stockholders, if an incorporated organization.**—If the number of stockholders on the last day of the period covered by the report can not be obtained, secure number on nearest day to such date, and give date to which the number relates in parentheses after the number of stockholders.

56. **Character of industry.**—As the statistics of manufactures will be presented by kinds and by classes of industries, it is essential that this inquiry be answered in such a way that the precise character of the work performed by each establishment can be clearly determined. In those cases where the establishment covers more than one distinct kind of manufacturing operations or products, or is engaged in any nonmanufacturing work, such as transportation, mining, etc., especial care should be exercised to show in the answer to this inquiry all the lines of work engaged in or all the products made. If necessary, additional information may be given under "Remarks." In all cases the particular articles produced should be named in the order of their importance; for example, "cigars, cigarettes, smoking and chewing tobacco" or "pig iron, billets, bars and wire." A general description, such as "tobacco factory" or "iron and steel," is not sufficiently specific. For the manufacture of clothing, neckwear, handkerchiefs, etc., state definitely whether "men's," "women's," or "children's."

INQUIRY 2.—TIME IN OPERATION AND HOURS WORKED.

57. **Days in operation during the year.**—The answer to this inquiry should show the entire number of days the establishment or any portion of it was in actual operation, whether working full time, part time, or overtime—that is, if the establishment was operated on a given day for 1 hour, 8 hours, or by two or more shifts for the entire 24 hours, the answer would be the same, namely, *1 day*. The full possible working time of an establishment, operating continuously, except on Sundays and holidays, is about 307 days, depending on the number of holidays.

58. **Number of hours normally worked by wage earners.**—"Per shift" refers to the number of hours worked by each set of wage earners, not the total number of hours worked per day, when two or more sets of workmen were employed. The number of hours worked "per week" is called for in order that the practice of the establishment relative to the working of only half a day or any other fraction of a day on Saturdays or under other circumstances may be brought out.

INQUIRY 3.—CAPITAL INVESTED.

59. **Capital invested: Amount of capital invested—owned and borrowed.**—The purpose of this inquiry is to determine the value of property employed by the establishment for the purposes of its productive operation, but not including rented property. Therefore both capital owned by the operator and capital borrowed by him is to be included; in other words, no deduction is to be made from the value of the assets by reason of liabilities for money due others.

The sum of the answers to the three items should show the total amount of capital invested by the operator of the establishment. The answer to item 3 should therefore include everything in the way of capital invested not included in answers to items 1 and 2. "Trading and operating accounts" refers to open accounts receivable.

60. **Depreciation.**—If the books of the establishment show specifically an item of depreciation charged against land, buildings,

machinery, and tools, deduction of such depreciation should be made and the net value resulting after such deduction be given. If, however, the books are not kept so as to show clearly this item of depreciation, then this item should be disregarded and no deduction be made.

61. **Patent rights and good will** must not be considered as a part of the capital, except in so far as the value of these items may be included in other items as carried on the books of the establishment. If the books of the establishment, however, in any way segregate or report separately the value of such patent rights and good will, such value must not be included in any of the answers called for by Inquiry 3, but should be reported separately under "Remarks."

62. **Separation of manufacturing from other investments.**—In case manufacturing is carried on in connection with some other business, such as mining, the operation of an electric station or a railroad, and where only one set of books is kept for the entire business, the instructions in paragraph 44 should be followed. In case, as will sometimes happen, there are separate accounts showing the operation of different branches of the business, but only one account of the capital invested, the total investment for the combined business should be given in the schedule according to the books, and the proportion represented by the manufacturing business should be stated in the margin as nearly as it can be estimated, either in the form of a percentage of the total or in an estimated amount in dollars.

INQUIRIES 4 AND 5.—SALARIED EMPLOYEES—WAGE EARNERS, INCLUDING PIECEWORKERS.

63. **Purpose of inquiries—Selection of date.**—The purpose of these inquiries is to determine the number of persons employed on a given date by the manufacturing establishments of the country. So far as practicable, such data should relate to December 15, 1909. Cases will occur, however, where the information for this date can not or should not be obtained, due either to the fact that the establishment was not in operation on that date, that the book or time records for that date are not obtainable, or that at that time the number of employees was *very much* below the number to whom the establishment normally gives employment. In all such cases the records for the day nearest such date for which data can be obtained that are representative of the normal condition of the establishment as regards employment of labor should be taken. In the case of seasonal industries it may be necessary to secure data for a date several months removed from December 15. In those cases, where a date other than December 15, 1909, has to be selected, the tendency or inclination of the officers of the establishment furnishing the information will be to refer you to a day of maximum employment. This should be guarded against and a day of normal or average employment selected.

64. **Total number employed on a given day, not total number whose names appear on a given pay roll, desired.**—Note carefully that what is desired is the total number employed on a given day. This will in most cases be a number somewhat, and in certain cases considerably, smaller than the number of names appearing on the pay rolls consulted, owing to the fact that during the period covered by the pay rolls all will not be continuously employed, a considerable number working only certain of the days and others working on other days. Probably in the majority of cases the pay rolls and time records are kept in such a way that it is possible to get the record for a particular day, in which case the record for such a single day should be taken. In case this can not be done, the total number on the pay roll should be counted and noted on the margin, and a careful estimate of the average number employed during the period covered by the pay roll should be inserted in the blank spaces in the schedule.

65. **When estimates may be accepted.**—In case pay rolls or other records are not available for any normal or representative day, a careful estimate must be taken in substitution for data from records, and the fact that the data are based on such an estimate should be stated on the margin of the schedule.

In the case of establishments employing on an average not to exceed 25 persons, it is desirable but not imperative to consult the pay rolls or books to secure answers to these inquiries.

66. **Segregation according to sex and age periods.**—In all cases the total number of salaried employees and wage earners should be determined before the attempt is made to segregate them according to sex and age period. In the majority of cases the records of the establishment will not show this segregation, and it will have to be made by means of a careful estimate by the officers, superintendents, foremen, or others who have personal knowledge or charge of the labor force. Great care should be exercised by the agent in seeing that this segregation is made by the person or persons most competent to do so and that it is carefully done.

67. **Officers of corporations who receive no salaries, and directors who receive only a fee for attending meetings, must not be reported.** All salaried officials, such as the president, vice president, secretary, and treasurer, who devote all or a considerable proportion of their time to the business, must be included.

68. **Classification of foremen and overseers.**—The three sub-inquiries of Inquiry 4 are intended to embrace all salaried, clerical, and supervisory employees as distinguished from wage earners. In some industries it is difficult to preserve this distinction, especially as to foremen and overseers. Foremen and overseers who have charge of a few workmen, but with little additional responsibility or pay, and who at the same time perform work similar to that of other wage earners, are not to be included as salaried employees; to come within the scope of Inquiry 4 they must devote the whole or the greater part of their time to supervision.

69. **Traveling salesmen.**—If the manufacturing department of an establishment turns over its product to a separate selling department at a given value or price, and if this factory value is reported in answer to Inquiry 10, instead of the selling value to the public, the traveling and other salesmen would be employed by the selling department, hence their number, salaries, and traveling expenses should not be reported in this schedule. In case the selling value of the product is reported in answer to Inquiry 10, the salesmen of the establishment are to be reported in Inquiry 4 and their salaries in Inquiry 7, and the traveling expenses and other expenses of selling must be included in the miscellaneous expenses reported in answer to Inquiry 9.

70. **Wage earners employed indirectly.**—Employees of independent contractors.—In some establishments wage earners who actually work for the establishment may not appear upon its pay rolls, being indirectly employed through superintendents, heads of departments, foremen, and the like. Careful inquiry must be made to ascertain such conditions, and the number of persons so employed must be estimated as nearly as possible, and the basis of the estimate noted on the schedule.

On the other hand, answers to this inquiry should not include the employees of independent contractors having separate establishments, who perform work under contract for the establishment reporting. If such contractors are engaged in manufacturing, they should be reported in a separate schedule which will account for their employees.

71. **Convicts employed under contract, piece price, or other system must not be included in reply to Inquiries 5, 6, or 7.**

INQUIRY 6.—WAGE EARNERS EACH MONTH.

72. **Number on 15th day of month.**—All of the instructions for Inquiries 4 and 5, except those pertaining to the segregation of employees and wage earners by sex and age periods, apply to this inquiry. Make entries for all months covered by the report. Take the 15th day of each month unless it falls on a Sunday or unless the pay roll for that day is lost. If the establishment was shut down on the 15th of the month, select a day nearest to that day for which a satisfactory record can be obtained and give the date selected.

INQUIRY 7.—SALARY AND WAGE PAYMENTS.

73. **Number employed.**—The instructions under Inquiries 4, 5, and 6 should be borne in mind in connection with Inquiry 7.

74. **Be careful to report separately the amount paid the four classes of employees named.** The total must be the entire amount paid as salaries and wages during the period covered by the report.

75. **Payments to contractors not to be included.**—Do not include amounts paid for contract work done by independent contractors, by persons working at their homes on materials furnished by the establishment, or by convict labor, but report such amounts in answer to Inquiry 9.

76. **Board and rent when furnished as part compensation of employees should not be included as wages, but the expenses incurred by the establishment in furnishing the same should be included with other miscellaneous expenses in Inquiry 9, and the fact that employees, or part of them, receive board or rent free should be noted at the bottom of page 2 of the schedule.**

77. **Commissions paid to traveling salesmen, bonuses, or percentages of profits paid to officers, superintendents, foremen, or wage earners should be included in the amount of salaries or wages.** This does not, of course, include dividends paid on stock in a corporation which officers, employees, or wage earners may hold.

INQUIRY 8.—MATERIALS, MILL SUPPLIES, AND FUEL.

78. **Definition of materials.**—The answer to this inquiry should give the cost of all materials and mill supplies of every description, whether raw or partly manufactured, and whether entering into the product, used as containers, or consumed in the process of manufacture.

79. **Materials used during year desired, not those purchased.**—Note especially that what is desired is the cost of the materials, mill supplies, and fuel used during the year, not the cost of those purchased during the year, which may be an entirely different thing. If the books do not show directly the cost of the materials consumed during the year, it should be computed by adding to the amount paid for materials purchased during the year any decrease in the inventory of materials on hand at the end of the year as compared with the beginning, or by deducting the increase in such inventory.

If the books of the establishment do not show the values of these articles on hand at the beginning and end of the year, but do show the cost of all these articles purchased or acquired during the year, and it is reasonably certain that there is no substantial difference between the values on hand at the beginning and at the end of the year, the figures showing the cost of these articles acquired during the year may be used in answer to this inquiry.

The first method, however, should be employed whenever possible. If the latter method is used, the fact should be stated on the margin of the schedule.

80. **Materials furnished by same establishment.**—Materials and mill supplies produced by the establishment itself during the year covered by the report and used by it in its further operations should not be duplicated by being again reported in its new form as material, since the cost of their production is included as labor or miscellaneous expenses under Inquiries 7 and 9. An illustration of this may be found in the manufacture of textiles, where yarn may be shown as material, but should not embrace any that was made during the year by the establishment reporting.

If the establishment produces certain materials both for its own use and for sale, that part used should not be included for the reason just given, but that part produced for sale should be included as a product in answer to Inquiry 10.

Where materials are obtained from another plant operated under the same ownership and for which a separate schedule is required, they should be reported as products in answer to Inquiry 10 on the schedule relating to the establishment producing them, and as materials in answer to Inquiry 8 on the schedule relating to the establishment acquiring them, and the value assigned them should be their cost to such establishment as shown on its books. If, however, no charge is made on the books, an estimate of the market value of the material at the works consuming it should be made and indicated as an estimate. For example, a concern may own a wood-pulp mill in one state and a paper mill in another state, using the pulp from the pulp mill. If the paper mill is charged

for the pulp, either at cost or at a market value or an arbitrary value, the figure actually charged should be used; otherwise the estimated market value of the pulp delivered at the paper mill.

In all cases of such transfer of the product from one establishment to another establishment under the same ownership or general management, and where the two are not treated by their owners or operators as independent establishments, with independent operating accounts, give, under the head of "Remarks," such information regarding the legal and working arrangements of the two establishments, and particularly the financial system followed in the utilization by one establishment of the products of another related one, as will enable the office to determine the nature of this relationship and assure itself that the method followed in filling the schedule for one of the establishments harmonizes with that followed in filling the schedule for the other, as this latter schedule may be secured by a different agent.

81. **Cost of fuel and rent of power.**—Include here all fuel used, whether for heat, light, or power, or for the process of manufacture itself, as in the case of coal used in gas plants. There are some establishments which use coal for producing coke or gas which they subsequently burn, and which may have records of the quantity and value of coke or gas consumed, as well as of the coal. In such cases report only the value of the coal consumed. (See instructions for Inquiry 12, par. 103.)

82. **Freight on materials.**—In many cases the cost of the materials will include the freight. If this is not the case, the total amount paid for freight on materials should be given in answer to this inquiry. Do not here include freight on finished products.

83. **Names of principal materials used.**—Name the materials as nearly as possible in the order of their importance as elements of cost. Specific information is required, as it will be of assistance in the classification of the establishment. For example, "chemicals" should not be reported as materials for a chemical establishment, but the names of the different ingredients consumed should be given in answer to this inquiry. The character of the materials should be consistent with the products reported in answer to Inquiry 10.

INQUIRY 9.—MISCELLANEOUS EXPENSES.

84. **Rent.**—If the general office, or other office buildings, are rented and are located elsewhere than at the factory, and the factory or part of it is also rented, the total rent being carried as one item on the books, the amount of rent chargeable to each service should be ascertained and entered separately in reply to the first and third subquestions of the inquiry, respectively. In case a rented factory has an office as part of the premises, report the entire rent under the first subdivision.

85. **Taxes.**—Internal revenue is a Federal tax and will be reported for comparatively few industries, such as the manufacture of cigars and tobacco, liquors, and oleomargarine. If the value of the product reported in answer to Inquiry 10 includes the amount of internal revenue, write the words "included in value of product," or if not so included, write "not included in value of product."

Other taxes must include all state, county, or city taxes, licenses, etc.

86. **Other miscellaneous expenses.**—The answer to the third item of this inquiry should include all expenses, *other than interest, dividends, and depreciation* that are incident to the business during the year. "Ordinary repairs of buildings and machinery" covers expense for such emergencies as repairing a leaky roof, a broken chimney, a break in the water pipes, repairing or putting in a new door or window, putting up temporary partitions, repairing or replacing broken or worn-out machinery, etc., but it does not include the erection of new buildings or other permanent additions to the plant, which must be included as capital.

87. **Contract work.**—The answer to this inquiry must include only the expenditures for work on the product reported in answer to Inquiry 10, and done by or under the supervision of contractors or by persons working at their homes independently of the regular employees; it must not include any part of the amount reported under salaries or wages, Inquiry 7. (See also pars. 70 and 75.)

INQUIRY 10.—PRODUCTS.

88. **Intermediate products not desired—Stocks in process.**—The product of any establishment, from the census standpoint, is the finished product in its condition as prepared for sale. The value of intermediate products is not to be stated in reply to this inquiry (except in the case of those establishments which keep an accurate account of the value of stocks *in process of manufacture*, and which should report the increase in that value at the end of the year, as compared with the beginning of the year, as part of the value of the product of the year or deduct the decrease in such stocks from the product of the year). For instance, a cotton or woolen mill may spin the yarn from which its goods are made, and in this case the manufacture of the yarn would be only an intermediate process in the manufacture of cloth, and the value of the yarn produced during the year would not show separately in this report. Should part of the yarn spun be sold as yarn it becomes a true product.

89. **Production, not sales, desired.**—This inquiry calls for the value of the products *made* during the year, *not* the value of the sales. In many establishments the sales during the year may be considerably greater or considerably less than the product of the year. Where the manufacturer has not already records showing directly the product of the year, but has records showing the sales, the product for the year can be ascertained by adding to the sales the increase in the stock of finished goods (or stocks in process of manufacture) on hand at the end of the year as compared with the beginning of the year, or by deducting from the sales the decrease in such stocks. In other words, the sales account and the inventory together must be consulted in order to obtain the product of the year.

90. **Selling value desired.**—The value of the product desired is not the cost of manufacturing it, but the selling value or price at the factory, which includes the profit of the manufacturer.

91. **Exclusion of freight.**—The value desired is the value at the works. In many cases manufacturers sell all or part of their goods delivered at distant points and themselves pay the freight. In such cases the freight charges should, if possible, be deducted from the gross receipts from sales, and should not be reported under "Miscellaneous expenses."

92. **Deduction of discounts.**—Manufacturers frequently allow discounts from their gross selling prices. In such cases the net value obtained by deducting the discounts should be secured, if possible, and not the gross selling price.

93. **Selling departments.**—In some cases establishments turn over their product from the manufacturing department to a selling department at a given value. This factory value may be taken as the value of the product rather than the final amount realized by the selling department. In case the value reported represents the price finally received for the goods from the public, all selling expenses, advertising, salesmen's salaries and commissions, etc., should be included in Inquiry 7 or Inquiry 9, but in case the value given is the factory value at which the product is turned over to the selling department, such selling expenses should not be reported in this schedule.

94. **Exceptions in certain industries.**—The above general rules regarding the basis for the value of products are subject to some slight modification in a few industries, as indicated by the supplemental schedule for those industries, and before reporting the value of the products on the General Schedule the supplemental schedule, if one is used for the industry, should be consulted. In railroad repair shops, for instance, the work is not, as a rule, performed for others, nor is the product sold to others, but is for the use and benefit of the company itself. In such case the value of the product will represent simply the amount of expenditure for labor, materials, and miscellaneous expenses.

95. **Itemization of products.**—Space is left on the General Schedule for an enumeration of some of the important items comprising the total product. The total product should in all cases be taken from bookkeeping records, but the records will not always show the value of the separate items of product. In such cases careful estimates for the principal items will be accepted, but the fact that

they are estimates should be noted on the schedule, and the sum of the items must correspond to the total. It is not necessary to give a large number of minor items.

96. **Quantities.**—Quantities of output are not desired in the General Schedule except for the following industries, where they must be reported:

- Manufacture of cigars (number of thousands).
- Distilled spirits (number of gallons).
- Malt liquors (number of barrels).

97. **Custom and job work.**—Under "All other products" report the amount received, or the charges, for custom work, repairing, and job work of all kinds, but not including contract work on materials furnished by other manufacturing establishments. (See par. 87.)

98. **Contract work for others.**—Many establishments do work for other establishments which furnish the whole or part of the materials used. The amount received for such contract work should always be shown upon a separate line under "Products" as "Contract work for other manufacturing establishments." Work done under contract, where the person for whom the work is done does not furnish any part of the material, should not be reported as "Contract work," but included in the regular product of the establishment.

99. **Expenses exceeding value of product.**—It will sometimes happen that the sum of the totals of Inquiries 7, 8, and 9 is in excess of the value of the product reported for Inquiry 10, indicating a loss. In such cases the agent should call the attention of the person furnishing the information to the fact, which may be due to error. If there is an error, it should be corrected. If, however, the figures are correct, the word "Correct" should be written under the total value of product and a memorandum made explaining the conditions which caused the loss.

INQUIRY 11.—POWER.

100. **Power owned.**—Where electric motors are not owned but are operated by electricity generated by the establishment, they should be included under "Power owned."

101. **Power rented.**—Subdivision (b) must show all power used by the establishment reporting which comes from some *outside* source.

INQUIRY 12.—FUEL USED.

102. **Cost of fuel.**—The total cost of all fuel used must be reported in answer to Inquiry 8. The cost includes amounts paid for power, heat, and light, and therefore may have no relation to the quantities reported under Inquiry 12. Separate totals must be given for each variety of fuel. The quantity of gas reported must include both natural and manufactured, the kind of gas used being stated.

103. **Coke and gas made by establishment.**—Some establishments make coke or gas and use it in its further manufacturing processes. In such cases report the total quantity of coal used, whether to make gas or coke or otherwise, and also the quantity of coke or gas used, but be sure to indicate that the coke or gas is made from the coal reported.

INQUIRY 13.—REMARKS.

104. **Explanation required.**—The instructions for several of the inquiries indicate the character of the information that should be given here. The space, however, is reserved, primarily, for the agent to explain unusual conditions connected with the inquiries or with the report as a whole. It is hoped that such explanation will obviate the necessity of the office corresponding with the establishment. Upon examining the schedule, after answers have been made to all the inquiries, the agents are liable to detect inconsistencies. If it is impossible to correct these inconsistencies, an explanation of them should be given. All of the schedules are edited before they are tabulated, and explanations of such inconsistencies are of great assistance to the editor.

These statements should be as brief and direct as possible. At the same time they should cover all pertinent facts, and, if necessary, use should be made of an additional blank sheet.

Do not use this space for correspondence or remarks not pertinent to the schedule.

CERTIFICATE.

105. **Signature required.**—Each report must be signed by the person responsible for the information furnished, and his official title and address must also be given. The agent or enumerator who secures the return should also sign this certificate. In all cases where a supplemental schedule accompanies the General Schedule the attention of the person signing the schedule must be called to both, as he certifies to the correctness of the statistics contained in both.

SUPPLEMENTAL SCHEDULES.

106. **List of supplemental schedules.**—In addition to the General Schedule, the following supplemental schedules must be prepared for the industries indicated by each:

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| 1. Agricultural implements. | 31. Lead smelters. |
| 2. Automobiles. | 32. Lead refineries. |
| 3. Beet-sugar factories. | 33. Leather gloves and mittens. |
| 4. Bicycles and motorcycles. | 34. Leather, tanned and curried. |
| 5. Boots and shoes. | 35. Lime. |
| 6. Brick, tile, terra cotta, fire-clay products, and pottery. | 36. Lumber and timber products. |
| 7. Butter, cheese, and condensed-milk factories. | 37. Metal-working machinery. |
| 7a. Cane-sugar mills. | 38. Oilcloth, linoleum, and artificial leather. |
| 8. Canning and preserving—fish and oysters. | 39. Paints and varnishes. |
| 9. Canning and preserving—fruits and vegetables. | 40. Paper and pulp mills. |
| 10. Carriages and wagons. | 41. Petroleum refining. |
| 11. Cars, steam and street railroad. | 42. Phonographs and graphophones. |
| 12. Cement. | 43. Pianos and organs. |
| 13. Chemical manufactures. | 44. Printing and publishing and the periodical press. |
| 14. Coke. | 45. Railroad repair shops. |
| 15. Copper smelters. | 46. Rice, cleaning and polishing. |
| 16. Copper refineries. | 47. Salt works. |
| 17. Cotton manufactures. | 48. Shipbuilding. |
| 18. Cottonseed-oil mills. | 49. Silk manufactures. |
| 19. Dyestuffs and extracts. | 50. Slaughtering and meat packing. |
| 20. Electrical machinery and apparatus. | 50a. Slaughterhouses. |
| 21. Essential-oil factories. | 51. Soap. |
| 22. Explosives. | 52. Starch and glucose factories. |
| 23. Fertilizers. | 53. Steel works and rolling mills. |
| 24. Flax, hemp, and jute manufactures. | 54. Sulphuric, nitric, and mixed acids. |
| 25. Flour and grist mills. | 55. Tin-plate and terneplate works. |
| 26. Gas, manufactured. | 56. Turpentine and rosin. |
| 27. Glass works. | 57. Wire. |
| 28. Hosiery and knit goods. | 58. Wood distillation. |
| 29. Ice, manufactured. | 59. Wool manufactures. |
| 30. Iron and steel—blast furnaces. | 60. Zinc smelters. |

For a number of these industries there will be comparatively few establishments reported, and all agents will not be given a full supply of all the schedules. Request must be made for additional blanks if required.

106a. An act of Congress approved February 25, 1910, amending the act providing for the Thirteenth and subsequent decennial censuses, contains the following provision:

Provided, That the census shall also include an enumeration of the number of cattle, calves, sheep, lambs, hogs, goats, and kids slaughtered for food purposes, and all hides produced, whether taken from animals slaughtered for food purposes, or otherwise, during the year next preceding the year of the enumeration of population, irrespective of the character of the establishment in which slaughtered or produced.

In order to collect this information a simple form of schedule has been provided. Please examine this schedule carefully, especially the instructions on the back.

Special agents must collect reports on this schedule for all establishments located within the limits of incorporated places of 5,000 population and over. In other minor civil divisions the statistics will be collected by the enumerators.

107. **Object of supplemental schedules.**—The supplemental schedules are designed to develop statistics peculiar to the different industries, therefore the inquiries are not uniform. A number of them carry special instructions in regard to their preparation and the preparation of the General Schedule to which they relate. These instructions must be carefully considered, but the following general principles will apply to all:

(a) The supplemental schedule or schedules must in every instance accompany the General Schedule to which they relate.

(b) When two or more of the industries for which supplemental schedules are provided are carried on by the same establishment and it is practicable to secure for each industry complete separate reports in the General Schedule, they should be secured, each being accompanied by its proper supplemental schedule. If this is impossible, one report should be made on the General Schedule for the entire establishment (see pars. 42 to 45) and separate reports on the supplemental schedules for the different departments. In all cases the total of the products on the supplemental schedules must equal the total on the General Schedule to which they relate.

(c) The statistics reported on the supplemental schedules will be published only by state totals, therefore it is not necessary to

obtain separate reports on the supplemental schedules for establishments in different sections of the same state engaged in the same industry and operated under the same ownership. For example, if a company owns two cotton mills, one located within and the other just outside the corporate limits of a city, separate reports must be made on the General Schedule (see par. 41), but one supplemental schedule may carry the statistics for both plants. In such cases the schedules must be fastened together and accompanied with a memorandum of explanation.

(d) The products to be enumerated on separate supplemental schedules may be of minor importance in some establishments, and therefore there is danger that they will be omitted. For example, fertilizers and soap are frequently by-products of slaughtering establishments and are included among the products on the supplemental schedule for that industry, but a separate supplemental schedule—"Fertilizers" and "Soap"—for each should also be prepared.

108. **Administrative and general office schedule.**—Some companies control a number of factories from a central office, and do not make a distribution of the expenses of such office among the different plants. In such cases the capital of the company as a whole, the employees at the central office, their salaries and wages, and the miscellaneous expenses, none of which are included in the reports for the plants, must be shown in a report prepared on Form KK55-324. The inquiries on this schedule correspond with the inquiries on the same subjects in the General Schedule for manufactures and for mines and quarries, and the instructions given for them should be followed. *Be careful not to duplicate any of these amounts in the reports for any of the separate plants.*

SUPPLEMENTAL INSTRUCTIONS TO CHIEF SPECIAL AGENTS.

109. **In charge of important districts.**—The following instructions are for the special guidance of the *chief special agents* who will be given general charge and supervision over the collection of statistics of manufactures and mines and quarries in the large cities and important industrial districts, and are additional to the general instructions for all special agents.

110. **Special responsibility of chief special agents.**—As a large proportion of the reports for manufacturing and mining and quarrying establishments are to be secured in these districts, the success of this branch of the census work will depend very largely upon the fidelity, zeal, and ability with which these chief special agents perform their duties. They are consequently expected not only to familiarize themselves with the schedules that will be employed and the instructions for their preparation, but to learn the purpose of each inquiry, the character of information desired by the bureau, the difficulties that are likely to be encountered in collecting this information, and, generally, to fit themselves so as to be able to answer all questions that may be made during the progress of the work. They are expected finally, not only themselves to be enthusiastic in the discharge of their duties, but to spare no effort in seeking to inspire a similar enthusiasm on the part of the other agents. The chief special agent, in a word, should understand clearly that he will be held responsible for a satisfactory canvass of his district.

111. **Selection and organization of force of special agents.**—The first duty of the chief special agents will be that of the selection and organization of the agents who will perform the work of collecting the statistics of manufactures and mines and quarries in their districts.

Each chief special agent will be given the appointment papers of persons who have qualified, through an examination, for appointment as assistant special agents in his district. He should advise these persons to call at his office at such time as is most convenient to him. If after personal inspection an applicant appears to be a suitable person for appointment, he should be allowed to take the oath of office and prepare the personal information sheet and other papers required by the appointment division. If, however, in the opinion of the chief special agent the applicant is not a suitable person for appointment, he should not be allowed to take the oath,

and the reasons for his rejection should at once be reported by letter to the Director of the Census. Although the chief special agents will be given a wide latitude in the selection of their assistants, nevertheless, as the applicants will in all cases have passed an examination, they are presumably qualified to do the work and should not be rejected unless the evidence to the contrary is reasonably clear.

112. **Authority of chief special agents to suspend assistant agents.**—If, after an agent has entered upon the performance of his duties, it appears for any reason, whether of personal misconduct, his failure to exercise due tact in approaching manufacturers so as to secure their cooperation and overcome any antagonism that may exist to the canvass or disinclination to divulge information, his lack of zeal and energy or his demonstration that he is unable to secure the information in an accurate and correct form, the chief special agent is authorized to suspend such agent from duty pending the result of advice from the Director of the Census. In such case, however, he should immediately make a full report of the case and await instructions before taking further action.

113. **Amount of work expected of assistant agents.**—In general the services of an assistant agent should not be deemed entirely satisfactory unless he secure an average of four complete reports per day. Special circumstances may, of course, make this average to be exacted too high or too low. If in the absence of such special circumstances this average is not attained, the agent should be required to make a definite explanation of the reason of his failure.

114. **Instructions and supervision of assistant agents.**—The most important part of the duties of chief special agents is, on the one hand, to see that the assistant agents thoroughly understand their duties, and, on the other, that these duties are at all times faithfully performed. The chief special agents should thus assure themselves that all assistants under their direction have studied the schedules and instructions carefully and understand clearly all points covered by them, and that they also know how to dispose of the index cards for establishments for which reports can not be secured in their respective districts. Subsequently the chief special agent must follow closely the work of each assistant agent, and by verbal or written instructions assist him

in meeting difficulties encountered, and make certain that his work is being intelligently and efficiently performed. By inquiry of agents, by personal inspection of the districts, and by interviews with representative manufacturers and others, he should assure himself that a thorough and proper canvass of the districts assigned to them is being made by the assistant agents and that the latter are devoting their entire time to their official duties.

As far as practicable, chief special agents should exercise supervision over assistant agents by personal contact and interviews with them. Where advisable, the chief special agent, or some one designated by him, should see the assistant agents while at work in the field. Assistant agents working in the city where the office of the chief special agent is located should be required to report daily, or at least at frequent intervals, at the office, in order that the chief special agent may go over with them personally the schedules secured by them and advise with them regarding the handling of difficulties that may have arisen. Where the assistant agents work in districts at considerable distance from the office, interviews should be arranged for at such intervals of time as the circumstances require, and in such a way as to involve the minimum loss of time. In some cases, however, it may be advisable for the assistant agents to mail daily all reports secured by them to the chief special agent.

Addressed official envelopes will be furnished for this purpose. In those cities where Saturday half holidays prevail it will be well for the chief special agent to arrange for assistant agents to report on the afternoon of that day for consultation and the receipt of special instructions.

115. Assignment of assistant agents to districts or special classes of industries.—Each chief special agent will be given the index cards and lists of all the establishments in his district. These cards will be arranged in suitable subdistricts for the assistant agents. The chief special agent must familiarize himself with this arrangement and be in a position to assign assistant agents to the different districts as rapidly as may be necessary. The envelope containing the blank schedules and letters of transmittal referred to in paragraph 14 will accompany the index cards and lists. The envelopes are arranged to correspond with the arrangement of the index cards, and the chief special agents must see that they are mailed at the proper time.

In those districts where there are a considerable number of establishments engaged in the same class of industry, such as the "textiles" in Philadelphia, New York, and Lowell, the "iron and steel" in Pittsburgh, "slaughtering and meat packing" in Chicago, and "mining" in Denver, Colo., the chief special agent should select one or more assistant agents to devote themselves to securing schedules from such industries. Where the agent has not already been selected on account of his special knowledge of those industries, it is believed that by devoting himself to particular industries he will soon acquire greater efficiency in securing the information sought. Such special assignment, however, should not be made unless it results in a material increase in efficiency and does not entail too great a loss of time.

Where a district comprises a city and the surrounding county or counties the canvass of the city should, as a rule, be finished before any agents are assigned to rural districts. As far as possible the work of assistant agents should be confined to the cities for which they are appointed. This is necessary in order to avoid expense for traveling and allowance in lieu of subsistence. When chief special agents find that it is necessary to allow an assistant agent street-car fare or other traveling expenses and subsistence he should make recommendation accordingly.

116. Examination of schedules by chief special agents.—Schedules as received from assistant agents must be immediately examined by the chief special agents for the purpose of determining whether the assistant agents are performing their duties properly and whether there are any errors or omissions which can be detected by a cursory examination and which can at once be corrected. This examination should be sufficiently thorough to obviate the necessity for the return of the schedules by the bureau or for cor-

respondence with the establishments to which they relate. It is especially important that this examination of reports secured during the first few days that each assistant agent is at work be carefully made in order that any misconception on the part of such agent regarding the purport of a question or the character of answer desired can be corrected at the start.

117. Detail of clerks from the office to assist in the examination of schedules.—When necessary, clerks will be detailed from the regular office force to work in the office of the chief special agent to assist in the examination and criticism of the schedules secured by the assistant agents.

118. Schedules after examination to be promptly forwarded to the Census Bureau.—All schedules after their examination, which should be done immediately on their receipt, should be at once forwarded by registered mail to the Census Office. Under no circumstance should any considerable number of completed reports be allowed to accumulate in the office of a chief special agent.

119. Cases when report by mail may be made.—A number of large corporations which own plants located in different sections of the country have requested permission to make their report direct to the bureau by mail. A list of these corporations will be furnished the special agent and he should give it special attention. The returns for such companies must be secured as quickly as possible, as it may be found in some instances that the report will not be furnished from the "central office" and the local agents must be instructed to secure the report. If the local agent has finished his district or has passed the point at which the plant is located before the advice is received, serious delay may result. Furthermore, longer time is required for the preparation of reports by large corporations with their numerous plants, and unless application is made during the first stages of the canvass and they are constantly reminded of the necessity for prompt action serious delay may be encountered in the compilation of the data for the states in which such plants are located. Great inconvenience has been caused in the compilation of data at previous censuses by the failure to get these returns promptly, and especial care should therefore be taken to obviate such delay at this census. There will be delay in the preparation of the reports for such companies, but the agent must obtain on his first visit positive assurance that the reports for all of the plants will or will not be prepared at the "central office" and make a statement to that effect on his daily report.

120. Securing of schedules from "central offices."—As a rule, establishments for which reports must be obtained at an office located elsewhere than at the plant are indicated upon the index card by the words "central office." Other instances of this kind may be discovered, and the chief special agents should see that the proper notice is given the office by use of the various postal cards provided for such cases. In many instances considerable time can be saved by making cross references direct to the agents in whose districts the offices are situated; and such action should be taken by the chief special agents whenever possible. A list of the agents in charge of the different districts to whom such direct cross references can be made will be furnished the chief special agents as rapidly as the field force is organized.

121. Securing of schedules in specially difficult cases and closing of the canvass in the district.—The duties of the chief special agents are principally supervisory. It will be their duty, however, to give their personal attention to the matter of securing reports from recalcitrant manufacturers, from establishments where unusual difficulties or complications are present, and particularly from establishments or companies that control a number of plants located in different sections of the country, establishments operated under the same ownership but located within and outside the corporate limits of the cities in their district and requiring separate reports for the different plants.

122. Supply of business forms.—Chief special agents should see that they always have on hand a supply of schedules, instructions, stationery, etc., sufficient to meet their own needs and those of all the agents under their direction.

SUPPLEMENTAL INSTRUCTIONS TO "OFFICE AGENTS."

123. To instruct local agents.—The following instructions are for the guidance of those clerks and agents who will be detailed to instruct the special agents who are to canvass districts in which there is no city of sufficient size to warrant the employment of a chief special agent.

124. General duties.—The clerks and agents so detailed will be known as "office agents" and will have duties in many respects similar to those of chief special agents. As in the case of the latter they must familiarize themselves with great thoroughness with all the schedules, instructions, office requirements, and the like in order that they may instruct the agents who are to do the work of canvassing these several districts, supervise them in their work, and assist them in meeting all difficulties that may present themselves. Each "office agent" should appreciate that he will, in considerable measure, be held responsible for the character of the work of the local agents he instructs. He must be particular, therefore, to impress upon the local agents the importance of the work and the imperative necessity of making a complete and rapid canvass.

125. Visiting of local agents.—Local agents for the districts above described will be appointed from persons who have passed the examination and have been designated for appointment. They will be advised by letter that a representative of the office will visit them at a designated time and place for the purpose of giving them instructions and starting them at work. The "office agent" will be given a list of the names and addresses of the persons selected for appointment and information concerning the designated time and place for the receipt of instructions. This list will be so arranged that the local agents will be employed in adjoining districts so that they may be visited with the least expense of time. It will be the duty of the "office agent" to visit these local agents at the times and places designated. The "office agent" will be given the appointment papers, supplies, index cards, etc., for all of the local agents he will be required to instruct and will be held responsible for the delivery of these supplies to the proper persons.

126. Authority to reject or suspend local agents.—If, after personal interview, the "office agent" is satisfied that the person designated for appointment can not do the work in a satisfactory manner, he must at once report the fact to the office, giving in detail the reasons why the person will not make a satisfactory

agent. As these persons have in all cases passed the required examination it is to be presumed that they are competent. They should consequently be allowed to take the oath and enter on duty, unless the "office agent" is entirely satisfied it would be unwise for the appointment to be made.

If it develops, from a practical trial, that the local agent can not do the work, the "office agent" is authorized to suspend him from duty. In such case, however, he must immediately report the fact. In the event of either of the above contingencies resulting in a vacancy the "office agent" should immediately secure a proper person for the position and allow him to take the oath of office and enter on duty.

127. Instruction of local agents.—The "office agent" must instruct each local agent how to prepare the schedules, direct him to send his daily reports, schedules, index cards, etc., directly to the Bureau of the Census and, in a word, see that he is thoroughly familiar with all of the requirements of the office and is equipped to make a satisfactory canvass of his district. To make sure that local agents understand what is required of them and are able to perform their duties the "office agent" should work with each local agent one or two days or for such period of time as he may find necessary. He should visit establishments with the local agents and actually participate in the preparation of the schedules. If the district comprises the city and surrounding county the local agent must be instructed to complete the canvass of the city before going into the rural district. After having instructed the local agent the "office agent" must turn over to him the cards, lists, envelopes, schedules, and other supplies and instruct him to proceed with the canvass, sending in his schedules and daily reports directly to the Bureau of the Census.

The "office agent" must make a report on each local agent and in such report must make recommendations in regard to traveling expenses and allowance in lieu of subsistence that should be granted to local agents.

128. District to be personally canvassed by "office agent."—Each "office agent," in addition to instructing local agents, will be assigned a district of his own to canvass personally. It will be to his advantage to begin actual work in his own district as soon as possible. He should, therefore, proceed rapidly with the instruction of local agents on his list.

EXTRACTS FROM AN ACT TO PROVIDE FOR THE THIRTEENTH AND SUBSEQUENT DECENNIAL CENSUSES.

Be it enacted, etc. That a census of the * * * manufactures and mines and quarries of the United States shall be taken by the Director of the Census in the year nineteen hundred and ten and every ten years thereafter. The census herein provided for shall include each state and territory on the mainland of the United States, the District of Columbia, and Alaska, Hawaii, and Porto Rico.

Sec. 8. That the Thirteenth Census shall be restricted to inquiries relating to * * * manufactures and to mines and quarries. * * *

The schedules of inquiries relating to manufactures and to mines and quarries shall include the name and location of each establishment; character of organization, whether individual, cooperative, or other form; character of business or kind of goods manufactured; amount of capital actually invested; number of proprietors, firm members, copartners, stockholders, and officers, and the amount of their salaries; number of employees and the amount of their wages; quantity and cost of materials used in manufactures; amount of miscellaneous expenses; quantity and value of products; time in operation during the census year; character and quantity of power used, and character and number of machines employed.

The census of manufactures and of mines and quarries shall relate to the year ending December thirty-first next preceding the enumeration of population and shall be confined to mines and quarries and manufacturing establishments which were in active operation

during all or a portion of that year. The census of manufactures shall furthermore be confined to manufacturing establishments conducted under what is known as the factory system, exclusive of the so-called neighborhood household and hand industries.

The inquiry concerning manufactures shall cover the production of turpentine and rosin, and the report concerning this industry shall show, in addition to the other facts covered by the regular schedule of manufactures, the quantity and quality of turpentine and rosin manufactured and marketed, the sources, methods, and extent of the industry.

Whenever he shall deem it expedient, the Director of the Census may charge the collection of these statistics upon special agents or upon detailed employees, to be employed without respect to locality.

The form and subdivision of inquiries necessary to secure the information under the foregoing topics shall be determined by the Director of the Census.

Sec. 22. That any supervisor, supervisor's clerk, enumerator, interpreter, special agent, or other employee, who, having taken and subscribed the oath of office required by this act, shall, without justifiable cause, neglect or refuse to perform the duties enjoined on him by this act shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined not exceeding five hundred dollars; or if he shall, without the authority of the Director of the Census, publish or communicate any information coming into his possession by reason of his employment under the provisions of

this act, or the act to provide for a permanent Census Office, or acts amendatory thereof or supplemental thereto, he shall be guilty of a misdemeanor and shall upon conviction thereof be fined not to exceed one thousand dollars, or be imprisoned not to exceed two years, or both so fined and imprisoned, in the discretion of the court; or if he shall willfully and knowingly swear to or affirm falsely he shall be deemed guilty of perjury, and upon conviction thereof shall be imprisoned not exceeding five years and be fined not exceeding two thousand dollars; or if he shall willfully and knowingly make a false certificate or a fictitious return he shall be guilty of a misdemeanor, and upon conviction of either of the last-named offenses he shall be fined not exceeding two thousand dollars and be imprisoned not exceeding five years; or if any person who is or has been an enumerator shall knowingly or willfully furnish or cause to be furnished, directly or indirectly, to the Director of the Census or to any supervisor of the census any false statement or false information with reference to any inquiry for which he was authorized and required to collect information he shall be guilty of a misdemeanor, and upon conviction thereof shall be fined not exceeding two thousand dollars and be imprisoned not exceeding five years.

* * * * *

SEC. 24. And it shall be the duty of every owner, president, treasurer, secretary, director, or other officer or agent of any manufacturing establishment, mine, quarry, or other establishment of productive industry, whether conducted as a corporation, firm, limited liability company, or by private individuals, when requested by

the Director of the Census or by any supervisor, enumerator, special agent, or other employee of the Census Office acting under the instructions of the said director, to answer completely and correctly to the best of his knowledge all questions on any census schedule applying to such establishment; and any owner, president, secretary, director, or other officer or agent of any manufacturing establishment, mine, quarry, or other establishment of productive industry, who under the conditions hereinbefore stated shall refuse or willfully neglect to answer any of these questions, or shall willfully give answers that are false, shall be guilty of a misdemeanor, and upon conviction thereof shall be fined not exceeding ten thousand dollars or imprisoned for a period not exceeding one year, or both so fined and imprisoned, at the discretion of the court. The provisions of this section shall also apply to the collection of the information required and authorized by the act entitled "An act to provide for a permanent Census Office," and by acts amendatory thereof or supplemental thereto.

SEC. 25. That the information furnished under the provisions of the next preceding section shall be used only for the statistical purposes for which it is supplied. No publication shall be made by the Census Office whereby the data furnished by any particular establishment can be identified, nor shall the Director of the Census permit anyone other than the sworn employees of the Census Office to examine the individual reports.

SEC. 26. That all fines and penalties imposed by this act may be enforced by indictment or information in any court of competent jurisdiction.

APPENDIX C.—INSTRUCTIONS FOR EDITING AND REVISING THE SCHEDULES OF MANUFACTURES.

The several questions in the schedule should be taken up in numerical order, each being considered both by itself and in connection with information given under questions that have more or less bearing upon it. The answers should be consistent with each other and with the character and size of the establishment reported.

The instructions in the schedule and in the book of instructions to special agents must be studied and their application to each question fully understood. In addition to these, the following rules and suggestions must be observed:

1. All changes must be made neatly and plainly in red ink. Correct all indistinct figures. If a correction is necessary in one or two figures of a number, except in the case of the elimination of cents, rewrite all the figures of the number. Be careful to have all corrections in the proper spaces to avoid confusion and error in tabulation.

2. Cents and fractions should in all cases be eliminated (except fractions of hours per shift and hours per week, in Inquiry 2; these are referred to elsewhere); follow the office rule of adding 1 if the fraction is more than one-half or throwing the fraction away if less than one-half.

3. The totals given in answer to each question must be verified by the addition of the several items. If the totals are not reported, they should be inserted in red ink by the examiner, not, however, until after all corrections have been made in the items.

4. Each schedule should be first examined to see that the establishment comes within the scope of the census investigation. (See pars. 22 to 28, "Instructions to Special Agents," for list of establishments not to be reported.) Refer all doubtful schedules to the section chief.

The following are some of the principal points that should be considered in editing the answer to each inquiry:

INQUIRY 1.

1. See that schedule is properly filled out as to state, county, and city or town.

2. If report includes data for two or more establishments not in the same city or town, report the fact to the section chief, who will arrange for the necessary segregation.

3. Verify the classification from answers to Inquiries 1, 8, and 10, also from any printed matter that may accompany the schedule and information given under remarks.

4. Compare period covered by the return with answers to Inquiries 2, 6, and 7. If only a portion of the year is covered, the entries under Inquiries 2, 6, 7, 8, 9, and 10 should represent the short period and not a full year.

5. Character of organization must be either (1) individual, (2) general partnership, (3) limited partnership, (4) incorporated company, (5) cooperative association, or (6) other form. The figures 1, 2, 3, 4, 5, or 6 indicating which form of ownership, respectively, must be placed in red ink on the left-hand margin of the schedule, opposite the answer. If the character of ownership is not given, supply the omission by reference to name of establishment and from

answers to subinquiries 8 and 9 of Inquiry 1 on title-page or from directories.

Limited partnership.—The following states and territories have statutes permitting the formation of limited partnerships:

Alabama.	Iowa.	Nebraska.	Rhode Island.
Alaska.	Kansas.	Nevada.	South Carolina.
Arkansas.	Kentucky.	New Hampshire.	South Dakota.
California.	Louisiana.	New Jersey.	Tennessee.
Colorado.	Maine.	New Mexico.	Texas.
Connecticut.	Maryland.	New York.	Utah.
Delaware.	Massachusetts.	North Carolina.	Vermont.
Dist. of Columbia.	Michigan.	North Dakota.	Virginia.
Georgia.	Minnesota.	Ohio.	Washington.
Idaho.	Mississippi.	Oklahoma.	West Virginia.
Illinois.	Missouri.	Oregon.	Wisconsin.
Indiana.	Montana.	Pennsylvania.	Wyoming.

States having no statutes permitting the formation of limited partnerships: Arizona and Florida.

Incorporated companies.—Incorporated companies always have stock capital and shares of stock. The number of stockholders is to be reported.

Cooperative associations.—Cooperative associations are organized for the production of commodities or for their purchase and sale to members of the association, or for the borrowing and lending of money among the members. They may or may not be incorporated. If a manufacturing cooperative association is incorporated, the members are to be considered as stockholders and reported as such. Members in a cooperative association are, as a rule, on a par, each representing one share. If not incorporated, the members are held as partners and the number is to be reported accordingly.

Other.—Under "Other," there should be included social, literary, scientific, political, benevolent, fraternal, and board of trade societies or associations.

These differ from cooperative associations, in that they are not organized for manufacturing or mercantile purposes.

If incorporated, there are no stockholders, but members with officers and a board of trustees or managers. Consideration of this class of association will probably arise only in connection with the reports for publications of the societies.

At the census of 1905 there was an inquiry for the number of proprietors and firm (partnership) members, but not for the number of members of cooperative societies, nor the number of stockholders of incorporated organizations. These latter inquiries are new. The schedule does not call for the number of associations of the "other" class and none will be reported therefor.

6. Answers to subinquiries 8 and 9, number of proprietors and number of stockholders should be consistent with the character of the organization. Every report, unless of the "other" class, should show proprietors, firm members, or stockholders, except that in the case of steam or street railroad companies reporting construction and repair shops, the number of stockholders will not be tabulated, and if reported, is to be struck out.

7. Character of industry should be in harmony with the answer to Inquiry 10, and with the classification of the return.

INQUIRY 2.

1. This inquiry must be properly answered for all establishments except small publishing concerns where all the printing is done by contract and no regular office force is employed or working hours are kept.

2. Number of days in operation should be consistent with period reported on the title-page, due allowance being made for idle time and for "short time." Fractions of hours per shift and per week should be reduced to one decimal place.

3. Number of hours per shift and per week should be consistent with character of industry and prevailing conditions, as shown by reports for other establishments in the same locality. An entry here is not necessary if no wage earners are reported under Inquiries 5 and 6.

4. If number of days in operation is not reported, and the report indicates a full year's operation, and 12 months is normal time for such industry, supply 307 days. Likewise supply hours per day and per week in accordance with prevailing normal conditions of establishments of the same size in the same industry and same locality.

5. Number of hours per shift under normal conditions is not necessarily the number of hours worked each day during the major part of the year, since the factory may be working overtime the greater part of the year, but is governed, as a rule, by the general conditions prevailing in that industry in the same locality.

6. The number of days in operation should be exclusive of Sundays, holidays, and all other days the plant was idle.

INQUIRY 3.

1. Whenever capital is reported in the aggregate and no segregation appears as required by the schedule, the aggregate should be entered as of the first item of the inquiry, namely: "Land, buildings, machinery, and tools."

2. Items should be separately reported; make segregation of combined items in proportion to separate items reported for plants of the same industry and same size.

3. If a plant is rented, value should not be reported for land, buildings, and, possibly, machinery, but amount of rental paid must be reported in answer to the first item under Inquiry 9.

4. In stonecutting and charcoal manufacturing and some other outdoor industries, neither value of land and buildings nor rent is necessarily reported, and the value reported (for tools) accordingly should be small.

5. Each item of capital must be consistent with other items, with the total, with the character of the industry, and with the size of the establishment.

6. Patent rights, good will, etc., are not considered capital for census purposes, except as indicated in the "Instructions to Special Agents."

7. Examine reports of small establishments for common error of reporting entire value or rent, for buildings, etc., where only a small part is actually used in manufacturing.

8. When separate amounts or percentages are given for the capital invested in manufactures, as distinct from that in other business carried on under the same ownership (see par. 62 of "Instructions to Special Agents"), the proper amounts must be inserted in red ink.

INQUIRY 4.

1. Only incorporated companies should report salaried officers of corporations.

2. Examine Inquiries 4, 5, and 6 for duplications, or for any indication of a misunderstanding of the questions. Small concerns may incorrectly report all or part of the wage earners under Inquiry 4, and in some establishments persons engaged in light work, such as packing medicines, etc., and paid by the month, may be incorrectly included as salaried employees. It is possible that the distinction between salaried employees and wage earners has not been fully grasped by certain agents. The last subdivision of Inquiry 4 calls

for "clerks, stenographers, salesmen, and other salaried employees." The phrase "other salaried employees" relates to persons such as timekeepers, messenger boys, proof readers in printing establishments, and the like, whose work is closely similar to that of persons who would ordinarily be called clerks, stenographers, and salesmen. No person should be reported as a salaried employee merely because he is paid by the week or the month instead of by the day. The line of distinction between salaried employees and wage earners should be based primarily upon the character of the work done rather than upon the unit of time which is the basis of payment. Wage earners, in other words, are not confined to those who receive day wages, although most wage earners are paid by the day. When duplications and inconsistencies are detected, the proper corrections must be made after conferring with the section chief.

3. **Laundries.**—Agents for a laundry engaged in other business, such as proprietors of cigar stores, druggists, etc., are not to be reported as employees. They are generally paid on a commission basis, and this expense should be entered under Inquiry 9 as a sundry expense. Drivers of wagons will be reported as wage earners. They may receive a commission on business secured for the laundry, in which case the commissions should be considered in lieu of wages and be so reported, or if they are paid a wage and commissions in addition, the entire amount will be reported as wages.

INQUIRY 5.

1. The character of the industry determines in large part the sex, and the size of the establishment is an important factor in determining the number of the wage earners, and also, to some extent, the number of children. Women and children must not be shown for industries in which they can not be employed, unless there is some special reason, nor should a proportionately large number of men be shown for industries in which they are generally not employed. The sum of the wage earners reported under this inquiry should absolutely agree with the number reported for December under Inquiry 6. Where there is a difference, the circumstances surrounding the case should determine which inquiry should be changed. Be careful to see that the proper distinction has been made between salaried employees and wage earners.

INQUIRY 6.

1. See that Inquiries 5 and 6 are consistent. The number reported for December in both inquiries should agree.

2. Make corrections only for months during which the factory was in actual operation. A small number reported for months that the establishment was idle should be allowed to stand.

3. Should an irreconcilable discrepancy appear, the circumstances of the particular case should determine which of the inquiries must be corrected.

4. The character of the industry will assist in determining the number of wage earners and the months in which they were employed.

5. After verifying the numbers, compute the average number for the year by dividing the sum of the numbers for all of the months by 12, and write the result thus obtained in the place left in the stamp "Average number ———," at the lower right-hand margin of the schedule, the decimal to the right of the perpendicular line.

6. In computing these averages, the result should be carried to one decimal place; if the second decimal is over 5, raise the first decimal by 1; if less than 5, disregard it. If the second decimal is exactly 5 without a remainder, add 1 to the first decimal only when it is an odd digit. Always show the decimal point, even if there is no decimal, or if the quotient is a decimal only; for example, 4.0, 0.5.

7. In many small establishments no wage earners are employed and none should be reported, but when it appears that through error Inquiries 5 and 6 are not answered, and the establishment is a small one with but few employees, the number may be estimated. The character of the industry, the value of the product, the time in operation, Inquiry 2, and reports for similar establishments in the same locality should be considered in making the estimate.

INQUIRY 7.

1. No salaries should be reported under "salaried officers of corporations" if the establishment is not incorporated. In some of the small incorporated companies no salaries are paid officials, therefore amounts should not be supplied when none are reported, unless there is an evident error.

2. The inquiry should be consistent with information reported under Inquiries 4 and 5—i. e., if employees of a certain class are reported, salaries should be reported for that class. There should also be a degree of harmony between the salaries and wages shown here and the number of the corresponding classes of employees under Inquiries 4 and 5, and the time in operation. The average number of wage earners computed from the answer to Inquiry 6 must be divided into the total amount reported as paid to wage earners, and if the quotient indicates an excessively low or high average annual wage, the answers to the two inquiries should be carefully examined to detect a possible error.

INQUIRY 8.

1. The first item of this inquiry should include the cost of all materials except fuel; that is to say, it should include the cost of the component materials, mill supplies, such as oil, waste, etc., required in the operation of machinery, with the cost of packages, bottles, corks, labels, etc.

2. Segregate combined items in proportion to corresponding items in schedules of the same industry and size.

3. See that cost of materials in general and supplemental schedules are consistent.

4. Under freight, include also express charges.

5. See that the freight is not duplicated in the answer to the first item of the inquiry.

6. The materials must be only those consumed during the year, and their cost, of course, must be in harmony with the value of products and other inquiries. See that large amounts of material purchased as an investment or to take advantage of low prices are excluded.

7. The character of the materials used should be consistent with the classification of the report, the answer to Inquiry 1, and the products reported in answer to Inquiry 10.

8. Compare the cost of fuel when no power is rented with Inquiry 12 and see if quantity used and cost are consistent. Or if power is rented and no fuel is reported under Inquiry 12, compare the cost reported under Inquiry 8 with the horsepower rented under Inquiry 11, and see if consistent.

9. In accordance with paragraph 81 of "Instructions to Special Agents," the cost of fuel used, whether for heat, light, or power, or for the purpose of manufacturing, should be reported under Inquiry 8. This will include the cost of gas or electricity used for both light and power. Inquiry 12 is designed to develop the quantity of fuel used in the manufactures for power or manufacturing purposes; gas used for lighting should not be reported under Inquiry 12, except in cases where it is also used for power or in direct connection with the manufacture; where gas is used only for lighting purposes it should not be reported under Inquiry 12.

INQUIRY 9.

1. If land, buildings, machinery, etc., or any part of them are reported as rented under Inquiry 3, amount paid for rent of factory or works must be shown. (See "Instructions to Special Agents," sec. 84, in regard to segregation of rent of office or rent of works.)

2. If plant is reported as owned in Inquiry 3, amount paid as taxes should be reported, unless it is exempt from taxation.

3. For establishments paying internal-revenue tax, the amount here reported should, as a rule, equal the tax required by law for the product reported. Establishments manufacturing distilled liquors, as a rule, place their product in bond, the internal-revenue

tax generally being paid by the purchaser. In such cases the internal-revenue tax will not necessarily be reported. When not reported the tax must be computed and in every case the amount must agree with the product of the year, and must be included in the product reported in answer to Inquiry 10. The following is a list of all manufactured products requiring internal-revenue tax, with the rates of taxation:

MANUFACTURED PRODUCTS REQUIRING INTERNAL-REVENUE TAX AND RATE OF TAXATION IN 1909.

Butter.—Adulterated, 10 cents per pound; process or renovated, one-fourth of cent per pound; manufacturer's special tax, per annum, \$600.

Cheese.—Filled, 1 cent per pound; manufacturer's special tax per annum, \$400.

Cigarettes and little cigars.—Weighing not more than 3 pounds per thousand, \$1.08 and 54 cents per thousand, according as they are valued at more or less than \$2 per thousand.

Cigars and cigarettes.—Weighing more than 3 pounds per thousand, \$3 per thousand.

Cigar manufacturer's license.—Making under 100,000 cigars per year, \$6; making over 100,000, but under 200,000 per year, \$12; making over 200,000 per year, \$24.

Tobacco.—Chewing, etc., 6 cents per pound.

Snuff.—Six cents per pound.

Distilled spirits.—One dollar and ten cents per gallon.

Fermented liquors.—Not more than 31 gallons per barrel, \$1 per barrel, and at proportionate rates for halves, thirds, quarters, sixths, and eighths of barrels.

Vinous liquors.—Not over 1 pint bottle, 10 cents per bottle; other measures at the same proportionate rates.

Oleomargarine.—Manufacturer's special tax, per annum, \$600; colored yellow, 10 cents per pound; free from coloration, one-fourth of 1 cent per pound.

Mixed flour.—Barrel not more than 196 pounds and over 98 pounds, 4 cents; halves, quarters, and eighths of barrels in proportion; manufacturer's special tax, per annum, \$12.

Playing cards.—Not more than 54 cards per pack, 2 cents per pack.

4. Rent of offices, insurance, ordinary repairs, advertising, etc., should be consistent with the size of the establishment and the nature of the industry.

5. Amount paid for contract work should not include any part of amount reported as salaries or wages, Inquiry 7.

6. Some establishments, such, for example, as clothing, publishing, etc., have work done by contract outside the factory or office. The cost of such work may be erroneously reported as wages. When this is the case, such amount should be transferred to amount paid for "contract work."

INQUIRY 10.

1. Goods manufactured should be consistent with classification and answers to Inquiries 1 and 8.

2. Value reported should be consistent with capital, Inquiry 3, amount of wages, Inquiry 7, and cost of materials, Inquiry 8.

3. "All other products" should include value of all products not specifically mentioned, and amounts received for custom work, odd jobs, and repairing, etc.

4. In case of flour and grist mills, the value of the custom-ground grain should be included with the merchant product.

5. Value per unit of goods manufactured must be consistent with average prices of such articles during the census year.

6. Ascertain whether schedule shows a profit or loss by comparing the sum of salaries, wages, miscellaneous expenses, and cost of materials with the total value of products. When a loss appears without schedule being marked "correct" after a total value, it justifies a more careful examination. Such schedules should be referred to chief of section. Excessive apparent gain should also be investigated. Railroad repair shops can show no loss; as a rule, expenses and products should balance.

7. See if there is any indication that large amounts of partially manufactured products on hand have not been considered.

8. If schedule shows a total value of product of less than \$500, refer to the chief of section.

INQUIRY 11.

1. See that power is fully and properly reported for establishments which, according to the nature of the industry, should have power.

2. Power owned or generated should be fully described under section (a); power rented or bought from another establishment under section (b).

3. If power is bought or rented from others, the amount paid for same must be reported under the second item of Inquiry 8.

4. Water power and steam power, except when supplied by shafting or belting, should be reported as owned. Hence, when water power is used and water wheels are either owned or rented with the plant, the power should be reported as owned. In such cases, number of water wheels and engines must be reported or supplied.

5. Electric power, unless generated on the premises, should in all cases be reported as rented power.

6. "Other power" in the first section (a) should include only primary generators other than those enumerated in that section; dynamos are not to be included.

7. Supply omissions of horsepower of engines, etc., in accordance with average horsepower used by other establishments of same character and size.

8. Where electric motors are reported under section (a) without any primary generators (as engines, water wheels, etc.), and electric power to run the motors is also reported as rented under section (b), the electric motors under (a) should be crossed out, unless it is apparent that an error has been made in the preparation of the schedule.

9. Electric current for lighting purposes only, should be crossed out, as it is desired to obtain in answer to this inquiry only the current used for power.

10. Water used to run water motors, or gas to run gas engines reported under (a), should not be treated as rented power under (b).

11. Fractional parts of one horsepower, when reported alone, should in all cases be allowed to stand, and it will be tabulated as reported.

12. The name of the stream or lake from which water power is obtained and of the establishment from which electric power is rented, should assist in editing subinquiries (a) and (b).

INQUIRY 12.

1. Fuel should be reported, as a general rule. Where steam power is employed, or where welding, baking, smelting, etc., are required as a part of processes of manufacturers, as in machine shops, foundries, bakeries, and brickyards, a large expenditure for fuel is usual; in such cases, the quantity of fuel should be supplied if omitted. The kind and quantity of fuel is largely determined by the nature of the industry and its location.

2. Establishments, such as sawmills, having waste products which can be used for fuel, and those using water or electric power which do not require fuel in the process of manufacture, need not of necessity report fuel.

3. Where power is reported as rented under Inquiries 8 and 11 (b), no fuel item need be supplied unless, as previously explained, it is required for the manufacture, for welding, baking, smelting, etc.

4. Fuel for heating purposes only should not be supplied.

SUPPLEMENTAL SCHEDULES.

1. Supplemental schedules must accompany the General Schedules for each of the 62 industries for which such schedules are required, as shown by the list contained in the "Instructions to Special Agents," section 106.

2. Prepare a supplemental schedule, when omitted, from information in General Schedule when practicable, after consulting the section chief.

3. Name and location in supplemental and general schedules should agree.

4. Materials and products in the supplemental and general schedules must, in the majority of cases, agree, except when the supplemental schedules call only for the principal materials.

5. Compare products in the supplemental and General Schedules and see that they agree both in total and detail.

6. Where there are two supplemental schedules, one of which is schedule of by-products, the values in the by-products supplemental must be transferred to the "All other products" of the establishment. The principal supplemental then must agree with the General Schedule. A memorandum must be made in both the general and principal supplemental schedules as follows:

"Value of products includes by-products, classified as (insert name of classification of by-products supplemental), to value of \$....." A memorandum must also be made in the by-product supplemental as follows: "The value of the by-product here reported is included in the value of the product for (insert classification of General Schedule or chief supplemental)." Mark by-products supplemental in red ink, "By-products," and return to the section chief.

7. Where a by-product requires a supplemental schedule and the chief products require only a General Schedule, the materials and value of products on the supplemental and general schedules will not agree. A memorandum should be made on the by-product supplemental schedule, as provided for in the preceding paragraph, and the supplemental returned to the section chief.

8. Examine carefully questions relative to special equipment and machinery, etc. When omitted, supply from other parts of schedule where practicable or from other reliable sources.

9. Any by-product or minor product so reported as to indicate the character of the product and its value is to be taken off on a by-product slip, if the minor product or by-product relates to an industry not having a supplemental schedule, or on a supplemental schedule if the by-product industry has a supplemental. For example, in the case of an establishment classified as "Foundry and machine-shop products," specifically reporting the manufacture of screws and the value of the screws, or inks and colors, the screw product or the ink and color product will be taken off on a by-product slip. Use a separate slip for each minor product when they belong to different industries.

The minor or by-product is, of course, to remain on the General Schedule. In every case the by-product slip is to show the industry where it is reported and the name of the establishment, state, and city.

A special blank has been prepared for use in these cases and the same general rules apply in the preparation of this by-product schedule as are shown in paragraphs 1 to 7.

10. In the following industries—chemicals; cotton; cottonseed oil; dyestuffs and extracts; essential oils; explosives; fertilizers; gas, manufactured; hosiery and knit goods; paint and varnish; petroleum refining; silk manufactures; soap; sulphuric, nitric, and mixed acids; wood distillation; and wool manufactures—the supplemental schedules require a report of the products manufactured and consumed by the establishment in the manufacture of the final products. In these cases the value of the products thus consumed are not to be reported separately either as "materials used" or as "products." For example, in the manufacture of gas a portion, and sometimes all, of the coke—by-product of the coal gas—may be used as fuel for the boilers and retorts. The value of the coke so used is not to be reported as fuel under "materials used," or as a coke product under "products," for the cost of the same is covered by the coal and labor reported, and its value enters into the value reported for the gas product. If, however, all or part of the coke is sold it then becomes a true product and should be so reported. The examiners will pay special attention to the foregoing in preparing schedules of the industries named for tabulation.

11. Consult special instructions for some of the principal supplemental industries, as butter and cheese, flour and grist mills, sawmills, printing and publishing, and several others.

SPECIAL POINTS NOT TO BE OVERLOOKED.

1. Indicate by numerals the character of organization, Inquiry 1.
2. Eliminate all cents and fractions.
3. Make all corrections of figures on the same line as original figures.
4. Make all indistinct figures clear and legible.

APPENDIX C—MANUFACTURES.

SUPPLEMENTAL SCHEDULES.

In addition to the General Schedule, the following supplemental schedules must be prepared for the industries indicated by each:

- | | | | |
|--|---|---|---|
| 1. Agricultural implements. | 15. Coke. | 32. Lead smelting. | 48. Salt works. |
| 2. Automobiles. | 16. Copper smelting. | 33. Lead refining. | 49. Shipbuilding. |
| 3. Beet-sugar factories. | 17. Copper refining. | 34. Leather gloves and mittens. | 50. Silk manufactures. |
| 4. Bicycles and motorcycles. | 18. Cotton manufactures. | 35. Leather, tanned and curried. | 51. Slaughterhouses. |
| 5. Boots and shoes. | 19. Cottonseed-oil mills. | 36. Lime. | 52. Slaughtering and meat packing. |
| 6. Brick, tile, and terra cotta. | 20. Dyestuffs and extracts. | 37. Lumber and timber products. | 53. Soap. |
| 7. Butter, cheese, and condensed-milk factories. | 21. Electrical machinery and apparatus. | 38. Metal-working machinery. | 54. Starch and glucose factories. |
| 8. Cane-sugar mills. | 22. Essential-oil mills. | 39. Oilcloth and linoleum. | 55. Steel works and rolling mills. |
| 9. Canning and preserving, fish and oysters. | 23. Explosives. | 40. Paints and varnishes. | 56. Sulphuric, nitric, and mixed acids. |
| 10. Canning and preserving, fruits and vegetables. | 24. Fertilizers. | 41. Paper and pulp mills. | 57. Tin-plate and terneplate works. |
| 11. Carriages and wagons. | 25. Flax, hemp, and jute manufactures. | 42. Petroleum refining. | 58. Turpentine and rosin. |
| 12. Cars, steam and street railroad. | 26. Flour and grist mills. | 43. Phonographs and graphophones. | 59. Wire. |
| 13. Cement. | 27. Gas, manufactured. | 44. Pianos and organs. | 60. Wood distillation. |
| 14. Chemical manufactures. | 28. Glass works. | 45. Printing and publishing and the periodical press. | 61. Wool manufactures. |
| | 29. Hosiery and knit goods. | 46. Railroad repair shops. | 62. Zinc smelting and refining. |
| | 30. Ice, manufactured. | 47. Rice, cleaning and polishing. | |
| | 31. Iron and steel, blast furnaces. | | |

APPENDIX D.—CLASSIFICATION OF INDUSTRIES.

CLASSIFICATIONS BY INDUSTRIES FOR THE CENSUS OF MANUFACTURES, 1909.

There are 264 classifications used in connection with the census of manufactures of 1909, and each accepted report will be assigned to one of these classifications.

The classification of reports for manufacturing establishments is the assignment of the individual schedule to the particular class to which it belongs, in order to bring together, so far as practicable, all the establishments engaged in the same or kindred industry.

As a general rule, the classification will be determined in accordance with the product of chief value. There may be exceptions to the general rule, which, however, probably will be associated with some industry for which a supplemental schedule is provided and be due to the character of the machinery or the kind and quantity of materials used.

CLASSIFICATION LIST, WITH CROSS REFERENCES, 1909.

[Industries marked * require supplemental schedules.]

INDUSTRY.

*AGRICULTURAL IMPLEMENTS:

Includes planting, cultivating, harvesting, and seeding implements and machines, among which are the following: Broadcast seeders; beet cultivators; clover hullers, combination seeders; corn huskers; corn huskers and shredders; corn planters; corn shellers; cotton planters; cotton scrapers; cultivators; drills; equalizers; fanning mills; grain cradles; harrows; harvesters; harvesters and thrashers combined; headers; headers and binders; hay carriers; hay forks, horse; hay loaders; hayrakes, horse; hay stackers; hay tedders; listers; mowers; plows; potato diggers, horse; potato planters; reapers; seed sowers; thrashers, horse or steam power; and also bean planters; bean pullers; cane mills; celery hillers; check rows; corn cleaners; corn hooks; corn knives; cotton choppers; cottonseed hullers; ensilage cutters; hay-cutters; lime spreaders; manure spreaders; potato coverers and hillers; rollers; scythes; scythe snaths; sickles; sirup evaporators; sorghum binders; stackers; stalk cutters; weeders; and tobacco transplanters.

ARTIFICIAL FLOWERS AND FEATHERS AND PLUMES (*see also* Millinery and lace goods):

Artificial flowers—

Includes artificial leaves, palms, wreaths, plants, foliage and vines, buds and fruit; wax flowers; and the preservation of flowers and plants; also tubing and other material for the manufacture of artificial flowers.

Feathers and plumes—

Includes feathers and plumes; the curling and renovating of ostrich feathers, etc.

ARTIFICIAL STONE (*see also* Marble and stone work):

Includes articles manufactured from a combination of stone, gravel, sand, or metal, with cement. The products may be various kinds of building blocks, building trimmings, etc., and perhaps other articles, such as laundry tubs, burial vaults, etc.

ARTISTS' MATERIALS:

Includes palettes, pastels, canvas boards, prepared canvas on frames, oil colors, roman gold, bronze powders, gilders' cushions and burnishers, air pencils, and crayons.

*AUTOMOBILES, INCLUDING BODIES AND PARTS (*see also* Carriages and wagons and materials):

Automobile bodies and parts—

Includes chassis, automobile bodies, tops, mufflers, radiators, mud guards, cushion frames, and trimmings. Motors, rubber tires, and lamps must not be included here.

Automobiles—

Includes all kinds of automobiles, whether for pleasure, business, or public.

AWNINGS, TENTS, AND SAILS:

Includes window, store, and veranda awnings; tents; sails; tarpaulins; and canvas covers. Small establishments making these goods to the individual order and use are not to be included.

AXLE GREASE (*see also* Grease and tallow):

Includes axle grease and lubricants made for similar purposes.

BABBITT METAL AND SOLDER:

Includes babbitt and type metal (antifriction metal), an alloy largely composed of tin. Tin, copper, and zinc or antimony are the usual components. Among the solders will be found hard, soft, white, spelter, gold, silver, plumbers', pewterers', and button.

BAGS, OTHER THAN PAPER:

Includes meal bags, salt bags, gunny bags, and all other bags made from materials other than paper. Not to include bags made in textile mills.

BAGS, PAPER:

Includes the manufacture of paper bags, except those made in paper mills.

BAKING POWDERS AND YEAST (*see also* Flavoring extracts):

Includes, in addition to baking powders and yeast, articles used for similar purposes, such as malt extract for leavening, yeast cakes, stock yeast, etc.

BASKETS, AND RATTAN AND WILLOW WARE:

Includes baskets, carpet beaters, bottle covers, and, in general, the manufacture of small articles from willow, rattan, etc. The manufacture of furniture, however, must not be included.

***BEET SUGAR:**

Includes the manufacture of sugar from sugar beets.

BELTING AND HOSE, LEATHER:

Includes all kinds of leather belting and hose. The belting is largely used for the transmission of power, and the hose is mainly fire hose.

BELTING AND HOSE, WOVEN AND RUBBER (see also Rubber goods):*Belting and hose, woven—*

Includes all kinds of belting and hose where the material is found to be chiefly cotton, linen, or canvas.

Belting and hose, rubber—

Includes all kinds of belting and hose where the chief material is found to be rubber.

***BICYCLES, MOTORCYCLES, AND PARTS:**

Includes the manufacture of bicycles, tricycles, motorcycles, and also establishments manufacturing parts, such as saddles, seat posts, frames, gears, handle bars, chains, etc. Establishments assembling parts and turning out complete machines of this character are to receive this classification.

BILLIARD TABLES AND MATERIALS:

Includes, in addition to billiard, pool, bagatelle, and scipio tables, the manufacture of billiard cues and chalk, pool pockets, fringe, cue tips, and pool balls of ivory and composition.

BLACKING AND CLEANSING AND POLISHING PREPARATIONS:*Blacking—*

Includes shoe polish and blacking, stove polish, shoe stains, and paints, burnishing inks, harness blacking and dressing, curriers' blacking, belt dressing, etc.

Cleansing and polishing preparations—

Includes furniture polish, floor polish, starch polish, washing fluids, wall-paper cleaner, pumice stone, tripoli, etc.

BLUING:

Includes washing blue, Prussian blue, aniline blues, etc. The usual materials for the manufacture of bluing are indigo and Prussian blue.

BONE, CARBON, AND LAMP BLACK (see also Paints and varnish; Chemicals):

Includes the manufacture of bone black, carbon black, lamp and ivory black, etc.

BOOTS AND SHOES, INCLUDING CUT STOCK AND FINDINGS:Boot and shoe cut stock—*

Includes soles, taps, heels, top lifts, inner soles, etc.

Boot and shoe findings—

Includes shoe pegs, bows, clasps, stays, tips, toe caps, buckles, heel caps, rands, staples, counters, shanks, wooden heels, shoe trimmings, etc.

Boots and shoes—

Includes factories manufacturing boots, shoes, and slippers, moccasins, leggings, overgaiters, etc., and also establishments engaged in doing certain work in connection with the manufacture of boots, shoes, slippers, etc., on materials largely furnished.

Separate totals will be shown as follows:

The regular factories making boots, shoes, etc., from their own materials, although there may be contract work shown.

Factories doing the whole or part of the work of manufacture on materials which are furnished.

Stitching shops.

Crimping shops.

Establishments making buttonholes in uppers.

Establishments manufacturing footwear, not strictly boots and shoes, such as overgaiters, moccasins, leggings, etc.

BOOTS AND SHOES, RUBBER:

Includes boots, shoes, and other footwear of rubber.

BOXES, CIGAR:

Includes all kinds of cigar boxes in which the cigars are packed and from which they must be sold.

BOXES, FANCY AND PAPER (see also Fancy articles, not elsewhere specified):

Includes paper boxes, folding boxes, decorated tin boxes, fancy tea caddies, mailing boxes, etc.

BRASS AND BRONZE PRODUCTS (see also Foundry and machine-shop products):*Brass—*

Includes the manufacture of ingot brass and shapes for remanufacture.

Brass and copper, rolled—

Includes sheet brass, bars, rods, etc.

Brass castings and brass finishing—

Includes brass foundry work and finishing, as distinguished from the lighter brass work known as brass ware; car and engine brasses; refinishing brass work; oiling devices; safety steam appliances; brass spigots; hose couplings, etc.

Brass ware—

Includes ornaments for furniture, stair plates, stair rods, fenders, screen plates, novelties, metal spinning, brass tubing, etc.

Bronze castings—

Includes castings and heavy foundry work of bronze.

BREAD AND OTHER BAKERY PRODUCTS:

Includes bread, crackers, pretzels, pies, cake, etc.

***BRICK AND TILE (see also Pottery, terra-cotta, and fire-clay products):**

Includes building brick, fancy and ornamental brick, vitrified brick, drain tile, etc.

BROOMS:

Includes the manufacture of brooms, whisk brooms, etc., made from broom straw or other similar fiber, as distinguished from brushes made from bristles, etc.

BRUSHES:

Includes paint, floor, whitewash, sash, and other brushes; also leather dusters. This classification does not include the manufacture of rubber brushes.

BUTTER, CHEESE, AND CONDENSED MILK:Butter—*

Includes establishments or creameries engaged in the manufacture of butter.

Cheese—

Includes factories engaged in the manufacture of cheese.

Condensed milk—

Includes factories engaged in the manufacture of condensed milk, sweetened or unsweetened.

BUTTER, REWORKING:

Includes establishments engaged in the reworking of butter of different grades into a salable product.

BUTTONS:

Includes ivory, bone, shell, metal, cloth, cloth-covered, porcelain, pearl and brass buttons and shell button blanks, etc.

CALCIUM LIGHTS:

Includes establishments manufacturing oxygen and hydrogen gas which is compressed into cylinders for calcium-light uses, etc.

CANDLES (see also Grease and tallow; Petroleum refining; Soap):

Includes candles of spermaceti, paraffin, wax, tallow, etc.

CANNING AND PRESERVING (see also Food preparations):Canning and preserving, fish—*

Includes canned, pickled, smoked, and dried fish; crabs; lobsters; shrimp; but not oysters and clams.

Canning and preserving, fruits and vegetables—

Includes, in addition to the canning and preserving of fruits and vegetables, the packing of dried fruits by packing houses which make a specialty of such business.

Canning and preserving, oysters—

Includes bivalves, such as oysters and clams.

Pickles, preserves, and sauces—

Includes jellies, apple butter, salad dressing, pickles, preserves, and sauces.

CARD CUTTING AND DESIGNING:

Includes jewelers' cards; index cards for office and library cabinets; jacquard cards; fancy cards; and other card cutting and designing.

*CARPETS AND RUGS, OTHER THAN RAG (*see also* Woolen, worsted, and felt goods, and wool hats):

Includes woolen mills manufacturing carpets and rugs, but does not include the manufacture of rag carpets and rugs.

CARPETS, RAG:

Includes establishments manufacturing rag carpets and rugs. A considerable number of establishments embraced in this classification will be engaged in making these articles from material largely furnished by others.

CARRIAGES AND SLEDS, CHILDREN'S (*see also* Furniture and refrigerators):

Includes baby carriages, gocarts, sleds, etc.

*CARRIAGES AND WAGONS AND MATERIALS (*see also* Agricultural implements; Automobiles, including bodies and parts):

Carriage and wagon materials—

Includes carriage and wagon bodies, tops, cushions, hubs, felloes, spokes, wheels, whiffletrees, carriage boots and aprons, axles, dashboards, neck yokes, whip sockets, etc.

Carriages and wagons—

Includes establishments manufacturing five or more of these vehicles. Sleighs, pungs, etc., are also to be included.

*CARS AND GENERAL SHOP CONSTRUCTION AND REPAIRS BY STEAM-RAILROAD COMPANIES (*see also* Cars, steam-railroad, not including operations of railroad companies; Locomotives):

Includes the shopwork of construction and repairs done by steam-railroad companies. This work is confined largely to the repairs of rolling stock, but may include the building of new cars and locomotives, and sometimes the repair work done for other railroad companies.

*CARS AND GENERAL SHOP CONSTRUCTION AND REPAIRS BY STREET-RAILROAD COMPANIES (*see also* Cars, street-railroad, not including operations of railroad companies):

Includes the shopwork of construction and repairs done by street-railroad companies.

*CARS, STEAM-RAILROAD, NOT INCLUDING OPERATIONS OF RAILROAD COMPANIES (*see also* Cars and general shop construction and repairs by steam railroad companies):

Includes establishments engaged in the manufacture of cars for use on steam railroads.

*CARS, STREET-RAILROAD, NOT INCLUDING OPERATIONS OF RAILROAD COMPANIES (*see also* Cars and general shop construction and repairs by street-railroad companies):

Includes establishments engaged in the manufacture of cars for use on street railroads.

CASH REGISTERS AND CALCULATING MACHINES:

Includes cash registers, adding machines, and various other types of calculating machines.

*CEMENT:

Includes chiefly Portland cement, and also hydraulic, fire-proof, slag, and ship cement, etc.

CHARCOAL (*see also* Lumber and timber products; Wood distillation, not including turpentine and rosin):

Includes establishments engaged in the manufacture of charcoal.

*CHEMICALS (*see also* Dyestuffs and extracts; Fertilizers; Explosives; Oil, essential; Paint and varnish; Sulphuric, nitric, and mixed acids; Wood distillation, not including turpentine and rosin):

Includes acids, not including sulphuric, nitric, and mixed, as follows: Acetic, boric, citric, gallic, hydrofluoric, lactic, muriatic, oleic, oxalic, phosphoric, salicylic, and stearic; sodas: Soda ash, sal soda, bicarbonate of soda, caustic soda, and borax; potash and pearlsh; alums: Alum cake, ammonia alum, burnt alum, concentrated alum, potash alum, and soda alum; coal-tar distillery products, and chemicals made from coal-tar distillery products; cyanides: Potassium cyanide, sodium cyanide, yellow prussiate of potash, and red prussiate of potash; bleaching materials: Hypochlorites, hydrogen peroxide, sodium peroxide, sulphur dioxide, and bisulphites; chemical substances produced by the

CHEMICALS—Continued.

aid of electricity: Calcium carbide, carbon disulphide, caustic soda, chlorates, hypochlorites, lead oxides, phosphorus, and sodium; plastics: Pyroxylin plastics, viscose, hard fiber, and casein, fibrin, or gluten compositions; compressed or liquefied gases: Anhydrous ammonia, carbon dioxide, sulphur dioxide, laughing gas, and liquid air or oxygen; fine chemicals: Alkaloids, gold salts, silver salts, platinum salts, refined camphor, artificial camphor, chloroform, ether, acetone, and vanillin; other chemicals: Glycerin, cream of tartar, epsom salts, blue vitriol, copperas, phosphates of soda, and tin and zinc salts.

CHINA DECORATING (*see also* Pottery, terra-cotta, and fire-clay products):

Includes establishments engaged in firing or decorating china. This classification is intended to include establishments engaged in performing this work for the trade, and not small establishments engaged in performing such work for private parties or to individual order.

CHOCOLATE AND COCOA PRODUCTS:

Includes chocolate, cocoa, cocoa beans, cocoa butter, broma, and generally products of the nut of the cacao tree. This does not, however, include chocolate confectionery, which is given a special classification of "Confectionery."

CLOCKS AND WATCHES, INCLUDING CASES AND MATERIALS:

Clocks—

Includes establishments manufacturing, in addition to the ordinary clocks, watchmen's recorders, clock and time protectors, electrical signaling gongs, tower clocks, advertising clocks, time registers, automatic-clock devices, etc.

Watch and clock materials—

Includes dials, pendulums, pendants, springs, etc.

Watch cases—

Includes establishments engaged in the manufacture of watch cases.

Watches—

Includes establishments engaged in the manufacture of watches and watch movements.

CLOTH, SPONGING AND REFINISHING:

Includes establishments engaged in sponging and refinishing textiles. This classification must not be confused with that for "Dyeing and finishing textiles."

CLOTHING, HORSE:

Includes horse blankets, robes, fly nets, housings, etc.

CLOTHING, MEN'S, INCLUDING SHIRTS (*see also* Furnishing goods, men's):

Clothing, men's—

Includes establishments engaged in the manufacture of men's, boys', and children's clothing, and such garments as overalls, market frocks, butchers' aprons, uniforms, bathing suits, knee pants, gymnasium and sporting clothing, etc. This classification also includes establishments engaged in contract work on clothing where the materials, or the greater part of them, are furnished.

Separate totals will be shown as follows:

The regular factories making men's clothing, etc., from their own materials although there may be contract work shown.

Shops where these articles are made from materials which are furnished.

Shirts—

Includes shirts of cotton, linen flannel, etc., shirt bosoms, and shirt waists for men and boys.

CLOTHING, MEN'S, BUTTONHOLES:

Includes establishments engaged in working buttonholes in clothing.

CLOTHING, WOMEN'S:

Includes cloaks, capes, jackets, wrappers, shirt waists, dresses, skirts, cloak linings, underwear, infants' clothing, dress stays, quilted linings, belts, dress shields, suits, pleating, aprons, sleeves, petticoats, kimonas, dressing sacks, hose supporters, and night robes.

CLOTHING, WOMEN'S—Continued.

Separate totals will be shown as follows:

The regular factories making women's clothing, etc., from their own materials, although there may be contract work shown.

Shops where these articles are made from materials which are furnished.

COFFEE AND SPICE, ROASTING AND GRINDING:

Includes establishments engaged in grinding or roasting coffee and spice.

COFFINS, BURIAL CASES, AND UNDERTAKERS' GOODS:

Includes coffins, caskets, burial cases, such special articles as clothing, shoes, slippers, etc., which pertain to this industry, and also robes, habits, casket linings, scarfs, and draperies.

*COKE:

Includes establishments operating coke ovens for the manufacture of coke from coal or slack, but does not include coke made at gas houses.

CONFECTIONERY:

Includes establishments engaged in the manufacture of all kinds of confectionery, and also chewing gum, stick licorice, corn balls, salted nuts, etc.

COOPERAGE AND WOODEN GOODS, NOT ELSEWHERE SPECIFIED:

Cooperage—

Includes flour, sugar, and fish barrels, hogsheads, kegs, tubs, shooks, box straps from hoop poles, and generally all classes of articles made from staves.

Wooden goods, not elsewhere specified—

Includes butter bowls and dishes, chopping bowls, trays, clothespins, toothpicks, grain measures, washboards, ladders, stepladders.

COPPER, TIN, AND SHEET-IRON PRODUCTS (see also Roofing materials):

Copper, tin, and sheet-iron products—

Includes sinks, tanks, cooking apparatus, smokestacks, furnace casings, cornices, roofing, skylights, and various other material used in connection with building operations, and coppersmithing and sheet-iron work.

Stamped and enameled ware—

Includes stamped sheet metal goods of all kinds which are not otherwise provided for.

Tinware—

Includes establishments engaged in the manufacture of tinware, tin cans, steam cookers, boilers, etc.

*CORDAGE AND TWINE AND JUTE AND LINEN GOODS (see also Cotton goods, including cotton small wares):

Cordage and twine—

Includes rope, lines, and binder twine from hemp, flax, cotton, manila, jute, and other fiber.

Jute and jute goods—

Includes burlaps, gunny bagging, etc., and, in general, articles where the chief material is jute fiber or jute yarn.

Linen goods—

Includes crash, towels and toweling, linen thread, etc.

Nets and seines—

Includes establishments engaged in the manufacture of nets and seines.

CORDIALS AND SIRUPS:

Includes cordials, flavoring sirups, and certain kinds of bitters which are not of a character to be classed as patent medicines.

CORK, CUTTING:

Includes various articles manufactured from cork, chiefly bottle corks.

CORSETS:

Includes corsets and similar articles.

*COTTON GOODS, INCLUDING COTTON SMALL WARES (see also Hosiery and knit goods):

Cotton goods—

Includes cotton mills producing plain cloths for printing or converting, sheeting, twills and sateens, fancy woven fabrics, ginghams, duck, drills, ticks, denim, cotton flannels, napped

COTTON GOODS, INCLUDING COTTON SMALL WARES—Continued.

Cotton goods—Continued.

fabrics, corduroys, cotton velvet and plush, upholstery goods, toweling, yarns, etc.

Cotton small wares—

Includes narrow fabrics, braids, tapes, binding, corset laces, shoe laces, etc.

CRUCIBLES:

Includes chiefly crucibles made to withstand a very high degree of heat, varying greatly in size.

CUTLERY AND TOOLS, NOT ELSEWHERE SPECIFIED (see also Files;

Foundry and machines-shop products; Saws:

Cutlery and edge tools—

Includes knives, razors, scissors, shears, augurs, gimlets, planes, meat choppers, axes, hatchets, and implements of a similar character.

Tools, not elsewhere specified—

Includes stone and marble cutting tools, spirit levels, picks, plumbers' tools, jewelers' tools, corn huskers, iron workers' tools, bakers' tools, shovels, spades, scoops, pressing irons, hammers, mallets, soldering irons, screw drivers, wrenches, and all tools not covered by other classifications.

DAIRYMEN'S, POULTERERS' AND APIARISTS' SUPPLIES:

Includes cabinet creameries, churns, butter washers and molds and ladles, cream separators, dairy implements, rennet extract, cheese vats, cheese cap cloths, poultry supplies, incubators, brooders, bee smokers, beehives, honey boxes, and honeycomb foundations.

DENTISTS' MATERIALS:

Includes porcelain teeth, filling material, dental alloys, plate material, etc.

DRUG GRINDING:

Includes establishments engaged in grinding drugs of all kinds, sometimes known as "drug millers."

DYEING AND FINISHING TEXTILES:

Includes independent bleachers' print works and dye works, chiefly engaged in dyeing, printing, and bleaching cotton, woolen, worsted, silk yarns, and piece goods, and in printing cotton piece goods, etc.

*DYE STUFFS AND EXTRACTS (see also Chemicals):

Includes indigo, cochineal, madder, fustic, aniline dyes, mordants, iron liquor, red liquor, turkey-red oil, logwood extract, ground sumac, sumac extract, hemlock extract, oak and chestnut extract, palmetto extract, chrome-tannage solution, tannic acid.

*ELECTRICAL MACHINERY, APPARATUS, AND SUPPLIES:

Includes dynamos; transformers for light and power; switchboards; panel boards; cut-out cabinets for light and power; motors; storage batteries; primary batteries; carbons; arc lamps; incandescent lamps; searchlights; projectors, and focusing lamps; sockets, receptacles, bases, etc.; transmitters; receivers; lightning arresters; rheostats and resistances; electric welding apparatus; electrical therapeutic apparatus; and electric switches, signals, and attachments.

ELECTROPLATING:

Includes electroplating of all descriptions, such as nickel plating, silver plating, etc.

EMERY AND OTHER ABRASIVE WHEELS:

Includes all kinds of abrasive wheels, whether of emery, carborundum, or other material, except grindstones and millstones.

ENAMELING AND JAPANING:

Enameling—

Includes enameling, chiefly upon purchased articles or by contract.

Japaning—

Includes the treatment of wood, metal, paper, etc., with japan varnish.

ENGRAVERS' MATERIALS:

Includes metal plates to be used in photo-engraving and boxwood blocks for use in wood-engraving work, etc.

ENGRAVING AND DIESINKING:

Includes chasing, engraving on jewelry and silverware, notarial seals, and all kinds of die sinking.

ENGRAVING, WOOD:

Includes wood engraving for printers' use.

***EXPLOSIVES (see also Chemicals):**

Includes blasting powder, gunpowder (black), nitroglycerin, dynamite, guncotton or pyroxylin, smokeless powder, fulminating mercury, permissible explosives.

FANCY ARTICLES, NOT ELSEWHERE SPECIFIED (see also Boxes, fancy and paper):*Fancy articles, not elsewhere specified—*

Includes beaded articles, shell hatpins, celluloid novelties, art novelties and holiday goods, photojewelry and buttons, chamois skins, inlaid veneer work, atomizers, silk watch chains, burnt-wood articles, metal frames, lamp shades, bric-a-brac, composition ornaments, needle and pin books, and decalcomania work.

Combs and hairpins—

Includes combs and hairpins made of horn, shell, bone, ivory, metal, or other materials.

Ivory, shell, and bone work—

Includes articles made from ivory, shell, or bone.

***FERTILIZERS (see also Oil, cottonseed, and cake; Slaughtering and meat packing):**

Includes superphosphates from minerals, bones, etc., ammoniated fertilizers, concentrated phosphate, complete fertilizers, fish scrap, soda products, pyrite cinder.

FILES (see also Foundry and machine-shop products; Cutlery and tools, not elsewhere specified):

Includes files, rasps, etc., and the recutting of the same.

FIREARMS AND AMMUNITION:*Ammunition—*

Includes blasting caps, cartridges for firearms, fog and danger signals and torpedoes, fuses, lead shot, percussion caps, and signal squibs.

Firearms—

Includes rifles, shotguns, revolvers, etc.

FIRE EXTINGUISHERS, CHEMICAL:

Includes establishments engaged in the manufacture of chemical fire extinguishers.

FIREWORKS:

Includes fireworks, firecrackers, etc.

FLAGS, BANNERS, REGALIA, SOCIETY BADGES AND EMBLEMS:*Flags and banners—*

Includes flags, banners, etc.

Regalia and society badges and emblems—

Includes regalia, emblems for Masonic and other similar organizations, badges, etc.

FLAVORING EXTRACTS (see also Baking powders and yeast):

Includes all kinds of flavoring extracts, colors for bakers and confectioners, fruit juices, etc.

FLAX AND HEMP, DRESSED:

Includes establishments engaged in removing seeds, dross, etc., and generally preparing raw flax and hemp for factory use.

***FLOUR-MILL AND GRISTMILL PRODUCTS (see also Food preparations):**

Includes wheat, corn, rye, buckwheat, and rice flour; corn meal; barley meal; cracked corn; shorts, etc.

FOOD PREPARATIONS (see also Canning and preserving; Flour-mill and gristmill products; Oleomargarine):

Includes oatmeal, hominy, cracked wheat, rolled oats, and other cereals, hulled corn, mincemeat, noodles, saratoga chips, canned soups, scrapple, bird and poultry food, self-raising flour, sauer kraut, cereal coffee, etc. This classification must not be confused with the separate classification for several kinds of food products, as follows: Bread and other bakery products; butter; cheese; condensed milk; canning and preserving, fish; canning and preserving, fruits and vegetables; canning and preserving, oysters; flour-mill and gristmill products; oleomargarine; pickles, preserves, and sauces; sausage; sugar and molasses, refined; vinegar and cider.

FOOD PREPARATIONS—Continued.

Separate totals will be shown as follows:

Establishments manufacturing food preparations for human consumption.

Establishments manufacturing animal and poultry foods.

FOUNDRY AND MACHINE-SHOP PRODUCTS (see also Brass and bronze products; Cash registers and calculating machines; Cutlery and tools, not elsewhere specified; Files; Firearms and ammunition; Horseshoes; Iron and steel, bolts, nuts, washers, and rivets; Iron and steel, doors and shutters; Iron and steel, forgings; Iron and steel, nails and spikes, cut and wrought; Iron and steel pipe, wrought; Locomotives; Stoves and furnaces, including gas and oil stoves; Vault lights and ventilators; Washing machines and clothes wringers):

Foundry and machine-shop products—

Includes air compressors, air tanks, anvils, automobile engines, bake ovens, ball bearings, bar fittings, biscuit cutters, blowers, boiler cleaners, boilers, brake beams, car wheels, castings, chain belting, check protectors, clamps, clay-tempering machines, cob crushers, conveying machines, couplings, cracker machines, cranes, derricks, drying frames, dumb-waiters, ejectors, elevator doors, envelope machines, etching machines, fan forges, feeding and watering appliances, fertilizer pulverizers, filters, fire engines, fire hydrants, flue blowers, folding machines, folding pails, frames, furnaces for steam boilers, gas engines, gas holders, gasoline motors, gear wheels, grinders, hair machines, hand drills, hoisting engines and apparatus, hydraulic presses, ice breakers, ice-cream freezers, injectors, iron flasks, iron posts, iron and wire screens, iron and steel pipe, cast; jacketed kettles, jackscrews, jacquard attachments, jewelers' machines, kettles, knife grinders, lawn mowers, lightning rods, looms and loom fixtures, loopers, lubricators, machine knives, machine wool combs, manhole doors, marine engines, meal mills, meat mixers, merry-go-rounds, metallic packing, napping machines, metal saw tables, milling machines, molding cutters, music stands, parcel conveyors, plated metal work, presser dies, propeller wheels, punches, railroad-switch appliances, sausage stuffers, scouring machines, shafting, shuttles, slot machines, smokestacks, stamping machines, stationary engines, steam hammers, steam rollers, steel pans, steel tires, stencil machines, street-sweeping machines, swages, tackle blocks, tanks, toboggans, traction engines, trunk racks, turbines, type casting and setting machines, valves, vending machines, vises, wall-paper trimmers, warping machines, weather vanes, white metal wrapping machines, and textile and wood working machinery.

Bells—

Includes the manufacture of electric, sleigh, bicycle, and church bells; and gongs.

Gas machines and gas and water meters—

Includes gas machines, acetylene-gas generators, gas meters, water meters, regulators, etc.

Hardware—

Includes locks, car seals, seal presses, brackets, andirons and fireplace goods, oilers, brass drapery chains, metal curtain rods, fancy upholstery nails, sash weights, trunk trimmings, and builders', cabinet, car, carriage, casket, furniture, and piano and organ hardware.

Hardware, saddlery—

Includes hardware for use in connection with the manufacture of saddlery and harness.

Plumbers' supplies—

Includes bath tubs, traps, plumbers' woodwork, faucets, spigots, kitchen hot-water boilers, etc.

Steam fittings and heating apparatus—

Includes hot-water and steam-heating apparatus, radiators, washers, valves, gauges, coils, etc.

Structural ironwork—

Includes girders, columns, trusses, grilles, railings, fire escapes, and other builders' ironwork.

FOUNDRY SUPPLIES:

Includes foundry facing, molding sand, foundry sieves, and foundry flour, etc.

FUEL, MANUFACTURED:

Includes establishments engaged in the manufacture of fuel from coal dust, tar, crude oil, sawdust, etc.

FUR GOODS (see also Hats and caps, other than felt, straw, and wool):

Includes all kinds of garments made where the material is fur, such as robes, muffs, scarfs, gloves and mittens, trimmings, etc. This classification must not be confused with "Furs, dressed."

FURNISHING GOODS, MEN'S (see also Clothing, men's, including shirts; Gloves and mittens, leather):*Furnishing goods, men's—*

Includes men's neckwear, belts, handkerchiefs, etc.

Collars and cuffs—

Includes establishments manufacturing collars and cuffs.

Suspenders, garters, and elastic woven goods—

Includes suspenders, garters, and also the manufacture of the elastic webbing from which these articles are made.

FURNITURE AND REFRIGERATORS:*Furniture—*

Includes tables, desks, bookcases, sideboards, china closets, commodes, wardrobes, bedsteads, sofas, couches, chairs, chair seats, footstools, hat trees, music cabinets and stands, bureaus, chiffoniers, furniture ornaments, and store and office fixtures, whether of wood or metal.

Separate totals will be shown as follows:

Establishments manufacturing wood furniture.

Establishments manufacturing metal furniture.

Establishments manufacturing store and office fixtures.

Refrigerators—

Includes refrigerators, ice boxes, etc.

FURS, DRESSED:

Includes the tanning and dyeing of skins with the fur on.

GALVANIZING:

Includes establishments engaged in galvanizing. Galvanizing is a process of coating metal with a composition of zinc, tin, spelter, etc.

GAS AND ELECTRIC FIXTURES AND LAMPS AND REFLECTORS:*Gas and electric fixtures—*

Includes the manufacture of gas and electric fixtures.

Separate totals will be shown as follows;

Establishments manufacturing electric fixtures.

Establishments manufacturing all other fixtures.

Lamps and reflectors—

Includes all kinds of lamps and reflectors, except electric, incandescent, and arc lamps.

***GAS, ILLUMINATING AND HEATING:**

Includes the manufacture of gas for illuminating and heating purposes from coal, coke, oil, benzine, gasoline, and from calcium carbide, or by means of a combination of two or more of these materials.

***GLASS:**

Includes building glass, pressed and blown glass, bottles, jars, etc.

GLASS, CUTTING, STAINING, AND ORNAMENTING:

Includes glass cutting, glass beveling, bending sheet glass, engraving glass, glass labels, and staining and ornamenting glass.

***GLOVES AND MITTENS, LEATHER (see also Furnishing goods, men's):**

Includes men's, boys', women's, and children's leather gloves, mittens, and gauntlets, lined and unlined.

GLUCOSE AND STARCH:Glucose—*

Includes establishments engaged in manufacture of glucose.

Starch—

Includes corn, wheat, potato, and root starch.

GLUE (see also Slaughtering and meat packing):

Includes establishments engaged in the manufacture of various kinds of glue.

GOLD AND SILVER, LEAF AND FOIL:

Includes establishments generally known as gold beaters, which are engaged chiefly in making gold and silver leaf and foil.

GOLD AND SILVER, REDUCING AND REFINING, NOT FROM THE ORE:

Includes establishments engaged in reducing and refining the precious metals, as recovered from factories engaged in the manufacture of jewelry, silverware, etc. This must not be confused with the manufacture of gold and silver from the ore, which usually is a mining operation.

GRAPHITE AND GRAPHITE REFINING (see also Pencils, lead):

Includes establishments engaged in extracting the graphite from the mineral and in refining the same, or in both.

GREASE AND TALLOW (see also Axle grease; Candles; Slaughtering and meat packing; Soap):

Includes the rendering of all kinds of grease and tallow, with the exception of axle grease, for which there is an independent classification.

GRINDSTONES:

Includes establishments manufacturing grindstones.

HAIRCLOTH:

Includes establishments engaged in the manufacture of haircloth.

HAIR WORK:

Includes wigs, switches, braids, puffs, and other articles made from human hair.

HAMMOCKS (see also Awnings, tents, and sails; Cordage and twine and jute and linen goods):

Includes establishments engaged in the manufacture of hammocks.

HAND STAMPS AND STENCILS AND BRANDS:*Hand stamps—*

Includes various kinds of hand stamps, commonly known as rubber stamps.

Stencils and brands—

Includes stencils made from brass, steel, or other metals, branding stamps of iron, etc.

HAT AND CAP MATERIALS:

Includes hatters' furs, hat wire, sweat bands, vizors.

HATS AND CAPS, OTHER THAN FELT, STRAW, AND WOOL:

Includes silk hats, chapeaus, opera or crush hats, cloth caps, uniform caps, etc.

***HATS, FUR-FELT:**

Includes stiff and soft hats made from hatters' fur.

HATS, STRAW:

Includes the manufacture of men's, women's, and children's straw and Panama hats.

HONES AND WHETSTONES:

Includes hones, whetstones, oilstones, scythe rifles, etc.

HORSESHOES, NOT MADE IN STEEL WORKS OR ROLLING MILLS (see also Steel works and rolling mills):

Includes establishments engaged in the manufacture of horseshoes.

HOSIERY AND KNIT GOODS (see also Cotton goods; Woolen, worsted, and felt goods, and wool hats):Hand-knit goods—*

Includes cardigan jackets, sweaters, fancy jackets, hoods, scarfs, nubias, shawls, wristers, gaiters, etc., made largely in establishments where no power is used.

Hosiery and knit goods—

Includes woolen or worsted, merino or mixed, cotton, and silk hose and half hose; knit shirts and drawers; combination suits; gloves and mittens, not leather; hoods, scarfs, nubias, etc.; cardigan jackets, sweaters, fancy jackets, shawls, fancy knit goods, wristers, etc.

HOUSE-FURNISHING GOODS, NOT ELSEWHERE SPECIFIED:

Includes comfortables, piano covers and scarfs, hollow ware, carpet linings, mosquito canopies, pillow shams, carpet sweepers, pillows, quilts, cotton batting, mops, pin-cushions, clotheslines, and articles of this character not covered by other classifications.

***ICE, MANUFACTURED:**

Includes establishments engaged in the manufacture of ice.

INK, PRINTING:

Includes establishments engaged in the manufacture of printing ink.

INK, WRITING:

Includes writing ink and fluid, indelible ink, etc.

INSTRUMENTS, PROFESSIONAL AND SCIENTIFIC:

Includes dental, meteorological, nautical, surgical, and surveyors' instruments, compasses, microscopes, telescopes, barometers, etc.

***IRON AND STEEL, BLAST FURNACES:**

Includes establishments engaged in the manufacture of pig iron from the ore.

***IRON AND STEEL, STEEL WORKS AND ROLLING MILLS:**

Includes establishments engaged in the manufacture of steel or in rolling hot iron. Among the products of this class of mills are steel ingots, direct steel castings, rolled iron and steel, such as rails, splice bars, including all patent splices and rail joints, bars and rods, sheet or tin-plate bars, wire rods, structural shapes, including light and heavy shapes, hoops, bands, and cotton ties, axles, rolled or hammered, nail plate and tack plate, black plates or sheets for tinning, armor plate, and gun forgings.

IRON AND STEEL, BOLTS, NUTS, WASHERS, AND RIVETS, NOT MADE IN STEEL WORKS OR ROLLING MILLS (see also Iron and steel, steel works and rolling mills):

Includes establishments engaged in making these articles, except where made in steel works or rolling mills.

IRON AND STEEL, DOORS AND SHUTTERS:

Includes establishments manufacturing doors and shutters.

IRON AND STEEL FORGINGS (see also Iron and steel, steel works and rolling mills):

Includes establishments engaged in manufacturing forgings, drop forgings, chains, anchors, etc.

IRON AND STEEL, NAILS AND SPIKES, CUT AND WROUGHT, INCLUDING WIRE NAILS, NOT MADE IN STEEL WORKS OR ROLLING MILLS (see also Iron and steel, steel works and rolling mills):

Includes establishments engaged in the manufacture of iron and steel nails and spikes, cut and wrought, including wire nails, not made in steel works or rolling mills.

IRON AND STEEL PIPE, WROUGHT:

Includes seamless drawn, clinched, brazed, and heavy riveted, wrought-iron pipe largely made from skelp.

JEWELRY:

Includes articles made from the precious metals, as follows: Rings, pins, bracelets, chains, diamond setting and mounting, trimmings for umbrellas, canes, etc., and also rolled plate, filled wire, etc.

JEWELRY AND INSTRUMENT CASES:

Includes cases and fancy boxes made for holding jewelry and instruments.

KAOLIN AND GROUND EARTHS:

Includes the grinding of emery, flint, ocher, barytes, manganese, cliff stone, chalk, talc, feldspar, kaolin, etc.

LABELS AND TAGS (see also Printing and publishing):

Includes the various kinds of labels and tags; celluloid, metal, and cardboard checks; patent indexes; pin tickets, etc.

LAPIDARY WORK:

Includes establishments engaged in the cutting of diamonds and other precious or semiprecious stones.

LARD, REFINED, NOT MADE IN SLAUGHTERING AND MEAT-PACKING ESTABLISHMENTS (see also Slaughtering and meat packing):

Includes establishments engaged in refining lard.

LASTS:

Includes establishments engaged in the manufacture of lasts for the shoe industry and also adjustable shoe lasts.

LAUNDRIES, STEAM:

Includes laundry work done by the aid of machinery and power.

LEAD, BAR, PIPE, AND SHEET (see also Smelting and refining, lead):

Includes establishments engaged in the manufacture of lead bars and sheets and lead pipe.

LEATHER GOODS (see also Gloves and mittens, leather):

Leather goods, not elsewhere specified—

Includes belt laces, dog collars, embossed leather, leather aprons for worsted machinery, leather washers, leather chair seats, leather garments, and razor strops.

Pocketbooks—

Includes pocketbooks, bill books, card cases, money purses, etc.

Saddlery and harness—

Includes saddlery and harness, or parts of the same, halters, horse boots, saddletrees, etc.

Trunks and valises—

Includes trunks, valises, and bags, satchels, boxes for trunks, etc., irrespective of the material from which they are made.

***LEATHER, TANNED, CURRIED, AND FINISHED:**

Includes rough leather and sole leather, upper leather, morocco and colored skins, horsehides, calf and kip skins, goatskins, sheepskins; belting, harness, carriage, trunk, bag and pocketbook, bookbinders', and furniture leathers, leather for gloves, mittens, etc.

***LIME:**

Includes establishments manufacturing lime.

LIQUORS, DISTILLED:

Includes whisky, rum, gin, brandy, fruit brandies, etc.

LIQUORS, MALT:

Includes lager beer, porter, ale, weiss beer, etc.

LIQUORS, VINICUS:

Includes wines, still and effervescing, such as champagne, port, sherry, etc.

LOCOMOTIVES, NOT MADE BY RAILROAD COMPANIES (see also Cars and general shop construction and repairs by steam-railroad companies):

Includes establishments manufacturing locomotives.

LOOKING-GLASS AND PICTURE FRAMES (see also Lumber and timber products):

Includes looking-glass and picture frames, passe-partouts, paper, plush, and velvet frames, and the gilding of moldings, etc. (Establishments engaged in framing pictures, etc., to the individual order are not to be included.)

***LUMBER AND TIMBER PRODUCTS (see also Show cases; Wood, turned and carved):**

Wood packing box factories—

Includes wooden boxes or cases; box shooks; berry, cheese, fig, and raisin boxes (but not cigar boxes); egg cases, crates, etc.

Sawmills and logging establishments—

Includes logging camps turning out logs or bolts and rough lumber and timber products, such as crossties, poles, posts, mine timbers, spars; also wheel, handle, and excelsior stock, etc. Sawmills turning out rough or dressed lumber, shingles, lath, veneer stock, veneers from logs or bolts, cooperage stock, cooperage from logs or bolts, etc.

Lumber, planing-mill products—

Includes builders' finish, sash, doors, blinds, panels, wood mantels, bracket shelves, stair work, screens, moldings, interior woodwork, etc.

MALT (see also Liquors, malt):

Includes establishments producing malt, chiefly from barley, but other grain may be used.

MARBLE AND STONE WORK:*Marble and stone work—*

Includes slate blackboards, soapstone work, and all kinds of builders' and plumbers' marble and stone material. (This classification must not be confused with "Artificial stone.")

Monuments and tombstones—

Includes monuments, tombstones, headstones, etc., when manufactured for the trade. The lettering of monuments and tombstones to the individual order, however, is not to be included.

MATCHES:

Includes establishments manufacturing matches.

MATS AND MATTING:

Includes doormats, etc., made from cocoa and other similar fiber.

MATTRESSES AND SPRING BEDS (see also Furniture and refrigerators; Wirework, including wire rope and cable):

Includes mattresses made from hair, cotton, felt, moss, or other similar material and wire mattresses and spring beds, etc.

MILLINERY AND LACE GOODS (see also Artificial flowers and feathers and plumes):

Includes curtains from muslin and lace; dress, cloak, and millinery trimmings; embroideries and crochet goods; hat and bonnet frames; ladies' belts, collars, neckwear, women's handkerchiefs; and hats, trimmed and untrimmed; laces; pleating and puffs; ruching and ruffing; and veilings.

MILLSTONES:

Includes establishments producing millstones.

MINERAL AND SODA WATERS:

Includes carbonated beverages, root beer, ginger ale, and other so-called soft drinks.

MIRRORS:

Includes establishments engaged in the production of mirrors and looking-glasses.

MODELS AND PATTERNS, NOT INCLUDING PAPER PATTERNS:

Includes molds used in the manufacture of brick, glassware, cigars, etc., hat blocks, pottery braces, wax figures, dress and show forms, stamping outfits, etc. (Does not include paper patterns, for which there is a special classification.)

MOVING PICTURES:

Includes establishments engaged in the manufacture of moving-picture apparatus and films.

MUCILAGE AND PASTE (see also Glue):

Includes the various manufactures of mucilage and paste, and also mending cement, rubber cement, sealing wax, etc.

MUSICAL INSTRUMENTS AND MATERIALS, NOT SPECIFIED:

Includes various kinds of instruments made from brass and other metal or wood, and also stringed instruments, and materials for the manufacture of the same. (Pianos and organs, and their materials, are not included in this classification.)

MUSICAL INSTRUMENTS, PIANOS AND ORGANS AND MATERIALS:Musical instruments, organs—*

Includes all kinds of pipe and reed organs.

Musical instruments, pianos—

Includes pianos (upright, grand, etc.) with or without player attachments.

Musical instruments, piano and organ materials—

Includes piano strings, plates, keys, actions, keyboards, cases, back frames, pedal attachments, hammers, sounding boards, legs, trusses, etc., and organ reeds, pipes, stops, knobs, reed poles, piano and organ hardware, etc.

NEEDLES, PINS, AND HOOKS AND EYES:

Includes machine needles, knitting and sewing; pins; glove fasteners, hooks and eyes, etc.

OAKUM:

Includes establishments manufacturing oakum. This product is made largely from old rope, although some new hemp and jute may be used. It is used chiefly in shipyards and by plumbers, and perhaps by upholsterers.

OIL, CASTOR:

Includes establishments manufacturing castor oil from the castor bean.

***OIL, COTTONSEED, AND CAKE:**

Includes cottonseed oil, either crude or refined, and such by-products as meal and cake, hulls, linters, fertilizers, cattle feed, etc.

***OIL, ESSENTIAL:**

Includes certain volatile oils, such as peppermint, spearmint, sassafras, wintergreen, clove, lemon, aniseed, bergamot, lavender, orange, patchouli, etc.

OIL, LARD, NOT MADE IN SLAUGHTERING AND MEAT-PACKING ESTABLISHMENTS:

Includes establishments where the chief product is found to be lard oil.

OIL, LINSEED:

Includes linseed oil made from flaxseed. In the crushing of flaxseed to extract the oil there would probably be a residue of oil cake.

OIL, NOT ELSEWHERE SPECIFIED:

Includes lubricating oils (not from petroleum), fish oils, mineral oils, neat's-foot oil, etc.

OILCLOTH AND LINOLEUM:Oilcloth and linoleum, floor—*

Includes all classes of floor oilcloth and linoleum.

Oilcloth, enameled—

Includes table, shelf, and upholsterers' oilcloth, etc.

OLEOMARGARINE (see also Slaughtering and meat packing):

Includes oleomargarine, butterine, etc.

OPTICAL GOODS:

Includes spectacles, eyeglasses, lenses, spectacle and eye-glass frames and cases, artificial eyes, etc.

ORDNANCE AND ACCESSORIES (see also Iron and steel, steel works and rolling mills):

Includes cannon and artillery and their mounts; apparatus pertaining to cannon and artillery; ammunition, such as shot and shells, etc. (Do not confuse this classification with those for Explosives and Firearms and Ammunition.)

PAINT AND VARNISH:Paints—*

Includes paints in oil; ready-mixed paints; water paints and kalsomine; pigments; fillers; putty, etc.

Varnishes—

Includes varnishes, japans, lacquers, liquid and hardwood fillers, brewers' pitch, etc.

***PAPER AND WOOD PULP:**

Includes news paper; book paper; fine paper; wrapping paper; blotting paper; strawboards, etc.; wood pulp, etc.

Separate totals will be shown as follows:

Paper mills exclusively.

Pulp mills exclusively.

Mills making both paper and pulp.

PAPER GOODS, NOT ELSEWHERE SPECIFIED (see also Paper and wood pulp):*Paper goods, not elsewhere specified—*

Includes cutting and boxing of writing paper; shelf paper; glazed paper; paper tubes; toilet paper; playing cards; fly paper; confetti; moth paper; papeterie, etc.

Cardboard, not made in paper mills—

Includes cardboard when made by establishments which buy the paper.

Envelopes—

Includes the manufacture of envelopes.

PAPER PATTERNS:

Includes all kinds of patterns made from paper, fashion plates, etc.

PATENT MEDICINES AND COMPOUNDS AND DRUGGISTS' PREPARATIONS:

Druggists' preparations—

Includes capsules (filled or empty); tablets and pills; concentrations; pepsin; tinctures; medicinal plasters; cough sirup; ointments; simple sirup; and other pharmaceuticals.

Patent medicines and compounds—

Includes bitters, tonics, and similar so-called patented medicines and pills; salves; tooth paste and powder; hair tonic and dyes; insect powders; corn cures; liver pads; household ammonia, etc.

Perfumery and cosmetics—

Includes cologne, toilet water, witch-hazel, face powders, washes, and lotions; skin emollients; shaving cream; bay rum, etc.

PAVING MATERIALS:

Includes asphalt, crushed cinder, wood blocks, broken stone, crushed stone, cement paving tile, etc.

PEANUTS, GRADING, ROASTING, CLEANING, AND SHELLING:

Includes various operations connected with the preparation of peanuts for the market.

PENCILS, LEAD:

Includes establishments engaged in the manufacture of lead pencils.

PENS, FOUNTAIN, STYLOGRAPHIC, AND GOLD:

Pens, fountain and stylographic—

Includes the manufacture of fountain and stylographic pens.

Pens, gold—

Includes the manufacture of gold pens.

PENS, STEEL:

Includes the manufacture of steel pens.

***PETROLEUM, REFINING:**

Includes the refining of crude petroleum.

***PHONOGRAPHS AND GRAPHOPHONES:**

Includes phonographs and graphophones and parts and supplies, cylinders, records, horns, etc.

PHOTOGRAPHIC APPARATUS AND MATERIALS:

Photographic apparatus—

Includes cameras, lenses, head rests, photographic parts, etc.

Photographic materials—

Includes films, plates, developers, sensitive paper, etc.

PHOTO-ENGRAVING (see also Printing and publishing; Stereotyping and electrotyping):

Includes photogravures and similar transfer work.

PIPES, TOBACCO:

Includes all kinds of smokers' pipes.

***POTTERY, TERRA-COTTA, AND FIRE-CLAY PRODUCTS (see also Brick and tile):**

Includes stoneware, red earthenware, white ware, china, bone china, delft and belleek ware, fire brick, sewer pipe, tile (not including draintile), stove lining, terra-cotta products.

***PRINTING AND PUBLISHING (see also Photo-engraving):**

Bookbinding and blank-book making—

Includes, in addition to establishments engaged in book-binding and blank-book making, embossing; book gilding; paper ruling; paper cutting; card, book, and paper edging; card beveling and bronzing; the mounting of woolen and other samples; show-card mounting, etc.

Engraving, steel and copper plate, including plate printing—

Includes engraving on copper and steel plate for cards, music plate engraving, fine stationery work, etc., and also plate printing.

Lithographing—

Includes establishments engaged in lithographing on paper, tin, etc., including photolithographing, and also establishments engaged in engraving the stone used in lithographing.

Printing and publishing, book and job—

Includes all kinds of job printing and the printing or publication of books.

PRINTING AND PUBLISHING—Continued.

Printing and publishing, book and job—Continued.

Separate totals will be shown as follows:

Job printing.

Book publishing and printing.

Book publishing without printing.

Linotype work, typesetting, etc.

Printing and publishing, music—

Includes books of music and sheet music.

Separate totals will be shown as follows:

Establishments doing the printing.

Establishments doing no printing.

Printing and publishing, newspapers and periodicals—

Includes newspapers and periodicals.

Separate totals will be shown as follows:

Establishments doing the printing.

Establishments doing no printing.

PULP, FROM FIBER OTHER THAN WOOD:

Includes the manufacture of pulp from cornstalks, rice straw, cotton, or any fiber other than wood.

PULP GOODS:

Includes pails, dishes, tubs, boxes, and other articles of this character made from pulp.

PUMPS, NOT INCLUDING STEAM PUMPS:

Includes chain or bucket hand pumps, hydraulic rams, wooden or metal hand pumps.

***RICE, CLEANING AND POLISHING:**

Includes the cleaning and polishing of rice.

ROOFING MATERIALS (see also Copper, tin, and sheet-iron products):

Includes asphalt roofing, felt roofing, and other roofing compositions.

RUBBER GOODS, NOT ELSEWHERE SPECIFIED (see also Furnishing goods, men's):

Includes rubber clothing, mats, type, springs, tubing, rubber brushes, bands, tires, etc.

RULES, IVORY AND WOOD:

Includes rules made from ivory, wood, or similar material.

SAFES AND VAULTS:

Includes the manufacture of safes and vaults.

***SALT:**

Includes table, packers, rock, and other kinds of salt.

SAND AND EMERY PAPER AND CLOTH:

Includes sandpaper, sand cloth, emery paper, emery cloth, flint paper, glass paper.

SAWS (see also Cutlery and tools, not elsewhere specified):

Includes the manufacture of saws.

SCALES AND BALANCES:

Includes weighing machines and apparatus, automatic and computing weighing machines, etc.

SCREWS, MACHINE (see also Foundry and machine-shop products):

Includes the manufacture of machine screws.

SCREWS, WOOD (see also Foundry and machine-shop products):

Includes the manufacture of wood screws.

SEWING MACHINES, CASES, AND ATTACHMENTS:

Sewing-machine cases—

Includes sewing-machine cases, stands, etc.

Sewing machines and attachments—

Includes sewing machines and tuckers, shirrers, hemmers, etc.

***SHIPBUILDING, INCLUDING BOAT BUILDING:**

Shipbuilding, iron and steel—

Includes steam, sail, or unrigged vessels, built of iron and steel, and repairs to such vessels.

Separate totals will be shown as follows:

Yards where work on new vessels was done.

Yards engaged entirely on repair work.

Yards building boats under 5 tons.

The making of masts, spars, oars, and the rigging of vessels.

Shipbuilding, wooden, including boat building—

Includes the building of wooden, steam, sail, and unrigged vessels and repairs to such vessels; masts; spars, oars, and rigging; and the building of yachts, rowboats, canoes, etc.

SHIPBUILDING, INCLUDING BOAT BUILDING—Continued.

Shipbuilding, wooden, including boat building—Continued.

Separate totals will be shown as follows:

- Yards where work on new vessels was done.
- Yards engaged entirely on repair work.
- Yards building boats under 5 tons.
- The making of masts, spars, oars, and the rigging of vessels.

*SHODDY (see also Woolen, worsted, and felt goods, and wool hats):
Includes mills manufacturing shoddy or mungo.

SHOW CASES (see also Furniture and refrigerators; Lumber and timber products):
Includes show cases, display cases, etc.

SIGNS AND ADVERTISING NOVELTIES:
Includes signs, letters, advertising novelties, etc.

*SILK AND SILK GOODS, INCLUDING THROWSTERS:
Includes broad silks, ribbons, trimmings, taffetas, veiling, and establishments manufacturing organzine and tram.
Separate totals will be shown for the following:
Establishments manufacturing broad silks, ribbons, trimmings, etc.
Throwsters, winders, etc.

SILVERWARE AND PLATED WARE:

Plated ware—

Includes all kinds of plated ware.

Silversmithing and silverware—

Includes silver hollow ware and plated ware, ornaments, novelties, cane and umbrella handles, etc.

*SLAUGHTERING AND MEAT PACKING (see also Lard, refined):
Sausage, not made in slaughtering and meat-packing establishments—
Includes the manufacture of all kinds of sausage.

Slaughtering and meat packing, wholesale—

Includes establishments where the meat produced is carried beyond the raw state and prepared by canning, salting, smoking, or otherwise curing it for sale. This classification covers both the establishments which slaughter and prepare the meats and those which purchase the raw meat and then prepare it for sale.

Separate totals will be shown as follows:

- Establishments doing slaughtering.
- Establishments doing no slaughtering.

Slaughtering, wholesale, not including meat packing—

Includes establishments slaughtering cattle, sheep, hogs, etc., and disposing of the product without further manufacture.

*SMELTING AND REFINING, COPPER:

Includes the smelting and refining of copper ores.

Separate totals will be shown as follows:

- Smelting only.
- Refining only.
- Smelting and refining.

*SMELTING AND REFINING, LEAD:

Includes the smelting and refining of lead ores.

Separate totals will be shown as follows:

- Smelting only.
- Refining only.
- Smelting and refining.

*SMELTING AND REFINING, ZINC:

Includes the smelting and refining of zinc ores.

SMELTING AND REFINING, NOT FROM THE ORE (see also Babbitt metal and solder; Brass and bronze products):

Includes smelting and refining of scrap material and dross of all kinds, except gold and silver, for which there is a special classification.

*SOAP (see also Candles; Grease and tallow; Slaughtering and meat packing.

Includes soap of all kinds, hard, soft, cake, bar, liquid or solid.

SODA-WATER APPARATUS:

Includes soda fountains, tanks, siphons, etc.

SPORTING AND ATHLETIC GOODS:

Includes boxing gloves, punching bags, dumb-bells, pigeon traps, fishing rods and reels, golf goods, exercise machines, snowshoes, air rifles, decoys, etc.

SPRINGS, STEEL, CAR AND CARRIAGE (see also Iron and steel, steel works and rolling mills):

Includes carriage, car, automobile, and other springs used in connection with vehicles.

STATIONERY GOODS, NOT ELSEWHERE SPECIFIED:

Includes index-card systems, copying devices, stationers' specialties, inkstands, school supplies, desk pads, blackboards, etc.

STATUARY AND ART GOODS:

Includes plaster casts, ornamental stuccowork, etc.

STEAM PACKING:

Includes asbestos, mineral wool, metallic and other steam packing, boiler coverings, metal gaskets, etc.

STEREOTYPING AND ELECTROTYPING (see also Printing and publishing; Type founding and printing materials):

Includes establishments engaged in stereotype and electrotype work.

STOVES AND FURNACES, INCLUDING GAS AND OIL STOVES (see also Steam fittings and heating apparatus):

Stoves and furnaces, not including gas and oil stoves—

Includes all kinds of cooking and heating stoves and furnaces, except gas and oil stoves.

Stoves, gas and oil—

Includes gas and oil stoves.

*STRAW GOODS, NOT ELSEWHERE SPECIFIED:

Includes straw bottle covers, and manufactures from straw not covered by other classifications.

*SUGAR AND MOLASSES:

Includes establishments engaged in the manufacture of cane sugar and molasses, and sirup from sorghum.

SUGAR, REFINING, NOT INCLUDING BEET SUGAR:

Includes the refining of cane sugar, maple sap, etc.

*SULPHURIC, NITRIC, AND MIXED ACIDS (see also Chemicals):

Includes establishments manufacturing sulphuric, nitric, and mixed acids. A branch of the chemical industry.

SURGICAL APPLIANCES AND ARTIFICIAL LIMBS:

Artificial limbs—

Includes artificial legs, arms, hands, feet; also crutches.

Surgical appliances—

Includes splints, bandages, trusses, electric belts, absorbent cotton, elastic stockings, shoulder and spinal braces, etc.

*TIN PLATE AND TERNEPLATE:

Includes establishments engaged in the manufacture of tin plate and terneplate.

Separate totals will be shown as follows:

Mills producing the black plates; mills purchasing the black plates; mills both producing and purchasing the black plates.

TIN FOIL:

Includes tin foil, aluminum foil, etc.

TOBACCO MANUFACTURES:

Tobacco, chewing and smoking, and snuff—

Includes chewing tobacco, smoking tobacco, and snuff.

Separate totals will be shown as follows:

Establishments manufacturing chewing and smoking tobacco.

Establishments manufacturing snuff.

Establishments manufacturing tobacco and snuff.

Establishments manufacturing chewing and smoking tobacco and cigars.

Tobacco, cigars and cigarettes—

Includes cigars and cigarettes.

Separate totals will be shown as follows:

Establishments manufacturing cigars.

Establishments manufacturing cigarettes.

Establishments manufacturing both cigars and cigarettes.

TOYS AND GAMES:

Includes magic lanterns, stereopticons, carrousels, lawn swings, paper toys, paper dolls, wooden toys, conjuring apparatus, toy banks, puzzles, etc.

***TURPENTINE AND ROSIN:**

Includes establishments engaged in the manufacture of spirits of turpentine and rosin.

TYPE FOUNDRY AND PRINTING MATERIALS (*see also* Foundry and machine-shop products; Ink, printing; Stereotyping and electrotyping):*Printing materials—*

Includes composing rules and sticks, mallets, planers, chases, type cases, galleys, and printers' rollers.

Type foundry—

Includes type, brass rules, slugs, copper type, etc.

TYPEWRITERS AND SUPPLIES:

Includes typewriters, parts of typewriting machines, ribbons, carbon paper, etc.

UMBRELLAS AND CANES:

Includes umbrellas, parasols, covers, handles, and parts.

UPHOLSTERING MATERIALS (*see also* Cotton goods, including cotton small wares; Oilcloth and linoleum):

Includes artificial leather, curled hair, excelsior, moss, tow, etc.

Separate totals will be shown as follows:

Establishments manufacturing imitation leather, leatheroid, etc.

Establishments manufacturing excelsior.

Establishments manufacturing curled hair.

Establishments manufacturing all other upholstering materials.

VAULT LIGHTS AND VENTILATORS (*see also* Foundry and machine-shop products):

Includes vault lights, ventilators, coal-hole covers, sidewalk and floor lights, etc.

VINEGAR AND CIDER:

Includes establishments engaged in the manufacture of vinegar or cider.

WALL PAPER:

Includes establishments engaged in making various kinds of wall papers. These establishments probably will not be found among those who manufacture paper.

WALL PLASTER:

Includes gypsum plaster and other ready-mixed wall plasters.

WASHING MACHINES AND CLOTHES WRINGERS:

Includes washing machines and clothes wringers.

WASTE:

Includes establishments manufacturing waste (cotton, woolen, hemp, etc.).

WHALEBONE CUTTING:

Includes establishments engaged in the cutting of whalebone.

WHEELBARROWS:

Includes establishments engaged in the manufacture of wheelbarrows.

WHIPS:

Includes whips, whipstocks, whip handles, and whiplashes.

WINDMILLS (*see also* Agricultural implements):

Includes establishments engaged in the manufacture of windmills.

WINDOW SHADES AND FIXTURES:

Includes window shades, rollers, venetian blinds, curtain poles, etc.

***WIRE** (*see also* Iron and steel, steel works and rolling mills):

Includes establishments engaged in the manufacture of wire.

WIREWORLD, INCLUDING WIRE ROPE AND CABLE (*see also* Mattresses and spring beds):

Includes wire fencing, wire rope and cable, wire cloth, and small manufactures of wire, such as mousetraps, bird cages, bottle stoppers, wire clasps, pillow-sham holders, belt lacings, garment hangers, etc.

Separate totals will be shown as follows:

Establishments making wire fence.

Establishments making wire cloth and wire rope and cable.

Establishments making both wire fence and wire cloth, or wire rope and cable.

Establishments making all other wirework.

WOOD CARPET:

Includes establishments engaged in the manufacture of wood carpet, which consists of pieces of wood, strips or blocks, attached to a textile back.

***WOOD DISTILLATION, NOT INCLUDING TURPENTINE AND ROSIN:**

Includes establishments which produce wood alcohol.

WOOD PRESERVING:

Includes establishments engaged in treating wood to prevent decay, and for protection against fire, worms, etc.

WOOD, TURNED AND CARVED (*see also* Lumber and timber products)

Includes spools, handles, brush blocks, bungs, scrollwork, fretwork, grille work, jig sawing, carved woodwork, etc.

WOOL PULLING:

Includes establishments engaged in detaching wool from the sheepskins.

WOOL SCOURING:

Includes establishments engaged in scouring wool.

***WOOLEN, WORSTED, AND FELT GOODS, AND WOOL HATS** (*see also* Carpet and rugs, other than rag; Hosiery and knit goods):*Felt goods—*

Includes various kinds of felt goods the material for which is composed largely of shoddy, cotton and woolen waste, etc.

Hats, wool—

Includes the manufacture of men's, women's, and children's hats, the chief material of which is wool, mohair, shoddy, etc.

Woolen goods—

Includes woolen cloth, doeskins, cassimeres, cheviots, tweeds, flannels, broadcloths, overcoatings, cloakings, kerseys, dress goods, unions, upholsterers' goods, woolen yarns.

Worsted goods—

Includes coatings, serges, suitings, overcoatings, cloakings, cashmeres, doeskins, jeans, tweeds, worsted-filled goods, worsted yarn, etc.

APPENDIX D—MANUFACTURES.

CLASSIFICATIONS USED IN 1909, EMBRACING CLASSIFICATIONS OF 1904, DISCONTINUED.

Where included in 1909	As used in 1904
Automobiles, including bodies and parts.....	{ Automobile bodies and parts. Automobiles.
Belting and hose, woven and rubber.....	{ Belting and hose, linen. Belting and hose, rubber.
Blacking and cleansing and polishing preparations.....	{ Blacking. Cleansing and polishing preparations.
Boots and shoes, including cut stock and findings.....	{ Boot and shoe cut stock. Boot and shoe findings. Boot and shoe uppers. Boots and shoes.
Brass and bronze products.....	{ Brass. Brass and copper, rolled. Brass castings and brass finishing. Brass ware. Bronze castings.
Butter, cheese, and condensed milk.....	{ Butter. Cheese. Condensed milk.
Canning and preserving.....	{ Canning and preserving, fish. Canning and preserving, fruits and vegetables. Canning and preserving, oysters. Pickles, preserves, and sauces.
Carriages and wagons and materials.....	{ Carriage and wagon materials. Carriages and wagons.
Clocks and watches, including cases and materials.....	{ Clocks. Watch and clock materials. Watch cases. Watches.
Clothing, men's, including shirts.....	{ Clothing, men's. Shirts.
Cooperage and wooden goods, not elsewhere specified.....	{ Cooperage. Woodenware, not elsewhere specified.
Copper, tin, and sheet-iron products.....	{ Coppersmithing and sheet-iron working. Stamped ware. Tinware.
Cordage and twine and jute and linen goods.....	{ Cordage and twine. Jute and jute goods. Linen goods. Nets and seines.
Cotton goods, including cotton small wares.....	{ Cotton goods. Cotton small wares.
Cutlery and tools, not elsewhere specified.....	{ Cutlery and edge tools. Tools, not elsewhere specified.
Enameling and japanning.....	{ Enameling and enameled goods. Japanning.
Fancy articles, not elsewhere specified.....	{ Fancy articles, not elsewhere specified. Combs. Ivory and bone work.
Firearms and ammunition.....	{ Ammunition. Firearms.
Flags, banners, regalia, society badges, and emblems.....	{ Flags and banners. Regalia and society banners and emblems.
Foundry and machine-shop products.....	{ Bells. Foundry and machine-shop products Gas machines and meters. Hardware. Hardware, saddlery. Plumbers' supplies. Steam fittings and heating apparatus. Structural ironwork.
Furnishing goods, men's.....	{ Furnishing goods, men's. Collars and cuffs.
Furniture and refrigerators.....	{ Furniture. Refrigerators.
Gas and electric fixtures and lamps and reflectors.....	{ Gas and lamp fixtures. Lamps and reflectors.
Glucose and starch.....	{ Glucose. Starch.

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CLASSIFICATIONS USED IN 1909, EMBRACING CLASSIFICATIONS OF 1904, DISCONTINUED—Continued.

Where included in 1909	As used in 1904
Hand stamps and stencils and brands.....	{ Hand stamps. { Stencils and brands.
Hosiery and knit goods.....	{ Hand knit goods. { Hosiery and knit goods.
Leather goods.....	{ Leather goods. { Pocketbooks. { Saddlery and harness. { Trunks and valises.
Lumber and timber products.....	{ Boxes, wooden packing. { Lumber and timber products. { Lumber, planing mill products, including sash, doors, and blinds.
Marble and stone work.....	{ Marble and stone work. { Monuments and tombstones.
Musical instruments, pianos and organs and materials.....	{ Musical instruments, organs. { Musical instruments, pianos. { Musical instruments, piano and organ materials.
Oilcloth and linoleum.....	{ Oilcloth and linoleum, floor. { Oilcloth, enameled.
Paint and varnish.....	{ Paints. { Varnishes.
Paper goods, not elsewhere specified.....	{ Paper goods, not elsewhere specified. { Cardboard, not made in paper mills. { Envelopes.
Patent medicines and compounds and druggists' preparations.....	{ Druggists' preparations. { Patent medicines and compounds. { Perfumery and cosmetics.
Pens, fountain, stylographic, and gold.....	{ Pens, fountain and stylographic. { Pens, gold.
Photographic apparatus and materials.....	{ Photographic apparatus. { Photographic materials.
Printing and publishing.....	{ Bookbinding and blank book making. { Engraving, steel, including plate printing. { Lithographing and engraving. { Printing and publishing, book and job. { Printing and publishing, music. { Printing and publishing, newspapers and periodicals.
Sewing machines, cases, and attachments.....	{ Sewing machine cases. { Sewing machines and attachments.
Shipbuilding, including boat building.....	{ Shipbuilding, iron and steel. { Shipbuilding, wooden, including boat building.
Silverware and plated ware.....	{ Plated ware. { Silversmithing and silverware.
Slaughtering and meat packing.....	{ Sausage. { Slaughtering and meat packing, wholesale. { Slaughtering, wholesale, not including meat packing.
Stoves and furnaces, including gas and oil stoves.....	{ Stoves and furnaces, not including gas and oil stoves. { Stoves, gas and oil.
Surgical appliances and artificial limbs.....	{ Artificial limbs. { Surgical appliances.
Tobacco manufactures.....	{ Tobacco, chewing and smoking, and snuff. { Tobacco, cigars and cigarettes.
Type founding and printing materials.....	{ Printing materials. { Type founding.
Woolen, worsted, and felt goods, and wool hats.....	{ Felt goods. { Hats, wool. { Woolen goods. { Worsted goods.

APPENDIX D—MANUFACTURES.

CLASSIFICATIONS OF 1904 WHICH HAVE BEEN CHANGED IN FORM OR WORDING FOR 1909.

As used in 1904	As used in 1909
Artificial feathers and flowers.....	Artificial flowers and feathers and plumes.
Baking and yeast powders.....	Baking powders and yeast.
Bicycles and tricycles.....	Bicycles, motorcycles, and parts.
Bone, ivory, and lamp black.....	Bone, carbon, and lamp black.
Brooms and brushes.....	Brooms.
Cotton waste.....	Brushes.
Emery wheels.....	Waste.
Gypsum wall plaster.....	Emery and other abrasive wheels, except grindstones and mill-stones.
Horseshoes.....	Wall plaster.
Lard, refined.....	Horseshoes, not made in steel works or rolling mills.
Locomotives.....	Lard, refined, not made in slaughtering and meat-packing establishments.
Oil, lard.....	Locomotives, not made by railroad companies.
Ordnance and ordnance stores.....	Oil, lard, not made in slaughtering and meat-packing establishments.
Photolithographing and photo-engraving.....	Ordnance and accessories.
Rubber and elastic goods.....	Photo-engraving.
Silk and silk goods.....	Rubber goods, not elsewhere specified.
Sporting goods.....	Silk and silk goods, including throwsters.
Sugar and molasses, refining.....	Sporting and athletic goods.
	Sugar, refining, not including beet sugar.

NEW CLASSIFICATIONS IN 1909.

1909	Where included in 1904
Fuel, manufactured.....	(Not taken in 1904).
Haircloth.....	Upholstering materials.
Laundries, steam.....	(Not taken in 1904).
Moving pictures.....	(Not taken in 1904).
Signs and advertising novelties.....	Fancy articles, not elsewhere specified.
Sugar and molasses.....	Sugar and molasses, refining.
Suspenders, garters, and elastic woven goods (a subclassification of "furnishing goods, men's").....	Furnishing goods, men's.
	Millinery and lace goods.
	Rubber and elastic goods.