

## MANUFACTURES.

---

### DAILY REPORTS AND CORRESPONDENCE.

**1. Daily reports.**—All special agents must make daily work reports (Form 30) not only for every day they are actually employed and for which compensation is claimed, but every day during employment, including Sunday, must be accounted for, whether or not work or travel is actually performed. Failure to make a report for each day will delay payment of salary and expense accounts. 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 city or district. 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. The daily report calls for details as to travel on official business. Whenever such travel is necessary, agents are required to use railroad, trolley, or stage, if available, and in cases where livery or automobile is used, the necessity must be fully explained on the daily report of the day such conveyance was used. These side trips may often be avoided by use of phone, and every effort should be made in this direction. Inquiry will often develop the size or importance of an establishment located in some remote section, and if a very small gristmill or sawmill, for instance, the agent should try to have the report mailed to him at some place he must visit in the vicinity of the establishment in question. The agent, therefore, must carefully examine his list of establishments to be canvassed in advance of reaching the locality, and familiarize himself with the inaccessible places long before reaching the city or town from which the actual visit is to be made, and take some such action as indicated to avoid expenditure of time and money, excessive and unwarranted, for very meager results. The mail and the telegraph addresses should be given daily and changes indicated sufficiently far in advance to enable the office to reach the agents by mail and wire at all times. All telegrams must be addressed to the Census Bureau, not to the Director of the Census.

**2. Registered mail.**—All reports are to be forwarded by registered mail in the return penalty envelope furnished for that purpose. Attention is directed to section 29, of the Census Act, page 71, wherein it will be seen that there is no restriction as to class or weight

of official mail addressed to the Census Office. This provision has been incorporated in the postal regulations.

**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., unless otherwise specially provided for, as in the case of agents working in a city or territory in charge of a Chief Special Agent. Inquiries or requisitions of any character must not be made upon the daily report, but should be made on the special printed form or in a separate letter.

**4. Date of completing work.**—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 (Forms 8-608c and 8-608d) containing the names and addresses of establishments to be canvassed in his district. These cards will be arranged and listed alphabetically by cities and towns within each county. In addition, except for agents working under chief special agents in certain large cities, an itinerary list will be furnished with localities arranged as nearly as possible in the order in which the special agent will visit the establishments with the least expenditure of time and duplication of travel. A careful notation must be made on the typewritten list of the disposition of each card and the list must be returned to this office upon the completion of the canvass in each district. If it is found necessary to change the prescribed route to save time, or for other reasons, the office must at once be notified by letter.

On the right-hand margin of the index cards is stamped the source from which the name of the establishment was obtained, as—Bradstreet, City directory, Trade directory, Internal revenue, Forestry, etc.

The word "circular" on the left-hand margin of an index card shows that the circular which was sent to the establishment containing inquiries in regard to the character of the industry and the place where the report would be made, etc., was returned by the establishment.

"Agent investigate" across the face of a card indicates that the information received by the Census Bureau in regard to the establishment was not sufficient to explain the nature of the industry and that there is doubt as to whether the establishment comes within the scope of the census. The agent, therefore, must make such inquiries

as will make the conditions plain and obtain a report if one should be secured.

The reverse side of each card must be examined as notations may have been placed there which will be of assistance in locating the establishment or securing the report.

**6. Unlisted establishments.**—Although the list of establishments 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. Agents will be held strictly accountable for a complete canvass of the district to which they are assigned.* They must make careful inquiry for other manufactories located in that vicinity; and in rural districts also they should be on the lookout for establishments in their districts for which they have no cards. Where additional establishments are found, reports must be obtained for them, and in all such cases the note "No index card for this establishment" must be made on the bottom of the title-page of the report.

**7. Cards for nonmanufacturing establishments.**—It is possible that some establishments for which there are index cards may be found to be engaged in industries (see pars. 25 to 36) which are omitted from the census of manufactures. In each case a notation is to be made on the card and daily report stating the reason 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 a notation, such as "Retail confectioner," "Restaurant," "Caterer," "Carpenter shop," "Cleaning and pressing wearing apparel," "Drug store," "Product less than \$500," etc.

**8. Establishments reported in 1914.**—The industry number (according to the 1914 classification) is given in the upper left-hand corner of all index cards for establishments reported at that census. The fact that the establishment reported at the prior census has answered the preliminary circular for this census that it was in business during 1919 indicates that a report must be secured.

**9. Return of index 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, as instructed, 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 any part of the year 1919).

Each index card is numbered and the same number is on the type-written 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 index card must be signed by the special agent and returned either attached to the appropriate schedule or to the daily report with an explanation as above indicated. For certain large cities, where there is a chief special agent, the cards may be retained by him until the completion of the canvass.

**10. Change in name of establishment.**—If there has been a change 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 *corrected* 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.

**11. Central Offices.**—As a rule, "Central office cards" (Form 8-706c) represent establishments of considerable importance, and, for this and many other reasons, should receive the earliest attention by special agents. This is very important and applies not only to agents in charge of metropolitan districts, and all others having special agents under their supervision, but to those working independently who may have "Central office cards."

**12. Establishments having office outside agent's 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, and the cards for such factories are stamped "Central office." 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 is required to secure a complete report. In case the special agent discovers an establishment in his district for which the reports are to be prepared elsewhere, and which has not been indicated on the index card as a "Central office" as indicated above, the facts must be stated on the index card and also on the daily report and the card returned attached to the daily report. It is important that the *precise* post-office 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 report forwarded with full explanation. These facts should not only be reported to the Census Bureau but also to the agent in charge of the city where the report is to be secured by the use of postal cards, prepared for that

purpose. The agent will then take no further action with regard to securing the report unless he receives further instructions.

**13. Factories outside, but offices inside, the 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 such 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.

**14. Additional factories of same owner, but outside the agent's district.**—It will sometimes be found that the individual or company reporting also operates a factory, or factories, outside of the agent's district. Where it is found that a report for such 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 prompt 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, county, 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 only at the factories, 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 may be obtained, and at once forwarded to the Census Office.

**15. Idle establishments.**—No report should be secured for establishments which were closed or idle during the *whole* of the census year nor for establishments that were abandoned or dismantled prior to January 1, 1919. All manufacturing establishments, however, that commenced operations or did any work during the census year ending December 31, 1919, must be reported whether or not they were in operation at the time of canvass or at the end of the year 1919 (see par. 26)

#### METHOD OF SECURING REPORTS.

**16. Schedules mailed to manufacturers.**—Blank schedules have been mailed to all establishments listed. A number of these establishments have made complete reports by mail, and the cards for these establishments are stamped "Report secured by mail." Cards for such establishments are furnished the special agents to acquaint them with the fact that a return has been received. The cards for such establishments must be returned by the agent with his daily report for the day he canvasses the neighborhood in which the establishments are

located, and the names of the establishments must be given on the daily report.

If the report received from the establishment by mail is defective, a copy will be sent to the agent for completion. These copies must be carefully preserved and completed or corrected as may be necessary. The corrected copy must be signed as "*Corrected by*" the agent securing the corrections and returned as an original schedule, together with its accompanying card, or a complete new schedule secured and returned with the card; in the latter case the words "*See copy*" must be written on the top margin of the title-page of the new schedule. The defective copy must always be returned, either "corrected" or attached to the new report, if one is secured.

**17. Understanding of the schedules necessary.**—Before undertaking the field work, it is essential that employees should thoroughly understand the schedules to be used, both the General and the Supplemental, but particularly the interrelation of the several inquiries in the General Schedule. This is not only necessary to determine whether or not the individual reports are fully and properly prepared, but in order that the agent may be able when called upon to explain the details fully to manufacturers. The several inquiries of the General Schedule are explained separately in these instructions, but their relation one with the other must also be given careful consideration. For instance, the capital must be consistent with the value of products and harmonize with answer as to "Rent of factory or works" under Inquiry 8, "Rent and taxes"; labor and wages not only what seems necessary for the production, but to make sure that the total number of wage earners in Inquiries 4 and 5 are in agreement; and that the materials used are not only harmonious as to kinds used for the products reported, but their total cost consistent with the value of products. These features will vary more or less according to the industry reporting, which, of course, must also receive consideration. Wherever there is a seeming inconsistency in the relation of any of the inquiries, an explanation must be made under "Remarks," even if the agent personally has satisfied himself that it is correct.

**18. Reports already forwarded by manufacturers.**—In some cases the manufacturer will have already forwarded his report to Washington before the agent arrives. If the agent is satisfied that the report has been sent by mail, he must immediately notify the office, giving the date of mailing by the manufacturer, 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 have been confused with the report itself. The agent must be satisfied that this is not the case before concluding that the report has

been mailed. The agent should not accept a promise that the report will be sent to him or to Washington later, but should secure it in person.

**19. Reports prepared by manufacturers awaiting agent's call.**—In case the manufacturer has the report prepared when the agent arrives, the agent should satisfy himself as to the source and accuracy of the information, and if necessary explain the meaning of any question concerning which the manufacturer is in doubt, and assure himself that the report is complete before it is accepted.

If a manufacturer *insists* upon sending his report to the Census Bureau by mail instead of giving it to the special agent, the agent, if possible, should see that the schedule is properly prepared, and furnish an addressed official envelope for mailing it to the bureau. He must also give the name of the establishment on his daily report, with the statement that the schedule will be, or has been, sent by mail.

If the report has not been prepared, and the agent is unable to secure it, he should go over the inquiries with the manufacturer, and obtain a definite date when the report will be mailed, which date must be noted in his daily report in order that the office may be in a position to notify the company of the failure to keep its promise in case the report is not received as agreed upon. Such cases, however, must be exceptional, and fully explained, since the duty of the agent is to get the report in person. If the report is partly made out and must be left with the manufacturer for completion, a copy of the report so far as prepared must be sent to the office with explanation.

**20. Promptness required of agents.**—Ordinarily the agent will be able to secure the report 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 majority of establishments the report can be secured without necessitating a lengthy interview or a second call. The making of future appointments for the preparation of the report should be avoided, since such appointments are apt to lead to delay.

It is not necessary that the agent 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 courteous, and careful not to arouse antagonism or give offense.

**21. 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 some persons

furnishing the information to give general statements or estimates, claiming that they approximate very closely the exact figures. General statements or estimates, however, must not be accepted where it is possible to secure the answers directly from books of accounts and records.

**22. Erroneous statements.**—The special agent is not to accept answers which he knows, or has reason to believe, are false, as 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 statements which are obviously erroneous are persisted in, the special agent should enter upon the report the facts as nearly as he can ascertain them by his own observation or by inquiry of creditable persons, and state the source of the information secured.

**23. 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 refer unnecessarily to the compulsory feature of the law. Only where the information required by law is positively refused need the penalties of non-compliance 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 as shown on pages 70 and 71 of these instructions.

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

Attention is also called to the penal provisions in the census act, pages 69 and 70 of these instructions, 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 not to exceed \$1,000 or imprisonment for two years, or both.

If manufacturers or others furnishing data object to giving the report on the ground that it would disclose 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, or in any manner to identify the operations of any individual establishment, and will not be disclosed to any bureau of the Federal Government unless so stated on the schedules. The intent of the law, which will be strictly carried out,

is to prevent the disclosure of information which might in any way operate to the detriment of the person or establishment supplying the same.

#### WHAT CONSTITUTES A FACTORY—ESTABLISHMENTS NOT TO BE CANVASSED.

**25. 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 under "Remarks" give the reason for securing it.

**26. Very small establishments.**—Do not report small establishments having annual products 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 products in excess of that amount but are capable, under normal conditions, of producing annual products of \$500 or more.

Reports should not be secured for work done in homes, such, for instance, as the manufacture of clothing and gloves, the knitting of socks or garments, the making of rag carpets, for all of which reports are required when done in factories. The amount paid by manufacturers for work of this kind, however, should appear in the reports of those for whom the work is done, as "Contract work" under Inquiry 6.

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

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

*Establishments engaged in manufacturing supplies used in building, however, are to 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.

**28. Custom work on wearing apparel.**—Reports are not required for establishments doing strictly *custom work*, i. e., work to the order of the individual buyer *on wearing apparel* of all sorts. This applies to the following classes of establishments, among others:

Boot and shoe custom and repair shops.

Custom tailoring shops, or the manufacture of clothing by persons in their own living quarters.

Dressmaking.

Cleaning and pressing garments, without mechanical power.

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. Certain industries, boots and shoes and the ready-made clothing industries being examples, operate under peculiar conditions. In addition to those that cut out the stock and manufacture, there are establishments that cut out the stock and have all or a part of the manufacturing done by contract, and reports for such establishments must be secured under either condition of doing business. Shops or factories where the work done is entirely on material owned by others must also be reported. Reports, however, must not be secured for establishments having goods made for them but who furnish none of the materials. Dye works, bleacheries, and print works engaged in dyeing, bleaching, or refinishing fabrics 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 personal use.

**29. Retail stores.**—Retail stores and other establishments 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.	Hairdressing establishments, etc.
Drug stores.	Jewelry stores.
Furniture stores.	Opticians.
Hair-work stores.	

*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 these should be reported. (The bleaching and dyeing of sponges, done by a few large druggists, should be reported.)

Prior to the great war, lenses were chiefly of foreign manufacture, but are now largely made in the United States. This being a new industry, special agents must always show lenses separately. If manufactured as an industry by itself, a complete report must be secured on the General Schedule, and if produced in connection with the manufacture of other optical goods made for the trade, show the value of lenses separately.

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

Bicycle repairing.

Blacksmith and wheelwright shops. Establishments, however, that manufactured carriages and wagons or other vehicles during the year must be reported.

Blue printing.

Harness shops.

Hectograph or "multigraph" work.

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 or similar industries, which manufacture goods for the general trade, must be reported.*—Thus, boiler works and foundry and machine shops must be reported, also 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 is done by lithographing or printing establishments, this work must be included in their total business; engraving, diesinking, and plate printing must be reported. Garages or shops where the repair work on automobiles or carriages and wagons is extensive and partakes of the character of machine-shop work must be reported.

The manufacture of ice when produced for sale by cold-storage plants must be reported. If the cold-storage business is incident to the manufacture of ice, the report may cover the operations of the entire establishment. On the other hand, if the manufacture of ice for sale is incident to the other business, get a separate report for the manufacture of ice.

**31. Specially 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:

Costumers making costumes for rent only.

Cotton cleaning and rehandling.

Cotton compressing.

Cotton ginning.

Dentistry.

Dressing, packing, and shipping of poultry. (When done on a large scale, however, or by slaughtering and meat-packing establishments it must be reported.)

Electric light and power stations.

Fisheries. (The canning and preserving of fish and oysters, however, must be reported.)

Florists and floral designs of natural flowers.

Gas, purchased and distributed, manufactured or natural, should not be reported unless the company also manufactures gas.

Hay and straw baling.

Ice harvesting. (The manufacture of ice must be reported.)

Junk shops.

Kindling wood.

Map mounting.

Packing and shipping of fruits and vegetables (except as provided in par. 34).

Professional services.

Rectifying and blending of liquors.

Retail butchers.

Salting hides.

Stone crushing when done in connection with road building or other construction work. Reports, however, should be obtained for establishments which are engaged in stone crushing as a business and sell the product as such.

Tobacco stemming and rehandling.

In addition to the industries indicated 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 liquors, mineral waters, soda waters, sirups, tinctures, beverages, etc., are manufactured. In such cases the report should cover both the manufacturing and bottling operations.

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

*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, the amount paid for such labor must be reported under Inquiry 6, as "Amount paid for contract work not done by the regular employees."

**32. 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. As a rule, however, when manufactures of this character are conducted on farms where, in addition to the crops of the farm in question, materials purchased from others are also used, they will be classed as factories for census purposes and reports secured. *Factories canning fruits and vegetables, etc., for the trade must be reported, even though carried on in connection with a farm.*

The pulling and the scouring of wool done in establishments expressly devoted to such work should be reported. Such work done in slaughtering establishments and tanneries should be included in the reports for these establishments.

**33. Sugar, molasses, sirup, sorghum.**—Mills located on farms for the manufacture of sugar, molasses, sirup, or sorghum, 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. If, however, a mill located on a farm treats cane grown on farms other than the one on which such mill is located, it should be treated as a factory and a report secured. Reports, however, must be secured for

all mills in Louisiana and Texas engaged in the production of cane sugar and molasses located on plantations, although only the cane grown on the plantation is treated.

**34. Packing and shipping of fruit.**—In some localities this industry has reached such a condition of development as to constitute a factory industry. This is especially true when the fruit is dipped in hot water or placed in sulphur fumes, or where raisins are seeded and other processes performed. Reports must be secured for operations of this character.

The packing of oysters in hermetically sealed cans should be reported. The packing of oysters in open cans or in other containers where they are not subjected to any preservative process should not be reported unless carried on in connection with the hermetically sealing and preserving of oysters.

**35. 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 so 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 26, no distinction is made in the size of the establishment to be reported. It is in cases where the manufacture is incident to a mercantile business that the agents are most often called upon to exercise judgment in regard to the preparation of the reports, but the sale of products bought from others is mercantile business and is not to be included except under very special conditions (see par. 50).

**36. Small custom mills.**—Flour, feed, and grist mills and sawmills grinding or sawing for toll or for local custom exclusively, must be reported.

**37. Lumber industry special schedule (E. S. and W. S.).**—In reporting establishments engaged in merchant or contract sawing of lumber or in the manufacture of 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" (Form 143) should be used instead of the regular General Schedule. Among the products to be reported on the special schedule for "Lumber and timber products," are lumber, lath, shingles, crossties, telegraph and telephone poles, tanbark, cooperage stock, and veneers.

Two schedules have been prepared for this industry in order to meet the different kinds of wood found in certain so-called eastern and western states (ES and WS, respectively). The WS must be used in the following western states: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, South Dakota, Utah, Wash-

ington, and Wyoming. All other states requiring the lumber schedule must be reported on the ES schedule. Both the WS and ES schedules have the same form number, 143.

**38. Pulp wood consumed in 1919.**—A card schedule (Form 152) has been provided for reporting pulp wood used by pulp mills in 1919 and reports must be secured in accordance with the inquiries. This card schedule should be mailed with the supplemental schedules for paper and pulp mills (Form 151) and receive the same general treatment.

**39. Turpentine industry.**—The operation of stills for the production of turpentine and naval stores is frequently associated with the gathering of crude materials and the care 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.

**40. Printing and publishing establishments.**—Printing and publishing establishments, whether engaged in printing alone, publishing alone, or both of these lines of work, must be reported. Writing of books and solicitation of contracts for printing, when no work is done in the preparation of the manuscript, such as printing, binding, etc., however, must not be reported.

**41. Manufacture of ice cream.**—Reports must be secured for all establishments manufacturing ice cream for the trade. Reports are not required for establishments making ice cream in small quantities to be sold over their own counters at retail, but the value of this product should show separately if made by confectioners, bakers, or others from whom reports are secured for products other than ice cream.

**42. Dyeing and cleaning.**—At the censuses of 1904, 1909, and 1914 establishments engaged in dyeing and cleaning were omitted from the census statistics. At the census of 1919, however, reports must be secured for establishments of this character that are operated by mechanical power, which actually do dyeing. Reports should be secured, also, for large establishments operated by mechanical power engaged in cleaning and pressing garments, etc. No reports are required, however, for the numerous establishments cleaning and pressing garments not having mechanical power. "Dyeing and cleaning" must not be confused with the "dyeing and finishing" industry.

**43. Power laundries.**—All *steam* laundries, or laundries using power, except those operated in connection with hotels or institutions, must be reported on the General Schedule. Hand laundries using no power must not be reported. Make only one entry for value of products, which should be the amount received for work done.

### WHAT CONSTITUTES AN ESTABLISHMENT—DIVIDED ESTABLISHMENTS.

**44. Definition of establishment.**—The term “establishment,” as a unit of enumeration for this census, with the exceptions noted, 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.

**45. 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 may be treated as one establishment.

**46. Separation of industries.**—It is 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, separate reports for the different industries must be prepared when practicable in the same way as described in paragraph 47 (see par. 112, sec. (b) ).

**47. Separation of localities.**—It is necessary, however, to secure separate statistics for the different states and counties, and also for all cities with a population of 10,000 and over. Therefore, when the same owner operates two or more plants in different states, counties, or cities, or operates one plant in a city and another outside of that city, separate reports covering the plant or plants in each state, county, or each city of 10,000 population and over must be prepared, *though only one set of books is kept for all the plants*. If estimates are necessary to make the complete reports for the separate plants, they must be carefully prepared in consultation with the person who furnishes the information and marked “Estimate.”

**48. Industrial zones or metropolitan districts.**—At the census of 1914 there were 15 metropolitan districts, and it is intended to increase this number to 69 at the census of 1919, as follows:

Akron.	Buffalo-Niagara.
Albany-Schenectady-Troy.	Canton.
Atlanta.	Chicago.
Baltimore.	Cincinnati.
Bethlehem-Allentown-Easton.	Cleveland.
Birmingham.	Columbus.
Boston.	Dallas-Fort Worth.
Bridgeport-Stamford-Danbury.	Davenport-Moline-Rock Island.

Dayton.	Philadelphia.
Denver.	Pittsburgh.
Des Moines.	Portland (Oreg.).
Detroit.	Providence.
Duluth-Superior.	Pueblo-Colorado Springs.
Fall River-Taunton-New Bedford.	Reading.
Grand Rapids.	Richmond.
Harrisburg-York-Lancaster.	Rochester.
Hartford-New Britain.	St. Louis.
Houston-Galveston.	Salt Lake City.
Indianapolis.	San Antonio.
Johnstown.	San Francisco-Oakland.
Kansas City.	Scranton-Wilkes-Barre.
Los Angeles.	Seattle.
Louisville.	Spokane.
Lowell-Lawrence-Haverhill.	Springfield-Holyoke.
Manchester-Nashua.	Syracuse.
Memphis.	Tacoma.
Milwaukee.	Tampa.
Minneapolis-St. Paul.	Toledo.
Nashville.	Trenton.
New Haven-Waterbury.	Utica-Rome.
New Orleans.	Washington, D. C.
New York.	Wilmington.
Norfolk.	Worcester-Fitchburg.
Omaha-Council Bluffs.	Youngstown.
Peoria-Pekin.	

Each special agent in charge of an industrial zone or metropolitan district will be specially instructed as to the exact area. The agent must exercise great care in stating the exact location of the plant. (See paragraph 56.)

**49. Reports for same ownership.**—All reports secured by the special agent 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.

**50. 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 nonmanufacturing branch of business or industry, with only a single set of books covering the combined business. In those cases

where the nonmanufacturing branches of business are incident to the manufacturing business, or are insignificant, the schedule may cover the entire business. On the other hand, where the nonmanufacturing business is of importance the agent should prepare a schedule covering only the manufacturing, following the instructions in paragraph 51.

The following will illustrate some combinations of manufacture with other industries:

Coal mining with the manufacture of coke.

Mining of iron ore with the manufacture of pig iron.

Cultivation of vegetables and fruits with canning of the same.

Catching of fish and oysters with 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. Materials produced by the establishment itself and used in its manufacturing may be taken either at the cost of production, or at their market value at the point of consumption. Where the quarrying of granite, marble, slate, limestone, or other minerals is done in connection with their manufacture into finished products at the quarry or mine, the report should be secured in the manner described in paragraph 120.

**51. Combined manufacturing and mercantile business.**—Some establishments are engaged both in manufacturing and in mercantile business; that is, they not only sell their own products, but also buy the finished products of others for sale. Where the manufacturing is insignificant in quantity and merely incident to the mercantile business, no schedule should be secured. On the other hand, where the mercantile business is insignificant and merely incident 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 products 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, and a schedule prepared covering only the manufacturing (see par. 50), although all of the products may be disposed of in the store, which is operated under the same ownership.

## PREPARATION OF THE GENERAL SCHEDULE.

**52. General Schedule required for each establishment.**—A General Schedule (Form 100) must be prepared for each establishment reported except for lumber and timber products (see par. 37) and, in addition, such supplemental schedule or schedules as may be necessary and proper for the establishment reporting.

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

## INQUIRY 1.—DESCRIPTION OF ESTABLISHMENT.

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

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

**56. 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 especially to the one "*Is establishment located within the corporate limits of the city or town?*" Since separate statistics will be presented for certain cities, it is of the utmost importance that precise information relative to these points be given in order that the statistics of manufactures may be correctly 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."

**57. 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 it is different, and inquiry should be made to develop this condition if it exists.

**58. 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. For estates and establishments operated by receivers, give, under "Remarks," the character of organization under former ownership.

**59. Number of proprietors or partnership members.**—The answer must show the number of individual proprietors or partnership members on the last day of the period covered by the report.

**60. Character of industry.**—The statistics of manufactures will be presented by kinds and by classes of industries. It is of the utmost importance, therefore, that the answer to this inquiry should very clearly show the kind of goods made, and, for unusual articles, their uses, or the specific character of the work done. 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 the principal 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," not "tobacco factory," which is too indefinite, or "pig iron, billets, bars, and wire," not "iron and steel." Brass manufacturers, for instance, may represent "hardware," "plumbers' supplies," or some other products for which there are specific classifications. For the manufacture of clothing, neckwear, handkerchiefs, etc., state definitely whether "men's," "women's," or "children's." A general description, such as "clothing," for instance, is not sufficiently specific.

#### INQUIRY 2.—CAPITAL INVESTED.

**61. Amount of capital actually invested—owned and borrowed.**—The purpose of this inquiry is to determine the total investment by the establishment for the purposes of its productive operations, but not including the value of 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 value of horses, mules, delivery wagons, automobiles, and similar equipment should be included in the item "Land, buildings, machinery, and tools." Answer to the third item should include everything properly pertaining to the capital invested that is not included in answers to the first and second items.

**62. 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 given. If, however, the books are not kept so as to show depreciation, no deduction for this item should be made.

**63. Patent rights and good will.**—Patent rights should 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 in any way segregate or report separately the value of such patent rights, such value must not be included in the answer called for by Inquiry 2. No value for "Good will," however, should be included.

**64. Separation of manufacturing from other investments.**—In case manufacturing is carried on in connection with some other business, such as mining, for instance, and where only one set of books is kept for the entire business, the instructions in paragraphs 50 and 51 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 represented by the manufacturing business should be reported as nearly as it can be estimated.

INQUIRIES 3 AND 4.—SALARIED EMPLOYEES—WAGE EARNERS,  
INCLUDING PIECEWORKERS.

**65. 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, 1919. Cases will occur, however, where the information for this date can not be obtained, or should not be taken, 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 because on that date the number of employees was *very much* below or above the number ordinarily employed. In all such cases the records for the day nearest December 15, 1919, 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, 1919, has to be selected, the tendency or inclination of the officers of the establishment furnishing the information may be to refer you to a day of maximum employment. This should be guarded against and a day of normal or average employment selected.

**66. Total number employed on a given day desired, not total number whose names appear on a given pay roll.**—Note carefully that what is desired is the *total number employed on a given day*. This will in most cases be a number somewhat smaller, 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. 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 a representative *single day* should be taken. If 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 used in preparing the report.

**67. When estimates may be accepted.**—In case pay rolls or other records are not available for a 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 an estimate should be stated on the margin of the schedule using the word "Estimate."

For establishments employing on an average less than 25 persons, although desirable, it is not imperative to consult the pay rolls or books to secure answers to these inquiries.

**68. 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 periods. In case the records of the establishment do not show this segregation, 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 employees. Great care should be exercised by the agent in seeing that this segregation is made by the person or persons competent to do so and that it is carefully done.

**69. 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. Officers of corporations should not be reported for the repair shops of steam or electric railways, or for the manufacturing done by large mercantile establishments for which reports are secured for their manufactures.

**70. Foremen and overseers.**—The three subinquiries of Inquiry 3 are intended to embrace the 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 3 they must devote the whole or the greater part of their time to supervision.

**71. Traveling salesmen.**—If the manufacturing department of an establishment turns over its product to a separate selling department at a given value or price, which value or price is reported in answer to Inquiry 10, the traveling and other salesmen would be employed by the selling department, and their number and salaries should not be reported in this schedule. If, however, the value of the products represents the value reported by the selling department the salesmen of the establishment are to be reported in Inquiry 3 and their salaries in Inquiry 6. Under the latter condition, if salesmen are employed on commission their number and the amounts of their commissions should be reported under Inquiries 3 and 6 with "Clerks, stenographers, salesmen, etc."

**72. Distinction between salaried employees and wage earners.**—No person should be reported as a salaried employee merely because he is hired by the week or month instead of by the day. The distinction should be based primarily upon the character of work done rather than upon the unit of time as the basis of employment. Wage earners are not confined to those who receive day wages, although most wage earners are paid on this basis. It will doubtless be found, for instance, that engineers and firemen in mills and pressmen in newspaper offices are often employed by the week or month, but they should be classed as wage earners rather than as salaried employees. Time keepers, messenger boys, proof readers, etc., in printing establishments, and the like, whose work is closely related to that of persons who would ordinarily be called clerks, stenographers, and salesmen may be classed as salaried employees. Drivers on delivery wagons should be classed as wage earners.

**73. Wage earners employed indirectly.**—In some establishments wage earners who actually work for the establishment in the same building as others may not appear upon its pay rolls, being indirectly employed and paid 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 and their compensation must be estimated as nearly as possible and included with other wage earners, 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. Such contractors should be reported in a separate schedule which will account for their employees.

The answers to the inquiry should not include the number of persons working at their homes on piecework, a custom peculiar to the glove and a few other industries. The amount paid for such work, however, should be included in the report of the company for which the work was done, as "amount paid for contract work not done by the regular employees."

**74. Convict labor.**—The number of such employees working under contract, piece price, or other system must not be included in reply to Inquiries 3, 4, or 5. The amount paid for such service, however, should be included as "amount paid for contract work not done by the regular employees."

#### INQUIRY 5.—WAGE EARNERS EACH MONTH.

**75. Number on 15th day of month.**—All of the instructions for Inquiry 4 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 not available. 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 6.—SALARY AND WAGE PAYMENTS.

**76. Number employed.**—The instructions under Inquiries 3, 4, and 5 should be borne in mind in connection with Inquiry 6.

**77. Classes to be reported separately.**—The amount paid each of the four classes of employees should be given separately. The total must represent the amount paid for salaries and wages during the period covered by the report.

**78. Board and rent** when furnished as part compensation of employees should *not* be included as wages, but the number of such employees receiving board or rent free should be noted at the bottom of page 2 of the schedule.

**79. Bonuses or percentages of profits** when paid to officers, superintendents, foremen, or wage earners should be included in the amount of salaries or wages. This does not include dividends paid on stock in a corporation which officers, employees, or wage earners may hold.

**80. Contract work.**—The answer to this inquiry must include only the expenditures for work on the products reported in answer to Inquiry 10, when 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 and wages.

## INQUIRY 7.—TIME IN OPERATION AND HOURS WORKED.

**81. 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, or more, or by two or more shifts for the entire 24 hours, the answer in either case 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.

**82. 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. If both a day shift and a night shift, use day shift.

## INQUIRY 8.—RENT AND TAXES.

**83. Rent of factory or works.**—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 for the factory only should be ascertained and entered separately in reply to the first subquestion of the inquiry. In case a rented factory has an office as part of the premises, report the entire rent paid or due for the year covered by the report. In this connection, the agent should see that answer to Inquiry 8 as to “rent of factory or works” harmonizes with the answer to the first item of Inquiry 2, as to capital.

**84. Taxes.**—Internal revenue is a Federal tax and will be reported for practically all industries, and the value of the products reported in answer to Inquiry 10 should include the amount of this tax. The internal-revenue tax refers to manufactures during the year covered by the reports, and agents are directed to see that it is so reported.

All state, county, or city taxes, licenses, etc., for the year, whether paid or due, must also be reported.

## INQUIRY 9.—MATERIALS, MILL SUPPLIES, AND FUEL.

**85. Definition of materials used.**—The answer to this inquiry should give the cost of all materials and mill supplies of every descrip-

tion, whether raw or partly manufactured, and whether entering into the products, used as containers, or consumed during the year in the process of manufacture.

**86. Materials used during year desired.**—Note especially that what is desired is the cost of the materials, mill supplies, and fuel actually used during the year. The cost of materials purchased during the year might be entirely different. If the books do not show directly the cost of the materials consumed during the year, it may 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 value of the materials 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 materials 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.

**87. Materials manufactured and used 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 must not be duplicated by being again reported in its new form as material. An illustration of this may be found in the manufacture of textiles, where yarn may be shown as material, but should not include any that was made during the year by the establishment reporting and used in further manufactures by the establishment, since its cost will already have been reported in the raw material and labor connected with its manufacture. If, however, the mill manufactured more yarn during the year than was used as materials, the excess should be reported as a product.

If the establishment manufactured certain materials during the year 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, or not used, should be included as a product in answer to Inquiry 10 of the General Schedule.

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 the establishment producing

them, and as materials in the establishment acquiring them for further manufacture. The value assigned such materials by the factory using them should be their cost 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 products 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 the schedule for the other, as the reports may be secured by different agents.

**88. Cost of fuel.**—Include with "materials" as called for, the cost of all fuel used, whether for heat, light, or power, or in the process of manufacture, 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 under Inquiry 9 on the General Schedule only the cost of the coal consumed (see also instructions for Inquiry 12, par. 107).

**89. Freight on materials.**—In many cases the cost of the materials will include the freight. If this is not the case, the total amount so paid should be given as called for under Inquiry 9. Do not here include freight on finished products.

**90. Rent of power.**—Include the total expenditure during the year for power rented from other establishments, whether by direct shafting or belting transmission, steam, electric current, or other method. The cost of gas and electricity for lighting should not be included with rent of power, but if not shown separately from that used for power, include its cost under "Rent of power."

**91. Names of principal materials used.**—Name the materials as nearly as possible in the order of their importance. Specific in-

formation is required, since it will be of great assistance in the classification of the establishment and understanding of the report. In this connection reports secured for *bakeries* should always show under Inquiry 9 of the General Schedule the *number of barrels of flour used* during the year. The character of the materials should be consistent with the products reported in answer to Inquiry 10.

#### INQUIRY 10.—PRODUCTS.

**92. Quantity and value.**—The General Schedule for 1919 calls for the quantity and value of the principal products, and such information should be secured where it is practicable to do so. This does not refer, however, so far as the General Schedule is concerned to industries for which supplemental schedules have been provided calling for details as to products.

Since the General Schedule provides for the quantity and value of the principal products, "All other products manufactured during the year" called for by total value in the General Schedule, should, as a rule, represent only a small proportion of the total value of products.

Agents will be given a classification list for 1919 that will show the industries which will be reported separately. While, as a rule, all products of importance should be reported separately, special attention must be given to reporting those named on the classification list. The purpose of this list is to indicate in a general way the character of the articles covered by the several classifications. It is impracticable to do more.

When a classification is preceded by a star (\*) it indicates that details as to products (and in some cases also as to materials) are called for, and must be reported on a supplemental schedule provided for that purpose. It often happens that products specifically called for on these supplemental schedules are made in small quantities by establishments whose chief products do not call for a supplemental schedule. In such cases it is essential that the quantity of such products be shown on the General Schedule by the proper unit of measure, as called for on the supplemental schedule provided for such products.

**93. Production, not sales, desired.**—Inquiry 10 calls for the value of the products *made* during the year, *not* the value of the products sold. The sales during the year may be considerably greater or considerably less than the value of the products manufactured during the year. Where the manufacturer has no records showing directly the products of the year, but has records showing the sales, the products for the year may 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 would have to be consulted in order to obtain the value of the products of the year.

**94. Selling value at the works desired.**—The value of the products desired is not the cost of their manufacture, but the selling value at the factory or works, which generally exceeds the cost of manufacture.

**95. Intermediate products.**—The products of manufacturing establishments, from the census standpoint, are the products in the condition as prepared by the factory reporting. The value of intermediate products need not, as a rule, be stated in the *General Schedule* in reply to this inquiry. These so-called intermediate products may, in some instances, however, be reported. For example, a cotton or woolen mill may spin the yarn during the year from which its goods are made, and in this case the manufacture of the yarn so used would be only an intermediate process in the manufacture of cloth, and the value of this yarn although produced during the year would not show separately in this report. Should part of the yarn spun during the year, however, be sold as yarn, or remain on hand at the end of the year, it becomes a true product.

**96. Exclusion of freight.**—The value desired for products 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.

**97. Deduction of discounts.**—Manufacturers sometimes allow large discounts from their gross or list prices. In such cases the net value obtained by deducting these large discounts should be secured and not the gross selling price. Small discounts for cash payments of time accounts are not to be considered in this connection. Products furnished to others without charge in payment of obligations or in fulfillment of agreements, like gas to a municipality for instance, should be reported under products at their estimated value. The value reported for the manufacture of gas should be the receipts, not the list price.

**98. Selling departments.**—Manufacturing establishments sometimes turn over their products to a selling department at a given value. This factory value may be taken as the value of the products for census purposes instead of the final amount realized by the selling department. In case the value reported represents the selling price received for the goods by the selling department, however, the number of salesmen and their salaries and commissions should be included in

Inquiries 3 and 6. 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 included.

**99. 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 cost of materials or 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 are the products made for sale, but are for the use and benefit of the company itself. In this industry, therefore, the value of the product will represent simply the cost of production.

**100. Itemization of products.**—Space is left on the General Schedule for an enumeration by quantity and value of the important items comprising the total products. The total products should in all cases be taken from bookkeeping records, but the records may not always show the quantity and value of the separate items of products as desired. 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 as to values should correspond to the total. It may not be practicable to give a large number of the minor items, and in such cases these can be grouped together under "All other products manufactured during the year." No considerable portion of the value of products, however, should be reported under "All other products manufactured during the year."

**101. 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 separately under "Products" as "Contract work on materials furnished by others."

**102. Custom work and repairing.**—Under "Amount received for custom work and repairing" report the amount received, or the charges, for custom work, repairing, and job work of all kinds. Contract work on materials furnished by other manufacturing establishments, however, should be reported as a separate item. (See preceding paragraph.)

**103. If expenses reported exceed value of products.**—It may sometimes happen that the sum of the totals of Inquiries 6, 8, and 9 is in excess of the value of the products reported for Inquiry 10. In such cases the agent must call the attention of the person furnishing the information to the fact, which may be due to a misunderstanding or to an 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 products and an explanation made under "Remarks" of the conditions which caused the expenses called for to exceed the total value of products. In this connection consideration should be given to those industries which require large or small expenditures for advertising, traveling expenses, ordinary repairs to buildings and machinery, etc., that were included at some censuses prior to 1914, under the inquiry calling for "Miscellaneous expenses," but omitted on the schedule to be used in 1919.

#### INQUIRY 11.—POWER.

**104. Power owned.**—Electric motors operated by electricity generated by the establishment reporting, should be included under "Power owned."

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

#### INQUIRY 12.—FUEL USED.

**106. Quantity of fuel used.**—The total *cost* of all fuel used must be reported in answer to Inquiry 9. Give under Inquiry 12 separate totals for the quantity of each of the varieties of fuel named. Account for the total amount of each variety used, whether for heat or power, or that consumed in the process of manufacture. The quantity of gas reported must include both natural and manufactured, the kind used being stated. When gas is purchased by a gas company to be resold, it should not be reported as fuel, but its cost should be included in the cost of materials.

**107. Coke and gas made by establishment.**—Some establishments make coke or gas and use all or a portion of 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 clearly indicate the quantity of coke or gas made from the coal reported.

#### INQUIRY 13.—REMARKS.

**108. Explanation frequently required.**—The instructions for several of the inquiries indicate the character of the information that should be given here. The space under "Remarks," however, is reserved, primarily, for the agent to explain unusual conditions connected with the inquiries or with the report as a whole. It is expected that such explanation will obviate the necessity of office correspondence with the establishment. Upon examining the schedule, after answers have been made to all the inquiries, the agent may detect incon-

sistencies or omissions. If it is impossible to correct them, an explanation should be given. All schedules are carefully examined in the office before they are tabulated, and explanations of inconsistencies are *indispensable* to a proper understanding of the report.

These explanatory 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.

The space under "Remarks" must not be used for correspondence or statements not pertinent to the report.

#### CERTIFICATE.

**109. Period covered.**—Wherever possible the report should cover a period of 12 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 12 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 the answer should show the period actually covered. It should be noted, however, under "Remarks" that the data relate to an establishment which began operations during the year.

The ownership of some of the establishments canvassed may have changed hands during the year. If the present owner or operator can furnish data for the entire period, they should be obtained from him, and 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, its comparison with what he himself did, and the facts 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, 1919. For some seasonal industries, such as beet sugar and cottonseed oil, the reports should relate to the seasonal year most nearly conforming to the census year. This is referred to in the supplemental schedules for the seasonal industries. In the majority of cases the data can be secured for the year ending December 31, 1919. 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 1919.

**110. Signatures required.**—Each report should be signed by the person responsible for the information furnished, with his official title and address. The agent who secures the return must 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 each.

### SUPPLEMENTAL SCHEDULES.

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

(The schedules marked with an asterisk (\*) will be used in conjunction with the Geological Survey.)

- |   |  |
|---|--|
| 102. Agricultural implements.                         | 118. Chemical manufactures.  |
| 103. Aircraft.  | 120. Chocolate and cocoa products and confectionery.                             |
| 104. Ammunition, firearms, ordnance, and accessories. | *172. Clay products.   |
| *169. Antimony smelters.                              | 119. Coal-tar chemicals.   |
| 105. Automobiles.                                     | *173. Coke (other than in by-product coke ovens and gas house coke).             |
| 106. Beet-sugar factories.                            | *174. Coke and by-products in by-product ovens.                                  |
| 107. Boots and shoes.                                 | *175. Copper refineries.   |
| 108. Brass, bronze, and copper products.              | *176. Copper smelters.   |
| 109. Butter, cheese, and condensed-milk factories.    | 121. Cordage and twine, jute goods, and linen goods.                             |
| 110. Buttons.   | 122. Cotton manufactures.  |
| 111. Cane sugar.                                      | 123. Cotton lace goods.  |
| 112. Cane-sugar refining.                             | 124. Cottonseed products.  |
| 113. Canning and preserving, fish and oysters.        | 125. Druggists' preparations and patent and proprietary medicines and compounds. |
| 114. Canning and preserving, fruits and vegetables.   | 126. Dyestuffs and extracts—natural.   |
| *170. Carbon black from natural gas.                  | 127. Electrical machinery and apparatus.   |
| 115. Carriages and wagons.                            | 128. Engines.  |
| 116. Cars, steam and electric railroad.               |  |
| 117. Cast-iron pipe.                                  |  |
| *171. Cement.   |  |

- |  |   |
|--|---|
| <p>129. Essential-oil factories.</p> <p>130. Explosives.</p> <p>131. Ferroalloys.</p> <p>132. Fertilizers.</p> <p>133. Flour, feed, and grist mills.</p> <p>134. Gas, manufactured.</p> <p>135. Glass works.</p> <p>136. Glucose and starch factories.</p> <p>*177. Grindstones, oilstones and whetstones, pulpstones, scythestones, hones, and rubbing stones.</p> <p>138. Ice, manufactured.</p> <p>139. Iron and steel, blast furnaces</p> <p>137. Knit goods.</p> <p>*178. Lead refineries.</p> <p>*179. Lead smelters.</p> <p>141. Leather gloves and mittens.</p> <p>142. Leather, tanned and curried.</p> <p>*180. Lime.</p> <p>143. Lumber and timber products.<sup>1</sup></p> <p>144. Machinery.</p> <p>145. Machine tools.</p> <p>146. Motorcycles and bicycles.</p> <p>147. Musical instruments.</p> <p>148. Needles, pins, and hooks and eyes.</p> <p>149. Oilcloth and linoleum.</p> | <p>150. Paints and varnishes.</p> <p>151. Paper and pulp.<sup>2</sup></p> <p>152. Pulp wood consumed (card).</p> <p>153. Petroleum refining.</p> <p>154. Phonographs, graphophones, and talking machines.</p> <p>*181. Potash materials.</p> <p>155. Printing and publishing.</p> <p>156. Railroad repair shops, steam and electric.</p> <p>157. Rice, cleaning and polishing</p> <p>158. Rubber goods.</p> <p>*182. Salt works.</p> <p>*183. Sand-lime brick.</p> <p>159. Shipbuilding.</p> <p>160. Silk manufactures.</p> <p>161. Slaughtering and meat packing.</p> <p>162. Soap.</p> <p>140. Steel works and rolling mills.</p> <p>163. Textile machinery.</p> <p>164. Tin-plate and terneplate works.</p> <p>*184. Tin smelters.</p> <p>165. Turpentine and rosin.</p> <p>166. Wire.</p> <p>167. Wood distillation.</p> <p>168. Wool manufactures.</p> <p>*185. Zinc smelters.</p> |
|--|---|

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

**112. 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:

<sup>1</sup> E. S. and W. S. (See par. 37.)

<sup>2</sup> Mills making wood pulp must also prepare card schedule "Pulpwood consumed."

(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 impracticable, one report should be made on the General Schedule for the entire establishment (see pars. 45 to 49) and separate reports on the supplemental schedules for the different departments. In all cases the total value of products on the supplemental schedules must equal the total on the General Schedule to which they relate, except when supplemental schedules are used solely to develop the minor products of industries. A few illustrations will serve. A machine shop, for which only the General Schedule is provided, may make as minor products certain articles—agricultural implements, or certain kinds of machinery, for instance—that are called for in the supplemental schedule for these products. In order, therefore, that the office may have a complete report for such products, the supplemental schedule for “agricultural implements” or “machinery” must be prepared, but in cases where these products are of small importance compared with the total reported, the requirement as to value of products in the general and supplemental schedules agreeing is void and no separate General Schedule for the products to be reported on the supplemental schedules is required. An agricultural-implement establishment, for which a supplemental schedule is provided, may manufacture minor products not covered in detail by the supplemental for that industry, but called for in the supplementals for other industries, such as “Carriages and wagons” or “Engines,” and the proper supplementals should be provided and filled. Fertilizers and soap are frequently by-products of slaughtering establishments and are included among the products on the supplemental schedule for that industry, but separate supplemental schedules—“Fertilizers” and “Soap”—for each should also be prepared. The use of supplemental schedules in such cases is essential and must be obtained.

(c) The statistics reported on the supplemental schedules will be published only by state totals; therefore it is not absolutely 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 having 10,000 or more inhabitants,

separate reports must be made on the General Schedule (see par. 47), while one supplemental schedule may carry the statistics for both plants if desired. In such cases the schedules must be fastened together and accompanied with a memorandum of explanation.

(d) A number of the supplemental schedules call for the quantity of the principal materials used and the quantity of products. Where this condition exists, agents must assure themselves that the kind and quantity of materials used is consistent with the kind and quantity of the products. For instance, in the manufacture of butter or cheese, that the quantity of milk or cream used harmonizes with the quantity of butter or cheese produced, or in the manufacture of flour, meal, etc., that the kind and quantity of grain reported is consistent with the kind and quantity of the products.

**113. Administrative and general office schedule described.—**

Some companies control a number of factories, mines, or quarries from a central office, and do not make a distribution of capital, expenses, etc., for 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 taxes which are not included in the reports for the separate plants, must be shown in a report prepared on Form 101. The inquiries on this schedule correspond with the inquiries on the same subjects in the General Schedule for manufactures, 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.*