To the honorable committees of the Senate and House of Representatives upon the ninth census of the United States:

Gentlemen: Having enjoyed opportunities for studying the practical details of census systems, and of observing the difficulties that attend the procuring of satisfactory returns, I deem it a privilege to submit a few remarks upon this subject, which, by the return of the period fixed by the Constitution, has come under your consideration.

In doing this I shall limit myself entirely to an examination of the imperfections of the present law, and to suggestions for its amendment, or rather for the substitution of a better one throughout, that shall embrace principles applicable to the present wants of the country, and the existing demands of science.

I shall more particularly consider questions relating to the methods for procuring facts for a full and correct census, as therein consist the chief difficulties to be encountered, and to remedy these will be the principal object of your legislation.

Objections to the Law of 1850, now in force.

The act for taking the 7th and subsequent censuses passed in 1850, and in force until changed, contains certain provisions that I consider very objectionable and which demand an effectual remedy. In fact, without amendment, I do not believe, that with the changed conditions of our country, the law could be now enforced in a just and satisfactory manner. It may be well to briefly review its provisions, noticing the objections that may be raised against it in the order of their occurrence.

Reasons why marshals should not be employed.

The first section places the enumeration in the hands of the marshals of the district courts in the several States and Territories. In this it has followed the precedent of former census laws, which was borrowed from the colonial and early State customs of requiring the duty to be performed by sheriffs, constables, &c. The objections against this are as follows:

1. That the term "marshal" has, in the minds of the lower classes of the population, become so associated with that of "provost marshal," and with memories of the enrolments and conscriptions of the late war, that it would very probably lead to suspicions and jealousies, tending to impair, in a most serious degree, the accuracy of census returns.

2. The districts of marshals are very unequal in size, and the time of these officers is fully occupied with the duties proper to their offices.
3. They are not under the control of the Secretary of the Interior, or officer in direct charge of the census, and may or may not be suitable persons to take charge of a census enumeration, a duty that cannot be well done except by men who take an intelligent interest in the service, and who, by business habits, integrity of character, and an acquaintance with men would be fitted for these duties. It is very true that all of these qualities may be found in marshals, but instances have occurred, and would again, in which there was a general unfitness as to character and honesty, for any services of supervision in a census. The job might be farmed out among political favorites to promote personal or sinister ends, and even should this fact come to the knowledge of the directing head of the census the law gives him no remedy. Like our Post Office and Revenue Departments, it is necessary that incumbents in the subordinate places should be selected by the officer in charge, with reference to qualifications, and that they should be within his reach if found unsuitable for their places. It is true that the law has heretofore imposed a penalty for neglect of duty, or fraudulent returns in census matters, but although there is good reason to believe that occasions have hitherto arisen for complaints in both of these, we have not a single instance upon record in which the penalties of the law have been enforced. The records of our State and national courts contain no decisions showing that the principles involved in a census have ever been directly brought before them.

4. Marshal's districts are too large for thorough supervision.

OATH OF ALLEGIANCE.

Besides the oath of office, prescribed in the 2d section, an oath of allegiance to the government of the United States should be required of every person charged with duties under the census act. The interests involved in the results of a census, and upon which depend the most valued of rights, that of representation, ought to demand that no one should be in any way entrusted with duties connected with this service but those who could take such an oath cheerfully, conscientiously, and with binding effect.

OBJECTIONS TO PRESENT RULE OF COMPENSATION.

I now come to consider the provisions of the existing law with reference to payment for services of marshals and assistants, and which I regard as wrong in every particular; and not only wrong in theory, but well adapted to cover fraud and work injustice. They are as follows:

PAY OF MARSHALS FOR SUPERVISION.

By this law marshals are allowed for their supervision at the rate of $1 per 1,000 persons, if the district exceeds a million of inhabitants; and at the rate of $1.25 per 1,000 if the number be less than a million.

To show the injustice of this, let us suppose that one marshal has a population slightly exceeding a million, as, for example, 1,000,001, and another a little less, as 999,999. The latter will receive $1,25 more than the former. Or let one report 1,000,001, and another 800,000, and they each receive $1,000 therefor. The principle when shown by diagram becomes more striking.

It follows by this that there is a pecuniary motive in keeping down the totals below a million, for the moment this limit is exceeded the rate not only on all above that sum, but on all below it, is lost. There would
have been less injustice, had the law given a certain rate up to a certain number and a different rate on all above this limit. If any rule of this kind is attempted it should be uniform in its operation for all numbers.

The law allows to marshals the privilege of acting as assistants, thus giving them a double pay. This would not prevent them from also doing the business of the courts, in their proper character as marshals, and of course at the usual compensation.

In section 7 of the present law we find an ambiguous clause, which might allow the appointment of a double set of officers, and the separate payment of mileage for each. It is as follows: Provided, however, An appointment to collect the social statistics shall not be deemed an interference with the duties of the assistants."

The marshal might reserve the social statistics to himself for each of his sub-districts of his whole court district, and charge mileage for all for his own benefit. It will be found by reference to the law that these "social statistics" are for the most part of a very general kind, easily and rapidly obtained.

**PAY OF ASSISTANT MARSHALS—PER CAPITA ALLOWANCE.**

Assistants are paid, under the present law, for the separate items of enumeration and mileage, both of which I consider wrong in theory, and worse in practice.

For the enumeration, the assistant gets two cents per capita, or $2 per 100, whether in densely settled districts, where he could report 300 in a day, or in widely separated dwellings, where the most of his time would be spent in travelling. The rule supposes a uniformity that no where exists, and no rule, but one that pays him for his time, whether spent in inquiries, or on the road, would be equitable and just. Besides this, it affords the temptation for multiplying fictitious entries, in cities, without stint or control—a double wickedness, because it not only robs the treasury, but it cheats localities out of their just rights of representation, than which there could be no crime more deserving of severe punishment.

**SERIOUS OBJECTIONS AGAINST THE MILEAGE RULE.**

I now came to consider the rule prescribed for payment of mileage, which I can only regard as one of the most insidious and artful contrivances for giving unequal advantages to certain localities, and an opportunity for fraud, that has ever come under my notice. In making this statement, I do not assert that such was its intention, nor do I charge any person with having abused the privileges that it offers. The rule is this: "* * * and ten cents a mile for necessary travel, to be ascertained by multiplying the square root of the number of dwelling houses in the division, by the square root of the number of square miles in such division, and the product shall be taken as the number of miles travelled, for all purposes in taking this census."

One would naturally suppose, that if it required one day to go five miles, and enumerate 50 families, it would require two days to go ten miles and enumerate 100 families, and thus in common arithmetical progression for greater or less numbers, and in direct proportion to the time employed.

But let us examine as to the effect of taking the square roots of a series of numbers, instead of the numbers themselves. The square root of 1 is 1; of 4 it is 2, or 50 per cent. of itself; of 9 it is 3, or 33 per cent.
of itself; of 16 it is 4, or 25 per cent. of itself; of 100 it is 10, or 10 per cent. of itself; of 10,000 it is 100, or 1 per cent. of itself; and of 1,000,000 it is 1,000, or a tenth of one per cent. of itself; and thus onward forever approaching nothing without ever arriving at it. In short, this decreasing series when projected as a curve, will be found to be a parabola.

As the same rule applies to dwellings* as to square miles, it will be at once apparent, that the rule would operate against thinly settled districts, and in favor of those but thinly inhabited, but in which an enormous waste of unsettled territory would make up a large multiple for the miles.

An assistant in being appointed to take the census of a county would doubtless be expected to resort to the definition of its boundaries as described by statute. It may be questioned whether this privilege could be denied him. Now the whole of the waters of Lakes Erie and Ontario that lie within the State of New York, are included within the counties that lie adjacent, and in this view of their boundaries some of them are more than half submerged, and in some cases they overlap. The counties of Lake and Erie, in Ohio, were formed, as was well understood at the time, where the constitutional restriction of 400 square miles to the new county could only be observed by appropriating the bottom of the lake, and they derive their names from this fact. The same is, I believe, true in all the other States bordering the great lakes. The State of Florida is bounded in part by the gulf stream and in part by a line three leagues distant from the shore, on the gulf side. These statements indicate a chance for fraudulent claims under sanction of law, nor is it entirely certain that these facts have not been noticed before.

But without further allusion to cases where an enumerator might have to direct to find the district for which he claimed mileage, we find on shore abundant illustrations of the absurdity and injustice of the rule.

I will take three counties in New York, adjacent, in the order named, viz: Hamilton, Herkimer, and Oneida. The first is mostly a wilderness with only its southern border thinly settled; the second has a narrow tract of forest at one end, but is otherwise a rich farming region, and chiefly devoted to dairying; the third is one of the largest and most populous counties in the State, traversed by canals and railroads, and abounding in wealth; yet the differences as to the rate of labor per hundred in taking a census in these three counties would not vary sensibly outside of the large villages. The mileage of Hamilton county by the rule under consideration, according to the State census of 1860, would be two cents and six mills per capita; in Herkimer it would be six mills; and in Oneida, but four mills.

The rule applied to States and Territories would show still greater injustice. From a table derived from the returns of the seventh census we find that in Connecticut the mileage, computed as of one district, would be 4.7 mills to each person; in Delaware, 6.2 mills; in Florida, two cents and 6.4 mills; in Massachusetts, 3.3 mills; in Mississippi, 8.1 mills; in New York, 4.8 mills; in Ohio, 6.9 mills; in Oregon, 21 cents and 2.2 mills; in Rhode Island, 3.4 mills; in South Carolina, 5.8 mills; in Texas, four cents and 4 mills; and in Vermont, 6.7 mills.

An idea of the relative mileage of sections of the Union may be formed from the statement that the square root of square miles in the

* "dwelling" can only be defined in the census, as "an inhabited place." Slave cabins were as truly dwellings, as the mansions of their masters. Yet they were not visited by assistant marshals in taking the census. Were they counted in computing the mileage? We have perhaps no existing data for answering the question. Nor is it now of practical importance, beyond that of pointing out the opportunities for fraud that the law of 1850 afforded.
New England States together is about 251; in the Middle States, 388; in the Coast Slave States, as they were called in the eighth census, 533; in the Central Slave States, 556; in the Northwestern States, 500; in Texas, 487; and in California, 433. Thus the factor of the multiplication, representing square miles, would be nearly twice as great in Texas as in the New England States together, while her population was only about a twelfth part as great. The final result, when combined with the square root of dwellings, gave for mileage to New England 6.4 miles per capita, to Texas 63.6 miles, and to California 82.9 miles.

By a subsequent act discretionary power was given to the Secretary of the Interior to increase the pay of marshals, in California, Oregon, Utah, and New Mexico, to secure a more prompt and faithful execution of the work, it being supposed that the enormous profits above stated were inadequate to the labor required.

If we study the distribution of population in the Territories, we shall find, that instead of its being evenly and thinly scattered over the whole, (as the rule, if it means anything would imply,) it is mostly found along some border, in some valleys, or around military or trading posts and mines. The difficulties of taking a census there are relatively but little if any greater than in the agricultural States; but the assistants get the benefit of the thousands of square miles of uninhabited territory in their mileage rule. The same inequality exists throughout all the States, in which lakes, bays, mountains, forests, marshes, drowned lands, and other uninhabited wastes, may come in to the aid of one enumerator and not of another.

To confirm this view of the utter fallacy of the present mileage rule, on the ground of its purely mathematical merits, I have procured and herewith deliver to the committee, the written opinions of the present superintendent of the United States coast survey, whose well established and well deserved reputation in this department of the sciences, gives authority to his views, upon every question that comes within the rules of mathematics.

DISTRIBUTIONS NOW ALLOWED, TOO LARGE.

The third section requires that districts should be sub-divided into portions containing not less than 20,000 inhabitants each. This allows of much too great an amount of labor for one assistant to perform within the limit of time that should be allowed for enumeration.

TIME THAT SHOULD BE ALLOWED FOR TAKING A CENSUS.

It is a well recognized principle in statistics, that the time during which an inquiry is to be made, should be as short as possible, to avoid the uncertainties arising from changes during the period, the risk of double-entry or omission, and the increasing doubt as to accuracy when the inquiry refers, not to the conditions at the time, but on a fixed day in the past. The census refers all facts to June 1st of the year in which the census is taken, and allows till November 1st for the taking, with as much more time, in the Territories, as the marshals may ask and the Sec-

* The above aggregates present these inequalities in their least objectionable form, and as we take the separate districts we find their injustice still more striking. For example, the square root of 100 is 10, or one number a tenth part of itself. If 100 is divided into 25’s we have four factors of 5, each of them a fifth part of itself. If divided into 10’s we have 10 factors of 3.16, each of them nearly a third part of itself; and thus, by increasing rate, to unity, where this opportunity for fraud culminates in a hundred factors, each of the full value of itself.
retary of the Interior may allow. It requires no argument to prove the
difficulties in finding who were inmates of a family on the 1st of June
by inquiring in October, especially with the changes of residence among
the poorer classes in cities, where rents are paid by the week, and resi-
dence is transferred on short notice to other quarters, as the call for
employment or pressure of poverty compels.

SUBJECTS THAT SHOULD BE EMBRACED IN THE CENSUS.

1. Of POPULATION, a full enumeration of all classes of the people,
designating color, age, civil condition, birthplace, and occupation of each
person, with columns in the schedule for marking those who are voters,
aIienS, under instruction during the year, illiterate, and, if colored, whether
freed by the war, and the deaf and dumb, blind, insane, idiotic, and orphan
classes.

2. Of MARRIAGES and DEATHS within the year previous, full statis-
tics, by the aid of separate schedules for each.

3. Of AGRICULTURE, returns of the land and its productions. The
blank should show the area of land, the amount cultivated and unculti-
vated, its value of land and of buildings, the amount of land cultivated
in each crop the year previous, with the quantity of each raised and
sold, and the prices or rates received, together with facts concerning
domestic animals and farm or plantation labor, cost of fertilizers, value
of farm implements, &c.

In procuring these facts, separate blanks to be left when desirable, to
be filled out at a leisure hour, and to be collected at a second visit.

4. Of MANUFACTURES and INDUSTRIAL STATISTICS GENERALLY, full
statistics by the aid of special blanks, to be filled by the persons giving
the information, and not in duplicate.

5. Of EDUCATIONAL, RELIGIOUS, INTELLECTUAL, and CHARITABLE
INTERESTS, in the main on the plan heretofore used, but more fully, and
with careful revision of forms, as elsewhere stated.

APPEARENT CHANGES DUE TO CHANGE OF BOUNDARIES.

In comparing the census returns of counties, as given at different
periods, one is often struck with differences that appear to show a great
falling off in numbers, but which, on further examination, will be found
due to a division of the county. This apparent increase or decrease in
counties and States, arising from change of boundaries, consolidation,
or subdivision, should be properly explained, and might be fully elucidat-
ded, by publishing with the report a list of counties, &c., with the
dates of their formation or change of area, and the names of the coun-
ties from which taken. The statute laws of the States, and other
sources of information within easy reach, would afford these facts with
facility, and a concise table of this kind would greatly enhance the value
of the work, aside from its intrinsic interest as a historical record.

CENSUS MAPS.

In some of the States it has been customary, for many years, to pub-
lish, in connection with their State censuses, for purposes of representa-
tion, an outline map, with no geographical details except county and
town lines, upon which should be engraved the total and representative

* In 1790, 1800, and 1810, the returns were required to be made within six months; in
1820, and 1830, within nine months; and in 1840, 1850, and 1860, within five months. In
1840 an unsuccessful attempt was made to reduce the time to four months.
population of each division. The facility which such a map would afford in arranging districts would be obvious; and it is worthy of consideration whether the ninth census should not contain a series of outline maps of the States, in which the counties should be thus distinguished.

SEPARATE RETURNS FROM TOWNS AND COUNTIES.

The subdivision into townships of six miles square by the government surveys has, in some instances, been adopted as a convenient unit of administration for school purposes and other local affairs, and for this reason the census should keep these returns distinct, or at least, if not published with this detail, the office work should be so arranged as to give information, if desired for local purposes, upon request of States or communities. Yet the municipal corporations, organized and known as towns, may include parts of two or more township surveys, and these organized towns must in any event be kept distinct. It would be desirable that the total population of each organized town, with some of the more general classifications, should be published, as well as those by counties. By careful instructions and proper attention to the making of returns both of these objects could be attained.

DIVERSITY OF ORGANIZATION—RECENT CHANGES.

The diversity that prevails in the State of Illinois with regard to county and town organizations, the division of counties into towns recently ordered by the constitution of North Carolina, and other special conditions of this kind, should receive careful preliminary attention, to the end that the returns may be made without confusion or uncertainty on any point, and that they may truly and well represent the actual conditions of the country in every part.

ENUMERATION DISTRICTS SHOULD NOT CROSS TOWN OR WARD LINES.

In no case should an enumeration district include parts of two towns, wards, or counties. But cases might occur in which one enumerator would be able to make a separate return from two entire towns within the time allowed if they were small and thinly settled.

CENSUS IN CITIES—MAP OF DISTRICT—CENSUS BY SINGLE BLOCKS.

In taking the census of cities, each enumerator should be furnished with a small piece of the city map, pasted upon his commission or the cover of his instructions, on which should be written the names of the streets that bound his district, if they do not happen to be included in the engraving on his portion. By this precaution there would be no chance of misunderstanding as to his district, and no territory would be overlapped or omitted.

For local municipal purposes it is often highly desirable to know the population of single blocks or squares bounded by streets. It is quite easy to report the census in this manner by directing that on beginning upon a square a new sheet of schedules be taken, and that when begun it should be finished before going to another. The census returns properly reported, would in this way afford the means, from the copy filed with the county clerk, for such minute deductions as the local authorities might desire to make. It is not supposed that in any publication by the government, any such detail could be observed. The official report might, however, in some cases, give the population of wards in cities.
INSTRUCTIONS SHOULD BE CAREFULLY PREPARED AND INDEXED.

The instructions for taking the census should be drawn up with the greatest care, and should be thoroughly indexed, so that no time need be lost in reference. The page should be 12 mo., and the pamphlet should be bound in stiff paper covers, so as to be easily carried in the pocket without folding.

TWO SETS OF RETURNS SUFFICIENT FOR ALL PURPOSES.

The present law requires three sets of returns to be made, of which one is placed in the office of the county clerk, in the county to which it relates, one in the office of the secretary of state in the State containing the district, and one with the central department. I would suggest that two sets would supply the want in the fullest manner, and that the copy prepared for the secretary of state is a needless and burdensome affair. As an illustration of this, I would state the fact that the census for one of the districts, including more than half of the State of New York, for 1860, did not arrive at the capital until 1866, and that it has never been taken from the boxes in which it came. The full returns of that State exceed 100 volumes, and are too cumbersome for the office. In several of the States, as for example Massachusetts, the census of 1860 was published by the State itself in more detail than was admitted into the official volumes; but this information was not derived from the set of returns sent to Boston, but from the office of the department of the Interior. Thus a needless expense of many thousand dollars might be saved to the government, by dispensing with the third set, and Congress would receive the thanks of State officials for easing them of a useless burden.

AS TO WHERE PERSONS SHOULD BE ENUMERATED.

The English census, reports the population as it finds them on the night preceding the day on which the census is taken. No person absent on that night is entered in the householders' schedule, except those who may be travelling, or at work during the night, and who return home in the morning.

It is apparent that this return of the population, in the case of unusual collections of people, would give a very incorrect account of the actual resident distribution of the population at the period of the census. Especially in the United States, where the primary object of the census is to obtain the means for equalizing representation, we could admit of no entries of any person except at his usual place of abode.

The international statistical congress of Europe, recognizing the importance of this, although they prefer the method of taking a census by the plan above noticed, recommend the return of usual as well as that of actual residence. But the task of digesting and classifying such a census would be enormous, and in a great country and among an active population quite impracticable.

The question as to what constitutes a residence, and where should it be claimed, will come up in many cases, and should be so clearly defined in the instructions as to leave no possible room for doubt. In general, the points might be solved, if concerning an elector, by the question "where do you claim the right to vote?" In cases where persons lodge in one town and take their meals or do business in another, it would be where he lodges, and not elsewhere.

An attempt made in the New York census of 1865 to ascertain the
"usual place of employment if away from home," did not produce results of sufficient importance to encourage its repetition. Its chief utility would be when applied to a suburban population, and there it would become quite valuable.

Dwellings.

As the enumerators will be required to visit every dwelling, they might easily report certain facts concerning it, without inquiry or much loss of time. In New York, the returns showed at the last two State censuses, the material, as of stone, brick, wood, &c., and value, and the comparison between the two reports, made under similar instructions, is interesting as showing the gradual disappearance of the temporary to give place to the substantial, and, by inference, the increase of home comfort and domestic happiness.

The census of the District of Columbia, in 1867, reported of dwellings, the material of which built, whether erected in 1866 or 1867, number of stories, including inhabited basements, uses, if any, to which applied other than as a dwelling, (as office, store, saloon, &c,) sanitary condition and exposures, number of families living in the house, and the numbers living entirely in basement, on the 1st floor, 2d floor, 3d floor, or 4th floor.

In European systems questions have been addressed relative to number of rooms occupied by a family, whether gardens are attached, whether insured against fire, &c. For 1850 and 1860 our national census published the total number of dwellings by States, and for 1850, by counties, districts, and parishes also.

I would suggest in the coming census that returns be required of the material and value of dwellings, whether used for purposes other than as dwellings, as "store," "office," &c., number of families in a dwelling, number in course of erection, and number unoccupied.

Organization of Families.

Without further care on the part of enumerators than that of entering families together and in proper order, we have data for classifying many interesting facts concerning families; as, the number of which the head is a married man, a widow, or a widower; number of families of one, two, three, or more persons; number of children living in families; number of families without servants, or with one, two, &c.; number of grand-children, adopted children, &c.

As these are only matters of office labor, they need no attention in the law, and only common care in the enumeration.

Another fact concerning families has interest and is as easily obtained as the foregoing. It is as to "how many families, consisting of married pairs, perhaps with children or servants, are living in other families." The only attention needful in getting the data for this is a clear definition in the instructions of the word "family" where it is not synonymous with "household." The latter is often the more comprehensive term.

The inmates of prisons, asylums, convents, &c., would, in the meaning of the census, be families, as living in one household and provided for by a common head. There would, doubtless, be difficulty in getting reports of the inmates of convents who have taken the vows of a nun—at least this is inferred from all past experience within my knowledge.

Civil Condition.

By this term, borrowed from the usages of European statisticians, and now employed in several State censuses, is intended, "whether single,
married, or widowed," the latter term being common to both sexes, and in the office classification to be determined by reference to the column of sex. We thus gain two classes by using one column of the blank.

This question has not been hitherto included in the census of the United States, but its importance is obvious, and its mode of attainment easy, requiring but one column, and the entry only of the letter "S," "M," or "W." A further class, "D," for divorced, would be as readily returned. Instead of this there may be narrow columns for making an affirmative entry with the stroke of a pen for each class. By attention to the office classification, it would be easy to ascertain the number of married pairs living together and the number of married persons living separately.

In the New York census of 1865 there were two additional inquiries having reference to the family relation, viz: Applied to wives and widows—"of how many children the parent?" and to married and widowed of all classes—"number of times married?" These inquiries were in most cases fully reported, but as they are somewhat delicate and might lead to objections in communities not accustomed to statistical inquiries, I would only suggest that the column or columns to show the civil condition be included. Of course the whole population should be accounted for in one or another of these classes.

VOTERS—ALIENS.

These important classes should be designated by the stroke of a pen for an affirmative entry, in narrow columns appropriately headed. But in doing this it is of vital importance that the enumeration should be conducted in a manner so entirely free from political inquiries as to avoid all suspicions of partisan purposes. The census should be kept in fact, as well as in theory, free from influences other than those that aim at securing a full, equal, and impartial return of all classes, and from every section. On two past occasions (1820 and 1830) the number of aliens was reported.

In ascertaining the number of voters, it would be necessary to accept the definition as given in the constitutions of the several States. The returns might not be comparable between States, but would be within the same State. The distinction as to whether "native voter" or naturalized voter" was made in New York in 1855 and 1865, and might be thought important in the national census.

In reporting "aliens," the term should be so accurately described, from the existing terms of our national laws upon naturalization, that there could be no mistaking its use.

Where two or more grades of voters exist in a State, each class should be distinguished. The number of voters and aliens should be published by towns, wards, and counties, as a check upon election frauds.

If in the column for marking "I," as the affirmative, opposite the names of aliens we insert, instead, the letter "D," for those aliens who have declared their intention to become naturalized, we shall without additional trouble obtain a most interesting record.

COLORED PERSONS.

It is, of course, assumed that the schedule of population and the deductions will be similar for all classes, although they may be separately tabulated, and that but one blank will be needed. But there is one inquiry, applicable to colored persons only, which appears to be desirable, and which should be the same throughout the Union. If we insert a narrow column headed "freed from slavery by the war," or instead of this two and "freed by the of a pen in the combination relative to historical value. It is locality, age, sex, a nation and numbers of the returns might be reported in the they would of course the terms of the degree of improve knowledge and any reports of the dep schools, agriculture and comparable, fro allow. There shon reach concerning to the newly acquired number of children dwellings. It is promates, yet they sha information.

DEAF A.

Our census in 18: for designating sex: of blind, the former 25, and 25 and sexes, and of the bl.

In 1840 the same who were "insane a other into those "at 1850 and 1860 in every name, 1 blind, insane, idiotic made by writing th who might belong to

* We may deduct a class and then subtracting it.
mon to both sexes, and reference to the column of names of the blank.

In the census of the last and of the United States, in 1830 and 1860, the numerical and alphabetical order of the names of the persons living separately, and their sex, age, and race, should be as readily returned, making an affirmative attention to the office number of married pairs, and widowed and widower, which should also be returned with accuracy.

It is desirable that an Indian or a person of Indian blood might be considered as native to the several States. The enumeration should be kept separate from the census of the United States, and only to the several States, and not to the nation as a whole.

The Constitution does not require, but permits, an enumeration of Indians not taxed, yet this becomes a subject of importance, especially when applied to tribes living on reservations within the States, but not receiving annuities from the United States, as, for example, the St. Regis tribe in the State of New York. These Indians are not included in the reports of the Commissioner on Indian Affairs, nor in the national census.

It would be desirable that all Indian living upon reservations should be reported in the census as fully as circumstances may permit, although they would be of course be deducted from the represented classes, under the terms of the Constitution. Special schedules, for showing their degree of improvement and their opportunities of education in the knowledge and arts of civilization, would be desirable. The annual reports of the department present financial statements, statistics of schools, agriculture, &c., but we need more complete returns, uniform and comparable, from every section, and as reliable as circumstances will allow.

There should also be obtained the fullest information within each concerning tribes not settled on reservations, including those in the newly acquired Territory of Alaska. We should know at least the number of children and adults of each sex, and number of lodges and dwellings. It is probable that some of these returns would be but estimates, yet they should be made by those of greatest reliability and best information.

DEAF AND DUMB, BLIND, INSANE, IDIOTIC, ETC.

Our census in 1830 first inserted columns in the population schedule for designating separately, by color, the number of deaf and dumb, and of blind, the former being distinguished as "under 14," "14 and under 25," and "25 and upwards." There was no separate classes for the sexes, and of the blind there was only reported the numbers.

In 1840 the same inquiries were made, and, in addition, as to those who were "insane and idiotic." Of the latter it further divided each color into those "at private charge" and those "at public charge." In 1850 and 1860 the population blank, which was intended to embrace the same, had a column headed, "Whether deaf and dumb, blind, insane, idiotic, pauper, or convict. The entry was directed to be made by writing the word that should express the condition of any one who might belong to either of these classes.

* We may deduct a class of population by passing it unnoticed, or by finding its numbers and then subtracting it.
As for the convict class, which, according to the instructions, was intended to include those who had been convicted of a crime within the year, it would be better to drop the inquiry from the schedule, and if the number be desired let it be obtained from the records of courts. As an invariable rule no dependence can be placed upon returns of a disreputable circumstance obtained from the persons or families affected by the disgrace. A similar remark would apply to paupers, and facts relative to their number, &c., could best be obtained from official records.

It would be well, however, instead of "convicts" and "paupers" to include "orphans under 15 years," as a class liable to dependence upon public charity, and concerning which information could be fully obtained. The circumference of their being returned as members of some family, or as inmates of an institution, could be collectively stated, together with such further division as to age, sex, color, &c., as the returns might appear to warrant.

In the New York census of 1865 a table was added for the purpose of obtaining further information concerning the deaf and dumb, blind, insane, and idiotic. It embraced: "Duration of the infirmity;" "cause, if known;" "what relatives, if any, have been similarly affected;" "treatment in an asylum in months, and whether now under treatment; discharged improved, or discharged unimproved;" "dependence for support, whether upon private or public means, or partly both;" "able to earn a living;" "living in a poor or almshouse;" "accustomed to solicit alms;" and "remarks."

The returns were probably as well made as could be expected by a census, but for obvious reasons the cause, and other items were often omitted, from the impossibility of getting information. Upon mature consideration, I would suggest that the heading of the column used in the last census, dropping the words "pauper or convict," and adding "orphan under 15 years," be used in the next census, without including the additional inquiries.

The English blank requires that in case the infirmity mentioned has existed "from birth," the fact should be written down. This entry of itself, when intelligently and correctly made, would be important. Yet infantile diseases may destroy a sense before it is brought into evident use, and the liability of confounding these cases with those of congenital defect, would be obvious and unavoidable.

Most intimately associated with this inquiry, and concerning which all existing data as to condition could be readily obtained, would be one embracing the statistics of State, Territorial, municipal, county, town, incorporated, and private establishments, for the treatment, maintenance, or education of the deaf and dumb, blind, insane, and idiotic, as well as those in general and special hospitals, &c. The enumerators could, with little or no cost, supply the census office with copies of the last reports of these institutions; and there is no doubt but that nearly all of them would readily respond to circulars addressed to them for procuring uniform and comparable returns upon a given class of subjects concerning their operations, resources, accommodations, number of inmates, &c. Thus, without embarrassing the people at large, we might obtain an amount of information as to the number, distribution, and operation of our charities in a very complete manner. The inquiry might also extend to penal and reformatory institutions, if thought desirable.

In 1849 the number of children of 20 years of age and under 21 was not at the time of the census available.

The record sheet for the 20 years of age and under 21 was not at the time of the census available.

The distinction between the sexes is the same.

The officer who carried on the census for the purpose of obtaining the information for the publication of the results, should have complete authority.

No direct inquiry was made of the various nationalities, and the result of comparison with the previous, if given, is not sufficient for practical purposes. Unfortunately no aid was given in judging of the records in cities and towns.

The number inquiry in 1850 could afford no showing time at all of the proper classification of the population. Such a classification, however, is advisable, and it should be repeated with different place of residence.

The question be taken before a clergyman, and the enumerator removed out of the place of residence.
ILLITERACY.

In 1840 the inquiry was first made as to the number of persons over 20 years of age who could not read and write by inserting a column for the number of this class in each family. The censuses of 1850 and 1860, by giving the name of each person, allowed the entry of "1" to be made when applicable on the line of the name and in the column thus headed. The record should be continued, and to render it comparable the limit of 20 years should be retained, although there are reasons to regret that 21 was not at first adopted, as, in some of the States, the appropriations of school moneys extends to persons up to that age.

The distinction made between those "who cannot read or write," and those "who can read but not write," as employed in the New York census, did not produce results of sufficient importance to induce its continuance.

The office deductions from this record might be much more precise, and should include reference to age, sex, color, and nationality.

BIRTHS WITHIN THE YEAR PRECEDING.

No direct inquiry is needed for this. The ages of children living at the time of the census, and of those who have died within the year previous, if given in fractions, as 1/2, 1/3, &c., in the column of ages of the general schedules, afford all the data attainable by a census and sufficient for practical use.

Unfortunately the absence of systems of registration of births, marriages, and deaths, in most of the States, deprives us of the opportunity of comparison in this regard. The reports of Massachusetts, Rhode Island, and Connecticut, and to some extent of a few other States, would aid in judging of the fulness of the returns in this, and the original records in cities and towns wherever they exist, should always be referred to by the enumerator in making up his returns. The instructions should give particular directions upon this subject. If followed, the census records would show number of births by months, (by aid of the fractional age,) and other useful data.

MARRIAGES.

The number married within the past year was made a subject of inquiry in 1850 and 1860, and the results were published. The returns could afford no other information. In the New York schedules is a table showing time and place of marriage, previous civil condition and age of each of the parties, and as to whether the marriage was solemnized before a clergyman or civil magistrate or by declaration before witnesses. Such a blank is submitted with the bill herewith presented.

Properly, in a system of registration in constant operation, marriages should be reported in the towns where they occur. But this is attended with difficulties, as many persons marry away from the usual place of residence of either party. I would therefore recommend that the question be addressed to the parties themselves, wherever found by the enumerators. Practically, it would embrace all who have not removed out of the United States, and might include others who had been married before coming into the country. In the end, it would present very nearly a true account of the present distribution of this class, and, from the want of a better, a close approximation as to the proportion of marriages to the population, relative ages, &c., and the best that can be obtained by any method short of an official registration by local authority.
DEATHS.

In 1859 and 1860 blanks were provided for reporting the names of persons who had died within the year ending June 1, with the age, sex, color (white or black), free or slave, married or widowed, place of birth, month in which the death occurred, profession, occupation, or trade, and disease or cause of death.

The results of the former census were published with the quarto report and in a small volume, and of the latter, with all the fulness that the returns allowed, are embraced in the fourth volume of the published report. With the slight change made necessary by the discontinuance of slavery, this blank would probably contain all the information that could be obtained by a census. The most careful attention should be given to the enumeration, to the end that these inquiries should be made and the facts returned with fulness and accuracy. Deaths should be reported from the towns or cities where they have occurred, and not otherwise; yet in cases of death away from home, or by removal or friends who could alone give correct information, it is to be expected that the death returns will not be made complete.

As in cases of marriage, the records of registration, where they exist, should be consulted, and the utmost care should be taken that the cause of death be reported correctly and by definite terms. It has too often been found, that census-takers have used vague, erroneous, or unmeaning terms in describing the cause of death, and that the summary would, to this extent, be incomplete, or worse than nothing. The only remedy is to be sought in the employment of faithful and intelligent agents, and in the use of clear and definite instructions.

It cannot be expected that scientific results of great value can be obtained concerning this class of statistics by inquiries made at intervals of ten years, nor can we hope to derive satisfactory data from any method less than that of a system of registration of births, marriages, and deaths, in constant force, and which, as in England, might, with great efficiency, assume the supplementary labors of the census as its period returned. With a knowledge of the annual changes of population and its condition at given intervals, we should enjoy ample opportunities for arriving at many of those data in vital statistics, from the experiences of our own country, which we now, from necessity, borrow from others.

The power of establishing such a system has hitherto been considered as within the sole jurisdiction of States. It is well worthy of consideration whether Congress might not with advantage and propriety direct its efficient introduction in the District of Columbia and in the Territories, and especially whether it would not be wise and well, to impose the necessity of such a measure as one of the conditions upon which territories in future applying for admission into the Union might be received. It would thus lay the foundation of a system in the new States by which their inhabitants could establish legal recorded evidences of rights in the inheritance of property and otherwise which are now almost entirely wanting in nearly every one of the present States. One has only to consider how many soldier's widows have been delayed, if not debarred, in the prosecution of just claims on account of the services of husbands lost in the late war, by the difficulty or impossibility of establishing with legat certainty the proofs that a registration would have readily furnished, to realize in some degree the practical value of the measure here recommended. Its value would increase with time, which sweeps to oblivion all unrecorded evidences of ancestry and scatters all personal records not lodged in public archives.

Beginning with grains, "various "nurseries," of these statistics would be distributed on many different localities, where they can be made to serve the ends of a public utility. Great accuracy to the point of perfection in every farm, great care in every field, and proper selection of the blank which alone perform at the returns would be made to be useful, and long to be remembered. A special blank of which the enumeration would be taken in every farm, with the average product of all the fields within a given number of acres, would be satisfactory. The average product of a given number of acres, when taken by the census returns, will always be considered a measure of the average product of the farm, and will show at once the result of the average product of the farm. It will show at once the result of the average product of the farm, and will show at once the result of the average product of the farm.

An inquiry concerning the national census, which may be one of the most important of all, should be made and rendered more useful. In view of the fact that the census has been recommended as a table of average product, it is necessary that the census returns shall be taken at once apparent, and shall be the result of the average product of the farm. In our first inquiries concerning the national census, it was digested at the national census, and classified under the national census.

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Beginning with the vague inquiries concerning "live stock," "cereal grains," "various crops," "cotton, sugar, silk, &c.," "gardens," and "nurseries," of the census of 1810, the system was extended in 1850 to the form now used. So far as it goes it is very well; but it needs a most thoughtful and thorough revision, and should not be absolutely restricted by statute to any prescribed form. It would be well, however, to limit it to the extent that the inquiries should not be less extensive than those made by the last census.

The remarks concerning special blanks, made under the head of "Industrial Statistics," apply here in full force, and if the enumerators could distribute these on a first visit, and call for them on their return, the statistics would be made leisurely, and from careful study and computation, where they are now too often but a hurried guess, and addressed at a time, perhaps, otherwise occupied with pressing business. The inequality of present terms of compensation, which is 10 cents for every farm, great or small, is also manifest. The special blank would transfer most of the labor of the original entries to those parties who can alone perform it truly and well, and under the requirements of law, the returns would, in my opinion, be generally made correctly. These special blanks should not supersede the use of general schedules, into which the enumerators should copy them.

**AVERAGE PRODUCT OF THE YEAR REPORTED, AS COMPARED WITH OTHER YEARS.**

As the census will report the agricultural products of the year 1869, which may be one of greater or less relative amount, as compared with the average of common years, and very unequal as compared between different sections of the country, it is manifest that there should be some method of applying a correction where this is necessary to bring the result to a uniform standard. This being a matter of personal opinion, will, of course, be somewhat arbitrary in its value, and two men might differ as to the amount. But in the aggregate, it would be the best we could get. This subject has, to some extent, been provided for on the blank for social statistics under the law of 1850; but it should be revised and rendered more definite.

In view of the uncertainty as to the average yield on the census year, it has been recommended by the International Statistical Congress, that a table of averages should be given, to be ascertained by combining the census returns under notice with those of the last preceding one. It is at once apparent, that this rule might work injustice if both periods should show an excess or a deficiency, and that it is only applicable to a country where settlement and cultivation have reached a stable equilibrium. In our young and active country, where improvements and changes are so rapid as often to give no preceding data of any kind to be compared with the present, this rule would be utterly fallacious, and much worse than none at all.

**PRODUCTS OF INDUSTRY.**

An inquiry concerning certain specified manufactures, 67 in number, with space for unenumerated articles, was first made in connection with the national census in 1810, and reported to the Treasury Department. It was digested and prepared for publication by Mr. Tench Coxe, and classified under the headings of "Textile fabrics, felt, paper, &c." **Ma-**
The returns...

In 1830 the marshals were required to report with the census of population concerning manufactures, the following:

- **Raw materials employed.** Kind, quantity annually consumed; cost of annual consumption.
- **Number of persons employed.** Men, women, boys, and girls.
- **Machinery.** Quantity and kind of machinery; quantity of machinery in operation.
- **Expenditures.** Capital invested; paid annually for wages; the contingent expenses.
- **Production.** Nature and names of articles manufactured.
- **Value of production.** Market value of articles annually manufactured.

**General remarks.** Part and present condition of the establishment; the demand for and sale of its manufactures.

The results of these inquiries were arranged by counties and districts, without attempt at further generalization or summary, by States or otherwise. For comparison, they had little value, and their chief claim to importance was the isolated facts they presented.

In 1830 no attempt was made to extend the inquiries of the census beyond an enumeration of the population.

In 1840 a selected list of subjects, 48 in number, and a general class of "all other manufactures," was prepared, and their several interests reported under the heads of "Articles produced and consumed," "Labor employed," "Capital invested," "Value of products," &c. The returns were imperfectly made in many cases; nor were the results comparable. Besides manufactures, usually so termed, the list embraced mining and quarrying, a few general items of agriculture, commerce, fisheries, ship and house building, &c., for the most part too vague and general to convey information of great practical value they had been fully and truly returned.

The law of 1850, still in force, prescribes the form of one general blank for "products of industry," arranged under fourteen heads, and including name of business, manufacture, or product; name of corporation, company, or individual producing articles to the annual value of $500; capital invested in real and personal estate, in the business; of raw materials used, (including fuel;) the quantities, kinds and values; kind of motive power, machinery, structure, or resource; average number of hands employed, male and female; wages; average monthly cost of male and female labor; and of annual product, the quantities, kinds, and values.

The detailed results of these inquiries for 1850 were not published until 1859, and then only in quite a limited edition, and by States. For any practical value to business men they may be described as worthless.

In 1860 the same inquiries were made relative to products of industry; and the results were published in 1865, in the third volume of the census report.

They appear to be as fully classified as the returns would allow. But a little reflection will suggest difficulties that a further study will multiply and enlarge, until they lead to a settled opinion that there is a serious fault in the law itself, consisting in the fact that it calls for a broader and more comprehensive generalization of ideas, and involves a greater amount of uncertainty than is consistent with accurate and valuable results. We should these questions are every degree as to combining results, a shal is paid but if involving details of for some little conce rial, and turning of great incorporated lars in capital, empty a hundred kinds of minute, and for this least half a day, (if allowing the books ready and willing to cens is too little. In esse, indelibility, or of either the establish ment accounted for by the

There will be for overstated, by they will be as much as be supposed to be in a business, lest the experience of the the general blank, an hour afterwards and business facts and confidence. A hand information of reported to the cent the county. The rea for the time need against false returns. As the law no as the census is dep it would be better it and that to the cen

But no remedy can that will be put upon factured products." ation, interest of me that two persons c would take the census manufacturers each guid extended list.

In view of these di York census of 1865 a single page, and pa there were eight kim iron furnaces and fac manerries, and woollen p use, specified pr used and articles pro returns made by thes for adopting it herea
results. We should always have prominently before us the fact, that
these questions are answered by a vast number of persons, differing in
every degree as to intelligence, quickness of thought, and facility for
combining results, and that, under the present law, the assistant mar-
shall is paid but fifteen cents for an establishment, however large, and
involving details of business however complicated. It is the same pay
for some little concern, managed by one man, using but one "raw ma-
terial," and turning out but one "manufactured product," as it is for a
great incorporated manufacturing company, involving a million of dol-
ars in capital, employing a thousand men, and producing, it may be,
a hundred kinds of products. The first might be returned within one
minute; and for this 15 cents is too much. The second would require at
least half a day, (if the assistant waited for the answers to be prepared,)
allowing the books to be well posted and the agents of the business
ready and willing to answer his inquiries; and for this, the sum of 15
cents is too little. But how often would it happen that delays, unwilling-
ness, incivility, or other occasion of difficulty would be encountered, and
either the establishment would be altogether omitted, or it would be
accounted for by the most random guesses.

There will be found instances in which returns and profits would be
overstated, by way of advertisement, and others in which everything
will be as much as possible concealed, to avoid some taxation that may
be supposed to be incident to the inquiries, or to cover up the profits of
a business, lest they should be shared by a rival, if discovered. The
experience of the census has developed another occasion of distrust, that
the general blank, at the head of which one establishment is recorded, is
an hour afterwards laid under the eyes of another, perhaps a rival one,
and business facts become known where justice would call for secrecy
and confidence. A weak official might even be induced for pay to furn-
ish information of establishments within his district that should only be
reported to the central office for publication in the general aggregates
of the county. The remedy for evils thus far noticed would consist in pay-
ning for the time necessarily spent in the inquiries, enforcing penalties
against false returns, and enjoining the strictest secrecy upon enumerat-
ors. As the law now stands, however, this secrecy is at an end as soon
as the census is deposited in the county clerk's office, and for this reason
it would be better that only one return of manufacturers should be made,
and that to the census office.

But no remedy can be suggested against the different constructions
that will be put upon such general terms as "raw materials" and "manu-
factured products." They involve so many elements, of cost, transporta-
tion, interest of money on investments, changes in market value, &c.,
that two persons of equal intelligence could scarcely be found who
would take the census of the same district alike; or two different manu-
facturers each guided by his best judgment, agree in every item of an
extended list.

In view of these difficulties, which I deem insurmountable, in the New
York census of 1865 we adopted the plan of special blanks, consisting of
a single page, and particularly adapted to certain industries. Of these
there were eight kinds, viz.: cheese factories, cotton factories, grist mills,
iron furnaces and forges for reducing ores; lumber mills, paper mills,
bananeries, and woollen factories. Each one was prepared for its particu-
lar use, specified precisely by name; the kind and quantity of materials
used and articles produced, labor and machinery employed, &c.; and the
returns made by these fully justified the trial, and gave abundant reasons
for adopting it hereafter on a more general scale. By previously aski...
environers, how many of each of these establishments there were in
their districts, blanks were sent, without the loss of a single quire, for
the whole State. These blanks were left at each establishment, to be
filled out at a leisure hour, in readiness for call, and were authenticated
by the signature of some responsible person giving the information.

These blanks are, in fact, but a modification of the householders'
schedule of the British census, and as applied to productive industries
of every kind, are fully applicable in our census. The plan above
mentioned is embraced in a different form in the Massachusetts blanks for
returns of industry, but in the latter, all varieties are included in one
large costly blank of many pages, to be used by enumerators only. Its
expense and incumbrance would amount to a prohibition in the national
census.

I would therefore respectfully recommend that the law be amended
so as to give to the officer charged with the execution of the census,
power to employ special blanks for procuring industrial statistics, as the
public interests may require, and that he be not restricted to particular
forms, but allowed time to consult with manufacturers and others inter-
ested, with the view of preparing such as may accomplish their object
with the best effect. A special schedule, with the headings in blank,
should be furnished to record such unenumerated manufactures as
might not be otherwise provided for.

I know of no higher authority of opinion on the subject of statistics gen-
erally, than that of the International Statistical Congress. In their report,
recommending certain principles to be adopted in procuring informa-
tion that shall be comparable and intrinsically valuable in industrial
statistics, they come to the conclusion to report, under the second section
adopted, the general statistical division of labor into four classes, to wit:

Statistics of agricultural industry, or agriculture.
Statistics of industry applied to mines.
Statistics of manufacturing industry.
Statistics of commercial industry, or commerce.

They might admit a fifth class, that should comprise marine and river
fisheries; and, if it were possible, procure reports upon these various
kinds of fisheries.

Under these several heads, the subjects of inquiry are variously sub-
divided, according to their subjects, which are of such diversity that no
general nomenclature could be applied. They should, in the main,
embrace the location; kind or description; mechanical forces and
machines used; number of laborers employed, (men, women, and chil-
dren;) wages, quantities and value of materials used, and articles
produced. As to salaries of workmen, they would ascertain the rates
paid to each class, the rules observed in advancing the scale of wages
and facts showing manner of living of the workmen, and the advan-
tages they might enjoy independently of their pay in money. The num-
ber of apprentices, terms of apprenticeship, &c., are also made subjects
of inquiry.

These details are probably in part beyond our present reach, but a
great deal may be accomplished by the easy and simple method of spe-
cial blanks. By the aid of a preliminary inquiry, there need be but a
trifling waste of paper; if desirable, they may be printed with instruc-
tions upon their back, in other languages than English; they will be
uniform and comparable for each industry throughout the country, and
will claim the public confidence to a degree never before desired or
enjoyed in a census.

As for the limitation of establishments producing over $500 in value,
I believe it to be as unreasonable, as it would be to limit returns of farms to those over ten acres, and therefore would recommend that this restriction be removed.

SCHOOLS.—EDUCATIONAL STATISTICS.

In 1840, the census first introduced inquiries concerning the number of universities or colleges, academies and grammar schools, primary and common schools, and the number of students or pupils in each. It also made inquiries as to the number of scholars at the public charge. In 1850 and 1860, the personal blanks had a column for marking "1," opposite the name of every person who had attended school within the year, and in the schedule of social statistics, provision was made to ascertain the number of colleges, academies, free schools, other schools, school-houses, amount of money raised by tax for schools within the last year, amount raised in other ways, and amount received from public funds for schools during the last year.

This blank should be carefully revised, and might be amended in some points. Facts concerning school-houses, as whether of logs, framed, brick, or stone, number of school rooms, capacity of accommodation, actual and average attendance, value, grounds attached, &c., might be suggested.

In the personal blank for the column headed "Attended school within the year," there should be substituted, "If a scholar or student—Months under instruction within last year." The entry 3, 5, or 8 would then convey a precise meaning, while the mark "1" simply affirms, without reference to time. The returns would admit of classification by age, sex, and class, or color, and might readily embrace reference to nationality and occupation of parents, &c., if thought desirable. The entries should embrace students in professional schools and colleges, as well as those in academies and common schools. This view of the intention of the inquiry might be overlooked if the present heading, "At school within the year," is retained, as very many would not understand that "school" meant any place of instruction.

As in the returns of religious worship noticed elsewhere, statistics from independent and official sources might be presented, and catalogues of every institution publishing, might be forwarded for preservation. A most valuable class of statistics might be derived from these alone, showing the attraction of various institutions from other States, endowments, &c. The condition of public schools in the several States, as published for the past year in official reports, might be given in a comparative table. I trust that in this inquiry, as in others noticed in this paper, the officer in charge of the census will not be restricted by precise headings of blanks, but he may properly be required to obtain statistics not less extensive than those of the last census, and that, as far as the latter affords the data, they should be comparable therewith.

CHURCHES—RELIGIOUS WORSHIP.

In 1850 the national census contained a useful inquiry upon this subject, but the schedule should be extended and improved. It required a return of the "number of churches," "number of persons they will accommodate," and "value of churches." These facts were reported by denominations. In the New York State census, besides the above information, there is required, "value of church and lot," and "value of other real estate," separately given, "number usually attending," "number of communicants," and "salary of clergy."
These inquiries, unlike those addressed to individuals relative to their religious opinions, are found to excite no jealousies, and are in the main fully and fairly reported, as the facts are obtained from the pastor, or some other person having official information.

The deductions to be complete, should be placed beside the official statistics published by themselves, through their various agencies, for comparison. These could be procured with facility from denominational reports, and publications.

The enumerators might be instructed to forward with their returns, such printed historical and other pamphlets as might illustrate the subject, and these collections, preserved in the Congress library, would prove a valuable source of information for those in search of facts of this kind.

NEwSPAPERS—PERIODICAL LITERATURE.

The inquiries of 1850 and 1860, embracing the name, class, interval of publication, and circulation of newspapers and periodicals, may be regarded as of the most important kind, and when thoroughly made, present a striking and thoughtful view of intellectual demand and supply as to general or special knowledge, and the condition of every interest depending thereon.

The present method might be shortened and vastly improved, by reporting simply the title and circulation, and by sending with the reports a "specimen number," taken from the last previous issue. This of itself, would inform us as to the size, form, interval of publication, names of editors and publishers, (except in a few cases,) object to which devoted, &c. The collection, bound up in a convenient series and preserved in the library of Congress, would be a speaking witness to coming ages of the standard of intelligence of the times to which it relates; and as such a series became extended at each decennial period, the intellectual progress of our people would be exhibited in a manner most useful and instructive. Two such series, each believed to be very nearly complete, relating to New York in 1855 and 1865, are preserved in the State library at Albany. The first fills 11 and the second 14 volumes. This point is so suggestive that I deem further remark superfluous. The only difficulty of execution is met in very large cities.

DIFFUSION OF CORRECT INFORMATION CONCERNING THE CENSUS.

The importance of having an intelligent understanding of the purposes of a census, among the masses of the population, is too obvious to require special argument in its favor. It should be understood that there are to come from its returns, no enrolment for military service of any kind, no taxation, no personal liabilities, and no disclosures of family history or private business.

The proper means for imparting this correct and favorable opinion is through the press, but there would be an obvious impropriety in any official attempt at interference or advice in this behalf. It is, however, quite certain, that the editors of our public journals would be desirous of having the means for giving to their readers whatever information there might be as to the organization and objects of the census, and it is presumed that none of them would have any other desire than to see it fully and correctly taken. They should therefore be furnished, upon applica-

*Although the constitution permits direct taxes to be laid upon the States, in proportion to the population, the right has been exercised but three times in the history of our government, and there is no present prospect that the ninth census will be used for such a purpose.

The most particular farm products liable to some States, while making the re apparent grou jealousy upon the direction by some persons this prejudice to fore called upon, a basis of census was an ag might be in a another census, but still to make a num to follow it. It is theocracy, in the reign of T

As already on one day, by the week pre filled up by the day appointed the defect by work most at stant registra etablished in British colonie only instance con siderable exte 11th of November. The result, nown when tried in it failed so con results of the the blanks user
individuals relative to their families, and are in the main aimed from the pastor, or read beside the official statistics, for county from denominational ward with their returns, might illustrate the subject as to the various agencies, for county from denominational

name, class, interval of periodicals, may be when thoroughly made, fact that is useful and instructive.

still improved, by reporting with the reports a name issue. This of itself, of publication, names of object to which devoted, names and preserved in the coming ages of the subject; and as such a the intellectual progress of useful and instructive, by complete, relating to State library at Albany, as point so suggestive by difficulty of execution

standing of the purposes is too obvious to require understood that there are the service of any kind, the offices of family history

favorable opinion is its impropriety in any behalf. It is, however, also would be desirous of ne'er information there are census, and it is pre-hearer than to see it fully furnished, upon application

upon the States, in proportion in the history of our government will be used for such a purpose.

tion, with copies of the law and instructions, to assist them in preparing such statements as they might wish to give to their readers, and every facility should be afforded in the way of information in furtherance of this object.

ERRORS OF OPINION THAT IMPAIR A CENSUS.

The most pernicious error that prevails among the people relative to the objects of a census, is, that it is to be used as the foundation for some particular taxation, and that in giving an account of the value of farms, farm products, and productive industry, they are rendering themselves liable to some tax. Unfortunately, in several of the western and southern States, where the State census is taken by assessors at the time of making the regular assessment, this error has in some parts had strong apparent grounds of reality. In those States there would be found more jealousy upon this subject than in others. Were the census taken under the direction of our present revenue officers, as I have heard suggested by some persons who could not have studied the subject, we should have this prejudice in full force, and it would require no special gift of prophecy to foretell its adverse effect. As these officers have hitherto never called upon a person, or made inquiry of a business, except to get the basis of some taxation, the suspicion would be inevitable, that the census was an agency of revenue, however unjust or unfounded this opinion might be in reality.

Another error, so rare as to be ranked among the curiosities of the census, but still noticed and existing, is the superstition that it is wrong to make a numbering of the people, and that some public calamity may follow it. It is evidently derived from the Divine prohibition in the Jewish theocracy, in which a violation was punished with severe judgments in the reign of David.*

CENSUS TAKEN IN ONE DAY.

As already noticed, the British census has, for many years, been taken on one day, by the aid of householders' schedules left with families during the week preceding the day on which the census is to be taken, to be filled up by the heads of families, and given to the enumerators on the day appointed. If they are found not filled, the enumerator supplies the defect by entries made himself. This rule has been found to work most admirably under the excellent organization for the constant registration of births, marriages, and deaths that has been long established in Great Britain, and has been adopted in most of the British colonies, and in several countries of continental Europe. The only instance of its application to this country, on a scale of any considerable extent, was in the census of the District of Columbia, on the 11th of November, 1867, through the agency of the Metropolitan Police. The result, under careful supervision, was found most satisfactory; yet, when tried in a large city of a neighboring State during the last summer, it failed so completely that another enumeration was at once made, and the results of the first trial were not announced. On a careful examination of the blanks used, I am convinced that errors of arrangement, and an unfavorable

* In 1712 Governor Hunter, in reporting the census of the province of New York, admits the defects of the returns, "the people being deterred by a simple superstition and observation that the sickness followed upon the last numbering of the people." In 1867 a white man, at a negro meeting in the District of Columbia, warned his hearers against the fearful consequences of thus incurring the Divine displeasure in the taking of a census.

As going through with this blank, I noticed 36 faults of arrangement, which every man familiar with statistical labor would acknowledge.
tunate inquiry as to *religion,* defeated their operation; and I am confident that, with maturely arranged schedules, our national census could be taken throughout the northern States by this method. But in sections where school privileges have been less enjoyed, and illiteracy is more prevalent among the masses of the population, I believe the attempt would result in failure at the present time. For obvious reasons the method of taking a census must be uniform throughout the United States, or otherwise the returns would have no value for comparison; and, therefore, I would recommend the continuance of the former method of personal visitation to families, by competent and well-instructed agents.

**THE CENSUS SHOULD BE TAKEN WITHIN ONE MONTH.**

With reference to the time allowed for the taking of our census there can be no doubt but that it should be reduced to at least one month, as is done in the New York State census. By thorough supervision this can be done in a most satisfactory manner, and we shall have returns far more worthy of confidence than any hitherto made. The amount that one person can enumerate in a month is well ascertained from the experience of some thousands of cases, and this experience justifies the belief that its application to the national census would be found easy and be attended with a most satisfactory result.

**CIRCUMSTANCES THAT MAY AFFECT THE RATE OF ENUMERATION.**

The amount of census enumeration that can be done in a given time depends greatly upon circumstances, and, as a general rule, the task becomes more difficult in districts inhabited by the wealthy and fashionable classes, where delays in finding the proper person to give the information, explanations as to the purposes of the visit, and other incidents consume time and retard progress. More especially would this be true if the inquiries were made by a revenue officer, whose ordinary visits are made to ascertain concerning revenues and taxable property. It would, in such a case, be impossible to separate the census from some association with taxation that would seriously impair results.

The relative density of settlement, the prevailing intelligence, good will towards government, and confidence of the people in the measures ordered by it, or the reverse, would greatly influence the operation of a census law. All these conditions being alike, two men might accomplish a very different amount of work in the same time, according to their own tact and intelligence in its performance. From these considerations, and others that will occur upon careful reflection, it appears that no arbitrary rule could be laid down, founded upon area, or density of population, which would invariably operate with exact uniformity; but with intelligent local supervision, in districts not larger than the

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* Americans will never submit to official inquiries into their *religion or politics*; and nothing would sooner excite jealousy and provoke resentment than an inquest on these subjects, on which every man enjoys the high privilege of independent opinion without questioning.

1 In the sessions of the International Statistical Congress, held in Brussels in 1855, in Paris in 1855, in Vienna in 1857, and in London in 1869, the methods of census taking were fully discussed, and plans for securing uniformity, in different countries, were recommended. The use of householders' schedules, to be returned within one day, is strongly urged by forcible reasons. They recommend that both the actual and the usual residence should be reported, so as to show the conditions of the population on the day the census is taken, but their distribution when all at their proper homes. The latter is, with us, the only question of practical importance.

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of census-taking in countries, were recollected in one day, is strongly
and the usual residence on the day the census was taken is
representative districts of Congress, a subdivision might be made that
would be found satisfactory in the general mode of its operation.

DAY UPON WHICH A CENSUS SHOULD BEGIN.

With reference to the time on which a census should begin, and to
which its inquiries should refer, we have the precedent of 30 years in
favor of June 1st, and an equal period anterior to that in favor of
August 1st. There are some grave objections to either of these, namely:

It is a time when many families are absent from their usual homes, at
places of summer resort.

Farmers and planters, who must be consulted in procuring statistics of
agriculture, are often in distant fields, and pressed with business.

Families living on board of boats and vessels, on rivers and canals,
cannot be found.

In some of the agricultural inquiries there is liability of blending of
the returns of the current year with those of the preceding, to which they
should refer; and a change of residence, when it occurs, happens in
most cases before June, so that questions as to the yield of farms, deaths,
&c., during the past year, cannot be answered by the persons living
in the places where they should be reported.

The European statistical congress has recommended December as the
best time for a census. The month of January would be better, as the
inquiries would then correspond with the civil year; the crops of
the previous season are harvested, and their product is known; business
men have their accounts posted; families are at their proper homes; it
is a season of leisure with farmers, and navigation is generally sus-
pended. The objections against that time would be, short days and bad
roads. If we take the first of March we should, perhaps, enjoy most of
these advantages, together with days of average length; and the returns
might all be received, and the general results published, for the action
of Congress at its next regular session, in December.* I would, there-
fore, respectfully suggest, that the census should be taken within the
month of March, and that it be reported in April.

GENERAL CONCLUSIONS.—METHODS.

In deciding upon forms of inquiry, and tables for enumeration, the
grand object should be to decide, not as to how many questions could be
asked, but as to how few and specific they may be, in view of a satisfac-
tory result. In this regard the blanks of 1850 were an immense reform
on those that preceded them; for example, a single column to enter the
exact age, presented, in connection with sex and color, the opportunity
of classification by single years of each, had it been thought desirable,
which by the old methods could not have been reached without the use
of over 400 columns.*

If every farmer were asked, "how much did you raise last year of each
crop? how much land did you cultivate with each? what number of
domestic animals of each kind do you own? what prices did each crop bring?" and a few more questions, relative to number of acres improved
and unimproved, value of farm and of buildings, &c., we should have a
much clearer return from him, if allowed a few leisure hours to make it,
than if a hundred inquiries were hurriedly addressed, without forethought.

* The preliminary report of the eighth census was made May 21, 1882.

* The blanks actually used in taking the census of 1850 contained 72 columns for personal
inquiries, 30 for mines, 27 for agriculture, 4 for horticulture, 11 for commerce (including
"butchers,") 7 for fisheries, 6 for products of the forest, and 128 for manufactures; total, 255.
or time for reference, and the greater part inapplicable to his case. The special blanks for agriculture and manufactures, herein recommended, embody this principle, and the idea should be carried into every department of inquiry to which it is applicable.

It may be regarded as a settled maxim in statistical investigations that the procuring of information, and the classification of results, are separate and distinct operations, that cannot well be done at the same time. To use a comparison drawn from mercantile life, the former is the Journal and the latter the Ledger; if the former correctly enters names, dates, kinds, quantities, and values, the latter might, if it was thought desirable, show every classification conceivable as to months of sale, quantities and values sold of each kind, amounts sold to certain persons in various months, &c., &c., to any extent.

To carry the same comparison further in its application to the census, the method introduced in 1830 represents the Journal or Day book, and the old method of blanks with a line for each family represents a Ledger ruled off to represent every classification as to time, article, person, quantity and price obtainable, and a separate entry to be made in each.

The census should report what there is; the absence of report would show what is not.

In presenting these views, I have limited them chiefly to the subjects that should be included in the inquiry, and to the methods for obtaining accurate data, because these appear to be the only ones to which a statute could be applicable. The officer who may have charge of the administration of the census, if he has the intelligence, energy, and ability due to the station, the means at his disposal, and the control of his agencies, will be able to organize the office methods in such a manner as to produce correct results, without liability to error or unreasonable delay.

The agencies recommended are, a commissioner, in charge of the central office, a superintendent for taking the census in each congressional district and in each Territory, and one enumerator or more in each town and ward. In States where there are no town organizations, a proper subdivision of counties should be made. In small towns the same person might make a separate report from two; but in no case should more labor be assigned than can be well done in one month. The superintendents of districts should receive their appointments at least four months before the time for taking the census, to the end that they may carefully arrange subdivisions, and select honest and faithful men. They may be paid a specific sum, or for the time spent. The enumerators should be paid by the day for the time necessarily employed within the month in taking the census, and making one duplicate copy, and pay should be withheld until a satisfactory report is made.

To avoid trouble from incompetence, sickness, and other incidents tending to embarrass the work, the commissioner should have the power of removal and reappointment of district superintendents and enumerators; and, as returns partially completed are liable to loss or injury by fire and otherwise, he should have the power to order a re-enumeration to supply such defect, but only with reference to the day on which the census should begin.

I will conclude with one more suggestion. The district superintendents would receive with their commissions a copy of the instructions and sets of the blanks for preparatory study and thorough understanding. If the superintendents in a State or in two or more adjacent States could be assembled at a convenient place, and so in succession throughout the Union, on days appointed for each, and there meet the commis-
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sioner, discuss doubtful points and constructions upon which there

might otherwise be differences of understanding, examine probable

difficulties and the methods of overcoming them, and review the task

before them thoroughly and fully, they would return to their duties with

a uniformity of views, and a unity of purpose, that could not fail to be

rewarded in the fulness and accuracy of returns. This symmetry of

understanding might be imparted to enumerators by the district super-

intendents when found practicable, and we should have in the NINTH

CENSUS a result more satisfactory, because more reliable, than has hitherto

been attainable through the means and agencies prescribed by law.

Very respectfully submitted.

FRANKLIN B. HOUGH.

Hon. JAMES A. GARFIELD,
Chairman of the Committee on the
Ninth Census of the United States.

Letter from Professor Peirce, superintendent of the United States Coast Sur-
vey, relative to the rule of mileage in the law of 1870, alluded to in a pre-
ceding page of this communication.

SIR: The rule which has been adopted for the compensation of officers

for the taking of the census, does not appear to me to have any sound

foundation in reason, and to be obviously inconsistent with fact. It

might easily be perverted to false uses, and I should regard it as wiser

and safer to introduce a system of compensation which was made depend-

ent upon the good judgment and experience of faithful and intelligent

supervision.

BENJAMIN PEIRCE,
Superintendent United States Coast Survey.

Hon. JAMES A. GARFIELD,
Chairman of the Committee on the
Ninth Census of the United States.