# VI.-Education. 

## INDEX TO PLATES.

## ILLITERACY OF PERSONS OF TEN YEARS AND OVER <br> .................................... Plate 50 <br> Total Unable to Read. <br> Total Unable to Write: White; Colored.

ILLITERACY OF PERSONS OF TWENTYONE YEARS AND OVER.<br>Plate 51<br>Unable to Write: White; Colored.

PUBLIC SCHOOLS
Plates 52-53
School Population; Enrollment; Attendance. School Days; Teachers' Wages; School Age. Expenditure, by States; by Cities.

## UNIVERSITIES AND COLLEGES

Plate 54 Ratio of Students to Population.

## SCHOOLS FOR THE INSTRUCTION OF WOMEN. <br> Plate 54

Ratio of Students to Population.
NORMAL AND INTERMEDIATE SCHOOLS. Plate 55
Ratio of Students to Population.

## SCHOOLS FOR SPECIAL INSTRUC-

 TION..Plates 56-57
Preparatory; Commercial and Business. Medical; Reform; Scientific; Kindergarten. Law; Theological; Deaf and Dumb; Blind.

Illiteracy.-Out of a total of $36,761,607$ persons of ten years of age and over, the census of 1880 reports $4,923,45 \mathrm{I}$, or 13.4 per cent., as unable to read, and $6,239,958$, or 17 per cent., as unable to write. In 1870 the corresponding ratios were 16 and 20 per cent. respectively. A direct comparison may be made by increasing the number of illiterates in 1870 in the proportion by which the population increased during the ensuing decade. The comparison will then stand as follows: Those unable to read in 1880 were to the same class in 1870 as 853 is to $\mathrm{I}, 000$, and those unable to write were as 826 is to 1,000 . The decided lessening of illiteracy during the decade is more marked in the case of writing than of reading.

The number of native whites unable to write in 1880 , formed 8.7 per cent. of the whole number of native whites above ten years of age; of the foreign-born whites the proportion was much greater, namely, 12 per cent., while of colored persons above ten years of age no less than 70 per cent. were returned as unable to write. In all three classes, however, there appeared a very decided improvement over their condition ten years before. After increasing the number in each class in 1870, proportionally to the increase of population between 1870 and 1880 , the result is as follows: Of native whites, each 1,000 in 1870 was reduced to 830 in 1880 ; of the foreign-born, to 759 ; and of the colored, to 888 .

Although the least proportional improvement appears in the colored element, it
approaches closely that of the whites, and, considering the great disadvantages under which the freed slaves and their children still rest, may well encourage the friends of the colored race. The reduction of illiteracy among the foreign-born element to the extent of nearly one-fourth, is a particularly pleasing feature, as it indicates that a better class of immigration, at least as respects education, has latterly been brought to our shores.

The following table shows by states and territories the percentage which the number unable to write, in each class, forms of the total number in each class above ten years of age:

| States and territories. | Percentage Unable to Write. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1870. | 1880. |  |  |  |
|  | $\begin{gathered} \stackrel{\rightharpoonup}{4} \\ \stackrel{\leftrightarrow}{6} \end{gathered}$ |  |  | 㟥 | - |
| North Atlantic Group. |  |  |  |  |  |
| Maine. | 3.8 | $4 \cdot 3$ | 1.9 | 23.7 | 24.8 |
| New Hampshire | 3.8 | 5.0 | I. 1 | 26.9 | 15.8 |
| Vermont. | 6.8 | 6.0 | 2.4 | 26.6 | 19.3 |
| Massachusetts | 8.4 | 6.5 | 0.7 | 19.6 | 15.1 |
| Rhode Island | 12.6 | 11.2 | 2.9 | 27.3 | 23.6 |
| Connecticut. | 7.0 | $5 \cdot 7$ | 1.0 | 18.3 | 17.4 |
| New York. | 7.0 | 5.5 | 2.2 | 12.5 | 21.2 |
| New Jersey................. | 8.0 | 6.2 | 3.2 | 11.1 | 30.5 |
| Pennsylvania ................ | 8.6 | 7.1 | 4.8 | 15.1 | 27.1 |
| The Group........ | $7 \cdot 5$ | 6.2 | 2.8 | 15.4 | 23.2 |
| South Atlantic Group. |  |  |  |  |  |
| Delaware .................... | 24.9 | 17.5 | 8.1 | 18.5 | 57.5 |
| Maryland . . . . . . . . . . . . . . . . | 23.6 | 19.3 | 7.8 | 10.2 | 59.6 |
| District of Columbia.......... | 28.7 | 18.8 | 2.6 | 12.1 | 48.4 |
| Virginia .................... | 50.1 | 40.6 | 18.5 | $5 \cdot 4$ | 73.7 |
| West Virginia. . . . . . . . . . . . . | 26.4 | 19.9 | 18.6 | 13.5 | 55.0 |
| North Carolina. | 51.6 | 48.3 | 31.7 | $3 \cdot 3$ | 77.4 |
| South Carolina. | 57.6 | 55.4 | 22.4 | 4.9 | 78.5 |
| Georgia. ..................... | 56.0 | 49.9 | 23.2 | 5.6 | 8 t .6 |
| Florida...................... | 54.8 | 43.4 | 20.7 | 10.0 | 70.7 |
| The Group. | 46.2 | 40.3 | 20.0 | 10.2 | 75.1 |


| STATES AND TERRITORIES. | Percentage Unable to Write. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1870. | 1880. |  |  |  |
|  | $\underset{\leftrightarrow}{\stackrel{\rightharpoonup}{4}}$ | 安 |  |  | - |
| Northern Central Group. |  |  |  |  |  |
| Ohio . . . . . . . . . . | 8.9 | $5 \cdot 5$ | 4.3 | 8.4 | $27 \cdot 3$ |
| Indiana | 10.6 | $7 \cdot 5$ | 6.8 | 8.9 | 35.6 |
| Illinois | $7 \cdot 4$ | 6.4 | $5 \cdot 3$ | 7.7 | 37.2 |
| Michigan | 6.1 | 5.2 | 2.3 | 10.7 | 28.5 |
| Wisconsin | $7 \cdot 4$ | 5.8 | 2.0 | 10.8 | 31.0 |
| Minnesota. . . . . . . . . . . . . . . | 8.0 | 6.2 | 2.9 | 10.9 | 37.2 |
| Iowa . | $5 \cdot 4$ | 3.9 | 2.6 | 8.1 | 30.0 |
| Missouri..................... | 18.4 | 13.4 | 11.1 | 7.0 | 53.9 |
| Kansas . . . . . . . . . . . . . . . . . | 9.5 | 5.6 | 3.1 | 6.7 | 46.8 |
| Nebraska | $5 \cdot 5$ | 3.6 | 2.3 | 6.4 | 30.7 |
| Dakota | 14.7 | 4.8 | 1.8 | 6.8 | 44.2 |
| The Group........ | $9 \cdot 3$ | 6.7 | $5 \cdot 0$ | 8.9 | 41.2 |
| Southern Central Group. |  |  |  |  |  |
| Alabama. | 54.2 | 50.9 | 25.0 | $7 \cdot 7$ | 80.6 |
| Mississippi | 53.9 | 49.5 | 16.6 | 6.0 | 75.2 |
| Louisiana........... . . . . . . . | 52.5 | 49. I | 19.8 | 10.9 | 79.1 |
| Texas | 38.8 | 29.7 | 13.9 | 24.7 | $75 \cdot 4$ |
| Arkansas. | 39.0 | 38.0 | 25.5 | 5.6 | 75.0 |
| Tennessee................... | 40.9 | 38.7 | 27.8 | 7.5 | 71.7 |
| Kentucky................... | $35 \cdot 7$ | 29.9 | 22.8 | 9.7 | 70-4 |
| The Group....... | 44.5 | 39.5 | 22.0 | 16.0 | 76.0 |
| Western Group. |  |  |  |  |  |
| Montana | 5.0 | $5 \cdot 3$ | 1.4 | 3.8 | 35.8 |
| Wyoming | $7 \cdot 4$ | 3.4 | 1.7 | 4.1 | 14.7 |
| Colorado. | 22.8 | 6.6 | $7 \cdot 1$ | 4.0 | 20.5 |
| New Mexico. | 79.0 | 65.0 | 64.2 | 43.3 | 92.2 |
| Arizona. | 33.6 | 17.7 | 8.1 | 26.8 | 23.7 |
| Utah. | 13.0 | 9.1 | $5 \cdot 9$ | 11.8 | 52.3 |
| Nevada | 2.4 | 8.0 | I. 1 | 8.4 | 26.7 |
| Idaho | 25.7 | 7.1 | 3.0 | $5 \cdot 3$ | 28.2 |
| Washington | 7.6 | $7 \cdot 0$ | 2.4 | $4 \cdot 5$ | 38.1 |
| Oregon. | 6.8 | $5 \cdot 7$ | 3.5 | $4 \cdot 4$ | 27.8 |
| California .. | $7 \cdot 4$ | 7.8 | 2.0 | 8.6 | 29.8 |
| The Group. | 15.0 | 11.7 | 8.4 | $9 \cdot 3$ | $33 \cdot 3$ |

The first two columns show, primarily, that the illiteracy of the country is mainly in the South. In the South Atlantic and Southern Central sections as a whole, not more than 60 out of every 100 inhabitants over ten years of age can write. The table develops the fact that, as a rule, illiteracy is greatest in
those parts of the South where the colored element is relatively the most numerous. In regard to the colored element, the North possesses a double advantage over the South, in that while it has a very small percentage of colored persons, those who have found their way North are, as a class, mentally superior to those who have remained in the South, and, moreover, find at the North much greater incentives and facilities for obtaining education. The result is seen in the column showing the percentage of colored illiterates, which, in the North Atlantic group, presents an average of 23.2 and in the Northern Central 41.2 per cent., as contrasted with $75 . \mathrm{I}$ in the South Atlantic and 76.0 in the Southern Central groups.

While the presence in the South of so large a proportion of the colored element explains a large part of the illiteracy of that section, it by no means accounts for all of $i t$, as is shown in the column relating to native whites. The average of native white illiterates in the North is very much less than in the South. No stronger argument in favor of the admirable public school system of Massachusetts can be adduced than the fact that, of the native white population of that state, only 7 in 1,000 are unable to write, while those who cannot read form a still smaller proportion.

The highest percentage of illiteracy in the North Atlantic group was in Rhode Island, where it was unquestionably due to the presence of a large foreign element, chiefly factory operatives. In the Northern Central group Missouri contained an exceptionally large proportion of illiterates, attributable to the ignorance prevailing in its southeastern section. The percentage of illiterates in the Northern states, including the two above mentioned, is very small, 94 out of every 100 being able to write.

As in many other respects, already pointed out, the foreign element is, in respect to illiteracy, complementary to the colored element. The fourth column of the above table shows that the illiteracy of the foreign-born is, in the North, decidedly greater than in the South. The reason is to be found in the fact that the immigration to the North is mainly of the peasant classes, while the few persons of foreign birth found in the South are commonly from the middle and upper classes. An examination of this column, in the part relating to the Southern states, will show that illiteracy is in direct ratio to the proportion of the foreign element. Thus, in North and South Carolina, where there are very few persons of foreign birth, the proportion of illiterates among these few is trifling, while in West Virginia, Florida
and Texas, which have received a considerable amount of foreign immigration, the percentage is correspondingly greater.

In all the states and territories, with but five exceptions, illiteracy decreased during the decade, and in many cases very decidedly. This decrease has been effected by two causes, which in some states have acted in the same, in other cases in contrary directions. These are, first, an extension of educational privileges, and, second, changes in population, produced by immigration or emigration. In the Northern states these two causes have acted in opposite directions, and the result is the difference between their effects. In Maine, New Hampshire, Montana, California and Nevada the net result is an increase of illiteracy, the effects of immigration having been greater than those of education. In the other states the balance has been favorable. In the South illiteracy has diminished in every state.

On the whole, the progress of the decade in respect to elementary education has been very decided, and augurs well for the future.

Educational Land Grants.-The benefits to be derived from a general dissemination of education were recognized by the colonies of the North at a very early stage of their existence, and by several of them efficient means were taken for the establishment and support of public schools. These were at first supported partly by general tax and partly by rate-bills assessed upon attendance. The latter feature has long since disappeared. In 1795 Connecticut took measures for creating a permanent school fund by reserving a portion of her western territory from her cession to the General Government, and devoting the proceeds of its sale to the common school fund. This, which was the well-known "Western Reserve," was sold for $\$ 1,200,000$, and the fund thus created has since grown to more than $\$ 2,000,000$. Massachusetts created a similar fund by reserving a portion of the present area of Maine

Even in the Continental Congress the question of affording aid to education was agitated. In 1785 an act was passed by Congress reserving for school purposes the 16th section in each township of the public lands belonging to the United States. Each state, upon its admission into the Union, was made the trustee of the school lands thus granted. Under this act, and subsequent legislation, twelve states received grants of land for school purposes. In 1848 Congress granted an additional section (the 36 th) in each township for the same purpose, making 1,280 acres in each township.

The following table, extracted from the Report of the Public Lands Commission, shows the amount of land granted to each state for educational purposes:


In addition to this, upon the admission of the several "public land" states, grants of two townships, and in the cases of Florida, Wisconsin and Minnesota of greater amounts, were made to each state for the purpose of creating a university.

In 1862 each state received a further grant, either in the form of land within the state, in case there still remained such public lands unsold, otherwise an equivalent amount of scrip, for the purpose of establishing in each state a school of agriculture and the mechanic arts. This grant was of 30,000 acres for each senator and representative in Congress under the apportionment of 1860 . Under this act land was selected in eleven states, amounting to $1,770,000$ acres, while scrip was issued to twenty-seven states, representing $7,830,000$ acres. Thus the total amount of land donated by the General Government to the cause of education has been $78,659,439$ acres, or nearly 123,000 square miles, an area approximately equal to that of the territory of New Mexico, and about one-twenty-fifth the whole area of the country, excluding Alaska.

Public Schools.-The public school system of the United States is essentially of New England origin. Carried westward by emigrants from New England, it has flourished in every community planted by them.

Prior to the close of the Civil War, public schools were almost unknown in the Southern states, except in a few cities, where they were regarded only as a charitable provision for the
very poor. The system of public education is now in more or less successful operation in every state and territory of the Union. The subjoined maps, taken from the Report for 1880 of the State Superintendent of Public Instruction for Indiana, present a graphic picture of the extension of public schools in that state within the period from 1853 to 1880 , and serve also to indicate the similar progress of public education in the country at large during the same period.

Probably the best measure of the provision made in different parts of the country for



The most salient feature of the above table

The first column, derived from the statistics of the tenth census, gives in percentages the proportion which the average school attendance bears to the total school population. The second column shows the proportion which the average number of days on which school is kept in the several states bears to the maximum number, which has been assumed at 200 annually. The data for this have been drawn from the report of the Bureau of Education for 1880. The third column combines these two elements, and expresses the proportion which the actual amount of "schooling" in each state is the high proportion which the amount appropriated for the support of public schools bears to the true valuation throughout the states of the Northern Central group and in nearly all of the Western states and territories. These states and territories have, besides the assistance afforded them by the national grant of land, spent money lavishly for education, and the results are seen in their admirable school systems and their correspondingly low proportion of illiterates. As between the North Atlantic states and those of the South, there appears to be no striking difference. The South has devoted to the cause of education, in proportion to its means, almost as freely as New England.

The following table is designed to epitomize the condition of education in the
education is the amount of the public funds devoted to this purpose, per capita of the school population. This is illustrated in a map and diagram upon Plate 53. From them it appears that the amount per capita devoted to the public school system ranges from \$18.70 in Nevada, down to $\$ 0.85$ in North Carolina and $\$ 0.8 \mathrm{I}$ in New Mexico. Speaking broadly, the Northern and Western states spend the largest amounts, while in the South the sum is comparatively small.

Another satisfactory basis for comparing the educational expenditures of the different states and territories is presented in the following table, showing the proportion existing between the true valuation of property and the amount raised by taxation for public school purposes in each state:
several states and territories:

| State. |  |  |  | State. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Massachus | 55 | 89 | 49 | Maryland | $3^{11}$ | 88 | 27 |
| Connecticut | 47 | 90 | 42 | Nebraska | 46 | 55 | 25 |
| Dist.of Columbia | 43 | 97 | 42 | Oregon | 53 | 45 | 24 |
| Michigan | 57 | 71 | 41 | Utah | 36 | 64 | 23 |
| Ohio | 52 | 75 | 39 | Washing | $5^{2}$ | 44 | 23 |
| Iow | 51 | 74 | $3^{8}$ | Arizona | 41 | 55 | 23 |
| Maine | 64 | 60 | 38 | West Virginia.. | 45 | 50 | ${ }^{2}$ |
| Wiscons | 46 | 8 I | 37 | Montan | 45 | 48 | 22 |
| New Yo | 4 | 90 | 37 | Min | 44 | 47 | 21 |
| Rhode Isla | 40 | 92 | 37 | Iiss | 37 | 50 | 19 |
| Pennsylvani | 49 | 74 | 36 | Kentucky | 35 | 51 | 18 |
| California | 49 | 73 | 36 | Colorado | 38 | 45 | 17 |
| New Jersey | 37 | 96 | $3^{6}$ | Mississipp | 41 | 39 | 16 |
| Indiana. | 52 | 68 | 35 | Virginia. | 26 | 57 | 15 |
| Vermont | 55 | 63 | 35 | Tennesse | 40 | 34 | 14 |
| Illinois. | 46 | 75 | 35 | Alabama | 29 | 40 | 12 |
| Nevada | 47 | 71 | 33 | Dakota | 26 | 44 | II |
| New Hampshire. | 62 | 53 | 33 | Louisiana | 19 | 59 | II |
| Kansas | 46 | 6I | 28 | North Carolina. | 36 | 27 | 10 |

bears to the maximum amount, which is considered to be the amount that would be given, in case all children of school age attended school, during 200 days in each year. The states and territories are arranged in this table in the order of the figures of the last column. It will be seen that Massachusetts and Connecticut retain their traditional position in regard to public education.

The maps and charts on Plate 52 show in detail the rank of the states and territories in respect to the ratio of enrollment and of attendance to the total school population, of the actual to the maximum number of school days, and in respect also to the average monthly wages of teachers.

The low position of the Southern states in the third column of the above table appears to
be due in greater degree to the small proportion attending school than to the number of school days, although the latter is, in general, considerably less than in other parts of the country.

The income of the public schools is derived from various sources: First, direct taxation, either state or local, from which by far the greater proportion of the school revenue is obtained, and in several states practically its total amount; second, interest on invested funds, and rents of school lands; third, sales of school lands, and fourth, miscellaneous sources. Out of a total income from all sources of $\$ 82,584,489$, there was raised by direct taxation in 1880 the sum of $\$ 66,048,411$, or very nearly four-fifths of the whole.

## Schools of Higher Instruction.-

The maps and diagrams on Plates 54 and 55, relating to the distribution of universities and colleges, schools for the superior instruction
of women, normal schools, and schools for secondary instruction, are subject to certain qualifications. The various institutions authorized by legislative enactment to grant degrees and diplomas are not necessarily of the same grade, nor are the other classes of educational institutions mentioned above similar to one another in all parts of the country, although bearing the same name. To instance an extreme case, Tennessee reports no fewer than twenty universities and colleges, with 1920 students in the collegiate department, while Massachusetts, which probably has the finest provision for advanced education of any state in the country, reports but seven such institutions, with 1899 students in the collegiate department, while the population of the latter state is much greater than that of the former. The only explanation of this apparent anomaly is found in the widely varying standard adopted by different educational institutions of the same general class.

Special Schools.-The maps and charts on Plates 56 and 57 , relating to various kinds. of special schools, show the distribution of such schools, and the ratio between the number of students receiving instruction in them and the total population of the state in which they are located.

The number of training schools for nurses and of schools for the instruction of the feebleminded, was so inconsiderable that maps were not inserted to show their distribution, which may be ascertained from the table below, as may also that of the miscellaneous group in which the report of the Bureau of Education combines orphan asylums, industrial schools and miscellaneous charities.

The appended table presents a summary, compiled from the Report of the Commissioner of Education for the year 1880, of the number of schools of each class, and the enrollment in each, in the several states and territories :


