

ton. We have no means of knowing whether it is now in existence, and hence have not included it in the roll of *Normal States*.

The experience of those communities in which these schools have had a fair trial is in all respects satisfactory. They have awakened a new interest in popular education; they have raised the standard of qualification; they have improved the methods of instruction and discipline; they have aroused a healthful emulation, by generating the true *esprit de corps* among teachers; and they are gradually elevating their calling to the rank and dignity of a learned profession.—*American Educational Monthly*.

—By a decree of the 4th September last, the Emperor of the French has directed that the sum of 100,000 francs, taken annually from the Fund set apart to assist the communes in building and repairing their schoolhouses, be applied to the purchase of moveable property for the teachers, provided the communes defray half the cost of such property, which shall remain in their possession permanently. The pupil-teachers, who, under a decree of the 19th April, 1862, already receive 100 frs. on leaving the normal schools, will derive especial benefit from this new provision. The decree of the 4th September also elevates the minimum salaries of the head masters in normal schools from 2,000 frs. to 2,400 frs., and the maximum from 3,000 frs. to 3,600 frs.; while the minimum salaries of assistant teachers in the same institutions are to be increased from 1,200 frs. to 1,400 frs., and the maximum from 1,800 to 2,000 frs.

Notwithstanding all that has been done to advance elementary education in France, there are still 1,018 communes without schools or the proper means of conveying instruction, 10,110 communes keep their schools in buildings rented for the purpose, or of which the ownership is not vested in them. The number of children who receive no instruction is 600,000; and the number of communes possessing libraries is 5,000.

The number of elementary schools, in 1863, was 82,135, showing an increase of 16,136 over that returned for 1848; and the pupils in 1862 numbered 4,731,946 against 3,771,597 in 1848, or an increase of 25 per cent in 14 years. To these figures may be added the number of pupils in the colleges and lycées or high schools, viz: 62,762, making a total of 4,794,703.

The mean salary of a common school teacher was 665 frs. and 33 centimes; and 4,736 teachers received salaries less than 400 francs.

Attaching great importance to an effective system of inspection, the French government will ask, in the budget for 1865, an additional sum of 10,000 frs. to be devoted to this branch of the service.

"The country should thoroughly understand," says the official report from which we extract the foregoing, "that the money spent in the schools will be saved in the prisons. Two important facts are developed in our community, viz: the progressive increase of the school going population, which has reached a million of children since 1848, and the decrease of crime."

SCIENTIFIC INTELLIGENCE.

—Dealers in philosophical and optical instruments sell simple storm-glasses which are used for the purpose of indicating approaching storms. One of these consists of a glass tube, about ten inches in length and three-fourths of an inch in diameter, filled with a liquid containing camphor, and having its mouth covered with a piece of bladder perforated with a needle. A tall phial will answer the purpose as well as the ten-inch tube. The composition placed within the tube consists of two drachms of camphor, half a drachm of pure saltpetre and half a drachm of muriate of ammonia, pulverized and mixed with about two ounces of proof spirits. The tube is usually suspended by a thread near a window, and the functions of its contents are as follows:—If the atmosphere is dry and the weather promises to be settled, the solid parts of the camphor in the liquid contained in the tube will remain at the bottom, and the liquid above will be quite clear; but on the approach of a change to rain, the solid matter will gradually rise, and small crystalline stars will float about in the liquid. On the approach of high winds, the solid parts of the camphor will rise in the form of leaves and appear near the surface in a state resembling fermentation. These indications are sometimes manifested *twenty-four hours* before a storm breaks out! After some experience in observing the motions of the camphor matter in the tube, the magnitude of a coming storm may be estimated; also its direction, inasmuch as the particles lie closer together on that side of the tube that is *opposite* to that from which the coming storm will approach. The cause of some of these indications is as yet unknown; but the leading principle is the solubility of camphor in alcohol, and its insolubility in water, combined with the fact that the drier the atmosphere the more aqueous vapor does it take up, and *vice versa*.—*Upper Canada Journal of Arts and Manufactures*.

—At a late meeting of the Natural History Society, a communication was read from Rev. Mr. Constabell of Clarenceville, describing the ravages of an insect whose larva burrows in the maple leaves, cutting out circular pieces, which are used as coverings to protect the larva while eating the parenchyma of the leaf.

From the specimens exhibited, it appeared that the insect is a little

moth, *Ornix acerifoliella* of Fitch, well known in the State of New York, though apparently not hitherto recorded in Canada. Fitch states that it is not ordinarily very destructive, but that in some seasons it appears in great numbers, and inflicts considerable ravages, especially on detached maple groves. He recommends that cattle should be turned into the affected groves in autumn, in the hope that their treading would destroy the pupæ, which at that season are lying on the ground, wrapped in their coverlets of cut leaves.—*Canadian Naturalist*.

—M. J. Duboseq has contrived for the French theatre a method of imitating the rainbow, of which *Cosmos* speaks very highly. He employs an electric light, obtained with the aid of 100 Bunsen elements. The first lenses of his optical apparatus render the rays from this source parallel, and transmit them through a rainbow-shaped hole in a screen to a double convex lens of very short focus, from which they pass to a prism, and emerge with sufficient divergence to make an effective rainbow on a screen about six yards off. This rainbow is said to be brilliant even when the whole scene is lit up.—*Intellectual Observer*.

STATISTICAL INTELLIGENCE.

—By the census of the United States for 1860, it appears that of 27,489,461, — the total population of *free citizens* — 4,136,175 are of foreign birth. The numbers in 1850 were 19,987,571, and 961,719. It is therefore plain that the immigration has increased in an astonishing ratio. The population of German birth who, in 1850, numbered only one-half that of Irish birth, is almost as numerous now. The following is a list of the different nationalities in the order in which they are represented: Natives of Ireland, 1,611,304, Germany, 1,301,136, England, 431,692, British America, 249,578, France, 109,870, Scotland, 108,518; Switzerland, Wales, Norway, China, 35,563, the remainder of the population of foreign birth being divided between Holland, Mexico, Sweden, and Italy. The greatest number of foreigners reside in the State of New York; the smallest in Delaware. The State of New York has in round numbers a million of foreigners, that is one-fourth of the whole. The States where the greatest number of Germans are found are New York, Ohio, Pennsylvania, Illinois, Wisconsin, and Missouri.

—In Great Britain and Ireland, there are 877,000 more females than males in a population of 29,000,000, while in the United States of a total population of 31,000,000, there are 730,000 more males than females.

—Immigration from all foreign countries to the United States has been as follows, for the decennial periods ending in June.

1840.....	552,000
1850.....	1,558,300
1860.....	2,707,624

OFFICIAL DOCUMENTS.

TABLE of the Apportionment of the Superior Education Fund for 1863, under the Act 18th Vic., Cap. 54.

LIST No. 1.—UNIVERSITIES.

NAME OF INSTITUTION.	Number of pupils.	Annual grant for 1862.	Annual grant for 1863.
McGill College.....	296	2532 90	2407 00
To the same for one year's salary of the Secretary to the Royal Institution, the salary of the Messenger, and for contingent expenses.....		671 07	671 00
Bishop's College.....	163	1812 03	1500 00
Total.....		5016 00	4578 00