

very prominent object with the regents, is the collection of a great variety of scientific information, which would otherwise be lost to the world, or not be obtained without an extraordinary expenditure of time and capital. The number of academies, grammar schools, and colleges, which now report to the regents, is upwards of one hundred and fifty. They are distributed throughout the state; and in their annual report, besides indicating their financial condition, many of them forward the results of simultaneous observations in the various departments of meteorology, together with occasional descriptions of the botanical, zoological, physical, and geological characters of that part of the country in which they happen to be situated. In order that the observations thus made might have a scientific value, the regents, in 1825, issued a printed set of instructions for the general guidance of the observers. On receiving the annual report of each academy, the mass of observations are reduced and tabulated by competent persons, and printed by order of the regents in their annual report to the legislature. The result of this simple and inexpensive plan has been the collection and arrangement of a vast multitude of interesting facts and observations of great value to science, which could not otherwise have been obtained. Among these additions to knowledge thus received and recorded, we mention the following as indicative of their nature and value:

- 1st. The annual and monthly means of temperature at each academy.
- 2nd. The direction of the wind, and the number of clear and cloudy days.
- 3rd. The early frosts in autumn and the last frosts in spring.
- 4th. The monthly and annual falls of rain and snow.
- 5th. The general progress of vegetation—as the blossoming of fruit trees, the commencement of hay, wheat, &c., harvests—the ripening of fruit, &c.
- 6th. The appearance of birds of passage, reptiles, insects, &c.
- 7th. Atmospheric phenomena, such as auroras, haloes, zodiacal light, meteors, &c.
- 8th. Opening and closing of rivers, lakes, canals, &c.
- 9th. Progress and direction of storms.
- 10th. Appearance of rust, mildew, &c.
- 11th. Appearance of peculiar insects, destructive to vegetation, as caterpillars, locusts, grubs, &c.
- 12th. Local peculiarities in climate, temperature of wells, lakes and springs.
- 13th. Appearance of epidemic and endemic diseases.
- 14th. Scientific communications on various subjects.

It will be seen from the perusal of the foregoing list, that a large amount of valuable information can be obtained at a trifling expense. For the last twenty-five years, the regents of the university have been giving to the public the trustworthy observations made at the academy's (about 40 in number) reporting to them. This system has been approved and lauded by the most eminent scientific men of the day: "they are often quoted with high commendation in Europe"—(Memorial from the American Agricultural Association to the Regents of the University of the State of New York). In 1837, the legislature of the State of Pennsylvania appropriated four thousand dollars for the advancement of meteorology; out of this sum various instruments were purchased for each county in the state.

We shall conclude with an extract from the fourth annual report of the Board of Regents of the Smithsonian Institute, for the year 1849, which will serve to show what is now being done for the cause of science, and how far colleges, academies and grammar schools may be instrumental in swelling positive additions to knowledge.

"In order to extend the usefulness of this (meteorological) system, the regents of the university have lately resolved to reorganize the whole, and to supply the observers with accurate and well compared instruments.....They have adopted the same system and instruments as those of the Smithsonian Institute, (an institution we propose to describe in the next number), and have agreed to co-operate fully with us in the observation of the general and particular phenomena of meteorology."

The instruments now proposed to be distributed to the academies and other stations, are:

A standard thermometer; two self-registering thermometers; a wet bulb thermometer; a barometer; a rain and snow gauge; a wind vane.

[OFFICIAL.]

Circular to the Clerk of each County or Union of Counties in U. C.
EDUCATION OFFICE, Toronto, 4th March, 1851.

SIR,—I have the honour to state, that the Local Superintendents for the Townships named in the annexed list have omitted to transmit to this Office their Annual Report for 1850, as required by the 10th clause of the 31st section of the school Act.

These local school officers having received their appointment from the Council of which you are Clerk, I have deemed it more appropriate to call their attention to the omission through you.

It is of the utmost importance that the annual school returns for 1850 should reach this office previously to making the apportionment of the Legislative school grant to the several incorporated villages, townships, towns, cities and counties in Upper Canada for the current year; as this department can have no other means of ascertaining how far the general terms prescribed by the Legislature, as a condition of receiving a portion of the school fund, have been complied with on the part of the school authorities of each school section in Upper Canada.

It is also from these annual reports, in connexion with the certified abstract of the County auditors' Report (so far as it relates to the school moneys of the county) that this department can judge to what extent the positive enactments contained in the following clauses and sections of the school law have been observed and acted upon by the Municipal Council of each county throughout Upper Canada, during the past year:—

XXVII. And be it enacted, that it shall be the duty of the Municipal Council of each County:

Fourthly. To see that sufficient security be given by all officers of such Council to whom school moneys shall be entrusted: to see that no deduction be made from the school fund by the county Treasurer or sub-treasurer, for the receipt and payment of School moneys; to appoint, if it shall judge expedient, one or more sub-treasurers of school moneys, for one or more townships of such county: Provided always, that each such sub-treasurer shall be subject to the same responsibilities and obligations in respect to the accounting for school moneys and the payment of lawful orders for such moneys, given by any local superintendent within the parts of the county for which he is appointed sub-treasurer, as are imposed by this Act upon each county treasurer, in respect to the paying and accounting for School moneys.

XL. And be it enacted, That the sum of money apportioned annually by the Chief Superintendent of Schools to each county, township, city, town or village, and at least an equal sum raised annually by local assessment, shall constitute the common school fund of such county, township, city, town, or village, and shall be expended for no other purpose than that of paying the salaries of qualified teachers of common schools: Provided always, that no county, city, town or village, shall be entitled to a share of the Legislative school grant without raising by assessment, a sum at least equal (clear of all charges for collection) to the share of the said school grant apportioned to it: and provided also, that should the municipal corporation of any county, city, town or village, *raise in any one year a less sum than that apportioned to it* out of the legislative school grant, the Chief Superintendent of Schools shall deduct a sum equal to the deficiency, from the apportionment to such county, city, town or village, in the following year.

XLV. And be it enacted, That no part of the salaries of the Chief or local Superintendents of Schools, nor of any other persons employed, or expenses incurred, in the execution of this Act, shall be paid out of the common school fund, which shall, wholly and without diminution, be expended in the payment of teachers' salaries as hereinbefore provided.

The following clauses of the 27th section of the School Act refer to the duty of each county Clerk, in transmitting certain items of important information to this office. As several of those officers have omitted to transmit the information required, I fear the clauses referred to have escaped their notice.

XXVII. And be it enacted, That it shall be the duty of each Municipal Council of each County:

Fifthly. To appoint annually, or oftener, Auditors, whose duty it shall be to audit the accounts of the county Treasurer and other officers to whom school moneys shall have been intrusted, and report to such Council; and the county Clerk shall transmit to the Chief Superintendent of Schools, on or before the first day of March in each year, a certified copy of the abstract of such report, and also give any explanations relating thereto, as far as he is able, which may be required by the Chief Superintendent.—*Thirdly* * * And provided also, that the county Clerk shall forthwith notify the Chief Superintendent of Schools of the appointment and [Post Office] address of each such local superintendent, and of the county Treasurer: and shall likewise furnish him with a copy of all proceedings of such Council, relating to school assessments and other educational matters.

Your attention to the subjects of this communication will enable the Chief Superintendent to notify you at an early day of the amount of the annual apportionment of the Legislative school grant to your county for the current year. The apportionment to the several incorporated villages, townships, towns, cities and counties, will be officially notified in the *Journal of Education for Upper Canada*.

I have the honour to be, Sir,

Your most obedient servant,

(Signed) J. GEORGE HODGINS,
Deputy Superintendent.