

—and in twenty years he hoped to rival them and go above them all. He had assistants now all over the country making collections for him. And one friend in San Francisco had sent him gratuitously more specimens than all the scientific exploring expeditions on the overland routes had sent to Washington, and they had come with freight prepaid.

—SCIENTIFIC PARADOXES.—The water which drowns us, a fluent stream, can be walked upon as ice. The bullet which, when fired from the musket, carries death, will be harmless if ground to dust before being fired. The crystallized part of the oil of roses, so grateful in its fragrance—a solid at ordinary temperatures though readily volatile—is a compound substance, containing exactly the same elements, and in exactly the same proportions, as the gas with which we light our streets. The tea which we daily drink, with benefit and pleasure, produces palpitations, nervous tremblings, and even paralysis, if taken in excess; yet the peculiar organic agent called theine, to which tea owes its qualities, may be taken by itself, (as theine, not as tea,) without any appreciable effect. The water which allays our burning thirst augments it when congealed into snow; so that Capt. Ross declares the natives of the Arctic regions “perfer enduring the utmost extremity of thirst rather than attempt to remove it by eating snow.” Yet if the snow be melted it becomes drinkable water. Nevertheless, although, if melted before entering the mouth, it assuages thirst like other water, when melted in the mouth it has the opposite effect. To render this paradox more striking, we have only to remember that ice, which melts more slowly in the mouth, is very inefficient for allaying thirst.—*Blackwood's Magazine*.

—THEORY OF THE COOLING OF THE SUN.—One of the most interesting theories of modern physical science is that concerning the gradual cooling of the sun; the fact being demonstrated that if it cools at the cooling rate of water, it would since the six thousand years of human history, have lost a heat equivalent to four times the temperature of red hot iron. This must of course have affected the temperature of the earth to some extent. The sun, indeed, need not be much hotter than melted iron to send us the heat we have. The distinguished French astronomer, Arago, has shown, by an application of the principles of optics respecting the polarization of light, that the sun is not a red hot ball, but that it is surrounded by an atmosphere of flame, through spots in which we occasionally see the sun's dark body. The sun, then, is not incandescent, and the comets shine by light reflected from it. How the sun derives its supply of heating material will perhaps never be ascertained.

—THE FOREIGN OFFICE, in Downing-street, has been connected with the Submarine Central Telegraph Station. In future messages will be received direct by the Secretary of State for Foreign Affairs from the various British embassies throughout Europe, and *vice versa*. The Secretary for India will also receive his despatches from the Governor General at the Indian House direct, a connection with that department being about to be established.

—THE GREAT BELL OF WESTMINSTER.—St. Stephen's bell has spoken at last. It was struck with a clapper by the Speaker, the Right Hon. E. Denison, pulling the rope. “The first stroke was slight, but afterwards it came peal after peal in a tremendous volume of sound that was actually painful, it seemed to swell and grow upon the air with a vibration that thrilled every bone in the listener's body with a painful jar, becoming louder and louder with each gigantic clang, till one shrunk from the awful reverberations as from something tangible and dangerous to meet. Many went upon the balustrade outside the chamber to avoid the waves of sound that seemed eddying round the tower; but the escape was only a partial relief, the great din seeming almost to penetrate the stonework of the battlements, and jar the very place in which one stood.

## X. Departmental Notices.

### PUBLIC SCHOOL LIBRARIES.

“Township and County Libraries are becoming the crown and glory of the Institutions of the Province.”—*Lord Elgin at the Upper Canada Provincial Exhibition, September, 1854.*

The Chief Superintendent of Education is prepared to apportion *one hundred per cent.* upon all sums which shall be raised from local sources by Municipal Councils and School Corporations, for the establishment or increase of Public Libraries in Upper Canada, under the regulations provided

according to law. Prison Libraries, and Teachers' County Association Libraries, may, under these regulations, be established by County Councils, as branch libraries.

### SCHOOL MAPS AND APPARATUS.

The Chief Superintendent will add one hundred per cent. to any sum or sums, not less than five dollars, transmitted to the Department by Municipal and School Corporations on behalf of Grammar and Common Schools; and forward Maps, Apparatus, Charts, and Diagrams to the value of the amount thus augmented, upon receiving a list of the articles required. In all cases it will be necessary for any person, acting on behalf of the Municipality or Trustees, to enclose or present a written authority to do so, verified by the corporate seal of the Corporation. A selection of articles to be sent can always be made by the Department, when so desired.

### PRIZES IN SCHOOLS.

The Chief Superintendent will grant one hundred per cent. upon all sums not less than five dollars transmitted to him by Municipalities or Boards of School Trustees for the purchase of books or reward cards for prizes in Grammar and Common Schools. Catalogues and Forms forwarded upon application.

### POSTAGE REDUCED ON TRUSTEES' RETURNS.

The Hon. Postmaster General has recently issued the following circular notice to Postmasters in Upper Canada: “The Half-Yearly School Returns made by School Trustees to the Local Superintendents of Schools, may, though the printed form be partly filled up with the names of the pupils and the days of attendance, in writing, be transmitted by Post, in Canada, as printed papers, at one halfpenny each, *to be prepaid by Stamps.*”

### SCHOOL REGISTERS.

School Registers are supplied gratuitously, from the Department, to Grammar and Common Schools Trustees in Cities, Towns, Villages, and Townships by the County Clerks—through the local Superintendents. Application should therefore be made direct to the local Superintendents for them, and not to the Department. Those for Grammar Schools will be sent direct to the head Masters.

### PENSIONS—SPECIAL NOTICE TO TEACHERS.

Public notice is hereby given to all Teachers of Common Schools in Upper Canada, who may wish to avail themselves at any future time of the advantages of the Superannuated Common School Teachers' Fund, that it will be necessary for them to transmit to the Chief Superintendent without delay, if they have not already done so, their annual subscription of \$4, commencing with 1854. The law authorizing the establishment of this fund provides, “*that no teacher shall be entitled to share in the said fund who shall not contribute to such fund at least at the rate of one pound per annum.*”

SCHOOL SECTION SEALS, as required by the Education Office, Engraved and transmitted by Post (free) on receipt of \$2. Address  
A. M. BARR, Engraver, Yonge Street, Toronto.

ADVERTISEMENTS inserted in the *Journal of Education* for three cents per word, which may be remitted in *postage stamps*, or otherwise.

TERMS: For a single copy of the *Journal of Education*, \$1 per annum; back vols., neatly stitched, supplied on the same terms. All subscriptions to commence with the January Number, and payment in advance must in all cases accompany the order. Single numbers, 12½ cents each.

All communications to be addressed to Mr. J. GEORGE HODGINS,  
Education Office, Toronto.

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