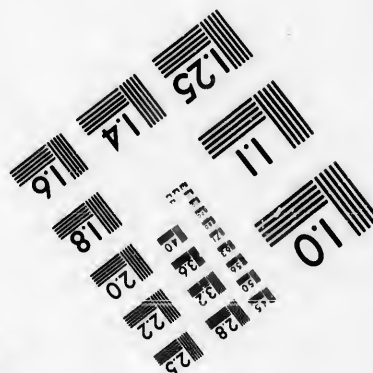
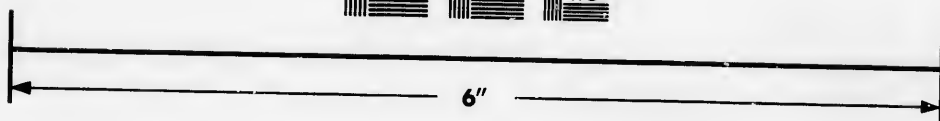
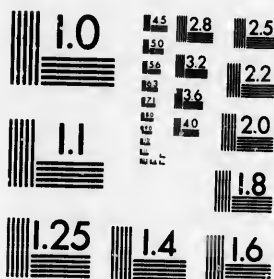


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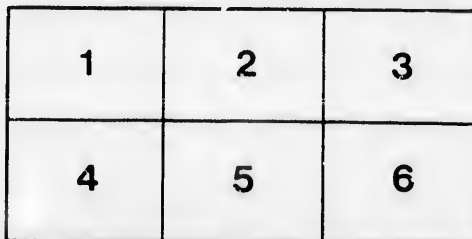
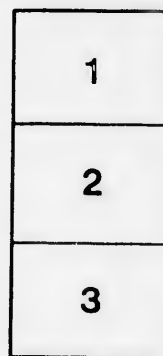
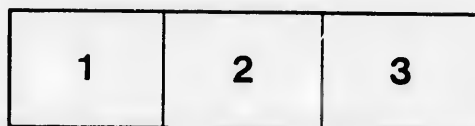
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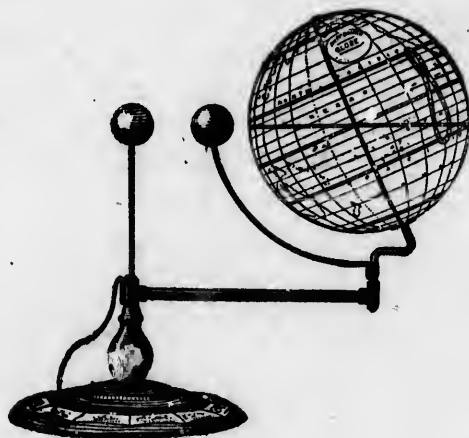
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Geography is the foundation principle of history and literature; they cannot exist without it. It is a waste of time to read about events without a knowledge of the places where they occurred.

The McDonald School and Library Globe supplies a want long felt in the school room and family circle. It is a happy work of reference for the parent and teacher in historical and literary research, and a delightful entertainment of object lessons in the grandest of all the sciences for the child. It is an ingenious combination of four separate instruments, heretofore used to demonstrate the phenomena of Geography and Astronomy, into one device, at one-fourth the cost, making it obtainable everywhere. It can be used as a plain reference globe, a tellurian, a lunarian and celestial sphere.

It can be arranged with a jet of light at the centre so as to reflect sunshine and shadow on the globe, so that by darkening the room and revolving the globe on its axis, and in its orbit, it shows the succession of day and night, the varied length of day and night, the six months night and six months day at the poles, change of seasons, varied degrees of heat and cold, phases of the moon, eclipses and all the phenomena of the sun, earth and moon according to the Copernican theory.

Its construction is simplicity itself, doing away with the old celestial sphere altogether, and with all the cog wheels, straps, cords, pulleys, wooden horizons, brass meridians, day and night circles, etc., making it true

to nature ; by the artificial sunshine and shadow demonstrating the laws of light and heat.

The Celestial Sphere is formed by a spherical drop curtain, the constellations and celestial measurements by admitting light through perforations in the curtain, or it may be painted in silver gilt on a blue back ground on the curtains, walls and ceiling of any room with beautiful effect in interior decoration and admirably adapted to private and public libraries, reading rooms, class rooms, lecture rooms and science halls.

It can be shown with most striking effect on the ceiling, walls and curtains of a domed room the moveable planets revolving around a jet of light at the center and the fixed stars in their exact mathematical location at the circumference, so that by dropping the curtains and darkening the room it presents a beautiful night sky in daytime thus demonstrating the concrete plan of the universe in as many hours as it will take years to get even a superficial idea of it from the printed page.

The whole is explained by a book of three hundred pages with beautiful engravings of every department of the science and a minute description for manipulation and use.

The work is considered to be the most beautiful and ingenious device of mechanic-art and scientific progress of three centuries in its line, because it brings within the comprehension of the simplest child "the grandest and noblest of all the sciences," because it will simplify, illustrate, make clear and easy, what is now abstruse, meaningless and difficult, because it will give to the millions in rank file of the common schools and homes, every day and in all conditions of atmosphere, what is now confined to the tens in Universities by the slow and expensive medium of the telescope only on clear nights when the moon is

away. The work was widely advertised at the World's Fair, got a high award of merit from the World's Fair Commission, was investigated and approved by committee of experts from the varied departments of art, science, education and industry, adopted by nearly all the educational departments in Canada and the U.S., so far reached, approved by the Education Department of Ontario, partially introduced into the Normal Schools of the Province, into the Public Schools, Separate Schools, Upper Canada College, Dupont Academy and many of the best families of Toronto and Ottawa. A. J. McDonald, the sole proprietor and patentee for home and foreign countries is carefully looking for a suitable location for the manufacture and sale of his work by trained agents to the homes, schools and markets of the world, an industrial enterprise that will give lucrative employment to a superior class of skilled labor, artists and artizans, and bring back the wholesale price to the place of output for redistribution, thus creating a work of beneficence to Art, Science, Education and Labor.

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From the World's Fair Commission, No. 1.

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Exhibitor, A. J. McDONALD.

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Exhibit, McDonald Globe

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[Duplicate.]

For simplicity and comprehensiveness, an ingenious combination of four separate pieces of illustrative geographical apparatus, namely :

- (a) The plain reference globe. (b) The tellurian. (c) The lunarian.
(d) The celestial sphere.

(Signed) J. H. SHINN,

Approved : K. BUENZ,

Individual Judge.

President Department Committee.

Approved : (Signed) JOHN BOYD THACHER,

Chairman Executive Committee on Awards.

Copyist, M. M. L. *Date*, April 10, 1894.

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From the Educational Department of Ontario.

A. J. McDONALD, ESQ.

I have the honour to inform you that your Invoice of Globes has been certified by this Office to the Treasury Department, as payable to you, and will be remitted by that Department in the course of a few weeks without further application, as soon as the payment is approved by the Hon. the Executive Council.

JOHN MILLAR,
Deputy Minister.

From the Toronto Public School Board.

MESSRS. A. J. McDONALD & CO.,

DEAR SIRS,—I beg to inform you that the Toronto Public School Board at its last meeting accepted your tender to purchase twenty Globes, with appliances, as per contract.

Yours truly,

W. WILKINSON,
Sec.-Treas.

**From Jas. L. Hughes, Inspector Public Schools,
Toronto.**

TO WHOM IT MAY CONCERN:

I have had the pleasure of examining McDonald's Terrestrial and Celestial Apparatus, and have no hesitation in saying that I was agreeably surprised at its extreme simplicity and wonderful comprehensiveness.

It clearly illustrates all the important phases of the relationship of the earth to the sun and moon; makes the motions of the earth and moon clear; shows the cause of the seasons in a very definite way; and in fact, makes it possible to give children clear conceptions of the most important departments of mathematical geography, with an apparatus so simple in construction that there is no danger of its getting out of order.

A very striking feature of Mr. McDonald's work is his Celestial Sphere design which seems to me to be admirably suited for Kindergarten rooms or school rooms as well as for library rooms in private houses. By his design, accurate representations of the celestial sphere can be placed in a room, without adding to the cost of plastering the sides and ceiling in the ordinary way.

The "apparatus man" is usually a dangerous individual. Mr. McDonald is quite the reverse, and I believe him competent to interest any gathering of intelligent men and women, whether teachers or otherwise, for an evening lecture, or at a meeting of a teachers' association.

JAMES L. HUGHES.

From W. F. Chapman, Public School Inspector, Toronto.

TO WHOM IT MAY CONCERN:

Having examined McDonald's Terrestrial and Celestial Apparatus, I am pleased to say that it possesses the two essentials of all school apparatus, viz., adaptability to do its work and simplicity of construction.

It would not only be a great aid in the hands of an enthusiastic teacher in arousing a love in the minds of his pupils for the study of Mathematical Geography, but also enable him to lead them readily to understand the motions and relative positions of the sun, moon and other heavenly bodies, and consequent cause of the seasons, day and night, etc.

W. F. CHAPMAN.

From David Fotheringham, Inspector Public Schools,
County of York.

MR. A. J. McDONALD.

DEAR SIR,—I had the pleasure of hearing in part your very interesting lecture to the Inspector's Department of the Ontario Educational Association, and of subsequently further investigating and appreciating your methods and appliances for illustrating "The Natural Co-relation of Geography and Astronomy." It was in accord with my own feelings that a unanimous vote of thanks and appreciation was passed by our section of that Association.

Your method of expounding the "four selections of fundamental principles from among the labyrinth of minutiae," as you put it, will meet a long-felt want, and provide a practical and attractive means of demonstration in primary as well as advanced grades.

Your Celestial Sphere feature is unique and artistic, and comparatively cheap considering the wide range of phenomena you can illustrate by the easy re-adjustment of the various parts. The best is always the cheapest, and as this is the best yet brought within reach of our primary as well as secondary schools, it gives me pleasure to add my word of commendation to the many you have already received in Canada, as well as the United States.

Yours very truly,

D. FOTHERINGHAM.

From the Toronto Separate School Board.

A. J. McDONALD, Esq.,

DEAR SIR,—It affords us much pleasure to inform you that your new and improved Globes, lately introduced into our Separate Schools are in great favor with the inspector, teachers, and pupils, as well as

with the members of the School Board. We find them all they were represented to be. They are simple, practicable and durable in construction. They are comparatively cheap, considering the wide range of phenomena that may be demonstrated by the easy adjustment of the different parts. The Celestial Sphere feature, unique and beautiful, being artistic as well as scientific, caps the climax for simplicity and comprehensiveness in the primary grades, as well as in the advanced classes.

Yours, etc.,

J. J. McCANN,
Chairman S. S. Board.

J. L. HAND,
Chairman of Com. School Management.

F. RYAN, *Rector.*

From Geo. Dickson, M.A., Principal Upper Canada
College, Toronto.

I have examined the McDonald Tellurian and Lunarian, and I am very favorably impressed with its simple and ingenious construction. The alternation of day and night, the seasons, the phases of the moon, and other phenomena, are clearly illustrated by this simple Globe and its attachments.

The idea of making the walls and ceiling of the room the celestial dome for the Globe is an excellent one.

The Globe is strongly made, and its attachments are easily adjusted and, in addition to its simplicity and durability, it has the merit of cheapness.

GEO. DICKSON, M.A.,
Principal, Upper Canada College.

From Miss Dupont, Dupont Academy, Toronto.

DEAR MR. McDONALD,

Having had an opportunity of examining your School and Library Globes, I feel satisfied that they are much superior to any I have yet seen in school use, and I am glad to shew my appreciation of their simplicity of construction and capacity for practical demonstration, by the order which I have given you for a pair for use in my own school.

Hoping that you may meet with much success in your efforts to introduce them.

I remain, yours truly,

F. DUPONT.

From School of Practical Science, Toronto.

A. J. McDONALD, ESQ.,

DEAR SIR,—I have examined your Tellurian with great interest. It seems to be very suitable for the purpose of teaching many of the fundamental principles of Astronomy, and I shall be glad to hear that you are meeting with success in introducing it.

Yours truly,

J. GALBRAITH,
Principal.

From Prof. Baker, M.A., Professor of Mathematics University of Toronto; Alfred T. DeLury, Lecturer in Mathematics, University of Toronto.

Mr. A. J. McDonald has shown to us his Terrestrial Globe, and explained his method of representing the heavens. He appears to have devised an admirable plan for awakening an interest in Astronomy. We sympathise with him in his desire to extend the teaching of this subject in primary and secondary schools.

University of Toronto,
May 8th, 1894.

ALFRED BAKER,
ALFRED T. DELURY.

**From a Report to the Astronomical and Physical
Society of Toronto.**

Re THE McDONALD TELLURIAN.

Your Special Committee appointed at the last meeting of this Society to draw up a statement expressing the views of this Society with respect to the instruments exhibited at the meeting by Mr. A. J. McDonald, the inventor, begs leave to make the following report :

That The Astronomical and Physical Society of Toronto, having examined Mr. A. J. McDonald's Improved Globe and attachments and having heard him explain his objective mode of teaching, is of the opinion that the instrument and the method possess much merit, and that by means of them the fundamental laws of geography and astronomy may be presented in a most interesting and profitable manner to the minds of those commencing a study of the Science and even to the children attending the Public Schools.

That when the earlier stages of any study are made attractive, the paths to the higher stages are more frequently trodden. The "lions in the way" are found to disappear and the Gate of Success swings open more easily.

That this Society wishes Mr. McDonald every success.

All of which is respectfully submitted,

JOHN A. PATERSON, M.A.,
Chairman.

At The Canadian Institute, Toronto, Canada.

[FROM TORONTO PAPERS.]

Those who assembled on Saturday evening at the Canadian Institute were interested in an address by A. J. McDonald, of Denver, Col., who was introduced by Prof. Galbraith, of the School of Practical Science. Mr. McDonald gave a very instructive lecture on his methods of objective demonstration of geography and astronomy. At the close of his remarks a resolution was passed thanking Mr. McDonald, and perceiving in his address an admirable adjunct to education in the readiness with which geography, time reckoning, the lunar and celestial systems can be explained and taught according to it.

From Prof. MacCabe, LL.D., F.R.S.C., Ottawa.

A. J. McDONALD, Esq.

DEAR SIR,—Under the approval of the Education Department, one of your Tellurians has been placed in the Normal School here.

I have much pleasure in adding my approval to that of the many who have already spoken so favorably of it.

It is plain, simple in construction, durable, and of easy adjustment. The absence of cogs and bands adds to its easy use. I regard it as a piece of apparatus of great practical utility; and I should like to see one in every school.

Your arrangement for showing the celestial sphere and its relation to the earth—that of placing the terrestrial sphere in a dome-shaped room, the ceiling of which is painted to represent the heavens—cannot fail to give pupils a true idea of this relation—a matter very rarely understood by the generality of school children.

Yours faithfully,

JOHN A. MACCABE, LL.D., F.R.S.C.,

Principal.

A Splendid Lecture.

[FROM OTTAWA PAPERS.]

Mr. A. J. McDonald, the great advocate of objective and illustrative teaching, and the inventor of his own means of demonstrating his beautiful methods, lectured to the Sisters of the Congregation of Notre Dame, at their convent on Gloucester street, on Monday afternoon. He had a large audience of sisters, who had been assembled in retreat from the varied parts of their community, and a similar and equally interesting audience at the mother house of the Grey Nuns, a few days previous. The text of his subject was, "The Glory of God is proclaimed in the Heavens." The subject itself, "the grandest and noblest of all the sciences," demonstrated by his concrete plan of the

universe represented by means of a beautiful feature of decoration on the curtains, wall and ceilings of a dome-shaped blue room, with the star in silver gilt in their mathematical location, and the movable planets at the centre. The whole plan is supremely unique, artistic and beautiful in design, as well as strictly scientific and wonderfully comprehensive.

**From the Superintendent of Public Schools,
Ogdensburg, N.Y.**

We have adopted the McDonald School and Library Globes, and find them all that is claimed for them. They are plain, simple and durable, and cheap considering the range of phenomena they illustrate. The Celestial Sphere feature is admirable, and I would recommend them for all grades of schools.

BARNEY WHITNEY,
Superintendent of Schools.

From the Ogdensburg Papers.

A. J. McDonald, of Toronto, Ont., lectured before the Academy teachers and the training class on his new methods of teaching geography and astronomy, yesterday afternoon. His method is a concrete plan of the universe, showing the movable planets at the centre, and the constellations on the walls and ceilings of a domed room, or it may be diagramed on a blackboard. Prof. Whitney and Principal Van Dusen recommended it to the board, and it was purchased. Mr. McDonald's work is highly spoken of by the press and teachers in general.

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