



DESCRIPTIVE CATALOGUE  
OF THE  
MAPS, CHARTS, GLOBES,  
PRINTS, BOOKS, &c.

*For Sale at the Educational Depository,*

TO  
PUBLIC SCHOOLS

IN UPPER CANADA.



TORONTO:

Printed for the Department of Public Instruction for Upper Canada,  
BY LOVELL & GIBSON, YONGE STREET.

1856.



## PREFATORY NOTE.

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In the selection of the articles enumerated in this Catalogue, the greatest care has been exercised, so as to render the list under each head, as complete as possible.

The most approved description of maps, apparatus, books and requisites published in either Europe or America, have been obtained by the Department, with a view to afford to our Canadian Schools all the facilities of instruction enjoined in the Schools of both these Continents.

To render a system of Public Instruction complete in all its parts, not only is a just and comprehensive law necessary, and a Normal School for training teachers indispensable, but it is of equal importance that the facilities afforded to teachers, in the schools, for effectively imparting instruction to the young, should be both varied and appropriate. The Mechanic, without the implements of his art, labours under not less inconvenience than a teacher without books, maps and apparatus. The object of this Department has therefore been to provide the Public Schools of Upper Canada with these facilities of instruction in ample variety and abundance; as well as to provide competent teachers and useful and interesting books for libraries.

In the Catalogue are given the net prices at which the maps and schools requisites enumerated therein may be obtained by the public Educational Institutions of Upper Canada, from the Depository in connection with the Department. In each case, cash must accompany the order sent. To all remittances sent by the Trustees of Common or Grammar Schools, or by Municipal Councils, for Maps and Apparatus, One Hundred per cent. will be added by the Department. Application for these articles should be made according to a form, which will be found on the next page.

Text books must be paid for at the full catalogue price. Colleges and Private Schools will be supplied with any of the articles mentioned in the catalogue at the prices stated. Local Superintendents and teachers will also be supplied with such Educational works as relate to the duties of their profession. No article, however, mentioned in the catalogue, will be disposed of to any private individual.

## DEPARTMENTAL NOTICE.

*To Municipal and School Corporations.*

## SCHOOL MAPS AND APPARATUS.

The Legislature having granted annually, from the commencement of 1855, a sufficient sum of money to enable the Department to supply Maps and Apparatus (not text-books) to Grammar and Common Schools, upon the same terms as Library Books are now supplied to Trustees and Municipalities the Chief Superintendent of Education will be happy to add one hundred per cent. to any sum or sums, (not less than five dollars) transmitted to the Department; and to forward Maps, Apparatus, Charts, and Diagrams to the value of the amount thus augmented, upon receiving a list of the articles required by the Trustees, &c. In all cases it will be necessary for any person, acting on behalf of the Corporation, to enclose or present a written authority to do so, verified by the corporate seal of the Municipality or Trustees.\* A selection of articles to be sent can always be made by the Department, when so desired.

\* *The form of Application should be as follows :*

SIR,—The undersigned, Trustees [*Reeve, or Clerk*] of ———, being anxious to supply the (—————) with suitable school requisites, hereby make application for the [*maps, apparatus, &c.*,] enumerated in the accompanying list, in terms of the Departmental notice, relating to maps and apparatus. The [*maps or requisites*] selected are, *bonâ fide* for the use of the school of the section [*or Municipality,*] and they hereby pledge themselves and their successors in office, not to dispose of them, nor permit them to be disposed of to any private party or for any private purpose whatsoever; but that they shall be appropriated exclusively to the use of the school of the Section [*or Municipality,*] in terms of the Regulations granting one hundred per cent. on the present remittance of \$—.

In testimony whereof, the Trustees [*Reeve, or Clerk*] of the ——— above mentioned ——— hereto affix their names and seal of office this ——— day of ———, 185—, at ———.

[*Name.*]                      [*Seal.*]

We hereby authorise ——— to procure for us the ——— above mentioned, ——— in terms of the foregoing application.

[*Name of Trustees, &c.*]

TO THE CHIEF SUPERINTENDENT OF EDUCATION, TORONTO.

NOTE.—A Corporate Seal must be affixed to the foregoing application, otherwise it is of no legal value. Text-books cannot be furnished on the terms mentioned above. They must be paid for in full at the net catalogue price. The 100 per cent. will not be allowed on any sum less than \$5, which must be remitted in one sum.

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# DESCRIPTIVE CATALOGUE

OF THE

## MAPS, CHARTS, GLOBES,

## APPARATUS, BOOKS, &c.

For Sale at the Educational Depository to Public Schools in  
Upper Canada.

### I. IRISH NATIONAL MAPS. (a)

#### 1. MODERN GEOGRAPHY.

*Canvas, Rollers, Colored and Varnished.*

	SIZE OF MAP.	NET CASH PRICE.
		\$ cts.
Map of the World on a Globular Projection . . . . .	6 : 8 by 3 : 6 . . . . .	3 50
“ Europe . . . . .	5 : 8 by 4 : 4 . . . . .	3 00
“ Asia . . . . .	ditto . . . . .	3 00
“ Africa . . . . .	ditto . . . . .	3 00
“ America . . . . .	ditto . . . . .	3 00
“ British America, including Upper and Low- er Canada, etc. (b). . . . .	ditto . . . . .	3 00
“ United States . . . . .	ditto . . . . .	3 00
“ Pacific Ocean . . . . .	ditto . . . . .	3 00
“ Australia . . . . .	ditto . . . . .	3 00
“ England . . . . .	ditto . . . . .	3 00
“ Ireland . . . . .	ditto . . . . .	3 00
“ Scotland . . . . .	ditto . . . . .	3 00
“ British Isles (c) . . . . .	7 : 0 by 8 : 0 . . . . .	5 00
“ Geological Map, British Isles. (See page 18.)	5 : 8 by 4 : 4 . . . . .	3 50

(a) These Maps are on a scale sufficiently large to show, with a peculiar boldness, the boundaries of the different countries. The courses of the rivers and the mountain ranges are so prominently marked, that at one view the attention of the pupil is directed to this important branch of the study; the introduction of only such names as are of importance, gives to the maps a distinctness which greatly aids the teacher in pointing out the places designated.

(b) This Map was prepared by the Educational Department expressly for Public Schools in Canada.

(c) The size of the Map of the British Isles, the largest ever published, cannot fail, from its imposing appearance, to impress the mind of the pupil.

## 2. ANCIENT AND SCRIPTURE GEOGRAPHY.

	SIZE OF MAP.	NET CASH	
		PRICE.	
		\$	cts.
Map Orbis Veteribus Notus ( <i>d</i> ) .....	5 : 8 by 4 : 4 .....	3	00
“ Italia Antiqua, with Plan of Rome.....	ditto .....	3	00
“ Græcia Antiqua, with Plan of Athens .....	ditto .....	3	00
“ Asia Minor, or Antiqua .....	4 : 4 by 2 : 10 .....	1	75
“ Terra Sancta, combining the Geography of the Old and New Testaments .....	ditto .....	1	75
“ Palestine, comprising Canaan, Land of Promise, the Holy Land, and Plan of Jerusalem, 4 maps in one.....	4 : 4 by 5 : 8 .....	3	00
“ Ancient, or Scripture World.....	ditto .....	3	00
See Scripture Illustrations and Historical Charts, etc., pages 26 – 29.			

## II. W. & A. K. JOHNSTON'S MAPS.

### 1. LARGE SCHOOL ROOM MAPS, (*e*)

*Canvas, Rollers, Colored and Varnished.*

Map of the Eastern Hemisphere*.....	4 : 2 by 3 : 6 .....	2	38
“ Western Hemisphere* .....	ditto .....	2	38
“ Europe .....	ditto .....	2	38
“ Asia .....	ditto .....	2	38
“ Africa .....	ditto .....	2	38
“ America .....	ditto .....	2	38
“ England .....	ditto .....	2	38
“ Ireland .....	ditto .....	2	38
“ Scotland .....	ditto .....	2	38
“ Canaan and Palestine.....	ditto .....	2	38
The above ten Maps in a wooden case†.....		24	00

### 2. SMALL SCHOOL MAPS.

Map of the Eastern Hemisphere*.....	2 : 9 by 2 : 3 .....	1	38
“ Western Hemisphere* .....	ditto .....	1	38
“ Europe .....	ditto .....	1	38
“ Asia.....	ditto .....	1	38
“ Africa .....	ditto .....	1	38
“ America .....	ditto .....	1	38
“ England .....	ditto .....	1	38
“ Ireland .....	ditto .....	1	38
“ Scotland.....	ditto .....	1	38
“ Canaan and Palestine .....	ditto .....	1	38
The above ten Maps in a wooden case† .....		16	00

(*d*) Orbis Veteribus Notus contains the Map of the World as known to the ancients, with plans of Rome, Athens, Syracuse, the World according to Ptolemy, and the Environs of Rome.

(*e*) These Maps are engraved in a superior manner, and are beautifully clear and distinct in their divisions and outlines.

\*The Eastern and Western Hemispheres, of either series, may be had mounted together, or in pairs, on rollers and varnished—Price \$4 75 and \$2 75 respectively.

†The painted wooden case, for hanging on a wall, contains the Ten Colored Maps on cloth and rollers; and is so constructed that any map can be drawn down as required, and pulled up again, by a cord at the side, as indicated by the name of the Map. The Maps in the wooden cases are not varnished.

### 3. MODERN GEOGRAPHY.

*Cloth, Rollers, Colored and Varnished.*

	SIZE OF MAP.	NET CASH PRICE.	\$ cts.
Map of British America, including Upper and Lower Canada ( <i>f</i> ).....	4 : 2 by 3 : 6	....	2 38
“ Central Europe.....	ditto	....	2 38
“ France.....	ditto	....	2 38
“ Italy.....	ditto	....	2 38
“ India.....	ditto	....	2 38
“ Spain and Portugal.....	ditto	....	2 38
“ The World (Mercator's).....	ditto	....	2 38
“ The World (Mercator's).....	2 : 9 by 2 : 3	....	1 38
“ United States and Canada.....	ditto	....	1 38
Physical Chart of the World ( <i>g</i> ) (See pages 29—31).....	4 : 2 by 3 : 6	....	2 38
Commercial Chart of the World, on Mercator's Projection.....	6 : 0 by 4 : 8	....	12 00
Illustrations of Geographical Terms.....	2 : 9 by 2 : 3	....	1 50

### 4. CLASSICAL AND SCRIPTURE GEOGRAPHY.

(For Johnston's Classical Atlas, see Grammar School Books, page 37 and 40.)

Map Orbis Veteribus Notus.....	4 : 2 by 3 : 6	....	2 38
“ Græcia Antiqua.....	ditto	....	2 38
“ Italia Antiqua.....	ditto	....	2 38
“ Asia Minor Antiqua.....	ditto	....	2 38
“ Canaan and Palestine.....	ditto	....	2 38
“ Canaan and Palestine.....	2 : 9 by 2 : 3	....	1 38

### III. W. & R. CHAMBERS' MAPS. (*h*)

Map of the World*.....	5 : 2 by 4 : 5	....	3 50
“ Europe.....	ditto	....	3 00
“ Asia.....	ditto	....	3 00
“ Africa.....	ditto	....	3 00
“ North America.....	ditto	....	3 00
“ South America.....	ditto	....	3 00
“ England.....	ditto	....	3 00
“ Ireland.....	ditto	....	3 00
“ Scotland.....	ditto	....	3 00
“ Palestine.....	ditto	....	3 00

(*f*) This Map of Canada, New Brunswick, Nova Scotia, Cape Breton, and Prince Edward's Island, was prepared by the Educational Department for use in the Public Schools of Canada.

(*g*) The Physical Chart of the World shows the great mountain ranges, currents of the Air and Ocean, with Isothermal Lines (or the lines of equal heat and cold.)

(*h*) The initial letter of the names on these Maps, which may be regarded as outline maps, is much larger than those of the word itself, in order that the eye of the pupil may catch it more easily.

\*The Map of the World contains separate Maps, on a larger scale, of Australia, New Zealand and Van Diemen's Land; also colored and beautifully designed illustrations of the annual revolution of the Earth round the Sun, the theory of the Seasons, theory of the Tides, Phases of the Moon, Solar Eclipse and Lunar Eclipse, together with a comparative view of the principal Mountains and Rivers in the World, Rivers in America, Europe, Africa, Asia, &c. &c.

## IV. LONDON CHRISTIAN KNOWLEDGE SOCIETY'S MAPS.

### 1. MODERN GEOGRAPHY.

*Canvas, Rollers, Colored and Varnished.*

	SIZE OF MAP.	NET CASH PRICE.
		\$ cts.
Map of the World.....	6 : 6 by 3 : 4	3 50
<i>Canvas and Rollers.</i>		
Map of the World (outline).....	6 : 6 by 3 : 4	1 75
" British Isles. (Outline) .....	2 : 3 by 1 : 10	75
<i>Canvas, Rollers, Colored and Varnished.</i>		
Map of Europe .....	5 : 3 by 4 : 4	3 00
" Asia.....	ditto	3 00
" Australia .....	ditto	3 00
" Africa .....	ditto	3 00
" North America .....	3 : 2 by 3 : 10	2 00
" South America .....	ditto	2 00
" England and Wales .....	5 : 0 by 6 : 3	3 50
" England and Wales.....	2 : 9 by 3 : 10	1 50
" Ireland .....	ditto	1 50
" Scotland .....	ditto	1 50

### 2. ANCIENT AND SCRIPTURE GEOGRAPHY.

*Cloth, Rollers, Colored and Varnished.*

Six Historical Maps—1, the Assyrian—2, the Persian—3, the Macedonian—4, the Roman—5, the Christian—and 6, the Mahometan Empires, (i) .....	3 : 8 by 3 : 6	1 50
Old Testament Map of Syria .....	4 : 1 by 2 : 4	2 00
New Testament " Syria .....	ditto	2 00
Map of the Land of Promise, illustrating the Patriarchal Ages, and the periods previous to the Conquest under Joshua .....	1 : 10 by 2 : 3	0 88
Map illustrating the Journeys of the Children of Israel from Egypt to Canaan, with Map of Egypt and list of Stations.....	2 : 5 by 1 : 9	1 00
Map of Canaan, divided among the Tribes of Israel, with Notes on the Physical Geography of the Holy Land.....	1 : 10 by 2 : 3	88
Hughes' Map of Palestine (k).....	2 : 4½ by 3 : 7½	2 00
Map of the Holy Land in the time of Our Saviour, with Notes on its Physical Geography ..	1 : 10 by 2 : 3	88
Map illustrating St. Paul's Travels and Journeys ..	2 : 10 by 2 : 3	1 38
<i>Sheets.</i>		
Outline Map of Canaan or Palestine .....	1 : 10 by 2 : 3	7

(i) These Six Sheets are mounted together, forming one map. Each sheet is engraved alike, but not colored alike. A sheet is devoted to each Empire, and is so colored as to exhibit the historical boundaries by which the particular Empire was distinguished.

(k) These Maps are beautifully engraved. They exhibit on a large scale the scriptural divisions of Palestine, and illustrate its ancient and modern geography. They also contain separate sketch-maps of Syria and the peninsula of Mount Sinai, and the country between Palestine and Egypt. See pages 25 and 28.

## V. VARTY'S MAPS. (l)

### 1. SCHOOL ROOM MAPS.

	SIZE OF MAP.	NET CASH PRICE.
		\$ cts.
Map of the World (Mercator's) .....	2 : 8 by 4 : 2 ....	2 50
“ “ (Globular).....	ditto .....	2 25
“ Europe .....	2 : 8 by 2 : 2 ....	1 25
“ Asia .....	ditto .....	1 25
“ Africa .....	ditto .....	1 25
“ America .....	ditto .....	1 25
“ Australia and New Zealand.....	ditto .....	1 25
“ England .....	ditto .....	1 25
“ Ireland .....	ditto .....	1 25
“ Scotland .....	ditto .....	1 25
“ British Isles .....	4 : 3 by 3 : 4 ....	3 00

### 2. COMBINATION MAPS. (m)

(Two each, Full and Outline, on one mounting.)

Map of the World, Mercator, with Outline Hemispheres .....	5 : 4 by 4 : 2 ....	3 50
“ World, Hemispheres, Full and Outline.....	ditto .....	3 25
“ Europe .....	2 : 9 by 4 : 2 ....	2 00
“ Asia.....	ditto .....	2 00
“ Africa .....	ditto .....	2 00
“ America .....	ditto .....	2 00
“ England .....	ditto .....	2 00
“ Ireland .....	ditto .....	2 00
“ Scotland .....	ditto .....	2 00

(See also Scripture Geographical Maps, page 14.)

### 3. FULL MAPS. (n)

Map of the Roman Empire .....	2 : 8 by 2 : 2 ....	1 50
“ India, or Hindostan, exhibiting the boundaries of each of the British Presidencies. ....	ditto .....	1 25
Political Map of the World, Globular .....	4 : 4 by 3 : 5 ....	3 25

(l) These Maps are constructed with bold outlines, to fix permanently in the minds of the learners the physical form of each portion of the Earth; the names of places are not numerous; confusion is avoided; and these advantages are combined with portability and cheapness.

(m) This series combines at one view the full and outline Map, affording great advantages to the teacher, by enabling him to instruct both analytically and synthetically, and also facilitates more correct conceptions of the varied physical forms of countries and localities.

(n) Among these full maps are, I. A large Political Map of the World, Stereographic projection, showing its political divisions; mountain ranges, boldly defined; and showing, 1. Its various features and phenomena; with the regions of its more useful productions, and the zones. 2. The Terrestrial or Northern Hemisphere. 3. The Currents of the Atlantic, Indian, and Great or Pacific Oceans 4. The heights of Mountains, to scale in America, Asia and Europe. 5. The Glaciers and Mountains of the Alps. 6. Geological figure of the Earth, and a Theoretical figure of a segment of the Mineral Crust of the Globe, equal to one sixtieth part of the radius. 7. The heights of Mountains shewn in their respective latitudes.

II. A large Physical Map of the World, Stereographic Projection;—

**4. PHYSICAL MAPS.**

	SIZE OF MAP.	NET CASH PRICE. \$ cts.
Physical Map of the World, showing its various features and phenomena .....	5 : 6 by 4 : 9 ....	6 00
Physical Map of Europe, exhibiting its physical features .....	5 : 0 by 4 : 4 ....	3 75
Physical Map of the Earth, without names, Globular .....	5 : 4 by 2 : 10 ....	3 75
Physical Map of Palestine, (See next Series.)		

**5. SCRIPTURE GEOGRAPHICAL MAPS.***Canvas, Rollers and Colored.*

Palmer's Map of Palestine and the adjacent countries, shewing their Ancient and Modern Geography, with the routes of various Travellers traced thereon, beautifully engraved .....	2 : 3 by 3 : 4 ....	2 50
Archdeacon Wigram's Outline Map of Palestine, exhibiting the situation of the principal places mentioned in the Bible .....	1 : 8 by 2 : 2 ....	1 00
Journeyings of the Children of Israel, (very full)...	2 : 9 by 2 : 2 ....	1 25
The Land of Canaan divided among the Twelve Tribes, beautifully engraved .....	1 : 9 by 2 : 2 ....	1 50
The Land of Judea, or Palestine in the time of Our Saviour, beautifully engraved .....	ditto	1 50
St. Paul's Voyages and Travels .....	2 : 2 by 2 : 8 ....	1 25
Initiatory Map Chart of the Acts of the Apostles (o) .....	2 : 6 by 2 : 6 ....	1 75
Combination Map of the Land of Promise, illustrating Old Testament History .....	3 : 3 by 2 : 3 ....	2 00
Combination Map of Palestine, illustrating New Testament History .....	ditto	2 00
Combination Map of Roman Palestine .....	3 : 9 by 2 : 9 ....	2 00
Physical Map of Palestine .....		1 00

**VI. WHYTE'S MAPS. (p)***(Scottish School Book Association.)**Cloth, Rollers and Colored.*

Chart of the World .....	5 : 2 by 4 : 6 ....	3 75
Map of Central and Southern Europe .....	ditto	3 75
General Map of Europe .....	3 : 0 by 2 : 5 ....	1 50
Map of Asia .....	ditto	1 50

III. Map of the Earth in hemispheres, without the lines of latitude and longitude or any names of places. This novel and beautiful representation of the Globe is very striking, exhibiting its various physical features, the mountain ranges, plains, steppes, prairies, deserts, valleys, oceans, seas, lakes, rivers, continents, islands, &c., clearly showing the distribution of land and water.

IV. A large Physical Map of Europe, exhibiting its physical features, comprehending its mountain ranges, table lands, plains, steppes, valleys, seas, rivers, &c.; also lines denoting the Polar Limit of the growth of the principal vegetable productions, &c.

(o) This Initiatory Chart exhibits the gradual development of the Gospel Scheme, from the Ascension of Our Lord into heaven, A. D. 30, to the time of St. Paul's imprisonment and release.

(p) The Chart of the World is not limited to giving the pupil a general view of the World, but is so constructed that the general geography of Asia, Africa,

	SIZE OF MAP.	NET CASH	
		PRICE.	
		§	cts.
Map of Africa .....	3 : 0 by 2 : 5	....	1 50
" North America .....	ditto	....	1 50
" South America .....	ditto	....	1 50
" United States .....	ditto	....	1 50
" England .....	ditto	....	1 50
" Ireland .....	ditto	....	1 50
" Scotland .....	ditto	....	1 50
" Hindostan .....	ditto	....	1 50
" Palestine .....	ditto	....	1 50

## VII. PELTON'S OUTLINE MAPS, WITH KEY. (q)

Map of the Western Hemisphere .....	7 : 0 by 7 : 0	....	5 00
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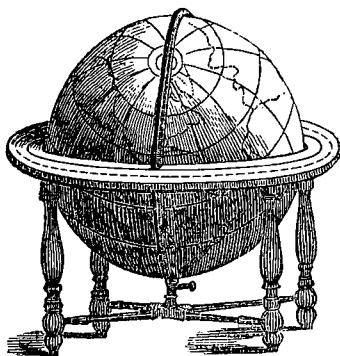
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See also *Scripture Charts and Illustrations*, pages 26—28.

## XI. GLOBES.\*



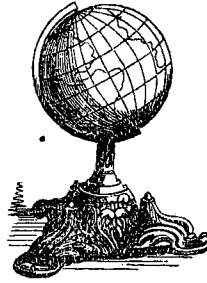
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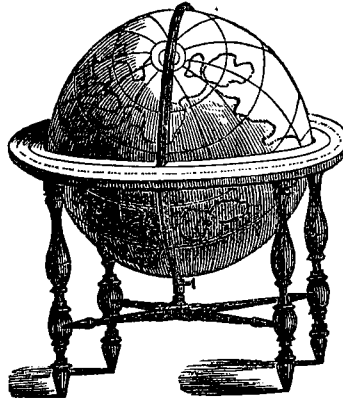
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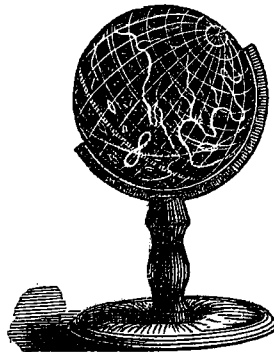


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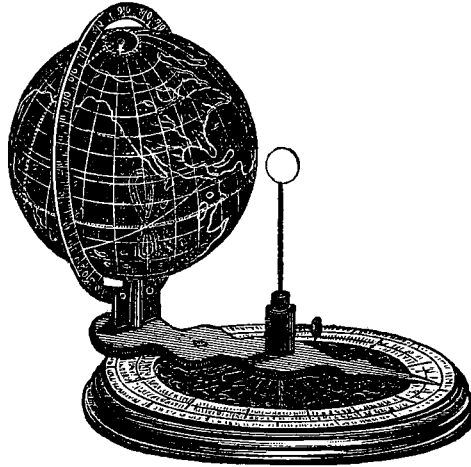


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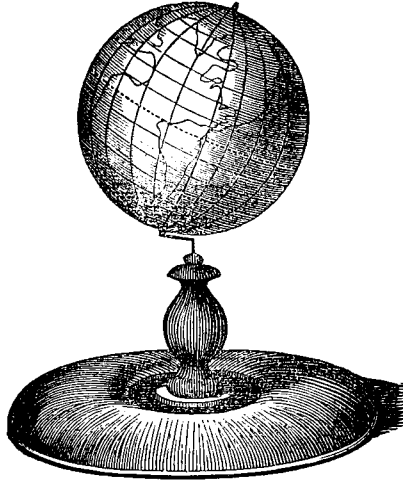
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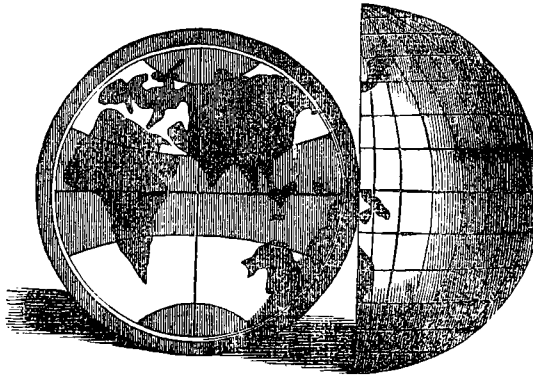
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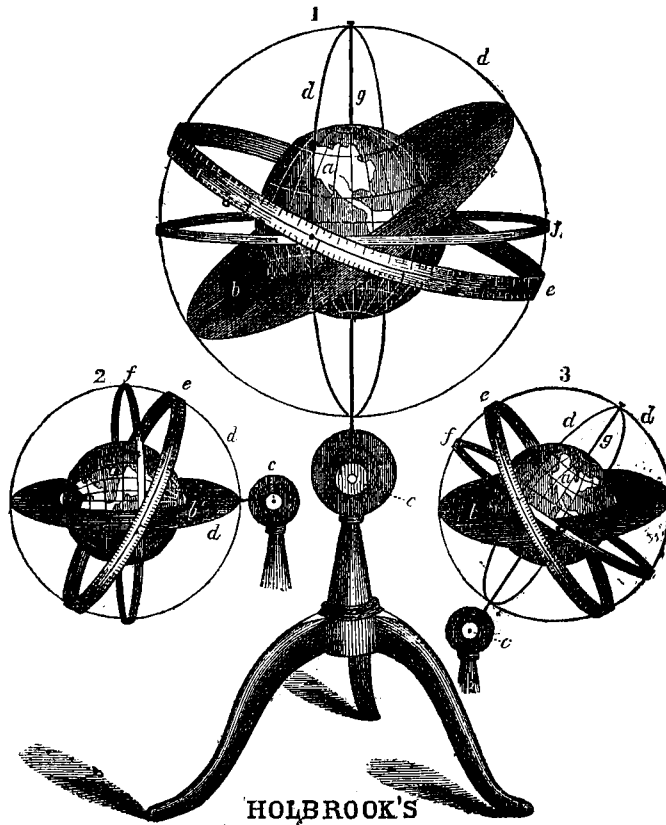
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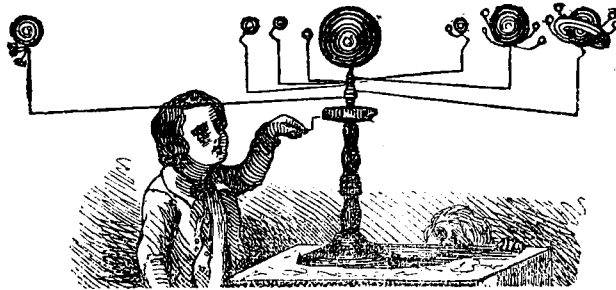
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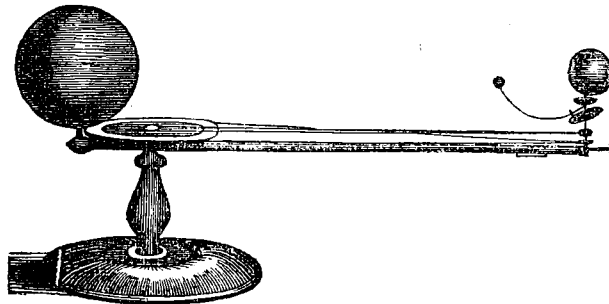
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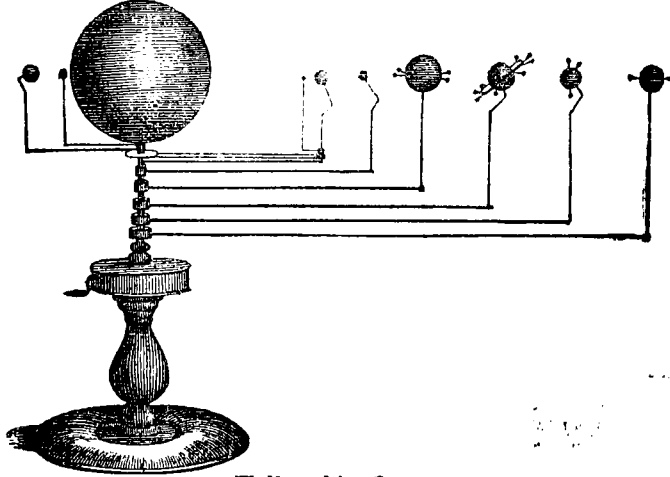
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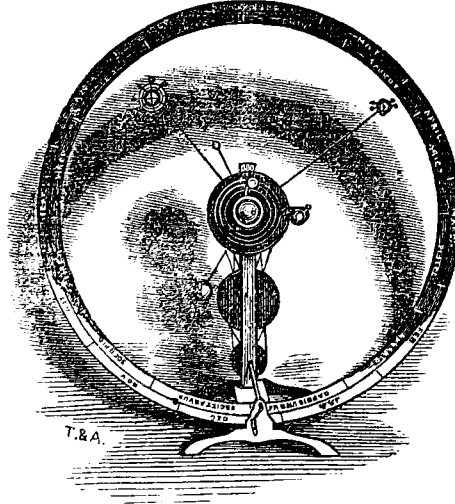
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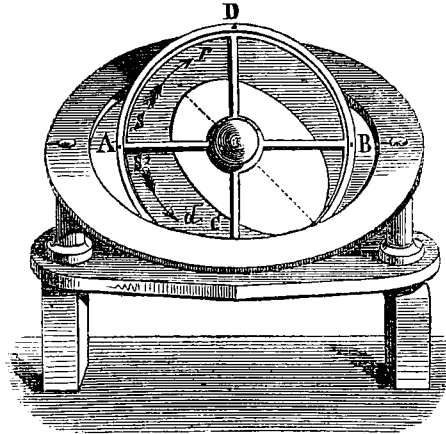


Fig. 1. Illustration of the change of Seasons.

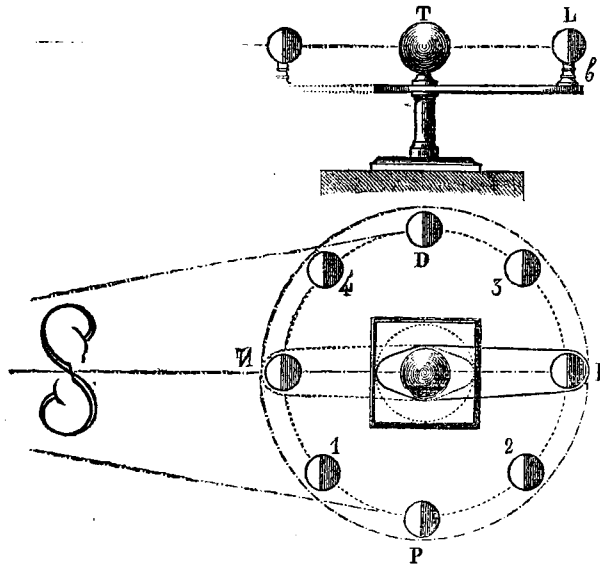


Fig. 2. Phases of the Moon—Figure, and section of figure.

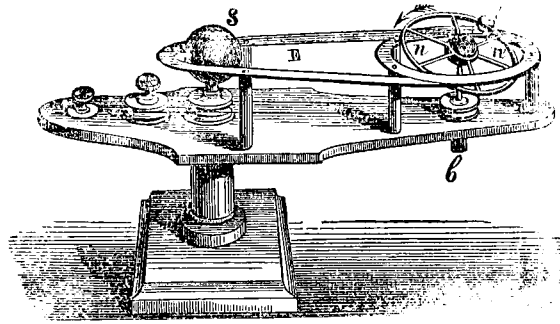


Fig. 3. Eclipses.

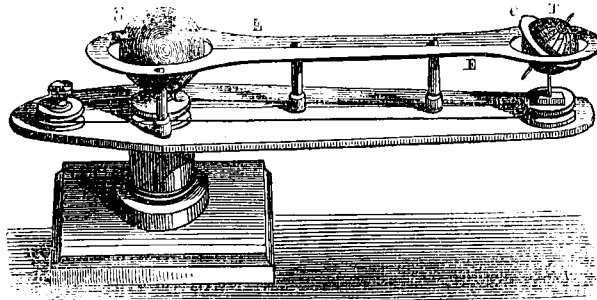


Fig. 4. Precession of the Equinoxes.

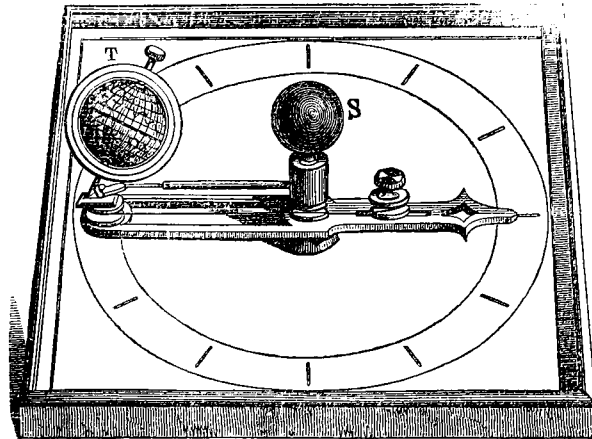


Fig. 5. Double movement of the Earth.

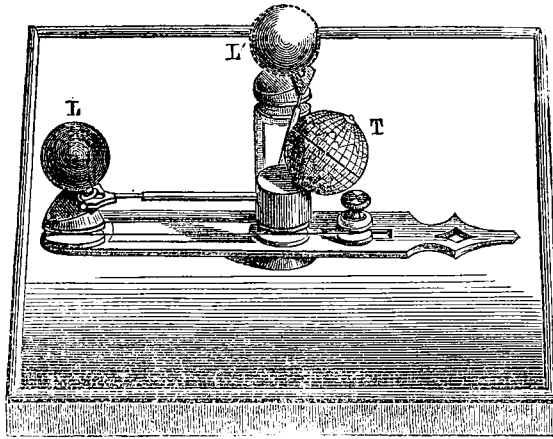


Fig. 6. Phases of the Moon.

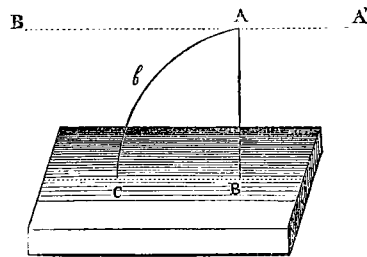


Fig. 7. a.

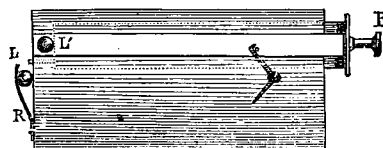


Fig. 7. b.

Fig. 7. Apparatus to illustrate the fall of Bodies.

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10. Apparent Movement of the Planets.

11. Additional Model to illustrate the Precession.

(For Illustrations, Nos. 8, 9, 10 and 11, there are no engravings.)

### XVIII.—LIST of TEXT BOOKS for COMMON SCHOOLS.

Published under the direction of the Commissioners of National Education in Ireland—prepared by practical and experienced Masters—and recommended by the Council of Public Instruction for Upper Canada, to be used in Canadian Schools; together with the *maximum prices* at which those Books will be sold, at the Educational Depository, Toronto. (The Council of Public Instruction has also recommended *Lennie's English Grammar*, and sanctioned the use of *Kirkham's English Grammar* and *Morse's Geography*.) The following are the Dublin Editions of the National Books [the Canadian Editions can be obtained direct from any bookseller]:

First Book of Lessons,.....	3	cts. each,	25	cts. per doz.
Second ditto .....	13	" "	\$1 10	"
Sequel to Second Book,.....	13	" "	\$1 10	"
Third Book of Lessons,.....	20	" "	\$2 15	"
Fourth ditto .....	25	" "	\$2 40	"
Fifth ditto (Boys') .....	25	" "	\$2 40	"
Sixth, or Reading Books for Girls' School,...	25	" "	\$2 40	"
Introduction to the Art of Reading,.....	20	" "	\$1 90	"
Spelling Book Superseded, by Professor Sullivan..	25	" "	\$2 40	"
English Grammar.....	13	" "	\$1 10	"
Key to ditto .....	3	" "	25 cts.	"
Epitome of Geographical Knowledge,.....	35	" "	\$3 60	"
Compendium of ditto, .....	13	" "	\$1 10	"
Geography Generalized, by Professor Sullivan....	50	" "	\$4 50	"
Introduction to Geography and History, by ditto.	18	" "	\$1 80	"
First Arithmetic,.....	13	" "	\$1 10	"
Key to ditto.....	13	" "	\$1 10	"
Arithmetic, in Theory and Practice,....	30	" "	\$2 70	"
Book-keeping, .....	14	" "	\$1 35	"
Key to ditto,.....	13	" "	\$1 10	"
Elements of Geometry.....	13	" "	\$1 10	"
Mensuration,.....	22	" "	\$1 90	"
Appendix to ditto,.....	14	" "	\$1 35	"
Sacred Poetry,.....	5	" "	35 cts.	"
Lessons on the Truth of Christianity, .....	10	" "	\$1 00	"
Lennie's English Grammar,.....	34	" "	\$3 60	"
Morse's Geography, (Am. Ed.),.....	50	" "	\$4 80	"
Kirkham's English Grammar, (Am. Ed.),.....	38	" "	\$4 20	"
Set Tablet Lessons, Spelling and Reading.....	25	" "		"
Ditto Arithmetic,.....	40	" "		"
Ditto Copy Lines,.....	38	" "		"

[N. B.—The text books in the English Branches, prescribed for Grammar Schools, (see below) can also be used in the Common Schools when required.]

*Admission of Pupils to the Grammar Schools.—Extract from the Grammar School Regulations.*

Pupils, in order to be admitted to the grammar school, must be able, 1. To read intelligibly and correctly any passage from any common reading book. 2. To spell correctly the words of an ordinary sentence. 3. To write a fair hand. 4. To work readily questions in the simple and compound rules of Arithmetic, and in reduction and simple proportion. 5. Must know the elements of English Grammar, and be able to parse any easy sentence in prose; and 6. Must be acquainted with the definitions and outlines of Geography.

### XIX. LIST OF TEXT BOOKS FOR GRAMMAR SCHOOLS IN UPPER CANADA.

Prescribed by the Council of Public Instruction, under the authority of the 6th Section of the Grammar School Act, 16 Vict., ch. 186.

[NOTE.—The Grammar School Trustees can select such text books from the following list as they may approve; but in no case should more than one series of books be permitted to be used in each school.]

## NET CASH PRICE.

## 1. LATIN.

	\$	cts. each,	\$	cts. per doz.
Arnold's First and Second Book,* Am. Edi., <i>dac.</i> .....	0	63	"	6 75
First Book, Eng. Edi., <i>riv.</i> .....	0	65	"	7 20
Key to ditto.....	0	23	"	2 40
Second Book, Eng. Edi., <i>riv.</i> .....	0	88	"	9 60
Key to ditto,.....	0	45	"	4 80
Third Book, "Latin word Building," Eng. Edi., <i>riv.</i> ...	0	95	"	10 80
[Arnold's Verse Composition, 8vo., Eng. Edi., <i>riv.</i> ...	1	20	"	13 20
Arnold's First Verse Book, Part I., 12mo Eng. Edi., <i>riv.</i>	0	45	"	4 80
Ditto, Part II. 12mo., Eng. Edi., <i>riv.</i> ...	0	25	"	2 40
Key to ditto].....	0	45	"	
Key to ditto.....	0	80	"	
Arnold's Prose Composition, 12mo., Am. Edi., <i>dac.</i> ...	0	87	"	9 50
Ditto, Part I., Eng. Edi., 8vo., <i>riv.</i> .....	1	40	"	15 60
Ditto, Part II., Eng. Edi., <i>riv.</i> .....	1	60	"	16 80
Keys to ditto, Part I. 40 cents. Part II.....	0	33	"	
Bullions' Adam's Grammar, Am. Edi., <i>fb.</i> .....	0	75	"	8 50
Edinburgh Academy Rudiments, <i>ob.</i> .....	0	45	"	4 75
Eton Grammar, <i>lc.</i> White's, Yonge's, etc....	0	60	"	6 90
Kaltschmidt's Latin and English Dictionary, 12mo. (Chambers' Educational Course.) \$1.80 each, bound together; \$1.00 each, Latin part; 90 cts. each, English part.				
Anthony's Latin and English Dictionary. 12mo. Am. Ed. <i>nb</i> .....	1	65	"	17 25
[For Browne's Latin Grammar for Ladies, see other Classical Works, page 52.]				

## 2. GREEK.

Arnold's First Book,* Am. Edi., <i>dac.</i> .....	0	63	"	6 75
First Book Eng. Edi., <i>riv.</i> .....	1	10	"	12 00
Key to ditto.....	0	33	"	
Second Book Eng. Edi., <i>riv.</i> ...	1	20	"	13 20
Key to ditto.....	0	45	"	
Third Book Eng. Edi., <i>riv.</i> .....	0	75	"	8 40
Fourth Book, Eng. Edi.....	0	88	"	9 60
Arnold's First Prose Composition, Am. Edi., <i>dac.</i> .....	0	63	"	6 75
Ditto. First ditto, Eng. Edi. <i>riv.</i> .....	1	20	"	13 20
Key to ditto.....	0	80	"	
Ditto. Second Prose Composition, Am. Edi., <i>dac.</i> ...	0	63	"	6 75
Ditto. Second ditto, Eng. Edi.,.....	1	40	"	15 60
Key to ditto.....	0	75	"	
Ditto. Reading Book, Am. Edi., <i>dac.</i> .....	1	00	"	11 00
Bullions' Grammar, Am. Edi., <i>fb.</i> .....	0	90	"	10 25
Edinburgh Academy Rudiments, Eng. Edi., <i>ob.</i> .....	0	75	"	8 40
Eton Grammar, Homer's, Routledge's, etc.....	0	90	"	10 25
Anthony's Prosody, Eng. Edi., 55 cts. each, Am. Edi....	0	63	"	
Liddell and Scott's Greek Lexicon, (Abridged.) Eng. Edi.	2	00	"	20 40
Donnegan's Greek Lexicon. 8vo. \$3.25 cloth, sheep..	3	75	"	
[For Classical Maps, Chronology, &c., see pages 10, 11, 16, 28.]				

## Classical Dictionaries, etc.

Smith's Classical Dictionary, illustrated. 8vo. Eng. Edi.	3	20	"	37 00
Smith's Smaller Classical Dictionary. } Illustrated,				
Smith's Smaller Dictionary of Antiquities. } 12mo., En. Ed.	1	60	"	18 60
Rich's Companion to Latin Dictionary and Greek				
Lexicon, Eng. Edi., <i>lbc. lc.</i> .....	3	75	"	43 20
Baird's Classical Manual, Am. Edi., <i>bl.</i> .....	0	40	"	4 50
[See also other Classical Dictionaries and Lexicons, page 51.]				

## 3. FRENCH.

Merlet's Grammar, Eng. Edi., <i>tvm.</i> .....	1	20	"	14 00
Merlet's La Traducteur. Eng. Edi.....	1	20	"	14 00

\* For Arnold's entire works, See page 44—47.

		NET CASH PRICE.			
		\$	cts. each,	\$	cts. per doz.
Merlet's Dictionary of Difficulties. Eng. Edi. ....		1	45	"	16 50
Grammar: Also, in parts as follows:					
Pronunciation and Accidence.....		0	80	"	9 00
Syntax.....		0	80	"	9 00
Key to Grammar,.....		0	80	"	9 00
La Traducteur:					
Synonyms explained.....		0	60	"	6 40
Stories from French Writers.....		0	50	"	5 20
Synopsis of the Language.....		0	60	"	6 40
Table of Verbs on a Card.....		0	13	"	1 35
Arnold's First Book, Eng. Edi.....		1	20	"	13 20
Key to the Exercises.....		0	55	"	6 00
Arnold's Hand Book of Vocabulary, Eng. Edi.....		0	95	"	10 80
Noel and Chapsal's Grammar, (in French,).....		0	70	"	7 50
(in English.).....		0	65	"	7 20
Collot's Levizac's Grammar,.....	} Am. Ed. <i>hz.</i> .....	0	50	"	5 25
Collot's Pronouncing Reader,....					
Collot's Interlinear Reader,....					
Collot's Anecdotes and Questions, Collot's Dialogues and Phrases, }					
Key to Collot's Exercises in Grammar.....		0	30	"	
Collot's French and English Dictionary. 8vo. Am. Edi.		3	00	"	
Surrenne's New Manual, Am. Edi., <i>dac.</i> .....		0	55	"	6 00
Ditto, Eng. Edi.....		0	75	"	8 40
Sjoberg and Surrenne's French and English Dictionary. (12mo.) Am. Edi.....		1	25	"	14 00
Do Eng. Edi.....		2	10	"	24 00

[See also other French authors, page 52.]

#### 4. ENGLISH.

Lennie's Grammar, <i>ob.</i> .....	0	34	"	3 60	"
Key to ditto.....	0	80	"		
Bullions' Grammar.....	0	50	"	5 50	"
National Grammar.....	0	13	"	1 10	"
Sullivan's Grammar.....	0	20	"	1 80	"
Art of Reading. (National Series.).....	0	20	"	1 90	"
Sullivan's Dictionary of Derivations.....	0	50	"	5 40	"
Sullivan's English Dictionary.....	0	70	"	6 60	"
The National Readers. Dublin Editions, Price as follows: *					
First Book.....	0	3	"	0 25	"
Second ".....	0	10	"	1 10	"
Third ".....	0	20	"	2 15	"
Fourth ".....	0	25	"	2 40	"
Supplement to ditto.....	0	25	"	2 40	"
Fifth Book.....	0	25	"	2 40	"
Sixth ".....	0	25	"	2 40	"
Sullivan's Spelling Book Superseded.....	0	25	"	2 40	"
Sullivan's Literary Class Book.....	0	60	"	6 00	"
Whately's Lessons on Reasoning, Eng. Edi. <i>jup.</i> .....	0	38	"	3 95	"

Whately's Lessons on Christian Evidences, or the Truth of Christianity. (Appendix to 4th National Reader,) Eng. Edi. 10 cts. each, Questions 5 cts. \$1.00 per doz., or \$1.50 with Questions, Am. Edi. 25 cts. each, \$2.75 per doz. including Questions in a separate pamphlet.

Whately's Introductory Lessons on the British Constitution.....

0 13 " 1 20 "

\* The first and second books are not required to be used in the Grammar Schools, but they are inserted here in order to give the series complete. The sixth book is designed for girls.

## NET CASH PRICE.

	\$	cts. each,	\$	cts. per doz.
Political Economy in Chambers' Educational Course,...	0	40	"	4 20
Spalding's English Literature. Eng. or Am. Edi. <i>ob. dac.</i>	0	75	"	8 40
Reid's Rudiments of English Composition, Eng. Edi. <i>ob.</i>	0	45	"	4 75
Key to ditto .....	0	75	"	

[See also Books of Reference for Teachers, page 54.]

## 5. MATHEMATICS.

Arithmetic in Theory and Practice. (National Series)				
Eng. Edi. ....	0	25	"	2 20
Key to ditto .....	0	45	"	
Thompson's, (James, LL.D., Glasgow) Arithmetic....	0	70	"	8 00
Key to ditto .....	1	25	"	
Thompson's, (James, LL.D., Glasgow) Algebra.....	0	95	"	10 80
Loomis' Treatise on Algebra.....	0	88	"	9 60
Colenso's S'mson's Euclid. [See other Mathematical				
Works. Page 53.].....	1	05	"	12 00
Colenso's Algebra, Part I.,.....	0	88	"	9 60
Key to ditto .....	1	15	"	
Potts' Euclid, 12mo., Eng. Edi. <i>jup</i> (For <i>Svo.</i> , <i>Edi.</i> , see				
page 53). ....	0	75	"	8 15
Mensuration (National Series) .....	0	22	"	1 90
Appendix to ditto .....	0	14	"	1 35

(See Slates, &c., in the *Writing Division* of this Catalogue, pp. 101, 104.)

For Mathematical Instruments and Geometrical Forms and Solids, see page 72, also School Apparatus, &c., and other Mathematical Works, page 53.

## 6. GEOGRAPHY AND HISTORY.

Sullivan's Introduction to Geography and History .....	0	18	cts. ea.,	\$1.80 per doz.
Sullivan's Geography Generalised.....	0	50	"	4 50
Epitome of Geographical Knowledge (National Series)	0	35	"	3 60
White's Elements of General History, Parts I. II. III.,				
(Ancient, Middle Ages, and Modern) bound together,				
95 cts. each, \$10.80 per doz. In parts.....	0	55	"	6 00
White's History of Great Britain & Ireland, Eng. Edi., <i>ob.</i>	65	"		6 90
White's History of France, .....	65	"		6 90
Putz's Ancient Geography and History. By Arnold				
& Paul. ....	87	"		9 50
Putz's Mediæval Geography and History. Do. Am. Edi.				
<i>dac.</i> .....	63	"		6 75
Putz's Modern Geography and History. Ditto.....	87	"		9 50
Johnston's General School Atlas. } See Companion, {				
Johnston's Physical School Atlas. } vol. on Astrono- {	\$2.50	"		27 00
Johnston's Classical School Atlas. } my, page 35. {				
Pillans' Physical and Classical Geography, (Companion				
to Johnston's Classical Atlas).....	80	"		\$8 60

## 7. PHYSICAL SCIENCE.

Third, Fourth and Fifth National Readers.—[See List on page 40.]

Youman's Chemical Atlas, with thirteen coloured plates.

pp. 105; Am. Edi. 4to ..... Singly, \$1.60; \$1.50 ea. pr half doz.

Youman's Chemistry, with coloured Chart... Singly, \$5.00

Ditto, without Chart..... 63 cts. ea., \$6.75 per doz.

Olmsted's School Philosophy..... 75 cts. ea., \$8.60 per doz.

Johnston's five Charts of Natural Philosophy, with Hand-

Books ..... Singly, \$2.38 "or \$2.25 ea. pr set

Patterson's First Steps to Zoology, Parts I. and II.... 70 cts. " \$7.50 pr doz.

(See also "Natural History" Division—Zoology &c. Pages 56 and 107.)

NET CASH PRICE.

**8. METEOROLOGICAL INSTRUMENTS**

prescribed by the Grammar School Act:—One Thermometer; one Barometer; one Hygrometer; one Rain Gauge and Measure; one Wind-vane, as follows:

<b>Self-Registering Maximum Thermometer:</b> Negretti and Zambra's Self-registering Maximum Thermometer, with the degrees engraved on its own stem, and figures on plate glass; mahogany frame. Price...	9 00
<b>Minimum Thermometer:</b> With divisions engraved on its own stem glass, and figures on plate glass; mahogany frame. Price.....	9 00
<b>Standard Barometer:</b> Reading from an ivory point fixed in the cistern, with boiled glass tube at least $\frac{1}{4}$ inch in diameter; the reservoir 2.5 inch diameter, mounted in a brass frame; set screws to bring the tube vertical; external thermometer, with centigrade and Fahrenheit's scale; vernier worked by a rack and pinion, so divided as to shew the five-hundredth of an inch; a screw to make the barometer portable; the whole attached by brass brackets; mahogany frame. Price. ...	72 00
<b>Mercurial Barometer:</b> with boiled glass tube, $\frac{1}{4}$ inch in diameter; the reservoir of iron 2 $\frac{1}{2}$ inches in diameter, mounted in a brass frame; set screws to bring the tube vertical; external thermometer, with Fahrenheit scale engraved on glass; vernier worked by a rack and pinion, so divided as to shew the five-hundredth of an inch; the whole attached by brass brackets; mahogany frame. Price.....	36 00
<b>Hygrometer:</b> Wet and Dry Bulb Thermometer; with figures engraved on its own stem and on plate glass, mahogany frame.....	\$18 00
<b>Rain Gauge:</b> Glaisher's Rain Gauge of japanned tin, with graduated measuring glass. Price.....	\$ 9 00
<b>Drew's Practical Meteorology:</b> Text Book to accompany the Meteorological Instruments. 12mo. Eng. Edi. <i>juv.</i> .....	1 50
<b>Glaisher's Hygrometrical Tables:</b> Adapted to the use of Negretti and Zambra's Wet and Dry Bulb Thermometer. 8vo. Eng. Edi. <i>ma.</i> ...	0 75
<b>Wind Vane:</b> Price of the set as above, with <i>Standard Barometer</i> (without vane) including cases, etc.....	120 00
Ditto do with <i>Mercurial Barometer</i> (without vane) including cases...	84 00

**9 MISCELLANEOUS.**

Hullah's Manual of Vocal Music.....	\$1.00 each, \$10.80 per doz
Also Charts, books of School Songs, &c., page 99.	
Mulhauser's Writing Manual.....	50 cts. " \$5.40 "
Models No. 1.....	50 " " "
Nos. 2, 3 and 4.....	20 " " \$1.50 "
National Copy Lines.....	38 " " per set.
Other Copy Lines, Latin or English.....	10 " " \$1 per doz.
National Book-keeping.....	14 " " \$1.35 "
Drawing-books and materials authorised by the Department of Science and Art, England; and those in this Catalogue. Various prices. [See Drawing Division, page 102.]	

For a further list of classical authors, and maps, apparatus, and other school requisites, see the following list.

**XX. CLASSICAL TEXTS, BOOKS OF REFERENCE, AND MATHEMATICS, ETC.**

THE FOLLOWING BOOKS AND SCHOOL REQUISITES, ALTHOUGH NOT PRESCRIBED, ARE SUITABLE FOR GRAMMAR SCHOOLS, TEACHERS, &C.

**1. CLASSICAL AND EDUCATIONAL WORKS, BY THE REV. T. KERCHEVER ARNOLD, M. A., OF CAMBRIDGE.**

*Keys (supplied to Masters or Tutors only) are published to those Works to which † is prefixed.*

**LATIN.**

For the Latin "Books" (Grammar,) See authorised list of Grammar School Books. page 40, 41. (For Classical Maps See pages 10, 11. For Apparatus, See Index.)

## NET CASH PRICE.

OVID.— <i>Eclogæ Ovidianæ</i> , with English Notes; Part I. (from the <i>Elegiac Poems</i> .) Eng. Edi. 12mo. ....				55 cts. each, \$6.00 per doz.	
This Work is from the Fifth Part of the <i>Lateinisches Elementarbuch</i> of Professors <i>Jacobs</i> and <i>Döring</i> .					
OVID.— <i>Eclogæ Ovidianæ</i> , Part II; containing Selections from the <i>Metamorphoses</i> . With English Notes, Eng. Edi. 12mo. ....				\$1.10	" \$12.00 "
† NEPOS.— <i>Cornelius Nepos</i> , Part I.; with Critical Questions and Answers, and an imitative Exercise on each Chapter, Eng. Edi. 12mo. ....				88 cts.	\$9.60 "
Key. ....				23 cts. each.	
VIRGIL.— <i>Virgillii Æneis</i> , with English Notes from Dübner, Eng. Edi. 12mo. ....				\$1.25	" \$14.40 "
VIRGIL.— <i>Virgillii Bucolica et Georgica</i> , with English Notes from Dübner. ( <i>In preparation</i> .)					
VIRGIL.— <i>Virgillii Æneidos Libri I.—VI.</i> ; Addita est Interpretatio ex Adnotationibus Heynii, Wunderlichii, Wagneri, Forbigeri, aliorum excerpta. 8vo. \$2.20				"	
HORACE.— <i>Horatii Opera</i> , with English Notes from Dübner, Eng. Edi. 12mo. ....				\$1.50	" \$16.80 "
† LATIN VERSE COMPOSITION, a <i>Practical Introduction to</i> . Contents:—1. "Ideas" for Hexameter and Elegiac Verses. 2. Alcaics. 3. Sapphics. 4. The other Horatian Metres. 5. Appendix of Poetical Phraseology and Hints on Versification, Eng. Edi. 8vo. \$1.20 each, \$13.20				45 cts.	" "
CICERO.—Selections from Cicero's Orations, with English Notes, from the best and most recent sources. Part I. Contents:—The Fourth Book of the Impeachment of Verres, the Four Speeches against Catiline, and the Speech for the Poet Archias, Eng. Edi. 12mo. ....				88 "	" \$9.60 "
CICERO.—Selections from Cicero, with English Notes, Part II.; containing Epistles, arranged in the order of time, with accounts of the Consuls, events of each year, &c., Eng. Edi. 12mo. ....				\$1.10	" \$12.00 "
The Notes are from the best Commentators, especially Matthiæ.					
CICERO.—Selections from Cicero, Part III.; containing the <i>Tusculan Disputations</i> (entire). With English Notes, translated from the German of Tischer, by the Rev. R. B. Paul, M. A., Eng. Edi. 12mo. ....				\$1.20	" \$13.20 "
CICERO.—Selections from Cicero, Part IV.; containing <i>De Finibus Malorum et Bonorum</i> . (On the Supreme Good.) With a Preface, English Notes, &c., partly from Madvig, and others, by the Rev. James Beaven, D.D., Professor of Metaphysics in University College, Toronto, Eng. Edi. 12mo. ....				\$1.20	" \$13.20 "
CICERO.—Selections from Cicero, Part V.; containing <i>Cato Major, sive De Senectute Dialogus</i> ; with English Notes from Sommerbrodt, by the Rev. Henry Browne, M. A. Eng. Edi. 12mo. ....				55 cts.	" \$6.00 "
TACITUS, Part I. The first Six Books of the <i>Annales</i> of Tacitus, ab Excessu Divi Augusti. With English Notes, translated from the German of Dr. Karl Nipperdey, by the Rev. Henry Browne, M. A., Eng. Edi. 12mo. ....				\$1.25	" \$14.40 "
TACITUS, Part II. Books XI.—XVI. Eng. Edi. 12mo. ....				\$1.10	" \$12.00 "

SALLUST.—The History of the Jugurthine War, explained by Rudolf Jacobs. The Notes translated by the Rev. Henry Browne, M. A., Eng. Edi., 12mo. ....	75 cts. each, \$8.40 pr doz.
LEXICON.—A Copious and Critical English-Latin Lexicon, by the Rev. T. K. Arnold and the Rev. J. E. Riddle. ....	2 25

## GREEK.

GREEK BOOKS.—For "First Greek Book," &c., see authorised list of Grammar School Books. Page 41.		
2. † The Second Greek Book; containing an Elementary Treatise on the Greek Particles and the Formation of Greek Derivatives, Eng. Edi. 12mo. ....	\$1.20	\$13.20 "
3. The Third Greek Book, containing Selections from Xenophon's Cyropædia, with English Notes, and a Vocabulary, Eng. Edi. 12mo. ....	75 cts.	" \$8.40 "
4. The Fourth Greek Book, containing Xenophon's Anabasis, with English Notes, Eng. Edi. 12mo. [Books IV. to VII.] ....	88 "	" \$9.60 "
ACCIDENCE.—A Practical Introduction to Greek Accidence. With Easy Exercises and Vocabulary. 8vo. Eng. Edi. ....	\$1.20	" \$13.20 "
HOMER for Beginners.—The First Three Books of the Iliad, with English Notes; forming a sufficient Commentary for young Students, Eng. Edi. 12mo. ....	75 cts.	" \$8.40 "
HOMER.—The Iliad Complete, with English Notes and Grammatical References. In one thick volume, 12mo., <i>half-bound</i> . Eng. Edi. ....	\$2.50	" \$28.80 "
In this Edition, the Argument of each Book is divided into short Sections, which are prefixed to those portions of the Text, respectively, which they describe. The Notes (principally from Dübner) are at the foot of each page. At the end of the volume are useful Appendices.		
HOMER.—The Iliad, Books I. to IV.; with a Critical Introduction, and copious English Notes, Eng. Edi. 12mo. ....	\$1.60	" \$18.00 "
HOMER.—A Complete Greek and English Lexicon for the Poems of Homer, and the Homeridæ. Translated from the German of Crusius, by Professor Smith. New and Revised Edition, Eng. Edi. ....	\$1.95	" \$21.60 "
XENOPHON'S Anabasis, explained by Dr. F. K. Hertlein. In Two Parts. (Part II. forming the "Fourth Greek Book.") Translated from the German, with additional Notes and Grammatical References, by the Rev. Henry Browne, M.A., Eng. Edi. 12mo. ....	\$1.40	" \$15.60 "
HERODOTUS.—Elegæ Herodotæ, Part I.; from the Text of Schweighæuser. With English Notes, Eng. Edi. 12mo. ....	75 cts.	" \$8.40 "
THUCYDIDES, Book the First; with copious English Notes, especially from Poppo and Kruger, and Grammatical References. Eng. Edi. 12mo. ....	\$1.20	" \$13.20 "
———— Book the Second, ....	95 cts.	" \$10.80 "
DEMOSTHENES, with English Notes from the best and most recent sources, Sauppe, Doberenz, Jacobs, Dissen, Westermann, &c. Eng. Edi.		
Vol. I. The Olynthiac Orations. 12mo .. . . .	65 "	" \$7.20 "

## NET CASH PRICE.

Vol. II. The Oration on the Crown. 12mo.....	95 cts. each, \$10.80 pr doz.	
Vol. III. The Philippic Orations. 12mo.....	88 " " \$9.60 "	
ÆSCHINES.—Speech against Ctesiphon. Eng. Edi. 12mo. The Text is that of <i>Baiter</i> and <i>Sauppe</i> ; the Notes are by Professor Champlin with additional Notes by President Woolsey and the Editor.....		
	88 " " \$9.60 "	
SOPHOCLES, with English Notes, from Schneidewin. Eng. Edi., 5 parts.		
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			2. Pearly Nautilus.
			3. Cuttle-fish.
			3a. Bone of same.
			4. Calamary, or Squid.
			4a. Bone of ditto.
		II. Gasteropoda,	5. Whelk, or "Buckie."
			6. Top-shell.
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		VI. Tunicata,	18. Botryllus.
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*Sub-Kingdom Articulata.—Classes Arachidna and Insecta.*

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			7. Walking-leaf.
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Sheet H.	{	Order Lepidoptera,	Fig. 1. Bee Hawk-moth.
			2. Caterpillar.
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			6. Tree Bug.
			7. Male Aphis.
			7a. Female Aphis.
		Diptera,	8. Gnat.
			9. Gad-fly.
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	11. Louse (of the Pigeon.)		
	12. Spring-tail.		
	13. Scolopendra.		
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			5. Shore Crab.
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		III. Annelata.	10. Serpula.
			11. Horse-leech.
			12. Earth-worm.
			13. White Lug-worm.
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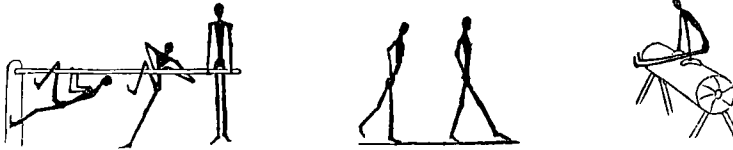
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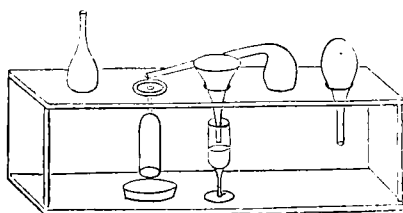
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- Griffin's Apparatus for Johnston's Agricultural Chemistry.**—Griffin's Collection of Chemical Apparatus and Preparations; [No. 1725] for the performance of the Experiments requisite to demonstrate the Chemical Facts contained in Professor Johnston's Catechism of Agricultural Chemistry and Geology. Adapted for the use of Schoolmasters, with printed instructions. Price, packed in a box, with Text Book, Eng. Edi..... 8 00
- Johnston's Catechism of Agricultural Chemistry and Geology.** By Professor James F. W. Johnston, A. M.; with an Introduction, by John P. Norton, A. M., and an Appendix, compiled by James W. Dawson, Esq., A. M. late Superintendent of Education, Nova Scotia, Principal of McGill College, Montreal, 24mo., pp. 78, boards ..... 20  
do, (English Edition,) 24mo., pp. 63, cloth, stitched, ... 20
- Johnson's Elements of Agricultural Chemistry and Geology.** By Professor James F. W. Johnston, A. M., (Eng. Edi.,) 12mo., pp. 337..... 95  
do, (Am. Edi.,) 12mo., pp..... 80
- Griffin's Apparatus for Stockhart's Chemistry.**—A collection of apparatus for performing the Elementary Experiments described in Stockhart's Principles of Chemistry. Packed in a box, with text book. 4 75
- Stockhart's Principles of Chemistry**, illustrated by simple experiments: by Dr. Julius Adolph Stockhardt. Translated by C. H. Pierce, M.D., and edited by Professors Peirce and Horsford, of Harvard University, pp. xix, 681, Eng. or Am. Edi., *jb. hgb*..... 1 00
- Stockhart's Chemical Field Lectures for Agriculturists**, 12mo., Eng. Edi, *hgb*..... 1 05
- Griffin's Chemical Laboratories.**—Chemical Laboratories in Portable Cabinets, containing apparatus and preparations for a course of Elementary Experiments, selected and arranged by John J. Griffin, F.C.S., to accompany "Griffin's Chemical Recreations."
- Cabinet No. 0, in black pine box, containing most essential articles, with Chemical Recreations..... 3 00
- Cabinet No. 1, in mahogany box, containing nearly 40 articles, do..... 4 50
- do No. 2, do, do 60 do, do..... 8 00
- do No. 3, do, do 80 do, do..... 10 00
- do No. 4, do, do 100 do, do..... 12 50
- do No. 5, do, do 120 do, do..... 15 00
- Griffin's Chemical Recreations**—A popular Manual of Experimental Chemistry. By John Joseph Griffin. First Division. Elementary Experiments. 12mo., cloth, pp. 4, 120=124, *jig*. Price..... 50

## NET CASH PRICE.

**Statham's Chemical Cabinets**, similar to the foregoing, (Negretti and Zambra's:—)

Cabinet No. 1, in mahogany box, contains upwards of 60 chemical reagents, &c.....							5 50
do	No. 2,	do	do	do	do	do superior	8 00
do	No. 3,	do	do	do	70	do	11 00
do	No. 4,	do	do	do	79	do	16 00
do	No. 5,	do	do	do	for qualitative analysis		44 00

**Statham's Agricultural Test Chests**, for the qualitative analysis of soils, manures, &c.

Cabinet No. 1, in pine box, with nearly 100 reagents.....							16 00
do	No. 2,	do	do	do	do	larger and better...	27 00
do	No. 3,	do	do	do	do	do	44 00

**Griffin's Chemical Apparatus :**

1. Universal Portable Furnaces, refractory fire clay, bound with iron, English manufacture..... 11 00
2. Evaporating Furnace with handle..... 75
3. Combustion Furnace as improved by Stenhouse..... 1 25
4. Glass Tubes and Syphons.
  - [1.] Combustion Tubes each..... 20
  - [2.] Bent Chloride of Calcium Tubes, each..... 10
  - [3.] Bent Connecting Tubes, each..... 20
  - [4.] Suction Tubes, each..... 10
5. Gas bottle, with jet, for Philosophical candle, with glass tube, for exhibiting the sound produced by the flame..... 40
6. Plain Syphons, each..... 10
7. Gas bags vulcanised, each..... 2 00
8. Brass Stop Cocks..... 90
9. Glass apparatus to collect water produced by burning hydrogen gas... 80
10. Spherical balloons for gas. Various sizes, from 35 cents to..... 1 50
11. Straight and bent glass pipettes, each..... 10
12. Centigrade Test Tubes, or Alcalimetres, each, with Block and Screen to read ditto..... 1 70
13. A 16 feet measure divided into 5ths., with mahogany foot..... 2 00
14. Glass Funnels with stop cocks, each from \$1.20 to..... 2 00
15. Glass Funnels, assorted sizes, per dozen..... 40
16. Funnel holders, covers, &c., &c., various prices.
17. Boiling flasks, German glass blown, various prices.
18. Round Tin Plate Stills, one gallon, with dome, and block tin serpentine pipe, and worm tube..... 4 00
19. Chemical balances with weights in mahogany box. See also page 74... 1 00
20. Semi porcelain mortar, without spout, various prices.
21. Thermometer for Chemical use, various prices.
22. Chemical Labels, 5 00 each, No. 1, small 10 cts., No. 2, large 35 cts.
23. Ritchie's Lamp Stands. } See page 79.
24. Ritchie's Test Tubes. }

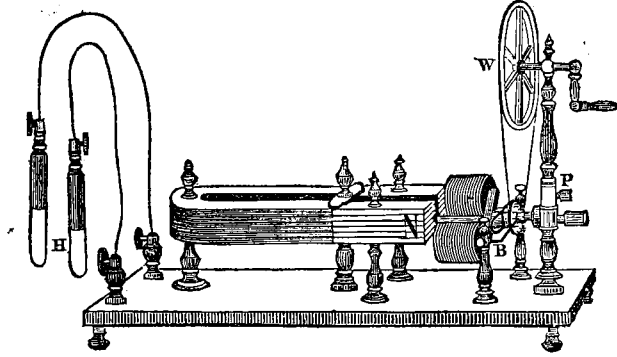
**Negretti & Zambra's Chemical Laboratories and other Apparatus, &c.**

**MISCELLANEOUS.**

- Tegetmeier's School Tablets**, in three Sheets; viz., (1) Specific Gravities, 30 in. by 20. (2) Temperatures, 30 in. by 20. (3) Diagrams of Thermometer—Fahrenheit and Centigrade, 60 in. by 10 Eng. *gs.* Price per packet. 23
- Brand's Tables of Chemical Equivalents, Weights, Measures, etc.** In five sheets, Eng. Edi. *jvp.* Price per packet..... 75
- Rose's Chemical Tables**, 8vo. cloth, pp. 69, Am. Edi., *lbc*..... 63

NET CASH PRICE.

**Macadam's Tables**, introductory to a course of testing qualitative and quantitative Analysis, by John Macadam, 8vo. paper, pp. 24, with sheet of oxides, bases and acids, Eng. Edi. paper, *rgc*..... 20

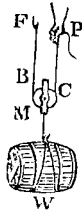


(MAGNETO-ELECTRIC MACHINE.)

## XXIV. NATURAL PHILOSOPHY.

### 1. DIAGRAMS.

**W. and A. K. Johnston's Illustrations of Natural Philosophy**, Sheet No. 1, Properties of Bodies, 37 Diagrams. No. 2. Mechanical Powers, 47 Diagrams. No. 3. Hydrostatics, 28 Diagrams. No. 4. Hydraulics, 35 Diagrams. No. 5. Human Anatomy and Physiology, 27 Diagrams. The Illustrations are carefully drawn and colored after Nature, and the Series include the most interesting phenomena of General Science. Size of each sheet, 4 feet 2 inches, by 3 feet 6 inches. Price, (including descriptive Hand-books,) on Cloth and Rollers, per set of five, varnished ..... 11 25  
Ditto, ditto singly..... 2 38



**Minals' Diagrams.** (See page 72.)

**Dr. F. G. Johnson's Philosophical Charts**, A Series of ten large charts, relating to various branches of Natural Philosophy, with key. .15 50

**Darton's Illustrations of Mechanical Powers**, in a series of 8 coloured Plates.

Per set, in sheets and wrapper..... 1 25

Ditto, the eight at one view, Canvas and Rollers,..... 2 25

**Darton's Mechanics for Infant Schools**, coloured, 10 illustrations on a sheet, 33

### 2. WALTON & MABERLY'S DIAGRAMS AND EDUCATIONAL MODELS.

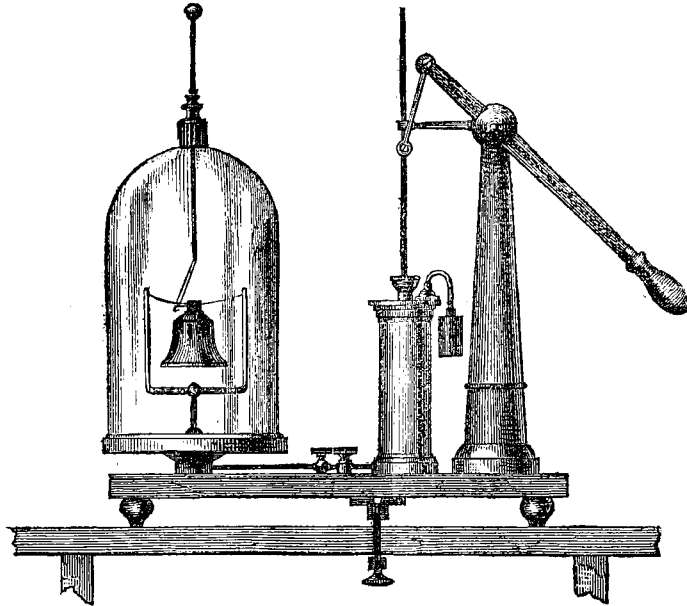
A set of Apparatus for Hydrostatics, Hydraulics, and Pneumatics; with a Pamphlet containing full descriptions and directions for performing many experiments. Price in a box.....34 00

Apparatus for Cohesion, Capillary Attraction, Electric and Magnetic Attraction, Impenetrability and Inertia; with descriptions and Diagrams, See illustrations on page 86. Price in a box..... 6 00

- A Machine for Illustrating Centrifugal Motion**; including a representation of the Governor of a Steam Engine. In a box, See illustration on page 86. 2 75
- The Bent Lever**. Convertible into a Bent Lever or Toggle Joint Press. With weights, and a description, Price. . . . . 2 75
- Apparatus for Magnetism**. Price in a box. . . . . 5 50
- Set of Mechanical Powers**; containing the Lever—Wheel and Axle—A Series of Pulleys—The Inclined plane—Wedge—Screw; with examples of the Parallelogram of Forces—Centre of Gravity—Friction—Collision of Elastic Bodies—Compound Lever. (See illustrations on page 86.)
1. For Schools and small Lecture rooms (height of the frame, 2 feet 6 inches; width 2 feet 3 inches). . . . . 28 50
  2. A Smaller Set, omitting the Parallelogram of Forces and Collision of Elastic Bodies, (height of the frame, 2 feet 1 inch; width, 1 foot 11½ inches) . . . . . 14 25
  3. A Commoner Set (height of the frame, 2 feet; width, 19 inches). . . . . 7 25
- A Train of Spur wheels**, mounted on a mahogany stand, with weights. Price in a box. . . . . 6 00
- A Double Inclined Plane**, with an Application of the Composition and Resolution of Forces. In a box. . . . . 2 75
- A Portable Hydrostatic Bellows**; with description and Diagram, including a weight. Price in a box. . . . . 6 00
- A Sectional Model of the Steam Engine**; by which the motions of the several parts, its internal structure, and the high and low pressure principles, can be easily explained. Price in a box. (See pages 81 and 88.) . . . 11 50
- A Pyrometer**, for showing the Expansion of Metals. Price. . . . . 4 25
- Geometrical Solids**. The five regular Solids.—1. Tetrahedron; 2. Octahedron; 3. Icosahedron; 4. Hexahedron; 5. Pentagonal Dodecahedron; 6. Rhomboidal Dodecahedron; 7. Bipyramidal Dodecahedron; 8. Trapezohedron. Pyramids.—9. Triangular; 10. Quadrilateral; 11. Hexagonal; 12. Octagonal. Prisms.—13. Triangular; 14. Quadrilateral; 15. Hexagonal; 16. Octagonal.—17. Sphere; 18. Cylinder; 19. Cone. The set in a box. (See illustrations on page—). . . . . 2 50
- Another Set**, containing the Conic Sections. Price. . . . . 5 00
- ▲ larger set**. Price. . . . . 8 75
- An Instrument for Teaching Geometry**; convertible into a Theodolite, Spirit Level, Hadley's Sextant, and Wollaston's Goniometer. Price in a box 14 50
- A Pair of large Dividers**, for making Diagrams on a black board. . . . . 1 15
- Minasi's Mechanical Diagrams**. For the use of Lecturers, and Schools. Complete in five numbers, each containing three sheets of Diagrams, coloured, illustrating the following subjects:—1 & 2. Composition of Forces.—3. Equilibrium. 4 & 5. Levers.—6. Steel-yard, Brady Balance, and Danish Balance. 7. Wheel and Axle.—8. Inclined Plane.—9, 10, 11. Pulleys.—12. Hunter's Screw.—13 & 14. Toothed Wheels.—15. Combination of the Mechanical Powers. By F. Minasi. The Diagrams are printed on large sheets of paper, measuring 2 feet 11 inches by 2 feet. This size will be found suited for large lecture rooms With descriptions in sheets. . . . . 3 50
- Ditto**, ditto mounted on 15 rollers . . . . . 9 00
- (See also *E. S. Ritchie's Apparatus*, page 73; *Idé & Dutton's Apparatus*, page 90; and *Holbrook's Apparatus*, page 91.)

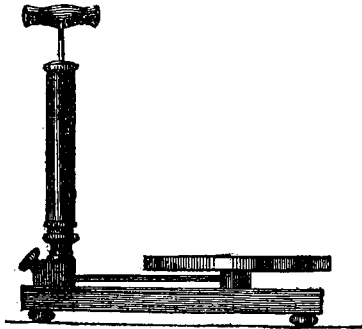
### 3. EDWARD S. RITCHIE'S MODELS AND APPARATUS.\*

#### (1.) PNEUMATICS.

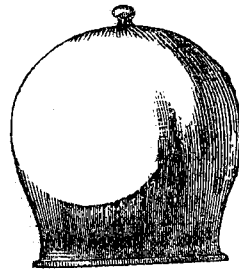


AIR PUMP, NO. 7.

Air Pump No. 1; barrel  $7\frac{1}{2}$  by 2 inches; plate 8 inches; basement mahogany, well finished.....\$30 00



AIR PUMP, NO. 8.



BELL GLASS, NO. 12.

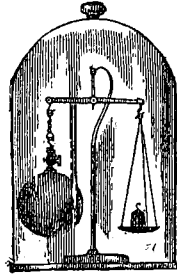
Air Pump No. 2; barrel 7 by  $1\frac{1}{2}$  inches; mahogany basement; plate 6 inches. It may be used upright or diagonally; the pump is also a condenser. Price with Swelled Bell Glass.....\$16 25

\* The illustrations of these apparatus etc., were kindly furnished by the Manufacturer, Mr. E. S. Ritchie, Boston, U. S.



HEMISPHERE CUPS, NOS. 32—34.

Hemispherical Cups; with stop cock, handles, and stand; 5 inch diameter inside, No. 32.....	8 50
Hemispherical Cups; with stop cock, handles, and stand; 3 inch diameter. 6 00	
Hemispherical Cups; with stop cock, handles of cast brass, and stand; 2½ in diameter, No. 34 .....	\$4 25



AIR BALANCE, NO. 60.

Apparatus illustrating the weight and buoyancy of air, gas, &c., 3 inch glass globe, stop cock, stand steel beam, with grain and ounce weights, scale pans, and counterpoise, to use in open air and under bell glass, and with compressed air or exhausted. [The scales and weights can be used for other purposes,] with brass globe.....\$7 25.

## 2. ELECTRICITY. (See page 55.)

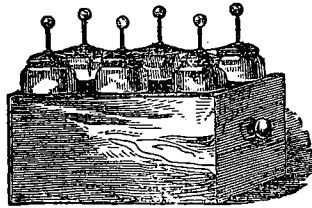
- Electrical Machine; plate 30 inches; prime conductor 36 by 5 inches, with double and separable sets of points, draw tube and ball; negative conductor 5 inches, basement 5½ feet by 3 feet, of mahogany, shaft 44 inches from floor, insulated crank; in every respect well finished No. 6. \$105 00.
- Electrical Machine; plate 24 inches, prime conductor 18 by 4 inches, negative 4½ inches, rubbers 8 by 1½ inches; basement like the foregoing No. 7. \$60 00.
- Electrical Machine; plate 20 inches, prime conductor 16 by 3½ inches, negative 4 inches, rubbers 6½ by 1½ inches; base like the foregoing No. 8. \$30 00.

NET CASH PRICE.



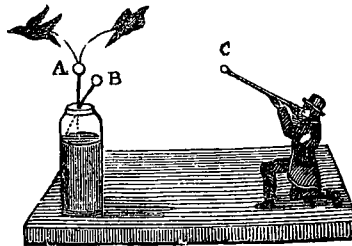
LUMINOUS LEYDEN JAR, NO. 15.

Diamond or Luminous Jars; the spots are perforated to show the points on both sides; two and four quarts.....\$3 75



ELECTRIC BATTERIES, NO. 16.

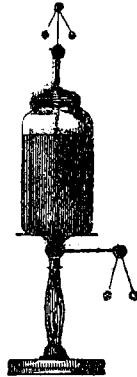
Electric Batteries; neatly cased, four 1 quart jars, \$7.25 six 1 quart jars \$9.60, four 2 quart jars .....\$12 00



ELECTRIC SPORTSMAN AND BIRDS, NO. 17.

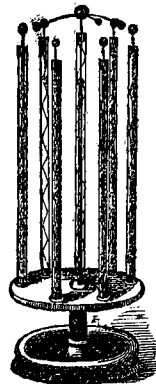
Electric Sportsman and Birds; used with electrometer jar. 90 cts. & \$1.25  
Electric Birds, per dozen. 90 cts. & \$1.25.

NET CASH PRICE.



INSULATING STAND, NO. 19.

Insulating Stand; with jar and electrometers, No. 19.....\$4 80



SPIRAL SPOTTED TUBES, NOS. 22 AND 23.

1. Spiral Spotted Tube and Stand; No. 22, two feet, \$3; three feet... 3 60
2. Set of Six Spiral inside Spotted Tubes; with centre insulated pillar, and revolving discharger mounted on mahogany stand; with two feet tubes, No. 23.....24 00

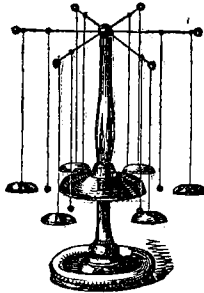
NOTE.—The Spots are on the *inside* of the tube. The tube may be excited with a silk handkerchief.

NET CASH PRICE.



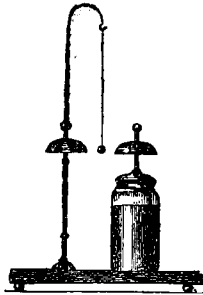
ELECTRICAL DISCHARGER, NO. 28.

Plain Discharger; large glass handle, No. 27, \$2 40 and..... 3 00  
 Jointed Discharger; large handle, best form, No. 28..... 4 25



SIX BELLS, NO. 34.

Set of Five Bells; on insulated stand handsomely mounted, No. 33. \$8 40

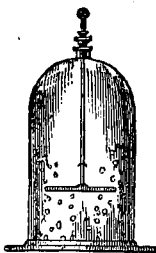


LEYDEN JAR AND BELLS, NO. 35.

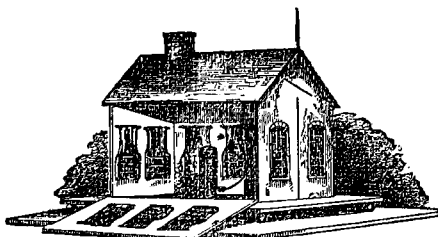
Leyden Jar; with bells and stand, No. 35..... 6 00  
 Dancing Image Plates; on insulating and adjusting stand No. 38.. 7 25  
 Stand for Illuminating Eggs, No. 39..... 1 80  
 Dancing Images; of pith, painted, per pair No. 40..... 0 60



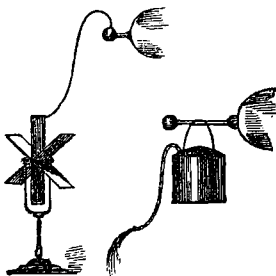
Gold Leaf Electrometer No. 43, with evaporating cup and point, \$2.40,  
and ..... 3 60



Bell Glass and Stand; for dancing pith balls, No. 46..... 2 40  
Electric Swing and Image, No. 62, \$1 25, and..... 2 40

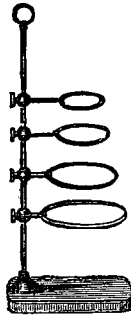


Thunder House; illustrating the lightning rod; the house is held together by magnets, and is blown down by the discharge of a gas pistol within; complete, No. 76..... 6 00



(3.) **CHEMISTRY.** (See page 67.)

Electric Float; wheel and point, No. 78, \$1 25 and..... 1 80

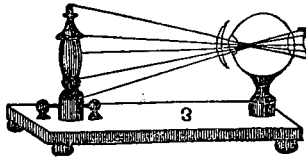
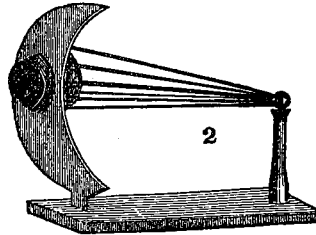
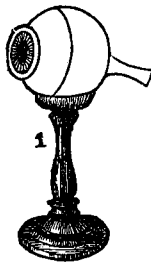


Lamp Stand, with four bows and binding screws, No. 20.....2 40

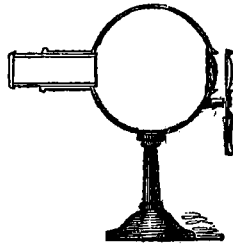


Test Tubes, with stand; 1 dozen assorted, No. 59..... 2 40

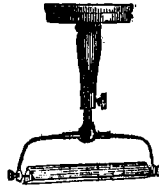
(4.) OPTICS.



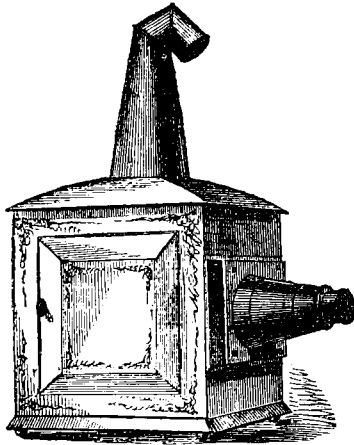
Models of Human Eye; in three parts, viz., (1) the eyeball dissected, and stand; (2) the muscles of the eye; (3) the cause of the long, short, and perfect sight. No. 23..... 14 50



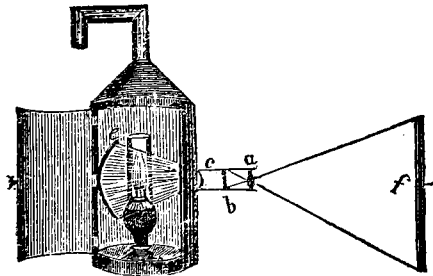
Artificial Eye, to show the application of spectacles to long and short sight. No. 49, \$6 00 and..... 8 50



Mounted Prisms; six inches. No. 48, \$3 60; eight inches ..... 4 80



Improved Magic Lantern, (larger than the English;) condensing lenses, four inches diameter, mounted in brass cell  $2\frac{1}{2}$  inches meniscus magnifying lenses, solar lamps, silvered reflector, spring slider holder, and brass sliding tube. Pictures from  $2\frac{1}{2}$  to  $3\frac{1}{2}$  inches are shown clear and distinct, 8 to 12 feet diameter on screen. Price..... 30 00

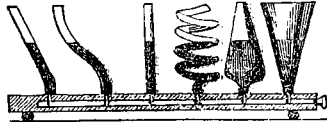


Griffin's Magic Lantern (Phantasmagoria) and box; with a complete set of highly finished astronomical diagrams and descriptive book \$25 00

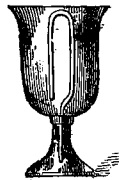
**Griffin's Magic Lantern** with a argand reflector, and a complete set of astronomical diagrams; accompanied with a descriptive book ..... 15 00

**Magic Lantern Slides, as follows;**

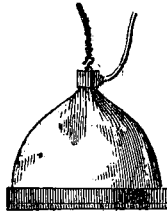
Birds; 7 slides, 28 pictures...	17 00
Amphibia; in 4 slides, 16 pictures.....	9 75
Fishes; in 5 slides, 20 pictures.....	12 00
Insects; in 8 slides, 37 pictures.....	19 50
Views; in 4 slides, 12 pictures.....	12 00
Astronomy; 11 slides, 30 pictures.....	22 00
Views of Public Buildings &c.....	



Equilibrium Tubes; mahogany base, six tubes, brass capped. No. 2. 4 80  
Equilibrium Tubes; six forms, mahogany base. No. 3..... 3 00



Siphon and Cup, or Tantalus's Cup; illustrates intermitting springs. No. 20 1 80



Glass Model of the Diving Bell; with lead ring. No. 21, 1 80; with cap and tube..... 4 25

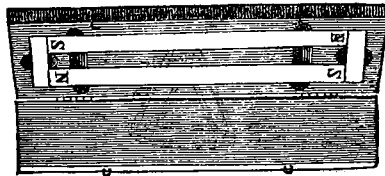
**(5.) STEAM.**

Moving Sectional Model of low pressure Steam Engine..... 30 00

(See also, *Taylor and Walton's, Apparatus, page 71, and Reynolds and Mabrun's illustrations of various engines, page 88.*)

**(6.) MAGNETISM.**

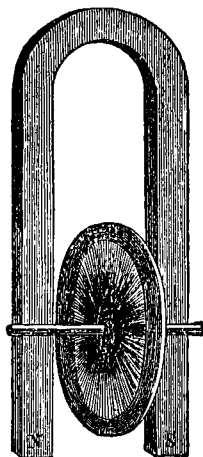
(See page 72, *Holbrook's Apparatus also.*)



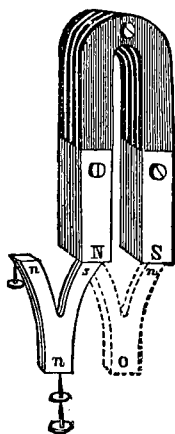
Pair Bar Magnets and Armature; in Box 10 inches. No. 1..... 3 60

NET CASH PRICE.

Ide and Dutton's Magnets, various sizes, from 20 cts. to..... \$0 50



Wheel Armature; revolves on U magnet; No. 6, 60 cents and.... 0 90

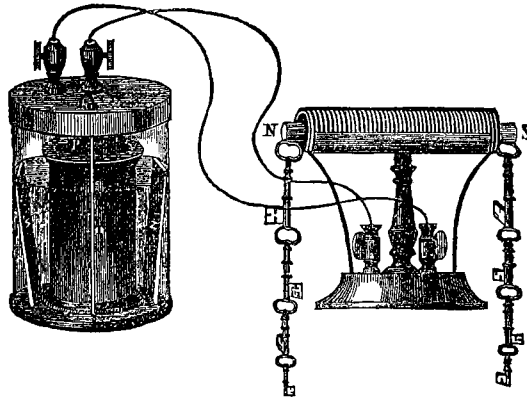


Bar, Star, and Y Armature. No. 7..... 1 80  
 Sulphate of Copper Battery; 6 by 9 inches. No. 9..... 7 25



Dipping Needle; brass stand. No. 15..... 1 25

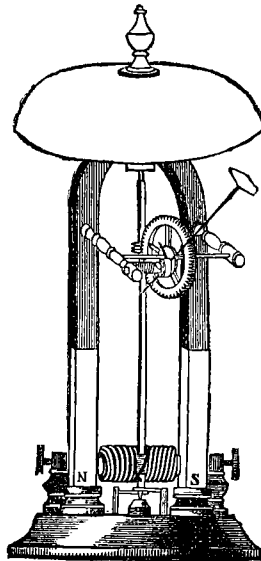
NET CASH PRICE.



No. 19.

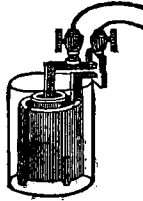
No. 18.

Helix and Bar; on stand. No. 18.....	2 50
and.....	3 00
Smee's Battery; per pair. No. 19.....	1 80
and.....	2 40

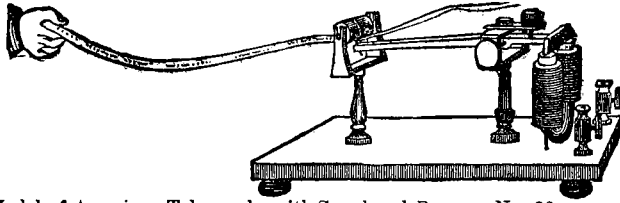


No. 28.

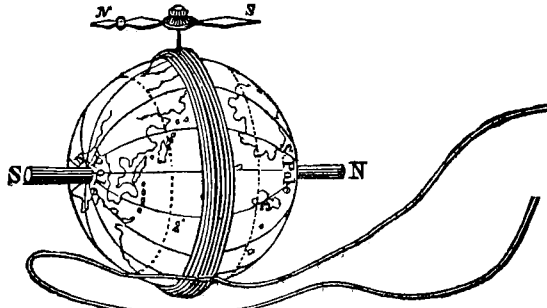
Horizontal Revolving Armature Bell Engine. No. 28 .....	12 00
Revolving Electro Magnet; Page's No. 29.....	6 00



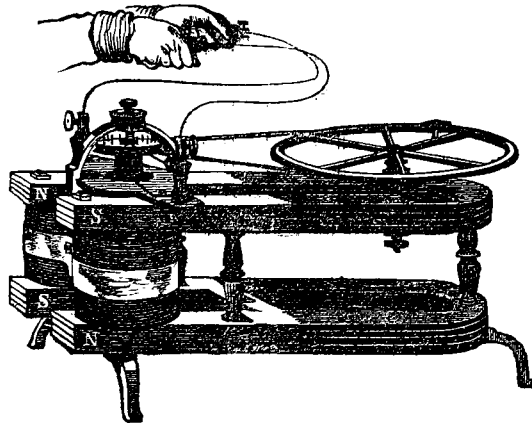
Grove's Battery: single pair. No. 35..... 1 80  
and..... 2 40



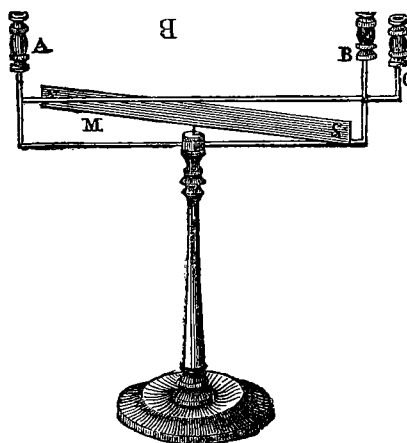
Model of American Telegraph, with Spool and Paper. No. 88..... 6 00  
(See also Reynolds' diagram of English Telegraph, page 88.)



Globe and Coil with Magnets and Dipping Needle. No. 45..... \$4 80



No. 48,  
Magneto-Electric Machine. No. 48..... 30 00



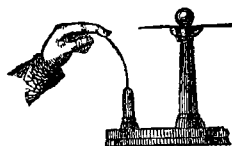
No. 50.

Oersted's Galvanometer. No. 50, \$3 60 and..... 4 25

## (7.) MECHANICS.

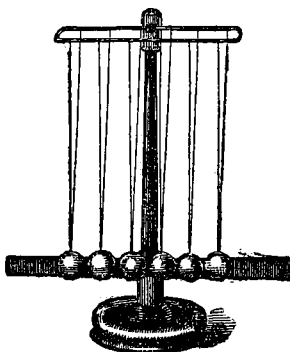


Pair Flask Plates, and handles, for cohesion. No. 1..... 1 25



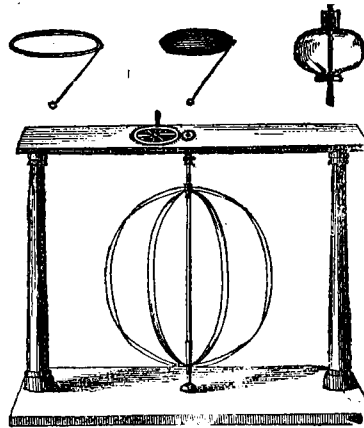
No. 3.

Inertia Apparatus Stand, with spring and ball. No. 3..... 0 90  
 Capillary Tubes, set of six, with stand and water pan. No. 4, 90 cents and 1 80  
 Capillary Plates, of plate glass, showing the Parabolic curve. No. 5..... 0 60  
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Nos. 12 and 13.

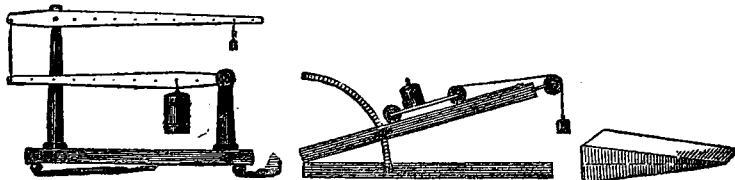
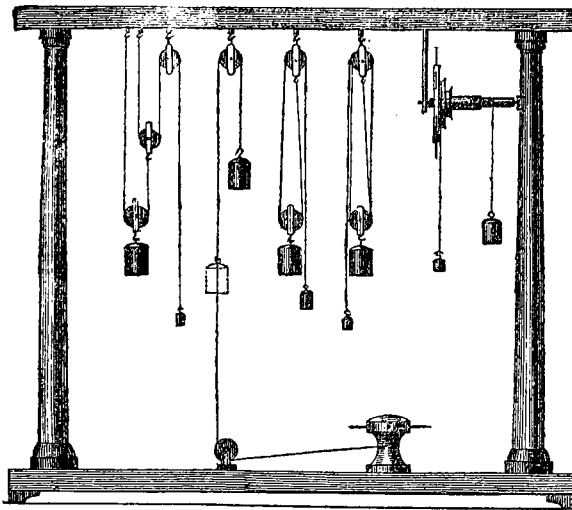
Collision Balls, the same, with six  $1\frac{1}{4}$  inch lignum vitæ balls. No. 12 4 80  
 Collision Balls, mahogany stand, six  $1\frac{1}{4}$  inch balls, single cord. No. 13 3 60



NO. 16.

Centrifugal Machine, mahogany frame, with brass geared wheels, with eight illustrations of central and centrifugal forces, of the cause of bodies revolving on their smallest diameter, of the flattening of the poles, &c., No. 16.....\$9 75

*See also Taylor and Walton's apparatus, page 71.*

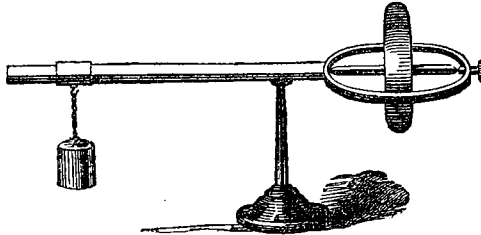


NO. 21, 23.

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(See also Taylor and Walton's, and Johnston's *Mechanical Powers*, at pages 71, 72.)



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#### 4. GRIFFIN'S APPARATUS AND DIAGRAMS.

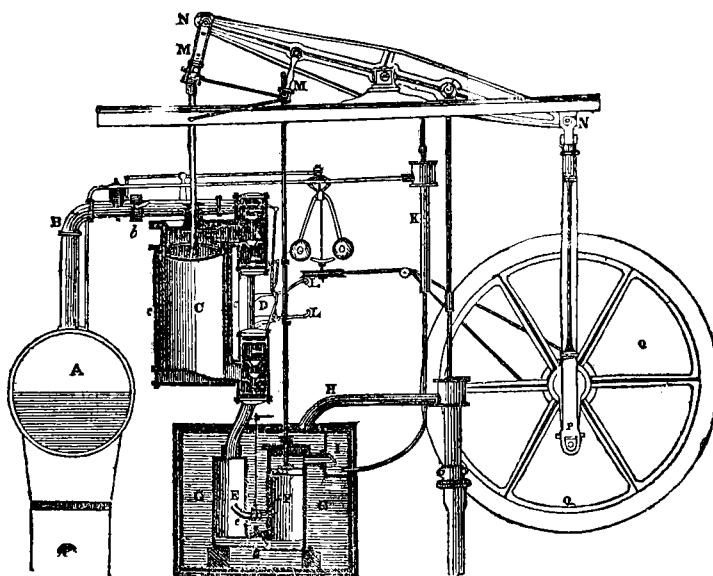
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(For Minerals for Blowpipes. See pages 32, 33.)

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Glass House do do do do. ....	80
Iron furnace do do do do. ....	40



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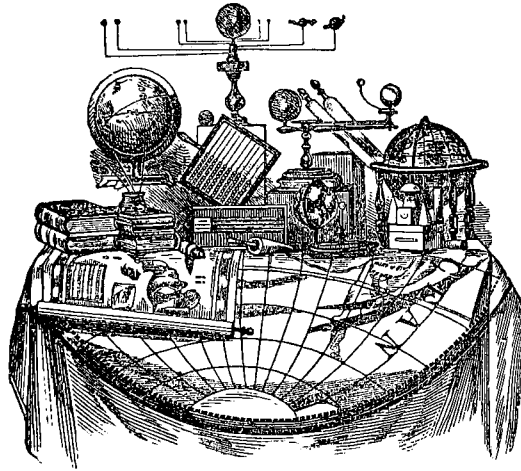
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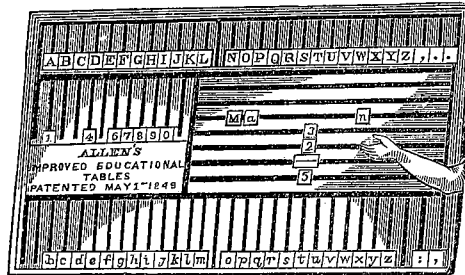
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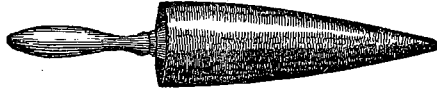
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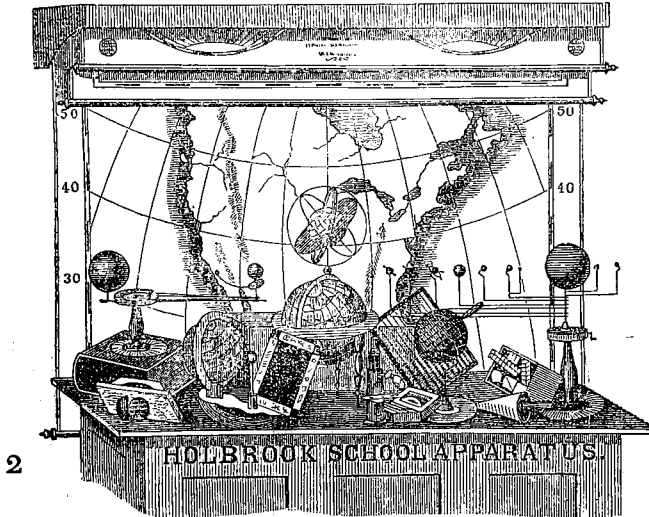
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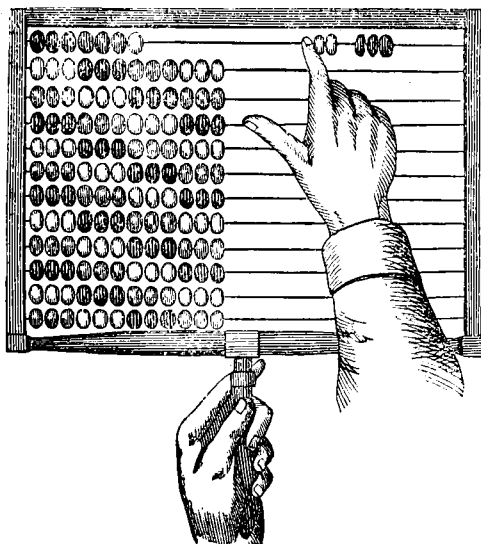
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| 4. Parallelopiped No. 4. | 11. Sphere.                | 18. Hexagonal Prism.      |
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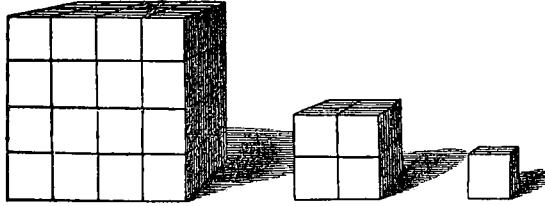
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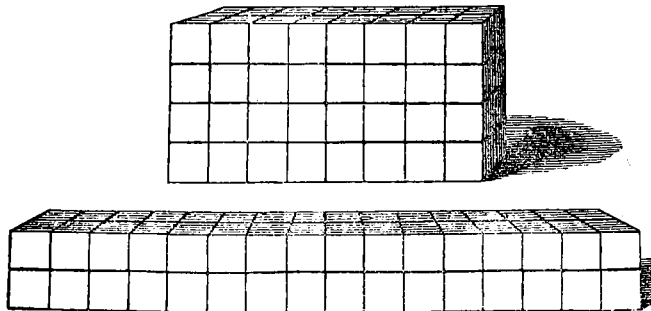
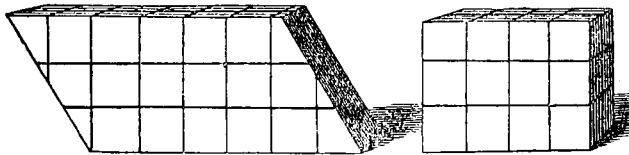
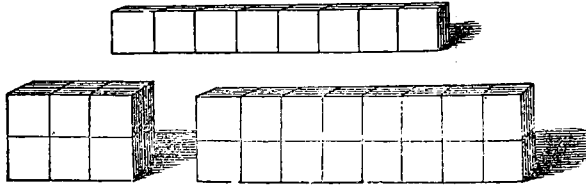
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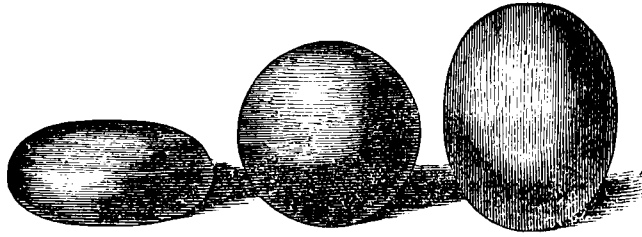


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PARALLELEPIPEDS.

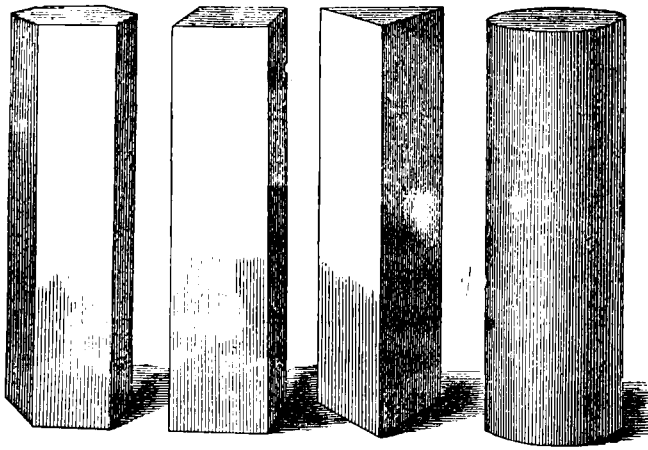
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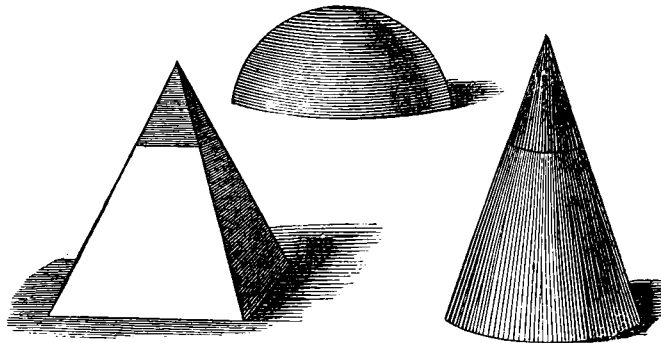
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SPHERE.

PROLATE SPHEROID.

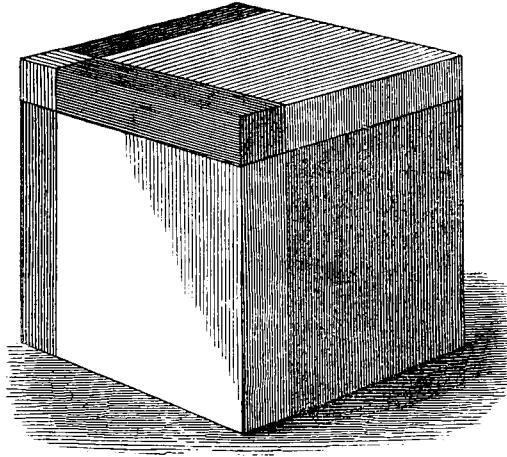


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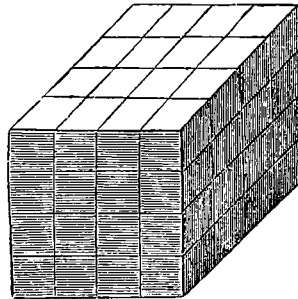
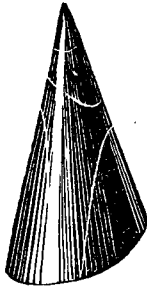
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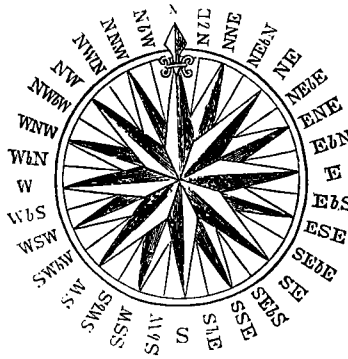
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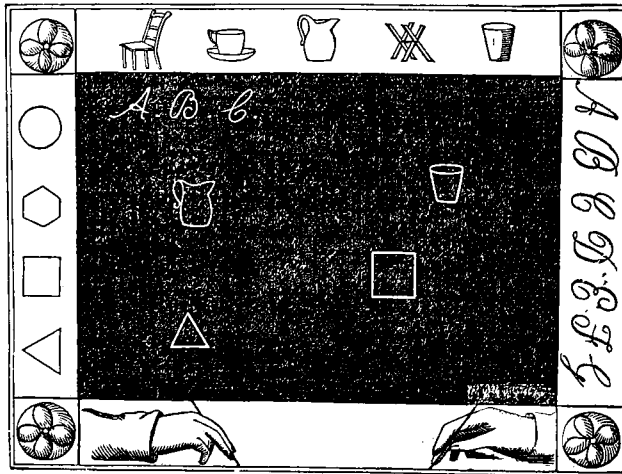
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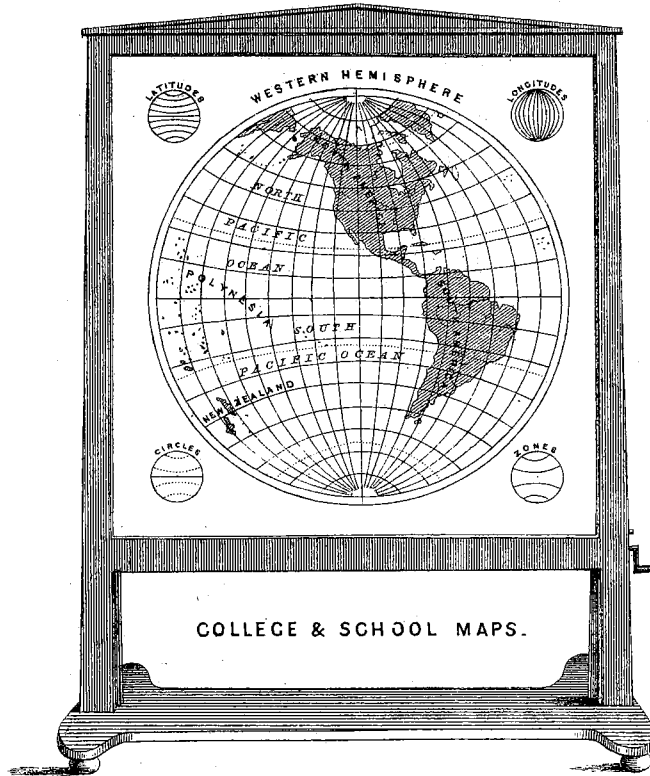
### ERRATUM.

Page 59, for "inveterate" read "invertebrate."



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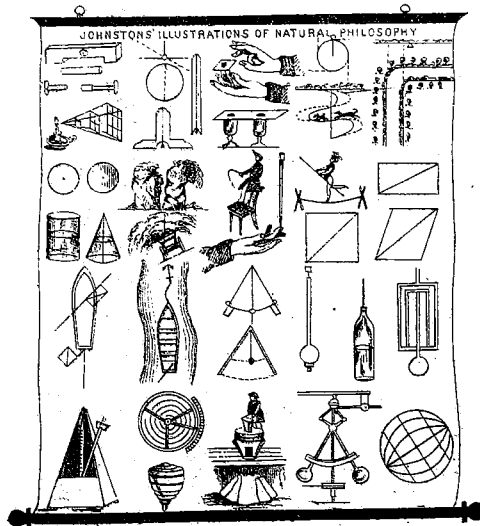
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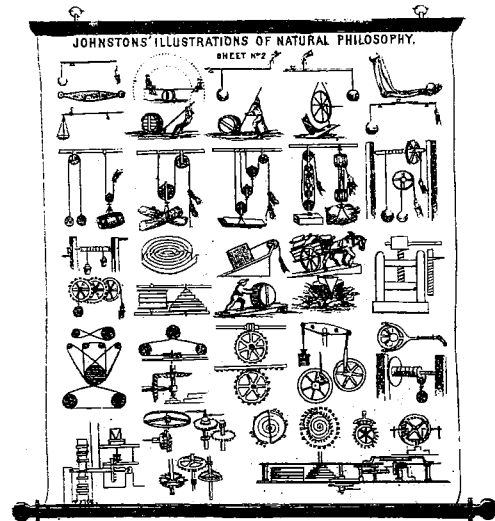
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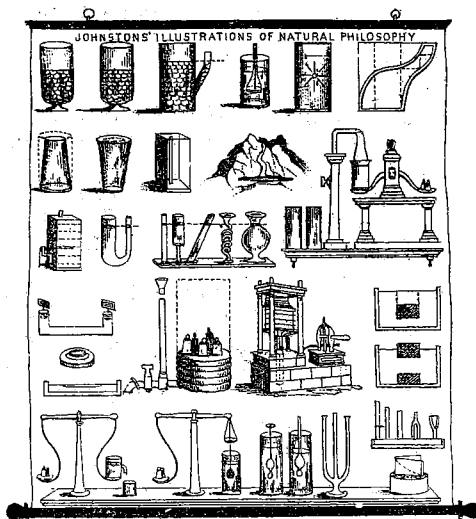
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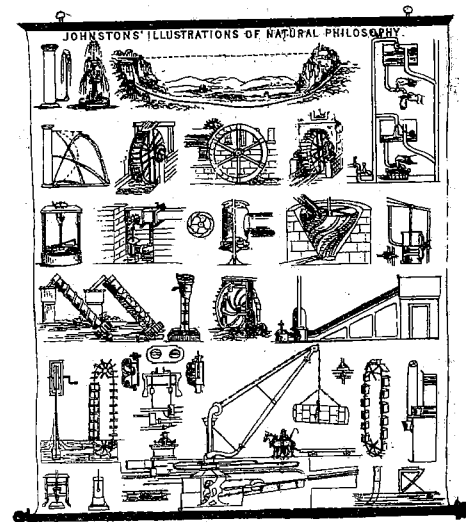
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