THE

U. C. COLLEGE REGISTER,

1840.

Upper Canada College Register.

THE

UPPER CANADA COLLEGE

REGISTER:

THE PRIZE LIST AND EXAMINATION PAPERS

FOR 1840.

Doctrina sed vim promovet insitam,
Rectique **cultus** pectora roborant,
Utcunque defecere mores,
Dedecorant bene nata culpæ.

UPPER CANADA COLLEGE.

(INCORPORATED WITH THE UNIVERSITY OF KING'S COLLEGE.)

UNIVERSITY OFFICERS.

Chancellor:

HIS EXCELLENCY, THE RT. HON. LORD SYDENHAM,
GOVERNOR GENERAL OF BRITISH NORTH AMERICA, &c. &c.

Visitors:

THE HON. THE JUDGES OF THE QUEEN'S BENCH.

President:

THE HON. & RIGHT REV. JOHN STRACHAN, D.D., LORD BISHOP OF TORONTO.

Council:

THE HON. THE SPEAKER OF THE LEGISLATIVE COUNCIL.
THE HON. THE SPEAKER OF THE HOUSE OF ASSEMBLY.
THE ATTORNEY GENERAL.
THE SOLICITOR GENERAL.
THE PRINCIPAL OF UPPER CANADA COLLEGE.
THE HON. R. S. JAMESON.
    "   R. B. SULLIVAN.
    "   WILLIAM ALLAN.
    "   JOHN MACAULAY.
    "   J. SIMCOE MACAULAY.

HENRY BOYS, ESQ. M.D. *Registrar and Bursar.*

COLLEGE OFFICERS.

Principal.
THE REV. JOHN M'CAUL, LL.D.

Masters.

THE REV. CHARLES MATHEWS, M.A., *1st Classical Master.*

THE REV. GEORGE MAYNARD, M.A., *Mathematical Master.*

MR. BARRON, Scholar Queen's College, Camb., *2nd Classical Master.*

THE REV. HENRY SCADDING, M.A., *3rd Classical Master.*

MR. DE LA HAYE, *French Master.*

MR. DUFFY, *1st English Master.*

MR. COSENS, *Master of Preparatory School.*

MR. THOMPSON, *2nd English Master.*

MR. HOWARD, *Geometrical Drawing Master.*

MR. HAMILTON, *Ornamental   ditto.*

COURSE OF EDUCATION.

Greek, Latin, French; Mathematics, (Geometry, Algebra, Trigonometry, Logarithms, Conic Sections, &c.) Elements of Natural Philosophy, Logic; History, Geography, Use of the Globes, Arithmetic, Mensuration, Book-keeping, Geometrical Drawing, Surveying, and Perspective, in addition to the ordinary branches of English; with Composition in English and French, and in Greek and Latin prose and verse.

DISTRIBUTION OF THE PUPILS

Into seven Forms, a Partial Class, and a Preparatory School.

Pupils are examined, on admission, and placed according to their qualifications. Those in the College Forms, as they progressively advance, receive instructions in every department of the course; those who are admitted into the Partial Class, are exempted from Classical Studies.

ARRANGEMENT OF THE SUBJECTS OF INSTRUCTION.

PREPARATORY SCHOOL.

Latin and English; Writing and Arithmetic.

FIRST FORM.

Latin and English; History, Writing and Arithmetic.

SECOND FORM.

Latin, French, and English; History, Modern Geography, Writing and Arithmetic.

THIRD FORM.

Greek, Latin, French, and English; History, Modern Geography, Writing and Arithmetic; Geometrical Drawing.

FOURTH FORM.

Greek, Latin, French, and English; Mathematics; History, Use of the Globes, Writing and Arithmetic; Geometrical Drawing and Surveying

FIFTH FORM.

Greek, Latin, French, and English; Mathematics; History, Mensuration, Writing and Arithmetic; Surveying and Perspective.

SIXTH FORM.

Greek, Latin, French, and English; Mathematics; History, Writing and Arithmetic; Surveying and Perspective.

SEVENTH FORM.

Greek, Latin, French, and English; Elements of Nat. Philosophy, Logic, Mathematics; History; Surveying, Perspective, &c.

Partial Class.

1*st Division.*

English; History, Geography, Writing and Arithmetic; Geometrical Drawing.

2*nd Division.*

French and English; History, Geography, Writing, Arithmetic, and Book-keeping; Geometrical Drawing and Surveying.

3*rd Division.*

Mathematics; French and English; History, Geography, and Use of the Globes; Writing, Arithmetic and Book-keeping; Surveying and Perspective.

8

4th Division.

Mathematics; French and English; History, Geography and Use of the Globes; Writing, Arithmetic, and Mensuration; Surveying and Perspective.

5th Division.

Elements of Nat. Philosophy, Logic, Mathematics; French and English; History, Geography, Writing and Arithmetic; Surveying, Perspective &c.

The Holy Scriptures are the first subject on Monday, and the last on Friday (with the Principal and Classical Masters) throughout all the Forms, and the Divisions of the Partial Class.

ATTENDANCE.

From a quarter before 9 o'clock in the morning until 12, and from 2 o'clock until 4 in the afternoon, except on Wednesday and Saturday, which are half holidays.

Every pupil is required to appear in his place and answer to his name at the calling of the roll, before Prayers, at a quarter before 9.

In all cases of absence, a written excuse from the Parents or Guardian of the pupil is required from him on his return.

Instruction is given in Book-keeping on Tuesday, Thursday and Friday at 4 o'clock—and in Ornamental Drawing on Wednesday and Saturday at 12 o'clock.

In addition to the above, the 5th Form attends on Monday, Tuesday, Thursday and Friday; the 6th on Tuesday, Thursday, and Friday; the 4th on Monday, Tuesday and Friday; the 3rd on Tuesday and Thursday; the 2nd on Thursday and Friday; 3rd Division Partial Class on Monday, and 4th Division Partial Class on Tuesday,—from 12 to 1 o'clock.

QUARTERLY DUES.

Day-Pupils,	Preparatory School,...............	£1	10	0
	College,...........................	2	5	0
Boarders,...		7	10	0

Ornamental Drawing is an optional branch, for which there is an extra charge of £1 per Quarter.

The necessary Books, and Drawing materials, are supplied by the College Booksellers, Messrs. H. & W. Rowsell, at the expense of the pupil.

COLLECTOR, *Mr. Duffy.*

COLLEGE QUARTERS.

FIRST QUARTER.

From the close of the Christmas Vacation (about the 1st week in January) to the 20th March.

SECOND QUARTER.

From the 20th March to the 3rd of June.

THIRD QUARTER.

From the 3rd June to the commencement of the Summer Vacation.

FOURTH QUARTER.

From the close of the Summer Vacation to the beginning of the Christmas Vacation, (about 20th December.)

At whatever period of any of the above quarters, a pupil may be entered or withdrawn, his dues for tuition are payable for the whole of that quarter.

All pupils, whose names are on the roll, are charged with the dues, unless notice has been given of their removal from the Institution.

EXHIBITIONS:

(FOUNDED BY THE COUNCIL OF KING'S COLLEGE, 1841.)

The whole number is twelve, tenable for three years. Accordingly, the regular number of vacancies each year is four; to two of which is attached exemption from College dues for tuition—to one, in addition to the above, the annual stipend of £10—and to one, exemption from College dues for both Board and Tuition.

Extract from the Regulations regarding them :

" 1. The mode of election to be by Public Examination.

" 2. The best answerers at that Examination to be declared duly elected to the places then vacant, unless it shall be reported to the Council, that any candidate or candidates manifested such imperfect acquaintance with the subjects of examination as should disqualify him or them for entering the 5th Form, and thus render it expedient that the vacancy or vacancies should not then be filled up.

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" 3. All candidates to be eligible, who shall produce testimonials of good conduct and qualifications from the Principal or Head Master of any institution for education in Canada.*

" 4. The above testimonials to be lodged with the Collector of Upper Canada College one month before the first day of Examination.

" 5. The names of the successful candidates to be published, specifying the schools at which they were educated."

FIRST ANNUAL EXAMINATION.
MONDAY, JAN. 10, 1842.

SUBJECTS OF EXAMINATION.

GREEK : Valpy's Delectus.

LATIN : Ovid's Metamorphos. Lib. xiii. Fab. 1—*Certamen inter Ajacem et Ulyssem.*—These are to be considered as text books, on which questions in Grammar, Prosody, History, Geography, and Mythology, will be founded.

MATHEMATICS : Euclid's Elements, Book 1.

Algebra : to Simple Equations (inclusive)—and Arithmetic.

THE COLLEGE BOARDING HOUSE

Is on the College premises, with a spacious play ground attached. It is under the immediate care of a resident Master and Matron, and its discipline and arrangements are subject to the superintendence of College authority.

REGULATIONS
TO BE OBSERVED BY BOARDERS AT THE COLLEGE BOARDING-HOUSE.

1. The hour of rising is Six o'clock, in the Summer, and twenty minutes before Seven in the Winter ; notified by the ringing of the College Bell.

2. Every Boarder is required to be present at Prayers, at Seven o'clock, followed by Scripture-reading, till half-past Seven. No plea whatever is admitted for absence from these duties, except sickness : in case of which,

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* Those candidates, who have been educated at home, or by private tutors, will be admitted on producing similar testimonials from their Parents, Guardians, or Tutors.

either the resident Master or the Matron must be previously made acquainted, in order that they may be satisfied of the sufficiency of the plea.

3. A Register of Absentees from Prayers and Reading is kept, stating the causes of absence. Any levity, or irreverent conduct during Prayers or Reading, will be severely noticed.

4. During the time between rising and twenty minutes before Nine, no Boarder is to leave the Premises; but all the time (not otherwise engaged) is to be occupied in preparing Lessons.

5. No Boarder is to go from the Boarding-House to the College, before the Bell rings, at twenty minutes to Nine.

6. No Boarder is to take his seat at meat till grace has been said, nor to leave the table before grace after meat.

7. Every Boarder is to appear regularly at all meals, and not to absent himself of his own accord.

8. No Boarder is allowed to go out in the evening after the ringing of the College Bell, which is regulated from time to time according to the season.

9. The College bounds are the College Premises, and Play-Ground. No Boarder is at any time to go into the Town, without express permission.

10. The Boarders being all orderly assembled at Nine o'clock in the evening, read to the Master one or more chapters from the Old or New Testament: this is followed by Prayers; after which all retire to bed; it being at the discretion of the Master, occasionally to allow such of the senior boys as may request it, and he thinks will make good use of the indulgence, to remain up till Ten.

11. The Monitor appointed to each Study and Bed-Room is responsible for the orderly conduct of all in his room, and also for any mischief or damage done to the furniture, unless he reports the actual offender.

12. It is entirely at the discretion of the Master, whether leave shall at any time be granted to a Boarder to attend a party—and then only on a written invitation, or a direct verbal application from the boy's friend to the *Master:* such permission not to be then given unless both the Master and the Matron are satisfied that the boy's conduct deserves the indulgence. Every Boarder must return home from such party by Nine o'clock, which limit *may* be extended to Ten by a particular request to that effect from the friend who invited the boy.

13. No fire-arms of any description are allowed in the possession of a Boarder.

SUNDAY.

1. Every Boarder is required to attend Divine Service—morning and afternoon.

2. Boarders to remain within bounds till half-past Ten, A.M.; then assemble in the Study, and thence proceed orderly to their respective places of Public Worship; and return in like manner. The same is to be observed as to going to, and returning from the Place of Worship in the afternoon.

3. Leave may be granted to take a walk after Service; but no Boarder is allowed to go into the Town after returning the second time from the Place of Worship in the afternoon.

4. If permission be, under particular circumstances, given to a Boarder to visit a friend in the Town on Sunday, he must first attend Divine Service with the rest of the Boarders, and must return home by Eight o'clock in the evening.

N. B.—Each Boarder is to provide himself with his own Bedding, Sheets, Towels, and Silver Spoon.

UPPER CANADA COLLEGE.

Annual Public Examination.

DECEMBER 14, 15, 16, 17, and 18, 1840.

SUBJECTS OF EXAMINATION.

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Virgil; Æneid, Book VIII.   Homer; Iliad, Book XVIII.
Composition in Greek and Latin prose and verse.
Plane Geometry; Euclid, Book I, II, III; Def. V, and B. VI
Algebra and Arithmetic.

II. CLASSICAL PRIZE.

Virgil; Æneid, Book VIII.   Homer; Iliad, Book XVIII.
Livy, Book IX, chap. 17—19; and XXI, chap. 32—37;
Thucydides, Book I, chap. 5—8, and 128—134.
Composition in Greek and Latin prose and verse.

III. MATHEMATICAL PRIZE.

Plane Geometry; Euclid, Books I, II, III; Def. V, and B. VI.
Algebra and Arithmetic.
Plane Trigonometry, Logarithms, and Conic Sections; and Mechanics.

SENIOR DIVISION.
7TH FORM.

Greek (Demosthenes, Olynth. II, and Euripides, Medea), Latin (Tacitus, Extracts from the Annals, and Horace, Odes, Books II and III); Plane Geometry (Euclid, B. I, II, III, IV, and VI), Algebra, Trigonometry, &c.; Natural Philosophy (Astronomy and Optics, Elementary), Logic; French; Geometrical Drawing, Perspective and Surveying; Public Reading.

6TH FORM.

Greek (Homer, Iliad, Book I), Latin (Cicero, Oration for Manilian Law); Plane Geometry (Euclid, B. I, II, III, and VI), Algebra (to Proportion); French; History, Geography, and Antiquities; Writing, Geometrical Drawing, Perspective and Surveying; Public Reading.

5TH FORM.

Greek (Hierocles and Palæphatus, Extracts from), Latin (Ovid, Fasti, Extracts from); Plane Geometry (Euclid, B. I, II, and III), Algebra (Quadratic Equations); History, Geography and Antiquities; Writing, Geometrical Drawing, Perspective and Surveying; Public Reading.

4TH FORM.

Greek (Delectus, portion of), Latin (Cæsar, War in Gaul, portion of); Plane Geometry (Euclid, B. I), Algebra (to Simple Equations); French; Latin and Greek Exercises; Arithmetic, History, Writing, Geometrical Drawing and Perspective; Public Reading.

Partial Class.

Plane Geometry (Euclid, B. I, II, III, and VI), Algebra; French; Arithmetic, Geography, Maps, Book-keeping, Writing, Geometrical Drawing, Perspective and Surveying; Public Reading.

JUNIOR DIVISION.
3RD FORM.

Greek (Accidence), Latin (Phædrus, Book II); French; Latin Exercises; History, Arithmetic, Geography, Maps, Writing, Geometrical Drawing, Public Reading.

2ND FORM.

Latin (Lectiones Selectæ, portion of); French; Latin Exercises, History, Arithmetic, Geography, Maps, Writing, Public Reading, Spelling.

1ST FORM.

Latin (Lectiones Selectæ, portion of); Latin Exercises, History, Arithmetic, Writing, Public Reading, Spelling.

PREPARATORY SCHOOL.

Latin (Accidence); Arithmetic, Reading, Writing, Spelling.

RECITATIONS.

I. *Empire of the Sea,*   WHYTEHEAD.

               Ruttan.

II. *Iliad (Book I. Extract),*   HOMER.

      Achilles..........................Bampfield.
      Agamemnon.....................Weller.
      Nestor...........................Connolly.

III. *Phedre (Extract),*   RACINE.

      Theramene......................O'Hara, R.

IV. *Pantheon,*   HAWKINS.

               Stanton.

V. *Phormio (Extract),*   TERENCE.

      Phædria.........................Draper, W. G.
      Antipho.........................Robinson, C.
      Demipho.........................Weller.
      Geta.............................O'Hara, R.

VI. *Cid, (Extract),*   CORNEILLE.

      Le Comte de Gormas.........Maule.
      Don Rodrigue..................Jones, E.

VII. *Buonaparte,*   PHILLIPPS.

               Ruttan.

VIII. *Agamemnon (Extract),*   ÆSCHYLUS.

      Chorus...........................Stanton.
      Cassandra......................O'Hara, R.

IX. *Arch of Titus,*   HOPE.

               Grasett.

X. *Le Malade Imaginaire (Extract),*   MOLIERE.

      Toinette.........................Wells, F
      Argan...........................Stanton.

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XI. *Æneid* (*Book XI. Extract*),   VIRGIL.

        Venulus..........................Maule.
        Drances.........................Hagerman.
        Turnus ....Ruttan.
        Latinus.........................Stanton.

XII. *Martyr of Antioch* (*Extract*),   MILMAN.

        Priest, - - - - - Connolly.
        Vopiscus, - - - - Hagerman.
        Olybius, - - - - - Ruttan.
        Diodotus, - - - - O'Hara, R.
        Fabius, - - - - - Stanton.

CHORUS.

1. Cosens.	1. Wickson.
2. Jones, E.	2. Wedd.
3. Napier.	3. Robinson, C.
4. Draper, W. G.	4. O'Hara, W.
5. Connolly.	5. Grasett.

PRIZE LIST, 1840.

I. His Excellency the Lieutenant Governor's Prize,

Classics and Mathematics......................	Boulton, H. J.
II. Classics...	Sharpe, Edmund
III. Mathematics	Boulton, H. J.

Principal's Prizes.

Head Monitor	Crooks, A
Good Conduct	{ Wedd, W. Cosens, S.

Boys specially noticed for good conduct.

Crookshank.	Wedd.	Cosens.	Jones, J.
—	Sadleir.	Williamson.	Crooks, A.
Ruttan.	Woodruff.	Wickson.	Baines.
Bampfield.	Roaf.	Draper, R. H.	Moore, C.
Connolly.		Jessopp.	Macaulay, G.
Baldwin, J.			Billings, W.
Weller.		—	Baldwin, W.
	Wells, F.		Walton.
Price, H.	Moore, J.	Arnold.	—
Dampier.	Blevins.	Anderson.	M'Cutchon, H.
O'Hara, W.	Duke.	Ridout.	Peay.
Baldwin, E.	Nichol.	Knowles.	M'Cutchon, P.
Robinson, C.	Cathcart,	Boyd.	Kingsmill.
McLeod, N.	Horne.	Thompson, C.	Price, E.

College Prizes, Honours, and Distinctions.

1st. PRIZES.

Scripture	{ 1. Stanton, 2. Nichol.
Grammar, Greek	Connolly.
,, Latin..............................	{ 1. 2. } Jessopp.
Greek Poem, } Subject—Athenæ. Latin ,, }	{ Boulton, H. J. Sharpe, Edmund.
English Essay. Subject—Grœcia capta ferum victorem cepit et artes Intulit agresti Latio."	O'Hara, R.
Drawing, (Figure and Landscape)............	Wells, F.
Good Conduct, (Boarding House)	Connolly.
,, ,, (Preparatory School)	{ M'Cutchon, H. Peay.

FOR DILIGENCE AND PROFICIENCY IN CLASSICS, DURING THE YEAR.		FOR PROFICIENCY, IN THE SUBJECTS PROPOSED, AT THE EXAMINATION.
7th Form,	Boulton, H. J.	Boulton, H. J.
6th „	Bampfield.	Weller.
5th „	Robinson, C. .	Macaulay, J. J.
4th „	Wedd.	Wedd.
Partial Class.		Wells, F.
3rd „	Wickson.	Williamson.
2nd „	Arnold.	Arnold.
1st „	Crooks, A.	Crooks, A.
Prepar. Sch.	M'Cutchon, H.	Kingsmill.

2nd HONOURS.

1st *Class.*		2nd *Class.*
7th Form,	Stanton.	
6th „	Bampfield.	Hagerman.
5th „	Robinson, C.	McLeod, N.
4th „	Sadleir.	
Partial Class,	Moore, J. .	Cathcart.
3rd „	Cosens.	Wickson.
2nd „	{ Gildersleeve.	{ McMicking.
	{ Boyd.	{ Thompson, C.
1st „	Moore, C.	Torrance.
Prepar. Sch.,	Peay.	Ritchey, J.

3rd FIRST PLACES.

Greek.

(*Demosthenes*)—Boulton, H. J. (*Euripid.*)—Boulton, H. J., Macaulay, J. J., Wedd,—Williamson and Cosens, (*æquales.*)

Latin.

(*Tacitus*)—Boulton, H. J. (*Horace*)—Boulton, H. J., Weller, Robinson, C., Wedd, Wickson, Arnold, Crooks, A., Kingsmill.

Geometry.

Boulton, H. J., Bampfield,—McLeod, N. Macaulay, J. J. and Robinson, C. (*æquales,*)—Wedd,—Moore, J. and Wells, (*æquales.*)

Algebra.

Boulton, H. J., Bampfield and Hagerman, (*æquales,*) Macaulay, J. J., Wedd, Cathcart.

Natural Philosophy.

Crookshank.

Logic.

Boulton, H. J.

French.

Stanton, Weller, Wedd, Moore, J., Wickson.

Latin and Greek Exercises.

Roaf.

Latin Exercises.

Williamson, Arnold, Crooks, A.

History, Geography and Antiquities.

Bampfield, Price.

History.

Sadleir, Jessopp, Boyd, Crooks, A.

Arithmetic.

Sadleir, Nichol, Williamson, Gildersleeve, Crooks, A., Ritchey. J

Geography.

Cathcart, Crooks, D., Jessopp, McMicking.

Maps.

Moore, J., McMicking.

Writing.

Ruttan, O'Hara, W., Wedd, Duke,—Williamson and Cameron, (*æquales,*)
Parsons, B., Crooks, A.

Geometrical Drawing, Surveying and Perspective.

O'Hara, R.,—Crowther and Baldwin, J., (*æquales,*) O'Hara, W., Wedd,
Wells F., Williamson.

Reading.

Stanton, Ruttan, Grasett, Wedd, Wells, F., Wickson, Gildersleeve,
Torrance, Price, E.

Spelling.

Arnold, Torrance, Kingsmill.

SUBJECTS FOR COMPOSITION, 1841.

I. PRIZE POEM—in Greek, Latin or English. "Xerxes at Abydus."

Ἐνθαῦτα Ξέρξης ἑωυτὸν ἐμακάρισε· μετὰ δὲ τοῦτο, ἐδάκρυσε.

II. PRIZE ESSAY—in Latin or English. "The influence of habit."

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The Compositions are to be sent (with fictitious signatures) to the Collector of the College before November 1st.

Natural Philosophy.

Crookshank.

Logic.

Boulton, H. J.

French.

Stanton, Weller, Wedd, Moore, J., Wickson.

Latin and Greek Exercises.

Roaf.

Latin Exercises.

Williamson, Arnold, Crooks, A.

History, Geography and Antiquities.

Bampfield, Price.

History.

Sadleir, Jessopp, Boyd, Crooks, A.

Arithmetic.

Sadleir, Nichol, Williamson, Gildersleeve, Crooks, A., Ritchey, J.

Geography.

Cathcart, Crooks, D., Jessopp, McMicking.

Maps.

Moore, J., McMicking.

Writing.

Ruttan, O'Hara, W., Wedd, Duke,—Williamson and Cameron, (*æquales,*) Parsons, B., Crooks, A.

Geometrical Drawing, Surveying and Perspective.

O'Hara, R.,—Crowther and Baldwin, J., (*æquales,*) O'Hara, W., Wedd, Wells F., Williamson.

Reading.

Stanton, Ruttan, Grasett, Wedd, Wells, F., Wickson, Gildersleeve, Torrance, Price, E.

Spelling.

Arnold, Torrance, Kingsmill.

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SUBJECTS FOR COMPOSITION, 1841.

I. PRIZE POEM—in Greek, Latin or English. "Xerxes at Aby-
dus."

Ἐνθαῦτα Ξέρξης ἑωυτὸν ἐμακάρισε· μετὰ δὲ τοῦτο, ἐδάκρυσε.

II. PRIZE ESSAY—in Latin or English. "The influence of habit."

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College before November 1st.

CLASSICS.

V I R G I L.—ÆNEID. VIII.

MR. SCADDING.

I. Explain briefly the immediate connexion of the commencement of the Eighth Æneid.

II. v. 1: "Signum belli...extulit." Explain the military custom probably referred to.

III. v. 9: "Diomedis ad urbem." State (1) the name or names of this city, with their respective derivations; (2) in what province and portion of Italy it was situated; and (3) the peculiar propriety of the application of Turnus to Diomedes for aid.

IV. v. 31: "Deus ipse loci,...Tiberinus...senior." What was the common method of representing River-gods? Quote a passage from the Eighth Æneid, or from Horace, illustrative of what you state.

V. v. 53: "Posuere in montibus urbem,—Pallantëum." (1) What was the subsequent name of the hill on which this city was placed? (2) From what country had Evander emigrated, and for what cause? (3) Why was it more probable that the inhabitants of that country would ally themselves with Trojans, than with those races of Greeks that besieged Troy?

VI. v. 84: "Tibi enim, tibi, maxima Juno." (1) What is the force of *enim* in this passage? (2) What Greek particles

is it here equivalent to? (3) Mention several Homeric imitations in the Eighth Æneid.

VII. v. 167: "Chlamydemque auro dedit intertextam." (1) Describe the Roman military Chlamys, and give a synonymous word. (2) Translate Cic. Philippic. xiv. 1: "Hoc quidem quum turpe est, tum ne Diis quidem immortalibus gratum, ab eorum aris, ad quas togati adierimus, ad saga sumenda discedere." (Explain the antithesis.)

VIII. Translate vv. 182-183:

"Vescitur Æneas, simul et Trojana juventus,
Perpetui tergo bovis, et lustralibus extis."

Explain *lustralibus*, and give the Greek term corresponding to *perpetui*.

IX. v. 187: "Vana superstitio veterumve ignara Deorum." (1) Who were the *veteres*, and who the *recentes Dii*? (2) How were the gods otherwise distinguished, and whence was the distinction taken?

X. vv. 268-271:

"Ex illo celebratus honos, lætique minores
Servavère diem, primusque Potitius auctor,
Et domus Herculei custos Pinaria sacri,
Hanc aram luco statuit."

Translate this, and the following: Liv. i. 7. " Ibi tum primum bove eximiâ captâ de grege, sacrum (adhibitis ad ministerium dapemque Potitiis ac Pinariis, quæ tunc familiæ maximæ inclytæ ea loca incolebant) factum. Fortè ita evenit ut Potitii ad tempus præstò essent, iisque exta apponerentur: Pinarii extis adesis ad cæteram venirent dapem. Inde institutum mansit, donec Pinarium genus fuit, ne extis solennibus

vescerentur." (1) What is said to have caused the decay of the Potitian Family? (2) Where was the *Ara Maxima* of Hercules situated at Rome?

XI. v. 328: "Manus Ausonia et gentes venêre Sicanæ." (1) Is the assertion relative to the Sicani strictly correct? How does Heyne account for the inaccuracy? (2) With whom were the Ausones identical? (3) What term does Livy use to denote the first inhabitants of Italy? (4) Mention the periods of the three Pelasgic immigrations into Italy, and the countries from which they respectively proceeded. (5) What considerations render it probable that the word *Aborigines* was coined at a period subsequent to the existence of the people? (6) What theories have been suggested to account for the word? (7) How may the mythos concerning the reign of Saturn in Italy be interpreted?

XII. v. 361: ————"et lautis mugire Carinis." State fully why the epithet *lautæ* is applied to *Carinæ?* Explain what is here meant by *Carinæ*, and why so named.

XIII. v. 384: "Te [Vulcane!] potuit lacrymis Tithonia flectere conjux." State the circumstance to which reference is made.

XIV. Translate vv. 407-412:

"Inde, ubi prima quies, medio jam noctis abactæ
Curriculo, expulerat somnum; cùm fœmina, primum
Cui tolerare colo vitam tenuique Minervâ,
Impositum cinerem et sopitos suscitat ignes,
Noctem addens operi, famulasque ad lumina longo
Exercet penso."

XV. v. 402: "Quod fieri ferro, liquidove potest electro." Translate this.

·Quidam antiqui codices habent, *potestur electro.*'—Why must this reading be rejected?

XVI. Translate vv. 426-430:

> "His informatum manibus jam parte politâ
> Fulmen erat, toto genitor quæ plurima cœlo
> Dejicit in terras, pars imperfecta manebat.
> Tres imbris torti radios, tres nubis aquosæ
> Addiderant, rutili tres ignis et alitis Austri."

XVII. v. 479: "Urbis Agyllinæ sedes." (1) What was the Roman name of this city? Write down its etymology, with a Latin derivative. (2) Mention a remarkable service which this city once rendered to Rome, and a certain phraseology that arose from the requital which its citizens received.

XVIII. Translate vv. 485-488:

> "Mortua quin etiam jungebat corpora vivis,
> Componens manibusque manus, atque oribus ora,
> Tormenti genus! et sanie taboque fluentes
> Complexu in misero, longâ sic morte necabat."

Translate the expression of St. Paul (ad Rom. vii. 24): Τίς με ῥύσεται ἐκ τοῦ σώματος τοῦ θανάτου τούτου; and state what light the practice alluded to in the above lines has been supposed to throw upon it.

XIX. vv. 542-544:

> "Primum Herculeis sopitas ignibus aras
> Excitat, hesternumque Larem parvosque Penates
> Lætus adit."

Heyne proposes to read, for *Herculeis*, *Herceas*; and for *hesternum*, *externum*. Why are these emendations to be preferred?

XX. What was the original appellation of the *Ludi Cir-censes*? On what occasion were they first celebrated?

XXI. Give a short account of Metius Suffetius.

XXII. v. 651: "Et fluvium vinclis innaret Clœlia ruptis."
(1) Explain the allusion. (2) Mention other names that became distinguished during the war in the course of which that of Clœlia appears; and in each instance briefly state the cause of the distinction.

XXIII. v. 714:

——"Cæsar triplici invectus Romana triumpho
Mœnia."

Which Cæsar was this? For what successes was this triple Triumph?

XXIV. (1) What is supposed to have suggested to Virgil his description of the shield of Æneas? (2) State the points in which he differs from his model. (3) Has any poet besides Virgil imitated the ancient poets in their descriptions of shields?

XXV. Derive, and (where necessary) briefly remark upon, the following words—*rumor, obex, incussum, scyphus, cantharus, strictura, Tarchon, Flamen,* **Latium,** *Ausones, sudum, sistrum:* and explain the following expressions—"*Primæ, secundæ Mensæ:*" "*exsultantes Salios:*" "*nudos Luperces:*" "*Tyrrhena vincula:*" "*Dii communes.*"

H O M E R.—ILIAD. XVIII.

MR. BARRON.

1. Give some of the arguments of Heyne to prove that the Iliad is not entirely the work of *one* individual.

2. Give a short sketch of the *Homeric controversy*.

3. Why has the dialogue in this Book, between Jupiter and Juno, been said to indicate the interpolation of some Rhapsodist?

4. Give the two derivations of the term Ῥαψῳδοί.

5. In what manner were the Homeric Poems introduced into Greece?

6. What direction did Solon give with respect to the fugitive pieces which in his time were recited?
Show how this bears on the argument, that they had not a *written* copy of the Iliad in their possession.

7. By whom was a complete Edition of the Poems perfected, and by whom were they divided into books as we now have them?

8. Quote from the ILIAD to show that its author was an *Asiatic Greek*, and mention any passage from the Odyssey which is said to prove that the Homer of that poem was a native of the S. W. of *Greece*.

9. Give derivations of the names *Homer*, *Melesigenes* and *Mæonides*.

10. Where, according to Herodotus, did Homer die?

11. What is there remarkable, in the Iliad, in the use of the words Ζέφυρος and Ὠκεανὸς?

12. State any remarkable points of coincidence between the manners of the *Hebrews* and the manners of the Iliad.

13. In the Poem "The Contest between Homer and Hesiod," to whom was the Prize awarded, and on what grounds?

14. What name was given respectively to Emigrants from the Peloponnesus and Attica, upon settling in Asia Minor, and what are the Athenians called in the Iliad?

15. What is observable with respect to the use of the *particles* in the Homeric verses, and in those of later Heroic Poets?

16. προστίθεται δὲ τὸ δίγαμμα παρά τε Ἰῶσι, καὶ Αἰολεῦσι, καὶ Δωριεῦσι, καὶ Λάκωσι, καὶ Βοιωτοῖς.

Translate the above, and explain why the Digamma was always called the *Æolic* Digamma.

17. The name Digamma was given from its shape—what was its proper name as a *distinct* letter of the Alphabet, and which place did it occupy both in the *Greek* and *Latin* Alphabets?

18. How may Homer's *irregularity* in using the Digamma in the *same* words, be explained?

19. State some of the arguments which are advanced to prove that the Iliad and Odyssey are not by the *same hand*, and write down some of the changes in the *forms* of words which occur in the Odyssey.

20. Is the system of *Apotheosis* introduced into the Iliad?

21. Which *Mood* do the two poems *agree* in using after ἐπὴν and other adverbs, and is such usage according to regular Grammar?

22. Why may the language of Homer appropriately be termed *Ionico-Æolic*?

23. Translate the following passages:—

(I.) τεύχεα δ᾽ Ἕκτωρ
Δρώσας ἀπέδυσε πελώρια, θαῦμα ἰδέσθαι,
Καλά.—82-84.

   (*a*) From what does δρώσας come?

   (*b*) Give derivation of πελώρια.

   (*c*) What argument is deduced from Homer's usage of the word καλὸς to prove him *anterior* to Hesiod?

(II.) Ἄλλου δ᾽ οὔ ζην οἶδα, τεῦ ἂν κλυτὰ τεύχεα δύω,
Εἰ μὴ Αἴαντός γε σάκος Τελαμωνιάδαο.—192-193.

   (*a*) How has *inaccuracy* been attributed to Homer from the above?

   (*b*) In what dialect is τεῦ used, and for what is it written?

   (*c*) Give the gen. sing. of σὺ in the *Attic, Ionic, Doric* and *Æolic* dialects.

(III.) Ἀμφὶ μάλα φράζεσθε, φίλοι.—254.

(IV.) Καὶ μὲν δή πού τις μέλλει βροτὸς ἀνδρὶ τελέσσαι,
Ὅσπερ θνητός τ᾽ ἐστὶ, καὶ οὐ τόσα μήδεα οἶδε·
Πῶς δὴ ἔγωγ᾽, ἥ φημὶ θεάων ἔμμεν᾽ ἀρίστη,
Ἀμφότερον, γενεῇ τε, καὶ οὕνεκα σὴ παράκοιτις
Κέκλημαι, σὺ δὲ πᾶσι μέτ᾽ ἀθανάτοισιν ἀνάσσεις,
Οὐκ ὄφελον Τρώεσσι κοτεσσαμένη κακὰ ῥάψαι ;
362-367.

  (a) In line 3, by what Rule is δὴ short—what is the
      exception?

  (b) Why is not the a in θεάων short before ω?

  (c) When does a vowel naturally short, frequently form
      the *first* syllable of a foot?

  (d) When ought καὶ not to be the first syllable of a foot?

(V.) Ἄρκτον θ᾽, ἥν καὶ ἄμαξαν ἐπίκλησιν καλέουσιν,
Ἥ τ᾽ αὐτοῦ στρέφεται, καί τ᾽ Ὠρίωνα δοκεύει·
Οἴη δ᾽ ἄμμορός ἐστι λοετρῶν Ὠκεανοῖο.—487-489.

  (a) By *Ovid* the constellation Ἄρκτος is called "*Parrha-
      sis Arctos.*"—TRIST. I. 3, 48.
      Virgil calls it "*Claramque Lycaonis Arcton.*"—
      GEORG. I. 138.
      Explain these two epithets.

  (b) What other constellations always remain above the
      horizon in the latitude of Troy?

  (c) As the science of Astronomy was in an advanced
      state in the time of the Trojan war, how has the
      assertion of Homer in the last line been explained?

  (d) What is meant by the expression Ὠρίωνα δοκεύει?

(e) In navigation, how were the *Ursa Major* and *Ursa Minor* differently used by the *Phœnicians* and *Greeks?*

(VI.)   Ἐν δ᾽ ἐτίθει τέμενος βαθυλήϊον· ἔνθα δ᾽ ἔριθοι
"Ημων, ὀξείας δρεπάνας ἐν χερσὶν ἔχοντες·
Δράγματα δ᾽ ἄλλα μετ᾽ ὄγμον ἐπήτριμα πίπτον ἔραζε,
"Αλλα δ᾽ ἀμαλλοδετῆρες ἐν ἐλλεδανοῖσι δέοντο.
Τρεῖς δ᾽ ἄρ᾽ ἀμαλλοδετῆρες ἐφέστασαν· αὐτὰρ ὄπισθε
Παῖδες δραγμεύοντες, ἐν ἀγκαλίδεσσι φέροντες,
Ἀσπερχὲς παρέχον· βασιλεὺς δ᾽ ἐν τοῖσι σιωπῇ
Σκῆπτρον ἔχων ἑστήκει ἐπ᾽ ὄγμου, γηθόσυνος κῆρ.
550-557.

(a) What is the proper signification of ἔριθος—from the sense in which it is here used by Homer, from what has it been derived?

(b) Give derivation of ἀμαλλοδετῆρες.

(c) In what *other* ways is ἐλλεδανοῖσι written, and what is its derivation?

(d) What form is more *usual* than ἀγκαλίδεσσι?

(VII.)   Τοῖσιν δ᾽ ἐν μέσσοισι πάϊς φόρμιγγι λιγείῃ
Ἱμερόεν κιθάριζε· λίνον δ᾽ ὑπὸ καλὸν ἄειδε.—569-570.

(a) Give the *three* interpretations of the word λίνον, and specify that which is adopted by Heyne.

(VIII.)   Ἐν δὲ χορὸν ποίκιλλε περικλυτὸς Ἀμφιγυήεις,
Τῷ ἴκελον, οἷόν ποτ᾽ ἐνὶ Κνωσσῷ εὐρείῃ
Δαίδαλος ἤσκησεν καλλιπλοκάμῳ Ἀριάδνῃ.
"Ενθα μὲν ἠΐθεοι καὶ παρθένοι ἀλφεσίβοιαι
Ὡρχεῦντ᾽, ἀλλήλων ἐπὶ καρπῷ χεῖρας ἔχοντες·
Τῶν δ᾽ αἱ μὲν λεπτὰς ὀθόνας ἔχον, οἱ δὲ χιτῶνας

Εἵατο εὐνήτους, ἧκα στίλβοντας ἐλαίῳ·
Καί ῥ' αἱ μὲν καλὰς στεφάνας ἔχον, οἱ δὲ μαχαίρας
Εἶχον χρυσείας ἐξ ἀργυρέων τελαμώνων.—590-598.

(a) What two dances has Homer joined in this description?

(b) By whom was the custom of men and women dancing *together*, introduced?

(c) What is the allusion in the term Δαίδαλος?

(d) Why is 'Αριάδνῃ the dat. case?

24. What model has been supposed to have given Homer the idea of such a shield?

25. How has the objection, that so much could not be comprised on one shield, been answered?

26. What are the arguments of Heyne, that the whole passage, descriptive of the shield, is an interpolation?

27. What other Poets have imitated this passage of Homer?

28. Distinguish between—

ἵκᾶνον	and	ἵκᾱνον.
εανος, adj.		εανος, subs.
ὦμος		ὠμός.
οἶος		οἷος.
λᾶυς		λαός.
κυάνεος in Epic Poetry		κυάνεος in Iambic Verse.
λίγυς		λιγύς.
εἶος		διός.
πάρα		παρά.

L I V Y.

BOOK IX. CH. 17, 18, 19.

I. What, originally, were the motives to historical composition?

II. What event (A. U. C.) proved destructive to the archives at Rome? and how did it affect the character of subsequent chronicles?

III. State what you know respecting the *Annales Maximi, Leges Regiæ, Fœdera Regum,* and *Libri Lintei.*

    (*a*) What were the *Memoirs of the Censors,* and how objectionable as materials for genuine history?

IV. In what respect does the character of these records, as the basis of early Roman history, affect its *authenticity,* and in what not?

V. What striking difference do you remark between the historical compositions of Greece and Rome?

VI. Where was Livy born and educated?

    (*a*) Whence did his native city acquire its name? (*b*) In what territory was it situated, and who was its reputed founder? (*c*) Of what rank was Livy's family? (*d*) What put a period to his residence at Rome? (*e*) Where did he die, and at what age? (*f*) What proof did he receive of the veneration in which he was held, as an author.

out of Italy? (*g*) Which of the Roman Emperors was supposed to have been his pupil?

VII. In his *first* Book, Livy says (of the temple of Janus): " Bis post Numæ regnum clausus fuit: semel, T. Manlio Cos. post primum Punicum perfectum bellum: iterum, quod nostrâ ætate Dii dederunt ut videremus, post bellum Antiacum." Determine, nearly, by help of the above extract, the date A. U. C. at which Livy *began* to write.

(*a*) How many years from this time was he occupied with his history?

VIII. What events would be related in the order of Livy's narrative, in the *hiatus* between the 1st and 3d Decades?

(*a*) How many books remain in all—how many have been lost? (*b*) At what point does the history, as we have it, stop, and to what period was it originally completed? (*c*) In what part of Livy are his *obsolete* phrases found? (*d*) What probably was his object in using them? (*e*) Quote the well-known criticism of Asinius Pollio upon Livy. (*f*) Does it apply to the sentiments, to the style, or to the diction of the historian? (*g*) Can you verify it by instances? (*h*) What term is applied to inelegant and ungrammatical *Greek?*

IX. " Referre in tanto rege piget superbam mutationem vestis, et desideratas humi jacentium adulationes, etiam victis Macedonibus graves, nedum victoribus: et fœda supplicia, et inter vinum et epulas cædes amicorum, et vanitatem ementiendæ stirpis."

(*a*) Translate and explain the allusions in the above. (*b*) *Mutationem vestis.* Mention an eminent Greek, prior to Alexander, of whom the same thing is recorded. (*c*) What is the syntax of

piget and *humi*? (*d*) What is the Greek term expressed by *adulatio*? (*e*) Of what is *nedum* an abbreviation?

X. "Id vero periculum esset, ne adversus quem Athenarum, in civitate fractâ Macedonum armis, cernente tum maximé prope fumantes Thebarum ruinas, concionari liberé ausi sint homines, adversus eum nemo ex tot proceribus Romanis vocem missurus fuit."

(*a*) Correct the errors in the text, and translate the above. (*b*) *Adversus quem.* What opprobrious appellation was bestowed upon him by Demosthenes? (*c*) *Fractâ.* By whom, where, and when B. C.? How soon after was Thebes destroyed? What was left standing amidst its ruins? (*d*) What trait in Alexander's character is indicated in that circumstance, and how was it otherwise exemplified? (*e*) What is the figure of speech in *periculum*? Write it in Latin, with the quantity marked.

XI. "Miremur, cum ex hâc parte secula plura numerentur, quám ex illâ anni, plus in tam longo spatio quam in ætate tredecim annorum, fortuna variaverit."

(*a*) Translate; explain *hac parte*; *illâ*; *tredecim annorum*; *in tam longo spatio*; and compute the *secula.* When did Alexander die B. C. and A. U. C.?

XII. "Equidem cúm * * * * * primo Punico bello classibus certatum cum Poenis recordor, vix ætatem Alexandri suffecturam fuisse reor ad unum bellum."

(*a*) The asterisks denote the omission of so many words stating the duration of the first Punic war: supply them, and give the date of its commencement, B. C. (*b*) Mention the Roman who enjoyed the first naval triumph. (*c*) Explain *unum bellum.*

XIII. Translate the following passages (1 and 2).

(1) "Hannibal *ab Druentiâ campestri* maximé itinere cum bonâ pace ad Alpes incolentium ea loca Gallorum pervenit. Tum, quamquam famâ priús (quâ incerta in (*a*) majus vero ferri solent) præcepta res erat, tamen ex propinquo visa montium altitudo, nivesque cœlo propé (*b*) immixtæ, tecta informia imposita rupibus, pecora jumentaque torrida frigore, homines (*c*) intonsi et inculti, animalia inanimaque omnia rigentia (*d*) gelu; cœtera visu, quam dictu fædiora, terrorem renovarunt."

> (*a*) Give the Syntax of *in majus vero*—(*b*) the roots of *immixtæ*, (*c*) *intonsi* and *inculti*,—the class of nouns to which *gelu* belongs, and the primary formation and derivation of *jumenta*.

(2) "*Nono die in jugum Alpium* perventum est, per invia pleraque et errores, quos aut ducentium fraus, aut, ubi fides iis non esset, temeré initæ valles a conjectantibus iter, faciebant. ... Fessis tædio tot malorum nivis etiam casus, occidente jàm sidere Vergiliarum, ingentem terrorem adjecit. ... Prægressus signa Hannibal in *promontorio* quodam, unde longé ac late prospectus erat, consistere jussis militibus Italiam *ostentat*."

> (*a*) State the difficulties as to time and geography involved in the expressions printed in italics in both the above passages, and remove them, as far as possible, by describing in your Map (XVI.) a different line of march.

> (*b*) *Sidere Vergiliarum*—Why so called? How many were there of them, by what other name known, and on what day of the year did they set?

XIV. "Tetra ibi luctatio erat ut a lubricâ glacie non recipiente vestigium, et in prono citius pede se fallente, et seu manibus in assurgendo, seu genu se adjuvissent, ipsis adminiculis prolapsi iterum corruebant; nec stirpes circà radicesve, ad quas pede aut manu quisquam eniti posset, erant. Ita in levi tantum glacie tabidâque nive volutabantur. Jumenta secabant interdum, et jam tum infimam ingredientia nivem, et prolapsa jactandis graviùs in continendo ungulis, penitùs perfringebant: ut pleraque, velut pedicâ capta, hœrerent in duratâ et altè concretâ glacie." Translate as closely as possible.

> (*a*) Mark the quantity of the penult in *lubrica, radices, eniti, levi,* and *pedica.* (*b*) What is the root of *concretâ?* (*c*) Give illustrations in Greek and English of the use of *quisquam* here.

XV. "Inde ad rupem muniendam milites ducti, quum cœdendum esset saxum, arboribus circa immanibus dejectis detruncatisque struem ingentem lignorum faciunt eamque succendunt. Quatriduum circa rupem consumptum, jumentis propé fame absumptis; nuda enim feré cacumina sunt, et si quid est pabuli, struunt nives."

> (*a*) Point out an inconsistency in this passage.

XVI. Draw a map shewing the direction of the march across the Alps according to Livy—commencing from the left bank of the Rhone.

> (*a*) To which of the accounts, by Livy and Polybius, of the Alpine Passage, ought the greater credit to attach? State briefly upon what grounds.

> (*b*) To what circumstance is it owing, that there is any doubt whatever as to the course described by Polybius to have been taken by Hannibal and his army?

THUCYDIDES.—BOOK I.

THE PRINCIPAL.

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1. Mention the principal Greek Historians before and after Thucydides.

2. Give the received date of his birth in Olympiads and years B. C., and subjoin the rule for converting the dates of the one mode of computation into those of the other.

> (*a*) What was the cause of his banishment?
>
> (*b*) Where did he pass the period of his exile, and why there?
>
> (*c*) What doubts regarding the age at which he died, and the place of his burial?
>
> (*d*) What internal evidence that he survived the war?

3. What circumstance is said to have induced him to apply himself to historical composition?

> (*a*) The truth of this has been questioned—on what grounds?
>
> (*b*) What is the chief characteristic of his style?
>
> (*c*) By whom were his writings taken as a model?
>
> (*d*) At what period does the history break off?
>
> (*e*) By whom was it continued?

4. What were the real and ostensible causes of the Peloponnesian war?

    (*a*) It was a struggle not merely for power, but for political principles.

    (*b*) Mention the principal leaders at Athens during its continuance, and give an outline of their characters.

    (*c*) Compare the power of Athens and Sparta at the commencement of the war.

5. Athens, Sparta, Thebes and Macedon successively held the supremacy in Greece—state the battles, to which you would trace the rise and fall of the power of each.

6. Give the dates of the following events—Battle of Platæa, death of Pausanias, naval victory of the Corcyreans, exile of Thucydides, the 50 years' peace, defeat of the Athenians in Sicily, battles of Arginusæ and Ægospotamos, and expulsion of the tyrants by Thrasybulus.

7. Translate from πᾶσα γὰρ ἡ Ἑλλας—to κατέστησαν.— Chap. 6.

    (*a*) What part of Greece was originally called Hellas?

    (*b*) Who were the sons of Hellen?

    (*c*) Explain the expression ἐν τοῖς πρῶτοι.

    (*d*) Paraphrase the words ἀνειμένῃ τῇ διαίτῃ.

    (*e*) Why was the grasshopper selected as an ornament?

    (*f*) What derivation has been given for κρωβύλος?

    (*g*) ξυγγενὲς—how were they connected?

    (*h*) What were the two principal parts of the Lacedæmonian dress?

    (*k*) Quote passages noticing its simplicity.

8. Translate from καὶ οὐχ ἧσσον λῃσταὶ—to παρ' ἀλλήλους. —Chap. 8.

   (a) Give the other degrees of ἧσσον.

   (b) ᾤκησαν is another reading for ᾤκισαν—what is the difference in signification?

   (c) What is meant by the purification of Delos?

   (d) By whom had it been purified before the time referred to in this passage?

   (e) What is the adjoining island, to which the inhabitants of Delos were removed, to prevent defilement of the sacred island?

   (f) The Carians had a peculiar claim to the burial of arms with their dead warriors.

   (g) What was the object of this custom?

   (h) In what did the Phœnician and Carian modes of interment differ?

   (k) Explain and illustrate the words πλοϊμώτερα ἐγένετο.

9. Translate from καὶ φανερὸν μὲν εἶχον οὐδὲν—to ξυγκατεργάσωνται.—Chap. 132.

   (a) What are the Attic forms of ἅτινα, ὧντινων, and οἷστισι?

   (b) What is the Greek term for the office, which Pausanias held, as guardian and regent?

   (c) Mention other instances of guardians of Spartan kings during their minority.

   (d) Πλείσταρχον—ἐπετρόπευε—is this the usual construction?

(e) What interpretations have been given of the words μὴ ἴσος βούλεσθαι εἶναι τοῖς παροῦσι?

(f) What is the Homeric name of Delphi?

(g) Give an illustration of Athenian jealousy as to the inscription of the name of the General.

(h) The effacing of the inscription by the Lacedæmonians was not voluntary—what was the cause?

(k) What derivations have been given for the name Εἵλωτες?

(l) What distinctions between them and the Periœci?

(m) What were their duties?

(n) In what capacity did they serve in war?

(o) In what proportion to the number of Spartan soldiers?

(p) What class was denoted by the term Mothones?

(q) What reason for believing that the Helots were not legally disqualified for becoming πολῖται?

10. Translate from ἀκούσαντες δὲ ἀκριβῶς—to παραχρῆμα.—Chap. 134.

(a) To whom has the institution of the office of ephor been ascribed?

(b) What was the original duty of these officers, from which the name is derived?

(c) Mention the principal things, to which their authority subsequently extended.

(d) Paraphrase and explain ἐποιοῦντο.

(e) τῆς Χαλκιοίκου — What deity bore this name? Whence derived? What is the most probable explanation of the chapel being *of brass?*

(*f*) What is the difference between τέμενος, ἱερὸν, and ναὸς?

(*g*) οἴκημα does not denote the temple—why not?

(*h*) For what purpose did they unroof the building?

(*k*) Explain the words ὥσπερ εἶχεν.

11. Translate μέχρι τοῦδε—τὴν ταύτῃ ἤπειρον—ὁμοιότροπα διαιτώμενον—ἐν τῷ καθεστηκότι τρόπῳ—οὐκ ἐπ᾽ ἀγαθῷ τὴν μονὴν ποιούμενος—διαπραξάμενος ὕστερον ἐξῆλθε—ἀπὸ παρασκευῆς—αἰτιωμένου τοῦ ἀνθρώπου τά τε περὶ αὐτοῦ γραφέντα, καὶ τἄλλ᾽ ἀποφαίνοντος καθ᾽ ἕκαστον, ὡς οὐδὲν πώποτε αὐτὸν, ἐν ταῖς πρὸς βασιλέα διακονίαις παραβάλοιτο, προτιμηθείη δ᾽ ἐν ἴσῳ τοῖς πολλοῖς τῶν διακόνων ἀποθανεῖν.

12. Give the geographical position of the Locri Ozolæ, Scaptesyle, Ætolia, Acarnania, Hermione, Eretria, Platæa, and Tænarus.

13. Three ages of the Attic dialect have been distinguished.

14. Mention the principal writers in Æolic, Doric, and Ionic.

15. How do you explain the circumstance that Herodotus, although a Dorian, wrote in Ionic?

16. Distinguish the cases in which αὐτος signifies *self*, *he she* or *it*, and *the same*.

(*a*) οὐ and μή—which of these negatives is used in prohibitions?

(*b*) Distinguish between the use of οὐδείς and μηδείς.

(*c*) Translate πιστέον ἐστὶν αὐτῷ and πιστέον ἐστὶν αὐτόν.

(*d*) What mood or tense follows ὅπως, when it relates to the future?

(e) Elmsley distinguishes between the use of οὐ μή with the future, and with the subjunctive. How should this canon be modified?

(f) What is Dawes' limitation as to verbs used with ὅπως and οὐ μή?

(g) What distinction between the signification of μή with imperative pres. and subjunct. aor.?

(h) What—of μὴ and μὴ οὐ after verbs of fearing?

(k) How is this distinction expressed in Latin?

MATHEMATICS.

PLANE GEOMETRY.

THE PRINCIPAL.

1. "*From a given point to draw a straight line equal to a given finite straight line.*"

    (*a*) Give solutions of this problem, when the point is joined with the adjacent, and with the remote extremities of the given line, and when the equilateral triangle is constructed on either side of the joining line.

    (*b*) In general—what should you take as centre of the first circle? what of the second? and of what two parts should the radius of the second be composed?

2. "*The angles at the base of an isosceles triangle are equal to one another.*"

    (*a*) Prove the above without producing the equal sides.

3. What data necessary to establish the equality of two triangles?

4. If the line, which bisects the vertical angle of a triangle, bisect the base, the triangle is isosceles—prove by 1st and 6th Books.

5. "*In a parallelogram the complements of the parallelograms about the diagonal are equal.*"

    (*a*) Prove from the above that if in a right angled triangle a perpendicular be drawn from the right angle to the hypotenuse, the square of that perpendicular is equal to the rectangle contained by the segments of the hypotenuse.

    (*b*) Prove this also from the 47th, Ist Book, and from the IId Book.

6. "*In a right angled triangle, the square, which is described upon the side, subtending the right angle, is equal to the squares described upon the sides, which contain the right angle.*"

    (*a*) This is only a case of a more general proposition.

    (*b*) If a perpendicular be drawn from the vertex of a triangle to the base, the difference of the squares of the sides is equal to the difference of the squares of the segments.

7. The rectangle under the sum and difference of two lines is equal to the difference of their squares.

8. By what quantity does the difference of the squares of two lines, exceed the square of their difference?

9. What is the difference between the square of the sum of two lines, and the sum of the squares of two lines?

10. Prove geometrically that the square of the arithmetic mean is equal to the rectangle under the extremes together with the square of the common difference.

11. If the three sides of a triangle be bisected by right lines drawn from the opposite angles, the sum of the squares of the bisecting lines is equal to three times the squares of the half sides.

12. Given the sides of a triangle 11, 13 and 20 feet, find the area.

13. "*To construct a square equal to a given rectilinear figure.*"

    (*a*) Given the difference of the squares of two lines, and the rectangle under them, find the lines.

14. Inscribe in a given circle a chord of a given length, and that shall pass through a given point within the circle.

    (*a*) What conditions requisite to render this in every case possible?

15. Given the base, vertical angle, and the point in the base, on which the perpendicular from the vertical angle falls, construct the triangle.

16. Given the base, vertical angle and altitude, construct the triangle.

17. Explain *permutation, inversion, composition, division and conversion of ratios.*

18. What data necessary to establish the similitude of two triangles?

19. The rectangle under two lines is a mean proportional between their squares.

20. "*In a right-angled triangle, if a perpendicular be drawn from the right angle upon the opposite side, it divides the triangle into parts similar to the whole and to each other.*"

    (*a*) If the base of a triangle, the two sides, and the perpendicular be four proportionals, the triangle is right angled.

(*b*) If in any triangle right lines be drawn from the vertex, making with the base angles equal to the vertical angle, each of these lines is a mean proportional between the segments of the base intercepted between them and its extremities, and each of the sides is a mean proportional between the base and its conterminous segment.

21. Given the base, vertical angle, and ratio of the sides, construct the triangle.

22. Given one of three lines in continued proportion, and the difference of the other two, find the other two.

23. If a line be drawn bisecting the vertical angle of a triangle, the rectangle under the sides is equal to the square of that line, together with the rectangle under the segments of the base.

24. " *To cut a given finite right line in extreme and mean ratio.*"

(*a*) Construct a right angled triangle, whose sides shall be in geometrical progression.

ARITHMETIC AND ALGEBRA.

MR. MAYNARD.

(1.) Required the value of $\frac{1}{2}+\frac{1}{3}-\frac{3}{4}$ of $5\frac{1}{2}+\frac{1}{8}-\frac{1}{12}+2\frac{1}{3}-\frac{1}{16}$.

(2.) Add together $1\frac{1}{2}$ of $\frac{1}{3}$ of a week, $\dfrac{1\frac{1}{3}+\frac{3}{4}}{2\frac{1}{4}+\frac{1}{8}}$ of a day, and $\frac{3}{4}$ of $\frac{1}{2}$ of $\frac{1}{16}$ of an hour.

(3.) Determine the cube root of 113379904.

(4.) How much carpeting $\frac{3}{4}$ yards wide will cover a floor $22\frac{1}{4}$ feet by $18\frac{1}{6}$ feet?

(5.) Required the value of $.16248248$, &c. *ad infinitum*.

(6.) Reduce to lowest terms $\dfrac{(a^5-b^5)\cdot(a^3+a^2b+ab^2+b^3)}{(a^4-b^4)\cdot(a^4+a^3b+a^2b^2+ab^3+b^4)}$

(7.) When are $a^n\pm b^n$ divisible by $a\pm b$? write down the quotients arising from the division, and thence determine the several factors of x^8-a^8.

(8.) Determine the first eight terms of the expansion of $\dfrac{a}{(a^2-x^2)^{\frac{1}{3}}}$, the pth terms of $\dfrac{1}{(1\pm x)^{\frac{1}{n}}}$, the 8th term of $(a+b)^{12}$, and the sum of its co-efficients.

(9.) Determine the values of x in the following equations:

(a.) $(\sqrt{x}+28) \cdot (\sqrt{x}+6) = (\sqrt{x}+38) \cdot (\sqrt{x}+4)$.

(β.) $\sqrt{x}+ \sqrt{a+x} = \dfrac{na}{\sqrt{a+x}}$.

(γ.) $x - \dfrac{x^3-8}{x^2+5} = 2$.

($\hat{c}$.) $\dfrac{\sqrt{a^2+x^2}+x}{\sqrt{a^2+x^2}-x} = \dfrac{b}{c}$.

(ε.) $x+y = 6$.
$x^5+y^5 = 1056$.

(10.) A and B fire by turns at a target, A puts in 3 balls out of 7, and B puts in 2 out of 5—How many times must each fire, to put in 29 balls between them?

(11). A person being asked the hour, answered, It is between 5 and half-past, the hands being at an angle of 30° from each other: what was the time?

(12.) Required the sum of $\begin{cases} \frac{1}{2}, & \frac{1}{3}, & \frac{2}{6}, & \&c. \\ \sqrt{\frac{3}{2}}, & \sqrt{\frac{2}{3}}, & \frac{2}{3}\sqrt{\frac{2}{3}}, & \&c. \end{cases} \Big\}$ *ad infinitum.*

(13.) Insert 6 geometric means between $\frac{1}{2}$ and $\frac{1}{128}$.

(14.) Determine the arithmetic, geometric and harmonic means, between two magnitudes a and b, and show that the arithmetic mean is greater than the geometric, and the geometric greater than the harmonic.

(15.) If the arithmetic mean between a and b be twice as great as the geometric mean, show $a : b = 2+\sqrt{3} : 2-\sqrt{3}$.

(16.) There are 4 numbers, the first 3 of which are in arithmetical progression, and the last 3 in harmonical—prove that the products of the extremes and means are equal.

(17.) A man, who has four sons, digs an acre of ground in $8\frac{1}{2}$ hours, when the youngest is absent—It is required to determine the times of performing the same jointly and separately, together with the several proportions of labour, the father being half as strong again as his eldest son, and the same relation existing throughout.

(18.) How many different sums may be formed with a guinea, a half-guinea, a crown, a half-crown, a shilling, and a six-pence?

(19.) From a company of 50 men, 4 are drafted off every night to guard; on how many different nights can a different guard be posted, and on how many of these will any particular soldier be engaged?

(20.) Required a multiplier which shall render $a^3 + a^2b + ab^2 + b^3$ a rational quantity.

(21.) Required the square roots of $7 + 4\sqrt{3}$; $11 - 6\sqrt{2}$; and $32 + 10\sqrt{7}$.

(22.) Express 2577 in the quinary scale of notation, and determine the radix of that scale in which 562 is expressed by 20302.

(23.) Suppose a person had no other weights than 1 oz. 2 oz. 4 oz. 8 oz. &c., what weights must be selected from among these to balance 1719lbs.?

(24.) Suppose the coinage of the realm consisted of shillings, 3-shilling pieces, 9-shilling pieces, &c., how could A pay B £19 6s., employing only one of each coin?

LOGARITHMS, TRIGONOMETRY, CONIC SECTIONS.

MR. MAYNARD.

(1.) Define a logarithm, and prove—

(a.) $\text{Log.}_a NN' = \log._a N + \log._a N'$.

(β.) $\text{Log.}_a \dfrac{N}{N_I} = \log._a N - \log._a N'$.

(γ.) $\text{Log.}_a N^m = m \log._a N$.

(2.) Determine the rule for the characteristic; explain briefly the advantage of Brigg's system, where the base is the radix of the common scale of notation; and if (n) be the number composed of the first 4 digits of the number (N), (x) the fifth digit and D the tabular difference,

prove $\log._{10} N = 1 + \log._{10} n + \dfrac{x \cdot D}{10}$.

(3.) Required the value of $\dfrac{\sqrt[8]{625} \cdot \sqrt[3]{16} \cdot \sqrt[4]{48}}{\sqrt{3625} \cdot \sqrt[6]{4864}}$; and the

amount of £1200, put out to compound interest at 6 per cent. for 10 years, the interest being converted into principal every half year.

(4.) Describe the process in use for securing a natural and invariable standard of linear measure; and state how linear, superficial and solid magnitudes are expressed.

(5.) Define the several Trigonometrical functions, and describe their use as a medium of comparison between the lengths of the sides and the expanse of the angles of plane rectilinear figures.

(6.) Describe the various measures of angular magnitude. If ϕ and ε represent respectively the number of foreign and English divisions in the same angle—prove $\phi = \varepsilon + \dfrac{\varepsilon}{9}$, and $\varepsilon = \phi - \dfrac{\phi}{10}$, and apply these equations to express $25^g\ 45'\ 35''$ in the English and $24°\ 15'\ 45''$ in the foreign scale.

(7.) Given r and r', the radii of two circles, show $\underset{r}{\text{Sin. }}\phi° = \dfrac{r}{r_{\prime}}\underset{r'}{\text{sin. }}\phi°$; and adapt the formula $c^2\ \underset{c}{\text{sin. }}3\phi + 4\ \underset{c}{\text{sin. }}{}^3\phi - 3\ c^2\ \underset{c}{\text{sin. }}\phi = 0$ to radius unity.

(8.) Trace the sine and cosine through the several quadrants of the circle, illustrate the various positions of the several functions by means of a figure, and express the *sine* in terms of the *cosine, versed sine, chord, tangent, cotangent, cosecant,* successively.

(9.) Prove the following formulæ:

(*a.*) $\begin{cases} \text{Sin. } (\phi \pm \phi') = \text{sin. } \phi \cdot \text{cos. } \phi_{\prime} \pm \text{cos. } \phi \cdot \text{sin. } \phi_{\prime} \\ \text{Cos. } (\phi \pm \phi_{\prime}) = \text{cos. } \phi \cdot \text{cos. } \phi_{\prime} \mp \text{sin. } \phi \cdot \text{sin. } \phi_{\prime} \end{cases}$

(β.) $1 + \text{cos. } 2a = 2\ \text{cos. }{}^2 a.$

(γ.) $1 - \text{cos. } 2a = 2\ \text{sin. }{}^2 a.$

(δ.) $\dfrac{\text{Sin. } a + \text{sin. } \beta}{\text{Sin. } a - \text{sin. } \beta} = \dfrac{\text{tan. } \dfrac{a+\beta}{2}}{\text{tan. } \dfrac{a-\beta}{2}}.$

(ε.) Tan. $4a = \dfrac{4 \text{ tan. } a - 4 \text{ tan. }^3 a}{1 - 6 \text{ tan. }^2 a + \text{tan. }^4 a}$.

(10.) Show $\begin{cases} \text{Sin. } (n+1)a = 2 \sin. na . \cos. a - \sin. (n-1)a \\ \text{Cos. } (n+1)a = 2 \cos. na . \cos. a - \cos. (n-1)a \end{cases}$
and thence deduce the values of Sin. $3a$, cos. $3a$, in terms of Sin. a and cos. a.

(11.) Determine the numerical values of the sine, cosine, tangent, and secant of 30°, 45°, 60°; explain briefly the method of constructing the Trigonometrical Canon, and prove Euler's and Legendre's formulæ of verification.

(12.) If a, b, c, and A, B, C, be respectively the sides and angles of a plane triangle, then—

(a) $\dfrac{a}{b} = \dfrac{\text{sin. } A}{\text{sin. } B}$, $\dfrac{b}{c} = \dfrac{\text{sin. } B}{\text{sin. } C}$, $\dfrac{a}{c} = \dfrac{\text{sin. } A}{\text{sin. } C}$.

(β.) Cos. $A = \dfrac{b^2 + c^2 - a^2}{2bc}$.

(γ.) Sin. $A = \dfrac{2}{bc} \sqrt{p . (p-a . (p-b) . (p-c)}$ $(2p = a+b+c)$

(13.) Determine the area of a plane triangle, together with the radii of the inscribed and circumscribed circles, in terms of the sides.

(14.) If a be a very small arc, prove tan. $a = a = \text{sin. } a$ very nearly.

(15.) Given the radius (r) of a circle, determine the perimeter and area of the regular polygons of n sides inscribed and circumscribed about it, thence deduce that of the

circle and apply the expressions to determine the perimeter and area of a circle whose radius is 16 miles.

$$\left(\frac{\text{Circumference}}{\text{Diameter}}=3.1416\right).$$

(16.) Explain the construction and use of the quadrant, theodolite, scales of equal parts and of chords, and describe the method of drawing an angle of any given magnitude, or of estimating that of any given angle.

(17.) Given two sides of an oblique angled triangle, with an angle opposite one of them, solve the triangle and explain the possible ambiguity to which the solution may be liable.

(18.) Given two sides and the included angle, solve the triangle and show how the third side may be determined independently of the angles, and apply it to the case in which $a=874.56$, $b=859.56$, $\angle C=91°$, $58'$, $10''$.

(19.) Wishing to ascertain the height of a balloon, and observing the air calm, I measured the angle of altitude at a given spot and found it to be 47°; receding thence in a direct line, to a distance of 320 yards from the first station, I again took the angle, which I found to be 36°; what was the height of the balloon?

(20.) A party of seamen and marines being dispatched in boats to effect a landing between two forts, situated on the enemy's coast, separated to a distance of 600 yards, and running in along shore as near to the intermediate point as possible, the officers in command observe the angles formed between the forts to be 37° and 45°, 15'. The angles between either position and the more distant fort

are next taken and found to be 58°. $10'$, and 53°. $20'$—might the landing be effected with comparative safety, the point-blank range not exceeding 400 yards?

(21.) Two objects A and B were observed to be at the same instant in a line inclined at an angle of 15° to the east of a ship's course, which was at the time due north. The ship's course was then altered, and after sailing 5 miles in a N. W. direction, the same objects were observed to bear E. and N. E. respectively. Required the distance of A from B?

(22.) A vessel observed another a° from the north, sailing in a direction parallel to its own. In p hours its bearing was β° and in q hours afterwards γ° from the north. To what point of the compass were the vessels sailing?

(23.) Define a parabola, its *focus, axis, directrix, abscissa, ordinate, latus rectum, normal* and *parameter*, and show—

(a.) That $SP = AN + AS$

(β.) $\qquad SP = ST$

(γ.) $\qquad SP = SG$

(δ.) $\qquad NG = 2 AS$

(ϵ.) $\qquad NT = 2 AN$

(ζ.) $\qquad 4 AS . AN = NP^2$

(24.) Define an ellipse, its *foci, centre, axes, latus rectum, diameters, conjugates, normal,* and *directrix,* and show—

(a.) $SP + HP = AM$

(β.) $AC^2 - SC^2 = BC^2$

(γ.) $SP = \dfrac{BC^2}{AC - SC . \cos PSN}$

(δ.) $AC . SL = BC^2$

MECHANICS.

THE PRINCIPAL.

1. Give examples of the three orders of levers.

    (*a*) Under which should the human arm be classed?

2. How can the real weight be found from the false balance?

3. Explain the principle, on which the graduated arm of the steel-yard is divided.

    (*a*) How can the want of a more minute division of the scale be in some degree supplied?

4. Explain the principle on which the arc is graduated in the bent-lever balance.

5. Investigate the relation between P and W in a combination of pinions and wheels, moved by an axle.

    (*a*) Deduce the ratio, requisite for equilibrium, from the number of revolutions, performed in a given time.

6. Investigate the relation between P and W in the combinations of pullies, called Spanish Burtons.

7. If AC be an inclined plane, BC its height, and AB its base, and from the right angle B, the line Bo is drawn perpendicular to the plane, and from the point C, the line Cm is drawn parallel to the direction of the sustaining force, meeting the line Bo (produced) at m, what are the expressions for S (the sustaining force) and R (the pressure)?

(a) Express these results analytically.

8. With an uniformly accelerated velocity, counted from the beginning,

$$s : s' :: t^2 : t'^2 \text{ or } :: v^2 : v'^2$$

9. Given one of the quantities s, t or v, the others may be found.

10. Give a general expression for the space described in the last n seconds of the fall.

11. The space described in the mth second, is to the space described in the mth second counted from the end : : $a : b$, find the whole space described.

12. If the body has an initial velocity v', what are the expressions for that, with which it moves at the expiration of any time t, and for s?

(a) When do you use the affirmative—when the negative sign?

13. If a rocket be projected perpendicularly upwards with the velocity of 300 feet in a second, how far will it ascend before it begins to return?

14. If a stone be thrown downwards with a velocity of 17 feet in a second, through what space will it fall in $5''$?

15. Find the expressions for the time of descent down an inclined plane and the velocity acquired, and hence show to what they are proportional in different planes.

16. The portion of the inclined plane described in the time of the fall down the vertical height, is a third proportional to the length and height.

17. A body, projected down an inclined plane describes it in the time of falling down the vertical height, find the velocity of projection.

18. A body is projected up an inclined plane with a given velocity, find how far it will ascend on the plane, and the time of ascent.

19. The times of vibration of different pendulums vary as the square roots of their lengths.

20. The time of describing a very small circular arc, ending at the lowest point, is to that of the descent down its chord, as π to 4—(the circumference of a circle to 4 times its diameter).

21. Given the daily loss of a pendulum clock, investigate the expression for the correction to be made in the length of the pendulum.

22. Given the number of seconds, which a pendulum gains in an hour at the earth's surface, find the point of elevation, at which it will keep true time.

23. The space described in $1''$, by a body falling freely from a state of rest, is to $\frac{y}{2}$ of the second's pendulum in the duplicate ratio of the periphery of a circle to its diameter.

24. Find the expressions for v and t, when the curve is the cycloid.

(a) Exhibit these results geometrically, and show that the velocity at any point varies as the ordinate of the circle raised at the corresponding point of its diameter, and the time as the circular arch cut off by that ordinate.