

these problems as by far the most difficult of any that were set in that, or in any previous examination; yet in the present day we doubt if the lowest Junior Optime would find the slightest difficulty in solving any one of them.

Problem ix. is beautifully simple when we grasp the data, and affords us a novel and interesting fact in natural history, with which we venture to assert that none of our readers were previously acquainted. These problems, however, speak for themselves, and, without any further remarks from us, will commend themselves to the notice of all true mathematical minds. Suffice it to mention in conclusion that Problem 11, apart from its intrinsic merit, is especially noteworthy from being endorsed in Mr. Pepys' hand: "To this question Isaac Newton (y^e senior wrangler) alone gave y^e correct answer, which is .0001. S. P."—Ed.

MODERATORS. { Izaak Walton, M.A., *Trin.*

{ William Barlow Humphry Villikins, M.A., *Trin.*

Wranglers.

Senior Optimes.

Junior Optimes.

<p>DS. Newton, <i>Trin.</i> Kepler, <i>Emm.</i> Barrow, <i>Trin.</i> Thompson, <i>Joh.</i> Huygens, <i>Joh.</i> { Maclaurin, <i>Trin.</i> { Taylor, <i>Clare.</i> Napier, <i>Down.</i> Harrison, <i>Corpus.</i> Milton, <i>Christ's.</i> Watts, <i>Clare.</i></p>	<p>DS. Clavius, <i>Caius.</i> { Cocker, <i>Magd.</i> { Wren, <i>Trin. II.</i> Euler, <i>Pemb.</i> Gernerius, <i>Pet.</i> Gunning, <i>Joh.</i> { Reaumur, <i>Trin. II.</i> { Boyle, <i>Down.</i> { Fahrenheit, <i>Sid.</i> { Jones, <i>King's.</i> { Robinson, <i>Cath.</i> Disraeli, <i>Trin.</i></p>	<p>DS. Dryden, <i>Jesus.</i> Burton, <i>Caius.</i> Fitzroy, <i>Trin.</i> Warren, <i>Trin.</i> A nberley, <i>Trin.</i> PEPYS, <i>Magd.</i> { Smith, <i>Emm.</i> { A. Brown, <i>Pemb.</i></p>
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Endorsed in Mr. Pepys's handwriting: "A more than usually stiff exam"; much below my place, and mightily solide. S. P."

Endorsed in Mr. Pepy's hand: "Some of the hardest problems in the exam". S. P."

PROBLEMS.

i. A very small elephant, whose weight may be neglected, balances himself upon a spherical ball whose diameter is 10 inches, which he moves with uniform velocity v up an inclined plane, inclination = a . At the same time he raises his trunk with uniformly accelerated velocity from a vertical to a horizontal position. Find the locus of the center of gravity of a fly which makes a complete revolution of the trunk in the same period.

3. A lady on being asked her age replied: "If you multiply one-seventh of the cube of half the square root of what my age was last year by three-fifths of the cube of the difference of the digits of what it will be next year; the products will be four-ninths of the square root of fifteen times the sum of the digits of what my age will be in ten year's time, divided by three-elevenths of the square of the double of the cube-root of my present age." How old was she?

ix. A moveable platform is drawn with uniform velocity round a circular path of given diameter. Upon it a walrus, whose weight is W , pirouettes with constant angular velocity α , on his left hind leg, and at the same time blinks with his right and left eye alternately, beginning with the right, at intervals which are in a given Harmonical Progression. At the centre of the circle a given hippopotamus pirouettes with uniform velocity ω , in the opposite direction on his right hind leg, with blinks with his eyes alternately, beginning with the left, at intervals which are in a given Arithmetical Progression. Supposing that they begin to blink simultaneously, investigate the probability of each of them seeing the other with his left eye alone at a given time t .

11. A speaks the truth twice out of five times, B three times out of seven, and C once out of nine times. B says that A has affirmed that C denies that D is a liar. Investigate D 's regard for veracity.

13. At an evening party, two belles are present whose attractions vary inversely as the distance, the absolute forces being u_1 and u_2 respectively. If a gentleman on entering be introduced to the one in whose case the absolute force is the least, find the time that will elapse before the more powerful attraction of the other induces him to obtain an introduction to her, the distance between the seats of the belles being given = a .

Personals.

We hear that HUGH GALE, M.D., '82, who now practising in Bad Anxe, Mich., intends taking a partner. We haven't heard the young lady's name. Add another name to the list of martyrs.

We congratulate the class of '83, in Medicine, on their choice of a Valetudinarian. They have, in J. B. LORING, a thorough representative of the class and one fully qualified to undertake the writing of a valetudinary.

We are glad to learn that W. C. COUSENS, M.D., '82, last month passed his examinations at the Edinburgh School of Medicine, receiving the degrees of L. R. C. P. and S. We tender him our congratulations. He is at present sniffing the balmy air of the South of France.

We notice by an Edinburgh paper that W. D. BRYDONE-JACK, B.A., whom

all the finals will remember as a jolly good fellow, has been elected president of the Edinburgh Canadian Students' Club. Jack, old boy, shake! We knew your Freshman year with us would be of service to you sooner or later.

A. K. McCORKILL, M.D., '82, may be consulted in East Farnham, Que. Dr. O'KEEFE, '82, is practising in Minto, Dakota.

EDMUND CHRISTIE, M.D., '82, has accepted the bonus of the citizens of Chicago and commenced practice among them.

DRS. HOWARD, B.A., THORNTON, B.A., and GRANT, all of '82, are together in England, attending the London Hospitals.

C. H. KEAYS, '82, Arts, has followed in the footsteps of his fathers and taken unto himself a wife. None of his fellow students, who had the pleasure of hearing his exposition of the law of Evolution at the Graduating dinner of '80, will doubt for a moment the success of this last enterprise. Miss Celia Capp, of Hamilton, is the happy lady. May she prove a golden lock!

R. K. McCORKILL, M.D., '82, may be consulted in East Farnham, Que.

Correspondence.

To the Editors of the MCGILL GAZETTE.

SIRS,

With regard to the Glee Club just established in the College, I would like to suggest that it have some definite object in view. There is enough musical talent in McGill to have a good concert at the end of the Session, and there is no want of City institutions in behalf of which it might be held.

I remain, &c.,

F. H.

To the Editors of the MCGILL GAZETTE.

SIRS,

Can any of the readers of the GAZETTE tell me where I may obtain Nos. one, two and three for October, November and December, respectively, of the GAZETTE for 1879. Information of where they may be obtained will greatly oblige.

W. A. DeW. SMITH,
Medical Faculty.

MONTREAL, 19th Dec., 1882.

THE NEW PROFESSION.

To the Editors of the MCGILL GAZETTE.

SIRS,—

During a recent trip in Europe, I learned that young men and educated women were studying electrical or telegraph engineering, which profession has not yet become overcrowded, and great fortunes have been made in its pursuit.

The enormous extension of the telegraph, telephone, electric light, cables, &c., into all parts of the world, will create a great demand for skilled electrical engineers.

If any of the readers of your valuable journal are interested in this new field, I will cheerfully give them any information in my power.

Yours respectfully,

HENRY GREER.

To the Editors of the MCGILL GAZETTE

SIRS,—

A third year man in Arts would like to direct the attention of the authorities to the following. In the Intermediate last spring, there were two papers on English, each consisting of ten questions; the one on the lectures of the English Professor, the other on a part of Spalding's English Literature. The candidate could choose twelve of the twenty to answer. Here's the trouble. In my opinion one can prepare the Spalding in much less time than half the time that it takes to as thoroughly prepare Prof. Moyses's lectures. So that either the student will neglect the Professor's lectures—a thing which is certainly not to be desired—or, if he wants to prepare and answer on them, be at a disadvantage in the examination with those who prepare Spalding.

'84.

The reason for setting alternative questions was that colleges affiliated to McGill University might not find themselves at a disadvantage because they were unable to furnish oral teaching. A student could, under the old regulations, obtain the maximum number of marks by showing exact knowledge of the prescribed portions of Spalding; or, again, could earn first-class standing by writing a good paper on the matter set forth in the University lectures of the second year: in such case a slight supplementary knowledge of Spalding was necessary to allow of full marks being taken. The instructions at the head of the questions made this perfectly clear. The difficulty has now been obviated by a regulation that the second year