that it will be a prime object to school the young men into the performance of the various duties of their calling, in the most expeditious and skilful manner.

We are glad to perceive that the moral and religious character of the pupils will receive watchful attention. Young men from the country are pecularly liable to be unfavourably influenced amid the temptations incident to town and city life. It will relieve parents of no small anxiety to know that their sons at the tender and susceptible periods of early youth and budding manhood will be cared for in these important respects. Participation in morning and evening devotions, regular attendance at their respective places of worship, inculcation of right principles and cultivation of good habits at such a time of life, can hardly fail to be of lasting benefit to them through all their after years.

We most sincerely hope that the Institution about to be opened for the education of our young farmers will be eminently successful and useful. We believe in agricultural training, and in schools and colleges devoted to this special purpose. Our idea is that we ought ultimately to have a central college, and a net-work of local schools of agriculture, similar to the systems pursued in Ireland and on the continent of Europe. We trust that the success attendant on the Institution about to be opened will be such as to encourage a speedy enlargement of the plan. The Government having made a beginning, it rests with the people to say whereunto it shall grow. If the opportunity now offered for obtaining an agricultural education is eagerly embraced by a large number of young men, and it is plainly to be seen that a felt want is being supplied, we have no doubt the institution will soon assume larger proportions. Of course, the establishment of a school of agriculture in this Province is very much the nature of an experiment, and it remains to be seen whether the farming community is really ripe for such an enterprise. We confess that we shall be disappointed if the response made to the action of the Government be not hearty, earnest, and encouraging. We mistake the character of the agricultural class altogether, if they are not prepared to co-operate in this undertaking with right good-will. Should such co-operation be given, we are quite sure the Government will be prepared to prosecute the scheme they have begun with a strong-handed energy and an open-handed liberality.—*London Daily Advertiser.*

COUNTY OF HASTINGS.

At a recent meeting of the Teachers' Association the following resolutions were passed.

Resolved that we adopt Worcester's Dictionary as the standard of pronunciation in the schools of South Hastings. Carried.

The Committee appointed to consider matters pertaining to education report as follows: Whereas it is desirable that our Public Schools should be made more efficient. To effect this change, 1st, it is necessary to have a larger supply of efficient teachers; 2nd, to abolish the prevailing custom (particularly in rural districts) of changing teachers every year or oftener. Regarding the first, efficient men can be induced into the profession by the same means that men of ability are secured in other avocations—by giving a fair remuneration. It is very pleasing to observe a marked improvement of late in this direction. Regarding the second, so long as teachers are changed yearly, schools will never be what they should, no matter how efficient the teachers are. The first three or four months are spent not so much in teaching as in finding out the pupils' attainments, the disposition of each, and the mode of managing them, all of which must be done before progress is secured.

At the end of the year the teacher is expected to take another school and pursue a similar course, leaving his successor to do likewise. In this way a third of the time is wasted, and worse still, the strange teacher cannot have sufficiently strong influence over his pupils to secure that diligent application necessary on their part to ensure satisfactory progress. Therefore be it resolved, that this Association humbly and respectfully suggest to the Honourable the Council of Public Instruction, that all Teachers holding Provincial Certificates or who may obtain such certificates, be the teachers of the schools to which they are appointed or to which they may be appointed, during their pleasure and good conduct.—*Ontario.*

SEX IN EDUCATION.

The question of sex in its relations to education, which has been so ably discussed by Dr. Clark, Dr. Allen, and Dr. Weir Mitchell in this country, is beginning to receive serious consideration from scientific men in Europe. Dr. Maudsley has recently published an elaborate paper in *The Fortnightly Review*, in which he treats the subject with unflinching energy, and sums up his conclusions in a manner not less resolute and determined than Mr. Herbert Spencer himself. He admits the force of the argument that much of the mental and moral difference between the sexes may be attributed to the position of subjection and dependence which woman has always occupied, but contends that when all reasonable allowance on that score has been made, there remain inherent and ineradicable differences as marked and as necessary as the complementary bodily variations of structure. He concludes with a logic which will seem merciless to some of the advocates of identical education for boys and girls, that such a system would injure women for their maternal responsibilities, and that as this is the chief duty and destination of the great majority, it would be unwise to modify our general system of education for the benefit of the exceptions. All European writers upon this subject point this moral with too frequent and sweeping references to the health of American women. They are misled by those who wrote upon this subject many years ago. Improved cooking, more rational dressing, more general attention to exercise and bodily training, have made a decided change in the appearance and the strength of American girls of the better class.

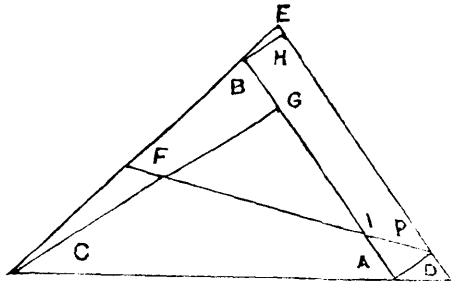
III. Mathematical Department.

Although the publication of the following solutions have been delayed for some time past, they will be found interesting to our mathematical readers. The solutions of the remaining problems will follow in due time. This department should be appreciated by teachers, as the *Journal of Education* is the only periodical in the Dominion, which publishes the solutions of mathematical problems. Due notice will soon be given to correspondents who have kindly favoured us with answers.

We respectfully invite teachers to send questions and solutions to this department.

SOLUTIONS OF SIX PROBLEMS.

6. The base of a triangle is 80, and sides containing the vertical angle are 65 and 55 perches respectively: required the length of the line drawn from a point without the triangle, 8·53 perches from the side (55), so as to cut off $\frac{5}{7}$ of the area.



$CB = 65 = f$: $AB = 55 = b$: $AC = 80 = d$; and ratio $5 : 7$ or $m + n = s = 12$.

By calculation, we find the following results:—

$BE = 9\frac{2}{7} = g$: $EP = 58{\cdot}67 = p$; $BF = x$; $AP = 8{\cdot}58$; $CG = 59{\cdot}71$; $BH = 8{\cdot}53$; $EH = 3{\cdot}67$. By similar triangles, we have, $g + x : p :: x : \frac{px}{g+x} = BI$. Then $BI \times BF : BA \times BC ::$ $m : m + n$, $\frac{px^2}{g+x} : bf :: m : s$; then, $bmf = \frac{spx^2}{g+x}$, and $spx^2 = bmfx + bmfg$, $\therefore x = 32{\cdot}6172 = BF$. Then PF the required line is easily found.

7. An iron wedge whose angle is 14° is driven into a mass of oak by a force of 125lbs.: what force necessary to extract it?

$W_1 = W \times \frac{sin.\ (31° 50' - 7°)}{sin.\ (31° 50' + 7°)}$, or $Wx \times \frac{sin.\ 24° 50'}{sin.\ 38° 50} = 125 \times \frac{419980}{627057}$

$W_1 = \cdot 66976 \times 125 = 83{\cdot}721$lbs., the required force.

8. A beam of oak 1 foot square has its end firmly embedded in masonry, from which it projects 9 feet: to what height could a wall of brickwork, 2 feet thick and resting on the beam, be carried without producing rupture!

Let a = natural length of the beam; b its depth, and c its breadth, $W = \frac{s}{3} \times \frac{cb^2}{a^2}$; s being the modulus of elasticity. Then $w = \frac{4992}{3} \times \frac{12 \times 144}{1082} = 246\frac{42}{89}$ = pressure for every inch of length of beam. Then $246\frac{42}{89} \times 108 = 26618\frac{86}{89}$lbs. sufficient to produce rupture.

$9 \times 2 \times 1 \times 112$lbs. $= 2016$lbs. $\therefore 26618\frac{86}{89} \div 2016 = 13{\cdot}203$ feet, the height to which the wall can be raised. One cubic foot of brickwork $= 112$lb.