of courses in pedagogics into the University. At their best these two schools can do but a fraction of the service the State requires in the education of teachers." Prof. W. H. Payne has been the lecturer.

Most of our readers are aware that in 1879 the Senate of the University of Cambridge determined to take measures to encourage among those who intended to adopt the profession of teaching the study of the principles and practice of their art. A "Teachers' Training Syndicate" was appointed, which shortly afterwards issued a scheme of examination in the history, the theory, and the practice of Education, and under this scheme the first examination was held in June, 1880. This Syndicate also provided courses of lectures. The first course was given by the Rev. R. H. Quick on the History of Education—and now forms a popular treatise on the subject. The following term, Mr. James Ward, Fellow of Trinity College, lectured on Mental Science in its special relation to teaching. The third course was given by J. G. Fitch, M.A., one of her Majesty's Inspectors of Schools, and related mainly to the practical aspects of the schoolmaster's work. The course is still continued, but we have not information up to date. Harvard has also established similar lectures.

These statements show what is doing elsewhere. We are in the same current, and have for some years been drifting towards the University as the centre at which our higher teachers must receive much of their special training. The Education Department already accepts certain honor courses as equivalents for the non-professional examinations for grades A and B of the first-class. The University has a high course in psychology, and if a special course in the history of educational effort and in methods were added, the Department would not need to establish the proposed lectures for first-class teachers. Such a course at the University would be attended by many undergraduates who intend to become teachers, by many non-matriculated students who are candidates for first-class certificates, and many of both these classes would almost certainly be ladies. The other departments in the University, as mathematics, science, English, etc., would also be utilized by the students. The sympathy of members, the contact of intellect, and the University library would be powerful educative factors. We hope to see the Provincial University follow the lead of Cambridge, St. Andrew's, John Hopkins, Harvard, and Michigan in establishing a course of lectures for higher teachers. We feel certain the Government would readily grant the money necessary to secure this great national benefit, which would communicate an impulse to higher education throughout the entire Dominion.

———————

A STORY ABOUT HAWTHORNE.—A charming story of Hawthorne was told told to Mr. Conway by an intimate friend of the novelist. One wintry day Hawthorne received at his office notification that his services would no longer be required. With heaviness of heart he repaired to his humble home. His young wife recognizes the change and stands waiting for the silence to be broken. At length he falters, "I am removed from office." Then she leaves the room; she returns with fuel and kindles a bright fire with her own hands; next she brings pen, paper, ink, and sets them beside him. Then she touches the sad man on the shoulder, and, as he turns to the beaming face, says "Now you can write your book." The cloud cleared away. The lost office looked like a cage from which he had escaped. "The Scarlet Letter" was written, and a marvellous success rewarded the author and his stout-hearted wife.—Philadelphia Bulletin.

Mathematical Department.

ADMISSION TO HIGH SCHOOLS.—JUNE, 1883.

ARITHMETIC.

TIME—Two Hours.   10 Marks for each Question

1. What is the object of Division ? Write down the relation connecting the Divisor, Dividend, Quotient, and Remainder.
Divide one hundred and eight billion, four hundred and nineteen million, seven hundred and sixteen thousand and one, by eighteen million, seven hundred and forty-eight thousand, and five.

2. Find by "casting out nines" whether the following is correct:
$349751 \times 28687 = 10015819397$.
Find the weight of 500,000 bricks at 4lbs. 2oz. each, and the cost—in dollars and cents—at 27s. 6d. each, allowing 4s. 2d. to make a dollar.

3. A merchant received from England the following invoice in sterling :—

> 375 tons iron plates, at £8 15s. 6d.
> 107½ tons bar iron, at £11 14s.
> 10 tons bulb iron, at £10 10s.
> 17 tons T iron, at £15 10s.
> 48 tons steel, at £18 7s. 6d.
> 15 tons rivets, at £11 1s.

Find the amount of this invoice in Canadian currency, allowing the shilling sterling to be equal to 24½ cents.

4. At $1.75 per rod, what will it cost to fence a piece of land 63·5 rods long and 27·75 rods wide ?

5. Simplify $1 - \frac{1}{4} + \frac{1}{24} - \frac{61}{5040} + \frac{277}{72576}$; and $\frac{4\frac{7}{10}+5\cdot81-2\cdot5}{4\frac{7}{10} \text{ of } 32 \text{ of } \cdot45}$

6. Gunpowder is composed of nitre, charcoal, and sulphur, in the proportion of 15, 3, and 2. A certain quantity of gunpowder is known to contain 20 cwt. of charcoal ; find its weight, and also the weight of nitre, and of sulphur it contains.

7. Bought 360 gallons of wine at $2.60 a gallon ; paid for carriage $17.20, and for duties $86.50. If $\frac{1}{20}$ of it be lost by leakage, at what price must the remainder be sold to gain $50 on the whole transaction ?

8. Find the interest on a note for $257.81, dated January 3rd, 1883, and paid April 6th, 1883, at 8 per cent. per annum.

9. The length of a second's pendulum is 39·37079 inches ; if 64 French metres are equal to 70 yards, by what decimal of an inch will the length of a second's pendulum differ from one metre ?

10. At what times between 4 and 5 o'clock are the hands of a clock (1) coincident, (2) at right angles ?

———————

INTERMEDIATE AND THIRD CLASS.—JULY, 1883.

ARITHMETIC.

TIME—ONE HOUR AND A HALF.

(Eighty per cent. of this paper will be considered a maximum.)

1. Add together $\frac{2}{3}$ of £13, $\frac{1}{3}$ of $\frac{1}{2\frac{4}{5}}$ of $\frac{3}{4}$ of £2, 12s., and $\frac{4}{5}$ of 9d.
Reduce 13s. 4½d. to the decimal of 19s. 6d.

2. Find by Practice the value of 8596 lbs. at £10 18s. 7½d. each.

3. A person borrows $500 on April 10th, and on June 22nd pays his debt with $510.20. At what rate per cent. per annum was he charged interest ?

4. A man having a certain sum of money to invest has an opportunity of purchasing 7 per cent. stock at 95, but delays until it has risen to 110. What per cent. is his income less than if he had purchased at the first price ?

5. At an international exhibition one country was awarded 5 gold, 9 silver, and 11 bronze medals ; and another 4 gold, 15 silver, and 10 bronze. Find a ratio of values for such medals that these countries may be regarded as equally fortunate.

6. In a box there is a certain number of sovereigns, three times as many guineas, and twice as many marks (13s. 4d.) as guineas. The entire amount in the box is £815. How many coins of each kind are there ?

7. Find when first after 2 o'clock the hour and minute hands of a clock make an angle of 60 degrees with each other.