For SUBSCRIBER:

(1) The minerals which enter mostly into the composition of earthenware are kaolin and quartz, which are oxides of the metal aluminium and the element silicon respectively.

(2) Ocean currents are caused by the heat of the sun, which warms the ocean waters unequally, causing the warmer waters to rise and flow on the surface, from the equator towards the poles, when being cooled they return as under currents. But the directions and velocities of all these currents are very greatly modified by the earth's diurnal motion and by the continents and large islands lying in their path. Prevailing winds also affect the ocean currents to a slight extent.

(3) How much tea at 35 cents per lb. must be mixed with 20 lbs. at 55 cts. so that the mixture may be sold at 50 cents?

Solution—Let x = the required number.

$$35 x + 20 \times 55 = 50 (x + 20)$$
$$x = 6\tfrac{2}{3}$$

For PLEASANT VALE:

Hamblin Smith, page 199, Ex. v. 1.

If all the money had been good he would have realized $600. Each dollar cost 75 cents and the commission $1\tfrac{1}{4}$ cents, in all $76\tfrac{1}{4}$ cents. Therefore the sum gained on $1 was $23\tfrac{3}{4}$ cents.

$\$ \cdot 23\tfrac{3}{4}$ is gained from $1
$600 " " $2,535$\tfrac{1}{4}$

M D. M. Please solve from Hamblin Smith page 275, Ex. 154.

The boat made $1\tfrac{1}{4}$ m. in 10 min.
$7\tfrac{1}{2}$ " 1 h.

Add rate of the stream, $7\tfrac{1}{2}+2=9\tfrac{1}{2}$ rate of the boat in still water. Hindered $\tfrac{1}{2}$m. per hour the boat usually made 9m. per hour.

9 m. per hour
1 " " $\tfrac{60}{9}$ min.
$1\tfrac{1}{4}$" " $\tfrac{75}{9}$ " = $8\tfrac{1}{3}$ min.

M. S. W. Please solve from Hamblin Smith 185, Sec. iii. Ex. 3.

(1) The int. on $100 for $2\tfrac{1}{2}$ yrs. at 5% = $12\tfrac{1}{2}$

∴ The pres. worth of $112\tfrac{1}{2}$ = 100

$$1000 = \frac{1000 \times 100}{112\tfrac{1}{2}} = \$888.88\tfrac{8}{9}$$

The disc. = 111.11\tfrac{1}{9}$ = Int. on 888.88\tfrac{8}{9}$ for $2\tfrac{1}{2}$ yrs. at 5%

(2) page 189 has no Sec. ii. Ex. 4 in our edition.

(3) page 199, Sec. iv. Ex. 5.

Make B's flour the standard.

Then A will have $\tfrac{110}{100}$ of 125 bbls. = 137$\tfrac{1}{2}$ bbls.

" C " " $\tfrac{105\tfrac{5}{11}}{100}$ of $\tfrac{110}{100}$ of 225 bbls. = 261 bbls.

He sells for $3,500 and remits $3,360.

Brought to B's standard there were
$$137.5 + 150 + 261 = 548.5 \text{ bbls.}$$

A receives $\tfrac{137.5}{548.5}$ of $3,360 = $842.30.
B " $\tfrac{150}{548.5}$ " = $918.87.
C " $\tfrac{261}{548.5}$ " = $1,598.83.

SCHOOL AND COLLEGE.

A school library has been purchased for St. Martins, St. John County.

Miss Carrie L. Thomson, Bay Road; and Miss Ethelyn Young, Smith District, Charlotte County, have each by school entertainments, added to their school furniture and apparatus. Miss Thomson is an indefatigable worker for the improvement of her surroundings.

Mr. A. E. Barton, of Woodward's Cove, and Miss Hattie Pinkerton, Lynnfield, Charlotte County, have each procured flags for their school-houses.

Mr. Geo. M. Johnston, principal of the St. George schools spent his easter vacation in St. John.

Upwards of $40,000 was spent last year in Massachusetts for conveying children to central schools. It is claimed that this was a great saving over maintaining isolated schools, to say nothing of the increased educational advantages given by graded schools.

The school-house at Marshfield, Queens County, P. E. I., was completely destroyed by fire on the 27th ult. The building was nearly new.

Prince of Wales College reopened after Easter holidays, on Monday, April 2nd.

Charlottetown and Summerside schools enjoyed an Easter holiday, extending from Thursday evening the 22nd, to Tuesday morning the 27th, ult.

Inspector Mersereau will visit the graded schools of of Chatham, Newcastle, and Douglastown, N. B., during the last of April and first of May.

Inspector Smith is examining the schools in Moncton, N. B.

BOOK REVIEWS.

MODERN PLANE GEOMETRY by G. Richardson, M. A.; and A. S. Ramsey, M. A. MacMillan & Co., pp. 202; price 8s. 6d. Geometry, like almost every other department of human knowledge has been making great advances within the last few years. To those of our teachers who have studied only Euclid or its equivalents, Modern Plane Geometry opens up an entirely new field, not much more difficult, and quite as interesting as the metrical system of the ancients with which they are familiar. Modern or Descriptive Geometry supplies to those who understand its methods an instrument of great value in geometrical investigation. We can recommend this volume as particularly suited for beginners. We would like to see it made a part of the mathematics required of our academic teachers.