hends, and which his teacher expressly refrains from explaining. The mental exercise which is furnished by the study of mathematics or metaphysics is quite wanting. The memory is cultivated at the expense of the reasoning faculties. If a pupil appeared to think out any idea for himself, it would be something which had been previously expressed. In a word, Chinese education is retrospective; always and continuously it looks behind, never before.—*Educational Times.*

BITS OF NEWS.

An English teacher, Miss A. C. Graham, has taken a prize offered by the *University Correspondent* for the best collection of pupils' blunders. She vouches for them all as literal copies of the originals, and explains that she was led to set about their collection by reading one day the surprising statement that "Iliaed and Odessae translated Euripides." We give a few of the choicest gems of her collection, in some of which the outcropping of the English idea that all history converges on the British Isles is almost startling :

Esau was a man who wrote fables and who sold the copyright to a publisher for a bottle of potash.

The Jews believed in the synagogue and had their Sunday on a Saturday, but the Samaritans believed in the Church of England and worshiped in groves of oak, therefore the Jews had no dealings with the Samaritans.

Titus was a Roman Emperor—supposed to have written the Epistle to the Hebrews—his other name was Oates.

Oliver Cromwell was a man who was put into prison for his interference in Ireland. When he was in prison he wrote "The Pilgrim's progress" and married a lady called Mrs. O'Shea.
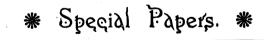
Wolsey was a famous general who fought in the Crimean War, and who, after being decapitated several times, said to Cromwell : "Ah, if I had only served you as you have served me, I would not have been deserted in my old age."

Perkin Warbeck raised a rebellion in the reign of Henry VIII. He said he was the son of a prince, but he was really the son of respectable people.

The heart is a comical shaped bag. The heart is divided into several parts by a fleshy petition. These parts are called right artillery, left artillery, and so forth. The function of the heart is between the lungs. The work of the heart is to repair the different organs in about half a minute.

Explain the words fort and fortress : A fort is a place to put men in, and a fortress is a place to put women in.

Hydrostatics is when a mad dog bites you. It is called hydrophobia when a dog is mad, and hydrostatics when a man catches it.—*Youth's Companion.*

✳ Special Papers. ✳

WITH THE DEAF AND DUMB.
BY——

The deaf-mute is grievously burdened in the educational race with his more favored brother. The language that a hearing child had already naturally learned on entering school at the age of five or six years, is mechanically imparted to the deaf and dumb only after years of technical instruction. Indeed, the deaf-mute is far from being on an equal footing even with the foreigner in learing the vernacular, inasmuch as the latter has methods of thought and a language of his own as a means of communication. If, then, the latter seldom perfectly acquires the idiom, what shall be said of the deaf-mute who has neither thought nor language!

It is the object in this article to give, briefly, some simple details of school-room work in an advanced class of the deaf and dumb.

Take arithmetic. When a problem is presented, the pupil is first required to show that he comprehends its meaning ; and as an aid in doing this, it is necessary that he reproduce on his slate the various forms in which the question may be written. For instance, the question : If 5¼ lbs. of sugar cost 18⅜c., what will 7½ lbs. cost ? is also written,

what will 7½ lbs. of sugar cost if 5¼ lbs. cost 18⅜c. ? and also, find the cost of 7½ lbs. of sugar at the rate of 5¼ lbs. for 18⅜c. This exercise is a language lesson of importance, because it is as essential that our pupils should know how to write questions properly as it is that they should be able to give correct solutions.

The analysis follows :

$$5\tfrac{1}{4}, \text{ or } \frac{21}{4} \qquad \text{lbs. cost } 18\tfrac{3}{8}, \text{ or } \frac{147c.}{8}$$

$$\tfrac{1}{4} \qquad \text{lb. cost (less) } \frac{147c.}{8 \times 21}$$

$$\tfrac{4}{4} \text{ or } \tfrac{2}{2} \text{ lb. cost (more) } \frac{147 \times 4c.}{8 \times 21}$$

$$\tfrac{1}{2} \text{ lb. cost (less) } \frac{147 \times 4c.}{8 \times 21 \times 2}$$

$$7\tfrac{1}{2}, \quad \text{or } \frac{15}{2}\text{lbs. cost (more) } \frac{147 \times 4 \times 15}{8 \times 21 \times 2} = 26\tfrac{1}{4}c$$

In proving the work, the class are required to re-write the question by inverting the order of statements—substituting the answer just obtained, as : If 7½ lbs. of sugar cost 26¼c., what will 5¼ lbs. cost ? and analyze as before.

Again. By dictation in the sign language, or by written directions, the class are required to re-arrange the question so that the thing sought will be changed from "money" to "pounds;" thus : If 5¼ lbs. of sugar cost 18⅜c., how many lbs. can be bought for 26¼c. ? Analysis :

$$18\tfrac{3}{8}, \text{ or } \frac{147c.}{8} \qquad \text{will buy } 5\tfrac{1}{4} \text{ or } \frac{21}{4} \qquad \text{lbs.}$$

$$\frac{1c.}{8} \qquad \text{will buy (less) } \frac{21}{4 \times 147} \qquad \text{lbs.}$$

$$\frac{8}{8} \text{ or } \frac{4c.}{4} \qquad \text{will buy (more) } \frac{21 \times 8}{4 \times 147} \qquad \text{lbs.}$$

$$\frac{1c.}{4} \qquad \text{will buy (less) } \frac{21 \times 8}{4 \times 147 \times 4} \text{ lbs.}$$

$$26\tfrac{1}{4}, \text{ or } \frac{105}{4} \text{ will buy (more) } \frac{21 \times 8 \times 105}{4 \times 147 \times 4} = 7\tfrac{1}{2} \text{ lbs.}$$

In proving, the class will proceed as before. Further. The following directions are given : Write out in detail, and give the solution of, questions requiring :

1. The cost of carpeting and papering a room.

2. The capacity in gallons, of a rectangular (and circular), water tank.

3. The total cost of bushels and pounds of wheat, oats, barley and potatoes at the usual price of each per bushel.

4. The cost of lumber for a board fence (giving number of boards high, and length and width of boards), on both sides of a railway (distance in miles given), at a certain price per thousand.

These are merely examples of scores of questions that will readily suggest themselves to the mind of the teacher.

Once more. As one of our constant practices is to require the class to translate into written language ideas on general subjects dictated by means of the sign language, we also require them to translate the arithmetical formula which, after all, is nothing more than a sign, or symbol, expressed in arbitrary characters. As an illustration, we direct the pupils to write questions for the following :

1. $\frac{48}{3} = 16$ (yards). The question here is, how

many yards ? and the class is supposed to know what denomination it is that divided by 3 will produce yards ; hence he writes : How many yards are there in 48 feet ?

2. $\frac{20 \times 18}{9} = 40$ (square yards). In this case,

a superficies is to be obtained in a certain denomination which divided by 9 will give square yards. Question : How many square yards in a floor (or other surface), 20 ft. long and 18 ft. wide ?

3. $\frac{484 \times 480}{30\tfrac{1}{4} \times 160} = 48$ (acres). Question : How many

acres in a field 484 yards long and 480 yards wide ?

4. $\frac{\$146 \times 6 \text{ (rate)}, \times 90 \text{ (days)}}{100 \times 365} = \$2.16$ interest.

This is formula for a question in simple interest.

5. $(4c. \times 6) + (24c. \times 3) + (40c. \times 2) = \$1.76$.

The pupil here must form a question requiring the total cost of a given number of separate articles at a given price per unit.

6. 12 men working 10 hours a day, cut 192 cords in .... 8 days.

1 man, working 10 hours a day, cut 192 cords in 8×12 days.

30 men, working 10 hours a day, cut 192 cords in $\frac{8 \times 12}{30}$ days.

30 men, working 1 hour a day, cut 192 cords in $\frac{8 \times 12 \times 10}{30 \times 12}$ days.

30 men, working 12 hours a day, cut 192 cords in $\frac{8 \times 12 \times 10}{30 \times 12}$ days.

30 men, working 12 hours a day, cut 1 cord in.. $\frac{8 \times 12 \times 10}{30 \times 11 \times 192}$ days.

30 men, working 12 hours a day, cut 288 cords in $\frac{8 \times 12 \times 10 \times 288}{30 \times 12 \times 192} = 4$ days.

The class must first write the question for this analysis ; then write and analyze a question making "cords" the unknown term ; and, lastly, a question having "men" for the unknown quantity.

Good common sense is the best of apparatus you can have in your school-room. It is handy to have about when you deal with children, and especially handy when you confront the whims of the parents. As long as you cannot purchase it ready-made, you will be under the necessity of cultivating it. Give it a chance to grow, and keep it well in form by constant exercise, and you will find your stock improving every day. Don't make any mistake, but be sure you have the old-fashioned kind, such as our fathers and mothers had.—*Country Schools.*

Mr. J. K. Cranston, of Galt, so well and favorably known to the readers of The Educational Journal, as a dealer in school supplies and teachers' aids, has disposed of his business in Galt and is removing to Toronto. He announces in another column a closing out sale for thirty days, when the new proprietor takes possession. A perusal of this advertisement will enable purchasers of such goods to effect a considerable saving.