

down the result is still less than the divisor a nought must be placed in the quotient and another figure brought down from the dividend, and so on until the remainder is greater than the divisor. Proceed in the same way until all figures in the dividend have been used. Give several lessons in class until each pupil has learned to see each of these several steps and to apply them in the proper order.

The reason given for the different steps in short division apply in long division, but are more difficult to apply. I would not advise working out the reason with the young classes. It might be interesting to work it out with the more advanced classes. The simplest method would be to lead them to see that any number, whether whole or decimal, or the two combined, may be read to any figure and the name of the last figure read would apply to all that had been read.

Thus take the number 4261 and it may be read 4 thousand 2 hundred 6 tens and 1 unit; or, 42 hundred 6 tens and 1 unit; or, 426 tens and 1 unit; or, four thousand 2 hundred and 61 units. The term units is usually omitted.

Take again the number .4283 and it may be read 4 tenths 2 hundredths 8 thousandths and 3 ten-thousandths; or 42 hundredths 8 thousandths 3 ten-thousandths; or, 4283 ten-thousandths.

I will show the reason for the above when I deal with decimal division.

#### RURAL HOME ECONOMICS.

Miss B. I. Mallory.

The seventh problem dealt with in the sewing course, and probably the most interesting as it is a real garment, an apron which the girls can well make use of at school or at home. White cotton or cambric is preferable, colored gingham or percale answers the purpose as well. Samples of suitable materials could be procured from the nearest store, and each girl might choose her own as to material, price, color and design.

A valuable lesson could be arranged on the study of cotton, how it is grown and manufactured. The different weaves and how some designs are woven into the cloth and others stamped. The children might bring samples of different kinds of cotton materials from home for examples and in that way they could learn the names of different cotton cloths.

The pattern is the next question. So far no standard pattern has been set, as the girls vary so much in age and size. Younger girls cannot wear aprons with belts very well as their dresses hang loosely. A drafted pattern is better than a commercial one. A very good one is shown in Bulletin II, Elementary Garment Making, spoken of in the last Educational Review, or one will be sent to any teacher writing to the Home Economics De-

partment, Normal School. A sewing machine is out of the question in a school equipment, but some philanthropic person might lend her machine for two or three weeks providing the teacher would take the responsibility of it. As long as girls learn to do the different stitches neatly the day has gone by for doing long seams by hand and the quicker they learn to use the machine intelligently the better off they are. An invaluable lesson can be taught on the care of sewing machines, including oiling and cleaning. However, if a machine cannot be rented or borrowed the girls can probably do them by hand or work at home.

The principles taught are many:

Use of the commercial pattern.

Seams.

Over-casting.

Sewing on bias tape.

Hemming.

Placing a pocket.

Making button holes and sewing on buttons.  
(Clothing and health).

#### OUR ALLIES, THE BIRDS.

To the Boys and Girls:

I have been asked to write for the "Review" an article on "Why We Should Know More About Birds," but, as I am more interested in the boys and girls than in their teachers, I am writing this to you, hoping that your teacher may think it worth while to read it to you.

In the first place I want you to get this fact clearly: that we are entirely dependent upon plants for our living. Think of things you had for breakfast, dinner, or supper yesterday. All of them, except perhaps the salt and water, came directly from plants. Not only the potatoes, wheat, oatmeal and fruit, but the meat, milk and eggs as well. Even the fish from the sea, which we eat feed upon smaller animals, which in turn feed upon tiny sea plants. If you think this fact over for a minute or two you will soon see that without plants we would soon be starving.

The next thing you should understand clearly is that insects are just as dependent upon plants as we are. If you need any proof of this think how some farmer of your acquaintance had to fight against the potato beetle last summer, or how many apples you saw with "worm holes" in them, or seeding peas, beans, tomatoes or corn cut off by cut-worms. Anywhere, and from spring to fall, the observing boy or girl can find ample proof that the insects are devourers of plants as well as we are. But there is this difference; the insects, because they have to become fully grown, usually in one summer, eat a great deal more in proportion to their size than we do. Many insects eat twice their own weight of vegetable food in a