

3rd. In order that the mother may be free to discharge those duties to her home which the training of her child would oblige her to neglect. The duties of mothers involve an immense responsibility, but still no mother is justified in neglecting the care of her home for the sake of her children, unless circumstances compel her to do so; and when children have attained their third year, no mother is qualified to carry on the teaching of her children as well as a person specially trained. The idea that mere maternity brings with it a fount of educational wisdom is a poetic fiction which every day's experience disproves.

Few things impress one more with Frobel's learning and educational skill than a comparison of the gradation of the so-called gifts and occupations with the requirements of mental science and physiology for human growth. At every lesson the child's perceptions are increased or strengthened by objective study and bodily exercises, or its memory and imagination are called into play by hearing stories and acting games, &c. The most watchful discipline should preside over manners and morals, and yet the whole Kindergarten tone should be full of the buoyant gaiety of play. You will observe, that the child, in using the toys, is enabled to consider the extension, and therefore the shape, of bodies from the very first, with all the precision attending a right understanding of points, lines, angles, &c., treated in a marvellously simple way. Since pure discrimination depends first on a clear recognition of the difference, and then on an equally clear perception of the similarities, between objects, we find Frobel laying down his great law of contrasts and similarities, by which, when a child has studied one object, the teacher is directed to choose for the next lesson the greatest contrast possible, and then shew in succeeding stages the various forms which link the two. I here take the opportunity of shewing you specimens of the gifts which have been kindly lent by Messrs. A. N. Myers and Co., of Berners-street, to indicate, to those who may not have seen such specimens before, the provision made for a progressive and accurate study of form. They may be classified as:—

(A) *Exercises with Solids.*—These include the six "gift" boxes of Frobel and clay work.

Box 1 contains six coloured woollen balls, with strings to match. *Aim*—to teach colour, the directions right and left, &c., and to exercise the body in various ways.

Box 2 contains a wooden ball, roller, and undivided cube. *Aim*—to teach form, pointing out likenesses and differences; to describe and count sides, corners, and edges; to show that qualities and motions vary with difference in shape; and to remark that the sphere is the only one of these objects which presents the same aspect from all sides.

Box 3 contains a cube formed of eight smaller cubes being halved across each of its faces. *Aim*—(in addition to other objects)—to teach number, including simple exercises in all the four rules, together with elementary ideas of a fraction.

N. B.—This will also be found useful in teaching fractions to classes in juvenile schools.

Box 4 contains a cube in eight oblongs, being divided once perpendicularly, and twice horizontally. *Aim*—to advance upon former lessons, especially developing farther exercises in building and pattern forming.

Box 5 contains a cube divided twice perpendicularly and twice horizontally, forming twenty-seven smaller cubes, of which three are halved diagonally into triangular prisms; while three are quartered diagonally into similar smaller prisms. *Aim*—to add the study

of oblique lines, obtuse and acute angles, to the form lessons; to increase the variety of the building exercises &c. N. B.—This box may be used with advantage in the juvenile schools, in lessons on square and cubic measures.

Box 6 contains a cube consisting of twenty-seven oblong blocks, of which six are halved across their breadth, and three along their length. *Aim*—to develop more building exercises and symmetrical forms. I have described these six "gifts" only at length, as being the most characteristic and essential to the system.

Gift 7 is clay modelling. *Aim*—to call out the imitative power of the child, and to exercise fancy.

[To be continued.]

Phonography.

2nd paper by WM. HY. TAYLOR, (erroneously printed M. H. Taylor in last number of J. of Ed. M. P. S. and Teacher of Phonography).

To arrive at a just conclusion as to the real value of Phonography we must glance at the several systems employed before its invention, examine their defects, and how these defects have been remedied by Pitman.

We have said that the invention of movable types gave birth to stenography. This is true so far as stenography or shorthand writing, as an art, is concerned, because stenography as such, and reduced to a system, did not exist till then; although several of the ancients saw the utility of such a thing and endeavoured to find some means of taking notes of words as fast as the speaker could utter them. We know that Tyro, Cicero's freedman, took notes of his master's speeches: Octavius Augustus, and Titus Vespasian were expert at shorthand, and Plutarch tells us that the speech of Cato on Cataline's conspiracy was taken down in shorthand. But the characters used by these ancients could not be called stenography. They consisted merely of an abbreviated longhand interspersed with more or less of arbitrary characters. Tyro, however, succeeded in introducing his art into public schools, and it was made a regular branch of education for the higher classes. He had not to contend with the unphonetic spelling with which we have to be content, as the Latin tongue was nearly phonetic in its formation, therefore any system founded upon it was less liable to opposition than any for the English language in its present state.

In 1588 Bright published a system of arbitrary characters for words, the first regular attempt to supersede the use of longhand, however abbreviated, by shorthand characters for the English language, but it was found so unsatisfactory that John Willis in 1602 formed a regular shorthand alphabet which, though it improved on Bright's, as it gave the student a basis on which to work, was still very incomplete. Mason, by experimenting on the works of his predecessors and adopting whatever he found useful in them, succeeded in maturing something more satisfactory, which he published in 1682. It was republished by Thomas Gurney in 1751 and is used by the members of the Gurney family as government reporters to the present day. Mavor's appeared in 1780, and Samuel Taylor published his in 1786. Mr. Isaac Pitman of Bath England, the inventor of Phonography, endeavoured to improve upon Taylor's system by inserting long and short vowels, but found it almost impossible to make writing on such a principle sufficiently legible to meet the wants of the public.

He accordingly decided upon forming a new system