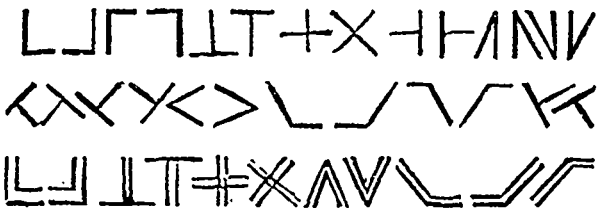


exercises on it. It is well, however, for the teacher to draw the outlines of several objects bounded by straight lines, upon the blackboard, and let the pupils notice the kind of lines of which the figures are composed, and the manner in which one line is added to another to build them up. The pupils may then be led to see the purpose for which they are required to make lines, and why they should make them correctly.

*Straight Lines.*—These lines may be made of different lengths; they may be perpendicular, horizontal, or inclined at different angles; they may converge, diverge, or run parallel; or they may be bisected, trisected, or divided into any required number of parts.

*Combinations of two straight lines.*—The following are examples of these combinations:—



*Combinations of three straight lines.*—Examples of this kind of combinations are the following:—



*Combinations of more than three straight lines.*—Under this class may be included all triangles divided by a single straight line, squares, rectangles, rhombs, trapeziums, all kinds of polygons, and an immense number of other figures that can be made to furnish a great variety of lessons.

*The imitation of real objects bounded by straight lines.*—This class of exercises is intended to give pupils practice in imitating the pictures of real objects bounded by straight lines. Among the hundreds of objects suitable for the purpose, the following may be named as examples: boxes, books, blocks, posts, milestones, stools, tables, stars, crosses, doors, windows, houses, castles, &c.

*The invention of figures bounded by straight lines.*—As drawing is not only an imitative but a creative art, pupils should have practice in inventing figures. The teacher may first exhibit a few original designs upon the blackboard. From these the pupils will understand what is wanted; and if there is not soon an interested class, and eventually some fine work done, it will be contrary to experience. Problems like the following may be assigned: given three, four, five, or any number of straight lines, to form a design of them; given a figure—a triangle, a square, or a parallelogram—to combine with straight lines; given one figure to combine with another, as triangle with triangle, triangle with square; squares, stars, hexagons, with one another.

*Curved lines.*—The following are a few examples:—



*Combinations of curved and straight lines.*—Examples of such combinations may be found in sections of circles, sections of ellipses, cones, cylinders, many of the letters of the alphabet, and thousands of objects.

*The invention of figures bounded by curved or curved and straight lines.*—This class of exercises opens a wide field for the display of ingenuity and taste.

*THE CONCRETE METHOD.*—The concrete is the most effective form in which knowledge can be communicated to children. Any teacher can try the experiment for himself, and he will find that while children will be delighted to spend hours every day in trying to draw blocks, posts, houses, cats, or cows, they will soon grow tired of making triangles or circles. Nature thus indicates that the first lessons in drawing should be on concrete forms. What if it be said that objects are not as simple as lines, or that it is impossible for a child to draw them correctly, the answer is ready, that in this way they learn everything else. It will be found that what is natural is the most effective. We are speaking of young pupils; children over 15 years of age will not show so great a preference for the concrete method.

*The pictures of objects.*—It is more easy, and we think, more interesting, for children to draw the pictures of objects than the objects themselves. The first lessons should consist of the outlines of the simplest objects such as boxes, books, posts, gates, doors, houses, &c.; but, although more difficult, no harm can result from allowing children to attempt to draw cats, horses, fowls, dogs, &c.

*Drawing the pictures of objects from memory.*—In the class of exercises just given, it is presumed that the pupils have cards or books from which they copy the pictures. This done, it will be found of great advantage to reproduce them from memory. Drawing pictures from memory is more difficult than copying pictures; but its disciplinary advantages are proportionably greater.

*Drawing real objects.*—Having copied the picture of an object, and reproduced it from memory, the pupil is well prepared to draw the object itself. The teacher will generally be able to provide model objects corresponding to the pictures upon the drawing cards. At any rate, abundance of suitable objects can be found.

*Inventive Drawing.*—Children may be taught to draw objects and combinations of objects that are not copies of any thing they have ever seen, and even to design the simplest kinds of monuments, gates, pleasure-grounds, landscapes, houses, &c. Indeed this kind of work is done by children who have been well taught, with intense interest; and nothing can be better calculated to cultivate ingenuity, or give opportunity of growth to the budding imagination.

These four classes of exercises indicate all that is peculiar to this method. The method is peculiarly adapted to young children, and aims only to communicate a popular knowledge of the art of drawing. Pupils can now enter upon the analysis of forms and their composition, as contemplated in the abstract method, with great profit. Thus here, as everywhere else, principles will be found to underlie appearances. The concrete method merely contemplates the imitation of appearances, whilst the abstract method contemplates, in addition, the study of principles. With pupils who are prepared for it, the two methods may be combined.

After sufficient practice has been had in the preceding exercises, pupils should receive lessons in shading, shadow, and perspective. The effect of shading will be readily appreciated, if the teacher first draw the simple outline of an object, and then shade it. The pupils may then engage in imitating the shading of pictures, and finally, practice the shading of real objects. Much may be done in this way, according to the concrete method, to improve the pupil's taste and increase his skill, before he could learn the general laws of optics upon which the distribution of light depends. When the time comes for learning these laws, they must be taught and applied after the spirit of the abstract method, by beginning with the simplest and proceeding to the more