

DRAWING-BOOK EXERCISE XIII.**Drawing from Solid Models.**

DIRECTIONS. — The left half of p. 18 of the drawing-book is to be filled with the representation of a cube. Place a cube in view of all the class. Make a few rapid sketches on the blackboard to illustrate different views of the cube. These sketches will serve as a guide to the class. Of course each pupil will get a somewhat different view of the cube; and each will draw what he sees, not the sketches on the blackboard. He will draw according to the principles which have been explained, and will obtain his proportions by the aid of his pencil, or a scale, held at arm's-length, and at right angles to the central ray of vision.

The right half of the page is to be filled with a representation of a parallelepipedon, made from the solid, without the aid of blackboard sketches. Stand the oblong block on its square base, so that each pupil will get a view different from the view he had of the cube. Make certain that the pupils understand what they are to do before they begin to draw.

Do not permit your pupils to begin to draw the figures on p. 281 until they understand why they are drawn as represented. See that they understand the effects of distance and foreshortening. Make use of the actual solids for illustration and preliminary sight-lessons. A skeleton cube, or parallelepipedon, which can be quickly made of wire, will be of much assistance in showing how the invisible edges run. These skeleton forms will greatly help the learner in making his first drawings from the actual rectangular solids, as they will enable him to realize how the invisible lines run. After a little, his imagination will become sufficiently developed to stand in no need of such helps.