The Principle of the Loom.

For teaching children and others, who may be ignorant of the simple principles involved in the ancient art of weaving, a very simple object loom may be contrived by using materials at hand in the following simple manner: The only tools and materials required are a pencil, some thread, a piece of cardboard, two old pencils, a paper-cutter, and a heavy block to serve as a weight. The old pencils are made to serve as the warp beam; the block may be cut out of the card with the pencil, with which, also, one or two shuttles may be fashioned (Fig. 1). On these block should be wound the thread that is to serve as the weft to be passed through the threads of the loom.

To rig up this improvised loom, it is only necessary to place the two pencils on the edge of a table, held firmly in place by the weight of the block above named, as shown in Fig. 2. Now comes the operation of weaving, which is done as follows: Pass one end of the thread that is to form the warp threads to one of the pencils; pass the other end through the first slot in the block, then around the other pencil, and through the first aperture, then around the first pencil, and so on, until the last slot in the block is reached.

The next step is the weaving. For this purpose, the block should be raised and lowered alternately, while at each motion the shuttle carrying the weft is passed through the warp threads, one half of which will be alternately lifted and lowered by the raising and lowering of the block. After each passage of the shuttle, the warp thread may be pulled through the weft with the aid of the paper-cutter.

This simple experiment, which may be carried out at home with little trouble, will serve the purpose of a most instructive object lesson to elucidate the fundamental principles involved in weaving.