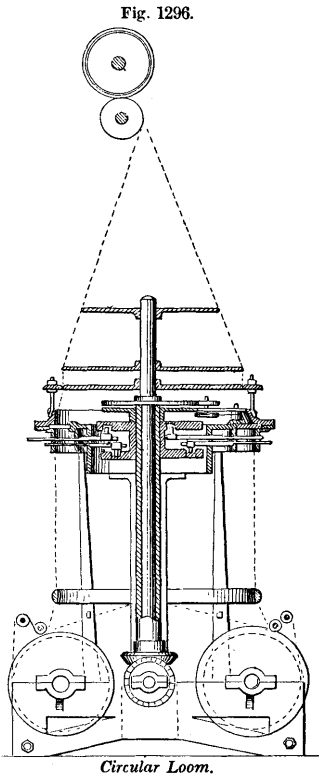


Cir'cu-lar Loom. A loom in which the shuttle moves in a circular race and continuously in one direction through warps arranged in a circle.

The cut shows a loom of this class; the warps proceed from beams or creels near the floor, pass through a ring which brings them in a circle, then through eyes in horizontally reciprocating slides which form the shed, then through the dents of the circular reed to the take-up mechanism. The shedding-slides are moved by cams on the main vertical shaft. The shuttle is sustained by and moves on the dents of the reed, and is driven by means of an arm provided with a roller which presses against the head of the

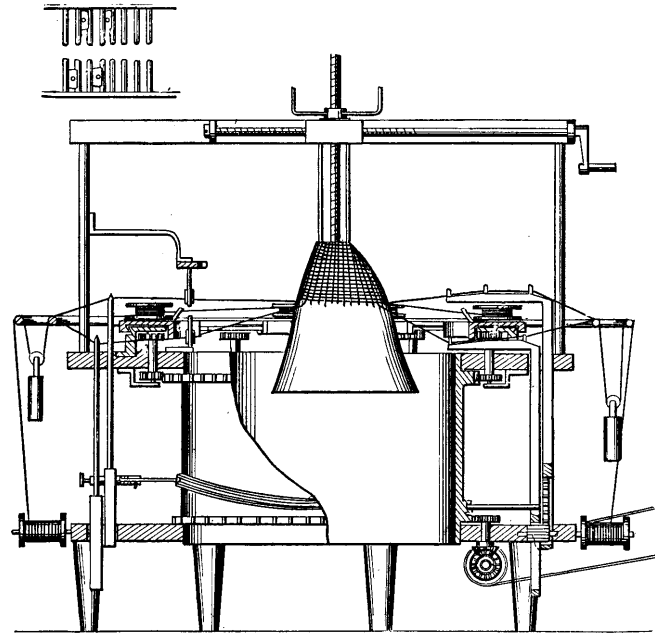


shuttle and allows the passage of the warp between them. The shuttle may be provided with a projection to beat up the filling, or comb-like arms made in sections may be made to beat the filling between the warps.

Another form is one in which the material is woven around a former which gives it size and proportion, as in Fig. 1297, which is a machine for weaving petticoats and hoop-skirts. The fabric is woven around a block suspended between the warp-carriers and the track of the shuttles, said block being movable vertically and laterally, in order that it may be adjusted centrally. The shuttles move on a circular or other endless track, and deposit their woof threads alternately above and below a warp thread around the block. The warp-carriers receive an alternate vertical reciprocating motion from a cam on a revolving drum, from which the shuttles also derive their motion.

The warp-threads have to be spread, so as to have them equidistant from each other around the block. For that purpose the carriers have horizontal extensions, which are diverging, like spread fingers, so that the desired effect is produced, and the desired distance between the warp-threads obtained, without requiring the spreading of the carriers, which are arranged in groups of six, more or less. To diminish friction in the operation of the carriers,

Fig. 1297.



such grouping is necessary, as otherwise each carrier would require its own connection with the cam on the drum.

The cam only operates one set of each group of carriers, and the carriers, which are thus alternately raised and lowered, impart, by means of gearing or otherwise, motion to the other set of carriers, so that the same always moves in the opposite direction with the first-named set.