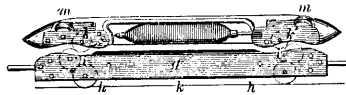
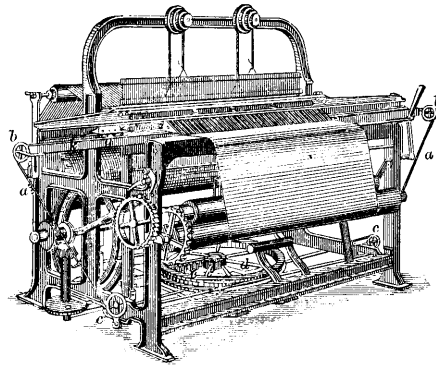


Pos'i-tive-mo'tion Loom. A loom in which a definite motion both in velocity and amount is imparted to the shuttle.

In Lyall's, this is effected by means of a cylindrical band *a* (Fig. 3903), which passes over and under the pulleys *b b c c*, motion being imparted by the band-wheel *d* actuated by the reciprocating rack *e* and pinion *f*, and is attached to each end of the carriage *g*. The carriage has two sets of wheels *h h i i*, the lower of which roll upon the upper surface of the raceway *k*; the pivots of these wheels turn in slotted bearings, allow-

Fig. 3903.



Positive-Motion Loom.

ing a limited amount of play, and their upper surfaces turn against the lower surfaces of the wheels *i i*, the upper portion of whose peripheries run in contact with the warp-threads. These cause the wheels *k' k'* in the shuttle to turn at precisely the same speed in an opposite direction, so that no lateral motion is imparted to the warp-threads over which they pass. The wheels *m m* roll on the under surface of a beveled rail, which keeps the shuttle down to its work.