

A MECCANO BEAMING FRAME

For Use With Loom

Described Last Month

LAST month I described the construction of a Meccano Weaving Loom, and I expect quite a number of readers will already be at work on this excellent model. In that article I mentioned that a Beaming Frame was required for the purpose of winding the warp threads on to the built-up roller forming the Beam and I am, therefore, giving here details of a suitable Beaming Frame for this purpose.

It is designed specially for use in conjunction with the above-mentioned Loom. After a little

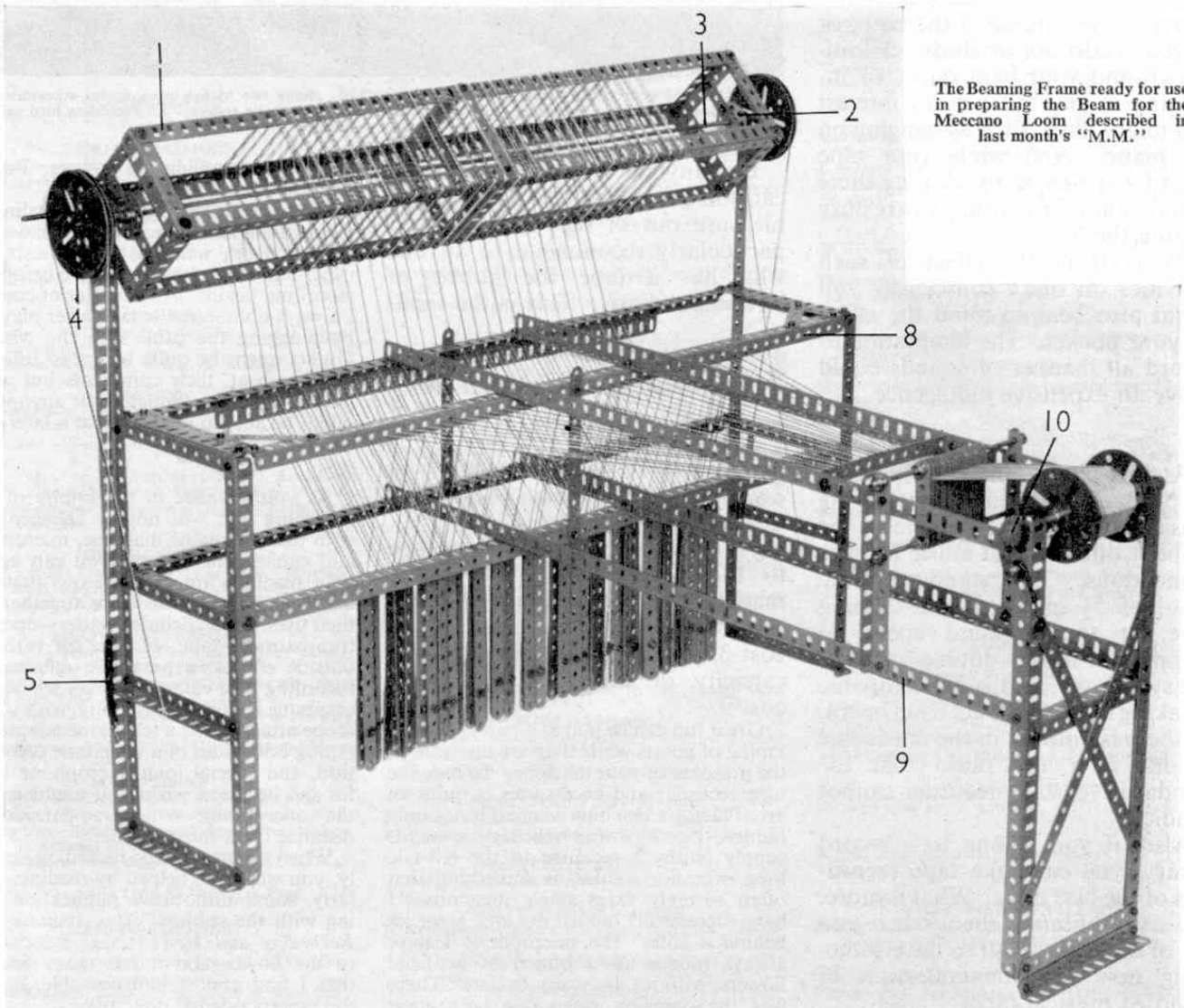
study of the accompanying illustrations, no difficulty should be ex-

perienced in building the framework, so we may devote our attention to the more obscure points in the construction of the model and its manipulation.

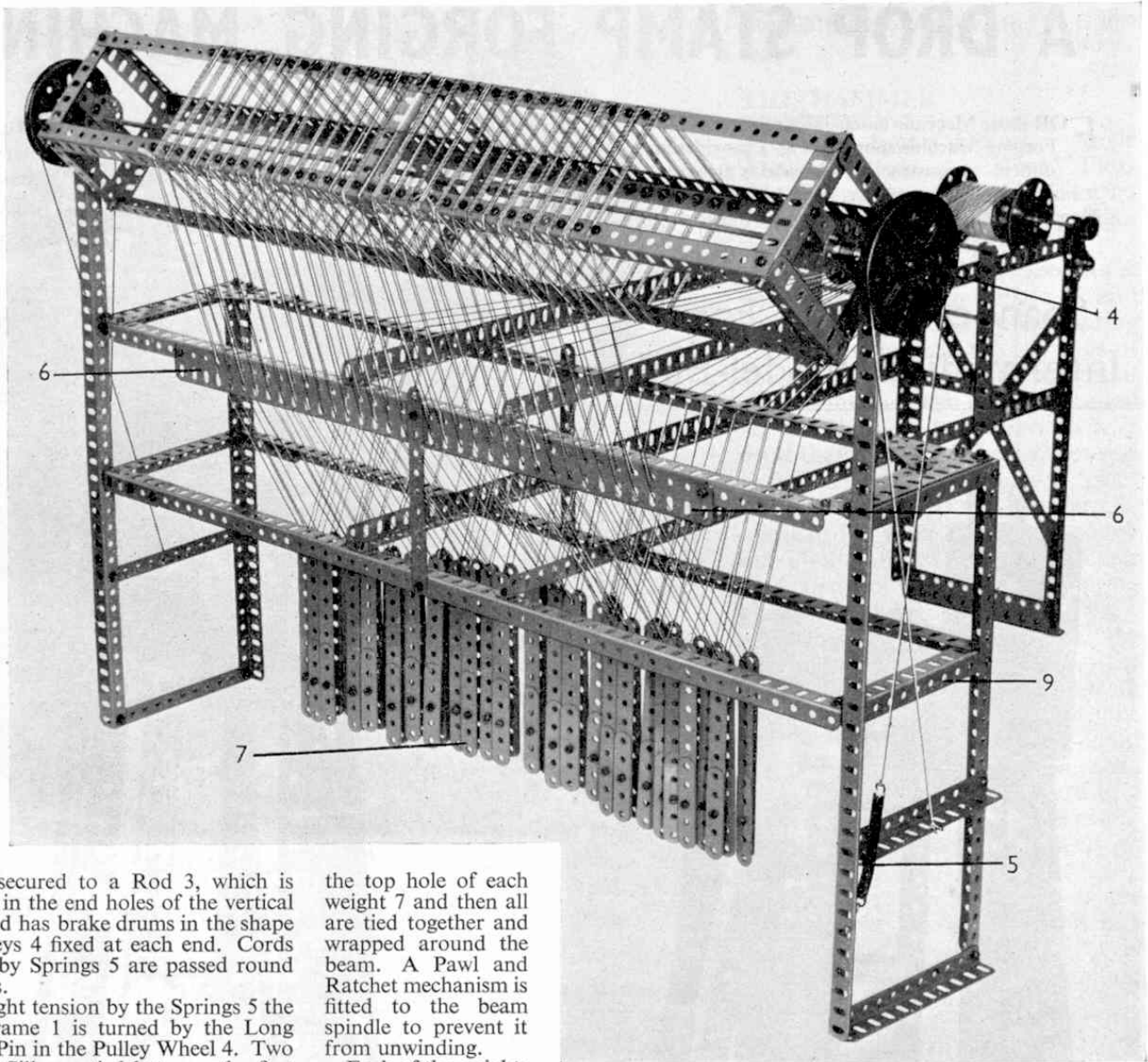
The rotating frame 1 on which the various threads of silk are wound, consists of four 24½" Angle Girders with 31 bolts being inserted in the holes of each Girder

BY SPANNER

in order that each pair of threads may be kept separated from the next pair. A Bush Wheel 2, attached to each end of the



The Beaming Frame seen from the rear.



frame, is secured to a Rod 3, which is journalled in the end holes of the vertical Girders and has brake drums in the shape of 3" Pulleys 4 fixed at each end. Cords tensioned by Springs 5 are passed round the Pulleys.

With slight tension by the Springs 5 the rotating frame 1 is turned by the Long Threaded Pin in the Pulley Wheel 4. Two threads of Silk are tied between the first and second Bolts to the 24½" Angle Girders and the frame 1 is turned until the required length is wound on. The threads are now cut and the loose ends are tucked-in between the threads already wound on the frame 1. This operation is repeated 30 times. Each section must have the same number of turns and start and finish on the same 24½" Angle Girder.

With this part completed, all the thread ends are pulled out and the frame turned backwards, until there is enough length to thread them through the Flat Girder 6, one thread in the top hole and the second thread in the bottom hole.

It is best to support the weights 7 on Rods passing through the third hole from the top, the Rods being supported by the Angle Girders 9 until the threads have been attached to the Rod 10 in the centre of the beam. The supporting Rods are removed before winding the warp on the beam.

Each of the warp threads is led through

the top hole of each weight 7 and then all are tied together and wrapped around the beam. A Pawl and Ratchet mechanism is fitted to the beam spindle to prevent it from unwinding.

Each of the weights 7 is composed of a 5½" Strip to which a 2½" Strip is attached. If the builder does not possess sufficient 2½" Strips, it will be necessary to construct some of the weights with other Strips to an equivalent weight.

One or two precautions must be observed before attempting to remove the beam from the beaming frame for insertion in the Loom. If all the silk has not been wound off the frame 1, the threads must be cut. Prior to this, a Rod should be clamped over the threads on the beam to prevent the threads from becoming loose and deranged; and a pair of Strips should also be clamped above and below the warp, just in front of the reed. This is to prevent the warp threads from pulling out of the reed when the warp is severed. The beam may then be removed from the machine. It should be borne in mind that much of the success of the model depends upon the warp threads being wound evenly upon the beam, and in carrying out this

work care must be taken to see that the tension weights do not drop so far that they touch the floor, as the sudden release of tension causes uneven patches to occur on the beam.

The brakes for the rotating frame should be strong enough to prevent the frame turning with the weight of Strips 7, yet should allow the frame to turn without difficulty when the warp threads are wound on to the beam.

Parts required to build the Beaming Frame: 2 of No. 1a; 62 of No. 5; 54 of No. 3; 2 of No. 4; 91 of No. 5; 12 of No. 7; 2 of No. 7a; 4 of No. 8; 11 of No. 9; 8 of No. 9b; 2 of No. 9d; 2 of No. 13; 3 of No. 14; 1 of No. 15; 2 of No. 19b; 2 of No. 24; 221 of No. 37a; 220 of No. 37b; 41 of No. 38; 1 of No. 40; 2 of No. 43; 4 of No. 48a; 1 of No. 48d; 2 of No. 58; 11 of No. 59; 2 of No. 63; 3 of No. 103; 2 of No. 103a; 2 of No. 109; 1 of No. 115a; 1 of No. 147; 1 of No. 148.