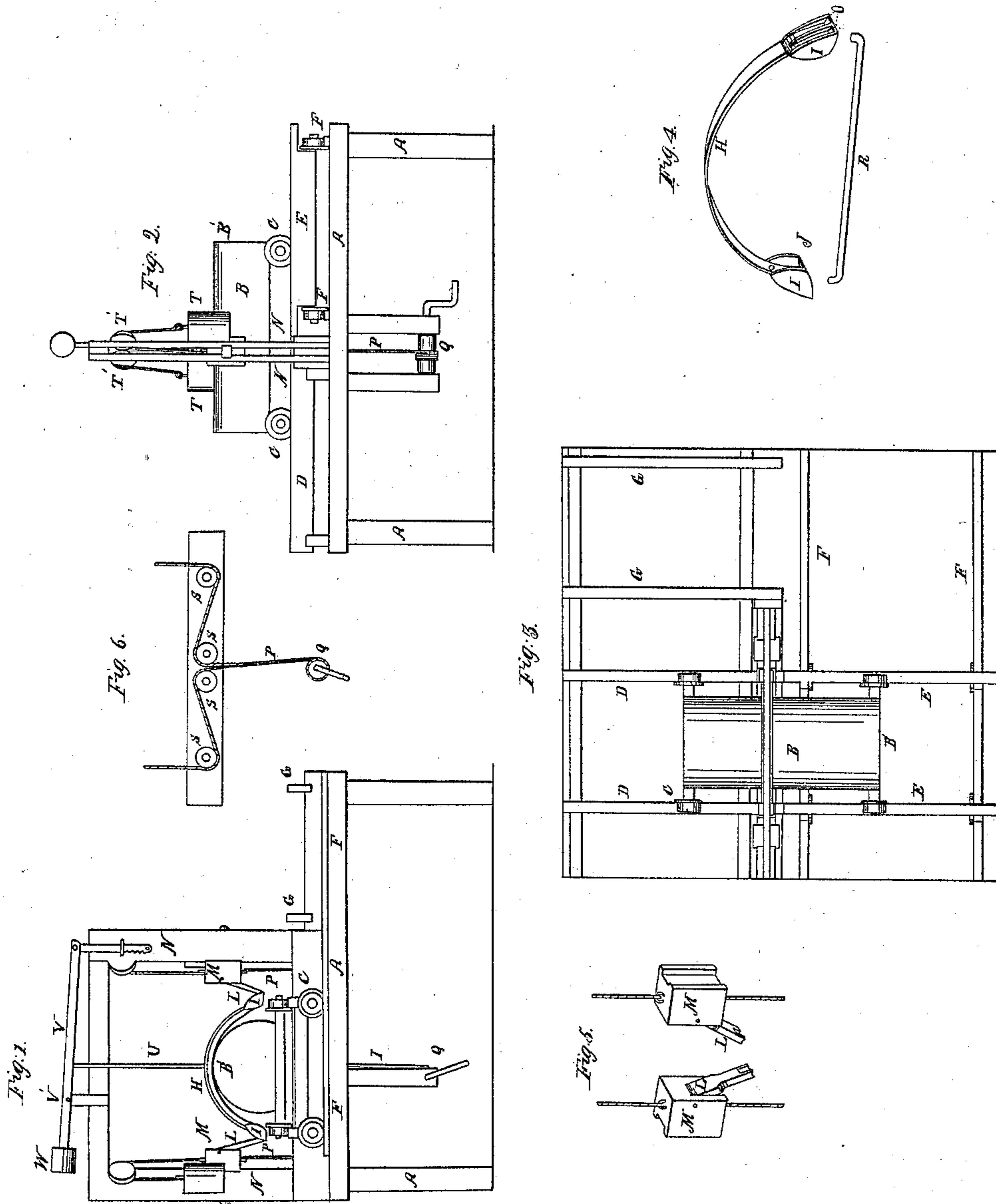


J. L. Mann, Bending Wood.

N^o 21,351.

Patented Aug. 31, 1858.



UNITED STATES PATENT OFFICE.

JOHN L. MANN, OF RAVENNA, OHIO.

MACHINE FOR BENDING FELLIES.

Specification of Letters Patent No. 21,351, dated August 31, 1858.

To all whom it may concern:

Be it known that I, JOHN L. MANN, of Ravenna, in the county of Portage and State of Ohio, have invented new and useful Improvements in Machines for Bending Fellies for Carriage-Wheels; and I do hereby declare the following to be a full and complete description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is an end view of the machine, Fig. 2 a side view, and Fig. 3 a top view.

Like letters refer to like parts in the different views.

A represents the frame work of the machine; B, the mounted forming block. This consists of a half cylinder, having a diameter equal to the size of the wheel which is to be made with the fellies. This half cylinder forming block, B, is mounted at each end, upon a pair of truck wheels, C, which rest upon a track D, D, E, E, for the purpose of conveniently moving it, under the bending apparatus. The mounted forming block B, is five or six feet long, and is intended to be filled with fellies, the fellies remaining until they are dry enough to be removed. The block is filled by beginning at the end B', and bringing the block forward, a suitable distance, at each bending of a felly, until the former is filled. It is then rolled forward until it stands entirely upon the track E E. The track E, E, stands entirely upon another track running at right angles thereto, and is seen in the several figures at F, F. The object of this track, is for the convenience of moving off a former, when filled with bent fellies, so as to make room for another. When the mounted forming block B, is shoved entirely upon the track E, E, this track E, E, can be brought over so that the rails E, E, will stand in connection with the rails G, G, seen in Figs. 1 and 3. This track G, G, may be extended a sufficient distance to accommodate any desirable number of forming blocks. After the fellies have been removed from the forming block B, these can be returned to the track D, D, in order to be refilled.

The fellies are bent upon the forming block, by means of a band of iron, (I usually use hoop iron) in length equal to the length of the fellies, and which is represented at H, Fig. 4. A head I, Fig. 4, is riveted to each end of this band H, and upon the in-

side of each head I, is a seat J, which receives the ends of the unbent fellies. The heads I, I, are pressed downward, and inward, by an arm L, which articulates in a moving fulcrum M, Fig. 1, seen also detached in Fig. 5. The moving fulcrums M, are guided in their upward and downward movement, by posts N, which receive between them, a T head from the fulcrum M. When the moving fulcrum M, is up, the arms L lie nearly vertical, the lower and divided ends, fitting into the steps O, O, Fig. 4. As the moving fulcrums descend, the arms L, assume an inclined position as seen in Fig. 1, and thus press the heads I I, snugly to the sides of the forming block. The moving fulcrum M, is drawn downward by cords P, P, which pass around friction rollers S, Fig. 6, and windlass Q, Figs. 2 and 6, this windlass being turned by a crank. The fellies when first bent, are held in place upon the mounted forming block by grip R, Fig. 4, hooked upon the heads I, between the steps O, O. The moving fulcrum M, is carried upward by weights T, T, supported by pulleys and cords T', T'.

The manner of using this machine, is as follows: The fellies are sawed or split, and shaved to a proper size, and cut square at each end, and just long enough to enter the seat J, J, upon the inside of the head pieces I, I, the band H, being upon the outside of the felly. The felly thus prepared, is placed upon the mounted forming block B, and the rod U brought down firmly upon it, as seen in Fig. 1. This rod is attached to a lever V, whose fulcrum is at V', and the long arm of which is provided with a clasp or cord, by which it can be firmly held in place. The short arm is provided with a weight W, which raises the rod U, as soon as the long arm of the lever is released from its fastening.

What I claim as my improvement, and desire to secure by Letters Patent, is,

The arrangement of the mounted forming block, and the system of tracks D, E, F, G, operating as described, when used in combination with the apparatus herein described, operating in the manner and for the purpose set forth.

JOHN L. MANN.

Witnesses:

P. B. CONANT,

JOHN H. BOSTWICK.