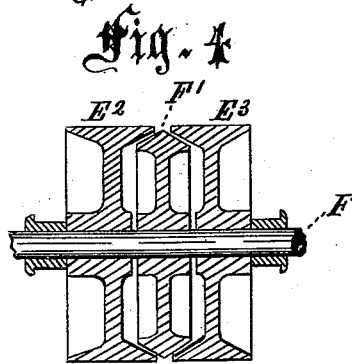
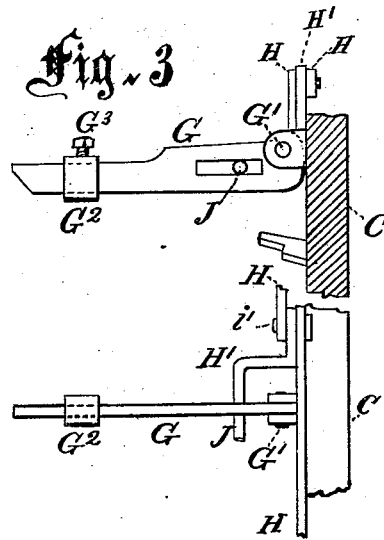
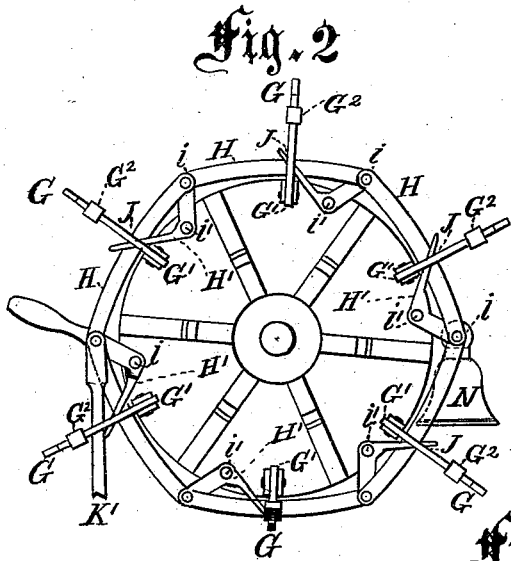
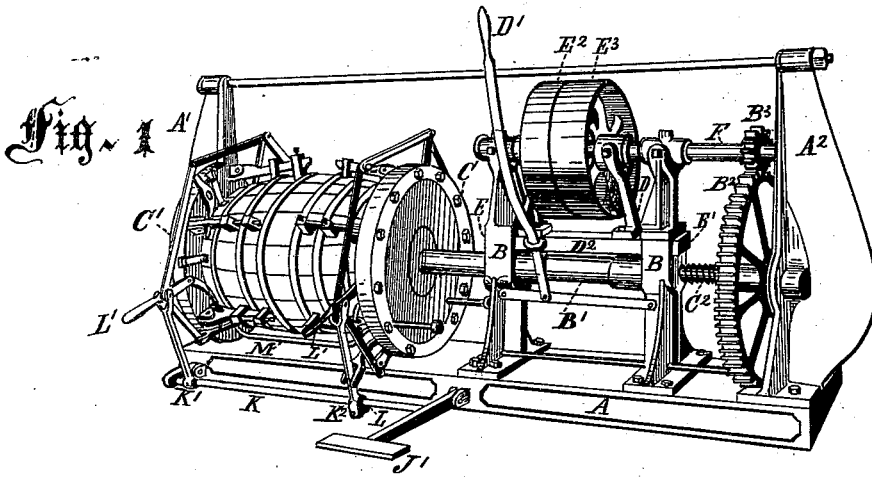


E. & B. HOLMES.

MACHINE FOR LEVELING AND TRUSSING BARRELS.

No. 188,365.

Patented March 13, 1877.



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# UNITED STATES PATENT OFFICE.

EDWARD HOLMES AND BRITAIN HOLMES, OF BUFFALO, NEW YORK.

## IMPROVEMENT IN MACHINES FOR LEVELING AND TRUSSING BARRELS.

Specification forming part of Letters Patent No. **188,365**, dated March 13, 1877; application filed September 21, 1876.

*To all whom it may concern:*

Be it known that we, EDWARD HOLMES and BRITAIN HOLMES, both of the city of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Machines for Leveling and Trussing Barrels, which improvements are fully set forth in the following specification, reference being had to the accompanying drawings.

Our invention consists of two leveling-heads, a reversing-clutch, and lever for giving one or both leveling-heads the necessary forward and back movement, and a series of adjustable and simultaneously acting truss-hoop drivers, as will be more clearly hereinafter shown.

In said drawings, Figure 1 represents a perspective view, showing our invention complete. Fig. 2 is a front view of the simultaneously-acting truss-hoop drivers and their connections. Fig. 3 is a side elevation of one of said hoop-drivers; also a top view of the same; and Fig. 4 represents a central section through the friction-clutch and reversing mechanism.

A represents the main frame, consisting of the parts A A<sup>1</sup> A<sup>2</sup>. B is the frame for the movable leveling-head and reversing-gear. C is the movable leveling-head; C<sup>1</sup>, the stationary one, which is fastened to an upright or support. The head C is supported in the frame B on the shaft B<sup>1</sup>, which is arranged so as to have a horizontal movement forward and back by means of the gearing B<sup>2</sup> B<sup>3</sup> and screw C<sup>2</sup>, which is rigidly fastened to the gear-wheel B<sup>2</sup>, and turns with it. It is fitted into a screw-thread in the end of the shaft B<sup>1</sup>, which is prevented from turning by a feather, or other equivalent device. D is an additional frame, arranged within the frame B so that it can be moved back and forth by the hand-lever D<sup>1</sup>, the lower or horizontal portion D<sup>2</sup> being fitted to slide easily in the frame B, as shown at E E<sup>1</sup>, Fig. 1. E<sup>2</sup> E<sup>3</sup> represent two loose pulleys, held to the frame D, so as to move with it easily along the shaft F to or from the wheel F<sup>1</sup>, (shown in Fig. 4,) the wheel

F<sup>1</sup> being firmly keyed to the shaft F. The pulleys E<sup>2</sup> E<sup>3</sup> being made to run in opposite directions, the operation of this part of the machine is obvious, the operator having control of the back and forward movements of the leveling-head C by means of the lever D<sup>1</sup>. The letters G represent the hoop-drivers. They are fastened to the leveling-head by joints G<sup>1</sup>, and are each provided with one or more pushing-pieces, G<sup>2</sup>, which may be adjusted lengthwise of the same by means of the set-screws G<sup>3</sup>. (Shown in Fig. 3.) The letters H represent a jointed frame-work, connected together by joints *i*. H' H' are angular pieces, jointed to the leveling-head at *i'*, and to the jointed frame H at *i*. The other ends of H pass through a slot in each of the hoop-drivers G, at J, thereby connecting all the parts together, so that by moving the jointed frames shown by letters H by a footstep, J', which moves the frames H on both leveling-heads by means of the rod K and connections K<sup>1</sup> K<sup>2</sup>, K<sup>2</sup> being made so as to slip along said rod with the moving head at L; or, by moving either of the levers L', the same result follows.

It will be readily seen that, by moving the footstep upward, (which may be done by the weight N, or by otherwise raising it up,) the hoop-drivers will all be simultaneously turned up into the position shown in Fig. 2, so that a barrel may be put into the machine upon the rods or supports M. By a movement downward of the footstep, or its equivalent, the hoop drivers are all brought downward, as shown in Fig. 1, so that each will engage with the hoops to be driven by the movement of the moving head C.

We claim as our invention—

The combination of a series of simultaneously-acting truss-hoop drivers, G, with the parts H H', arms K<sup>1</sup> K<sup>2</sup>, and footstep J', or its equivalent, for the purposes specified.

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