W. BAYLEY.

BARREL TRUSSING MACHINE.

No. 190,731. Patented May 15, 1877.

Fig. 1

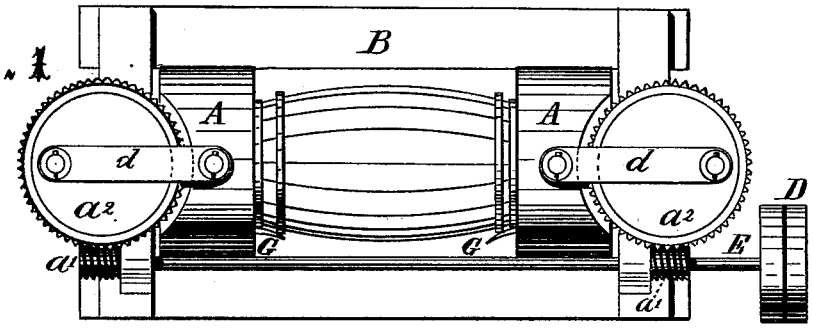


Fig. 3

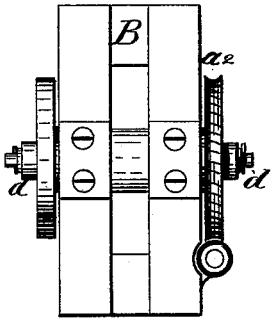


Fig. 2

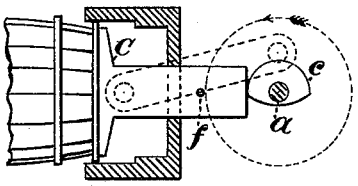


Fig. 4

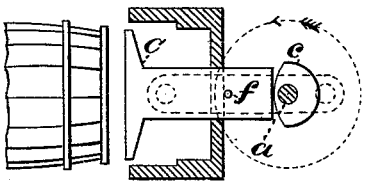
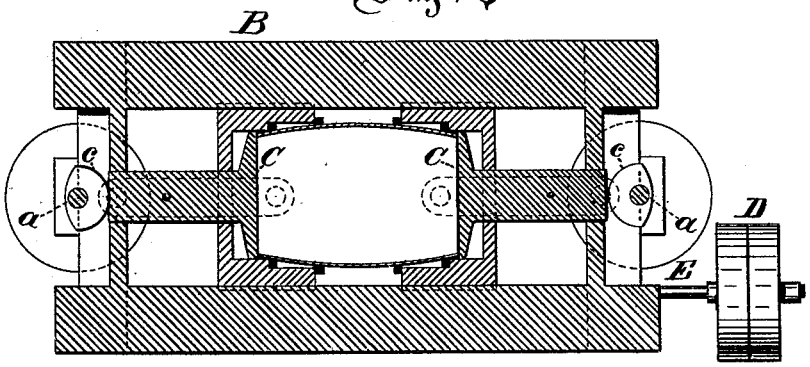


Fig. 5



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UNITED STATES PATENT OFFICE.

WILLIAM BAYLEY, OF WILMINGTON, DELAWARE, ASSIGNOR TO EDWARD AND BRITAIN HOLMES, OF BUFFALO, NEW YORK.

IMPROVEMENT IN BARREL-TRUSSING MACHINES.

Specification forming part of Letters Patent No. **190,731**, dated May 15, 1877; application filed September 23, 1875.

To all whom it may concern:

Be it known that I, WILLIAM BAYLEY, of the city of Wilmington, in the county of New Castle and State of Delaware, have invented certain new and useful Improvements in Barrel-Trussing Machines, which improvements are fully set forth in the following specification, reference being had to the accompanying drawings.

The object of this invention is to provide an improved means for holding, leveling, and trussing barrels or kegs of any description, whereby time and labor may be saved and a better quality of work produced; and it consists in the combination of one or more movable trussing-heads, a crank or other equivalent means for operating them, and one or more leveling-heads, provided with suitable cams for moving and so timing their movements that a barrel may be leveled and held in position while both ends are being trussed, as will be more clearly hereinafter shown.

In the said drawings, Figure 1 represents a side elevation of the machine complete. Fig. 2 is a section through one of the trussing-heads, and a diagram showing the position of one of the leveling-heads when at the limit of its forward movement. Fig. 3 is an end view of the machine. Fig. 4 represents the position of a leveling and trussing head when at the limit of their backward movement; and Fig. 5 is a vertical longitudinal section through the machine.

The letters A represent the trussing-heads, *a a* the crank-shafts, and a^1 a^2 the worm-gear and crank-wheels for operating them. B is the frame of the machine. C C are the leveling-heads. They receive their movements by means of the cams *c c*.

D represents the driving-pulleys, and E the driving-shaft. *d d* are arms for connecting the heads A to the crank-wheels a^2. *f f* represent two pins, by which the leveling-heads are drawn back by the movement of the trussing-heads in their backward stroke.

G G in Fig. 1 represent two or more center-guides on the leveling-heads, for keeping the barrel central between the trussing and leveling-heads.

The operation of the invention is as follows: The barrel is first rolled into the machine in the position shown in Fig. 1. Motion being imparted to the shaft E by the pulleys D, or by other equivalent means, transmits, through the screws a^1 a^1, a rotary motion to the crank-wheels a^2 a^2, and from thence, by means of the arms *d*, a reciprocating movement to the trussing-heads A, the leveling-heads C receiving their intermitting movements by means of the cams *c c*, the movements of the trussing and leveling heads being so timed that the leveling-heads move quickly, and complete their stroke, and level the barrel at the moment or before the trussing operation commences, thereby leveling and trussing both ends of the barrel by a single revolution of shafts *a a*.

It must be clearly understood that the "trussing-heads," as they have been called, are simply hoop-drivers, because they are used solely for driving the truss-hoops, which are slipped upon the incipient barrel before it is placed in the machine. They are clearly distinguished from the reciprocating tapering sleeves used in some trussing-machines for gathering the staves and compressing the barrel at the same time that the hoops are applied, for such tapering sleeves do not drive the previously-applied truss-hoops, but simply carry the hoops in recesses, to leave them on the barrel as it expands on the withdrawal of the sleeves; and, in every case where such a sleeve is required to apply to hoops, it must be made in two halves, so that it can be opened previous to its withdrawal to release the hoops from their recesses, whereas my hoop-driving head may consist of a single piece in all cases.

I claim as my invention—

1. In a barrel-truss hoop-driving machine, the combination, substantially as specified, of two reciprocating drivers, which move toward and from each other over the opposite ends of the barrel, a driving-shaft, and intermediate mechanism for simultaneously and uniformly actuating said drivers.

2. In a barrel-truss hoop-driving machine, the combination, substantially as specified, of

a reciprocating truss-hoop driver and a leveling-head, which is forced against the barrel before the driver begins to act on the hoop, and then remains stationary until the hoop has been driven.

3. The screw-gearing a^1 a^2, trussing-heads A, leveling-heads C, cams *c*, and center-guides G G, all arranged and combined for joint operation, substantially as and for the purposes specified.

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