(No Model.)

M. CORCORAN.

TRUSSING MACHINE.

No. 581,695. Patented May 4, 1897.

Fig. 1.

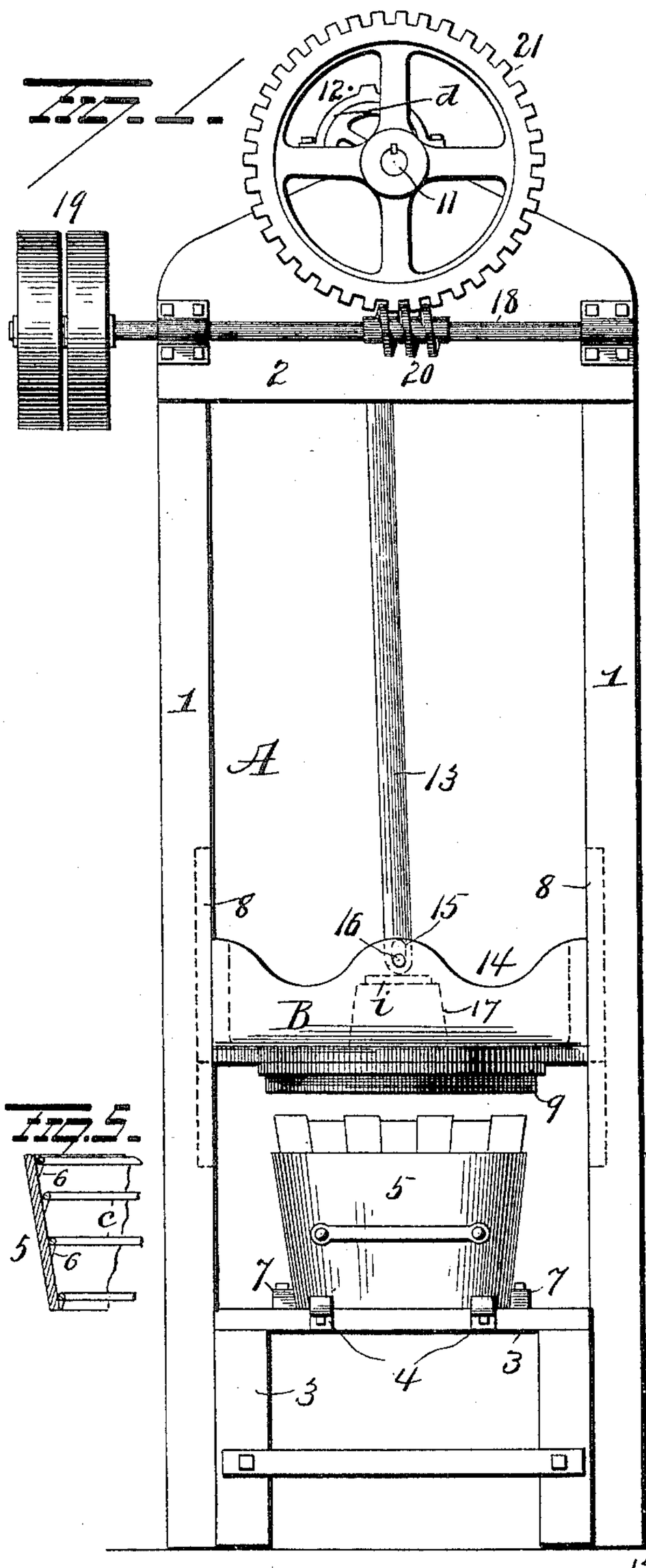


Fig. 2.

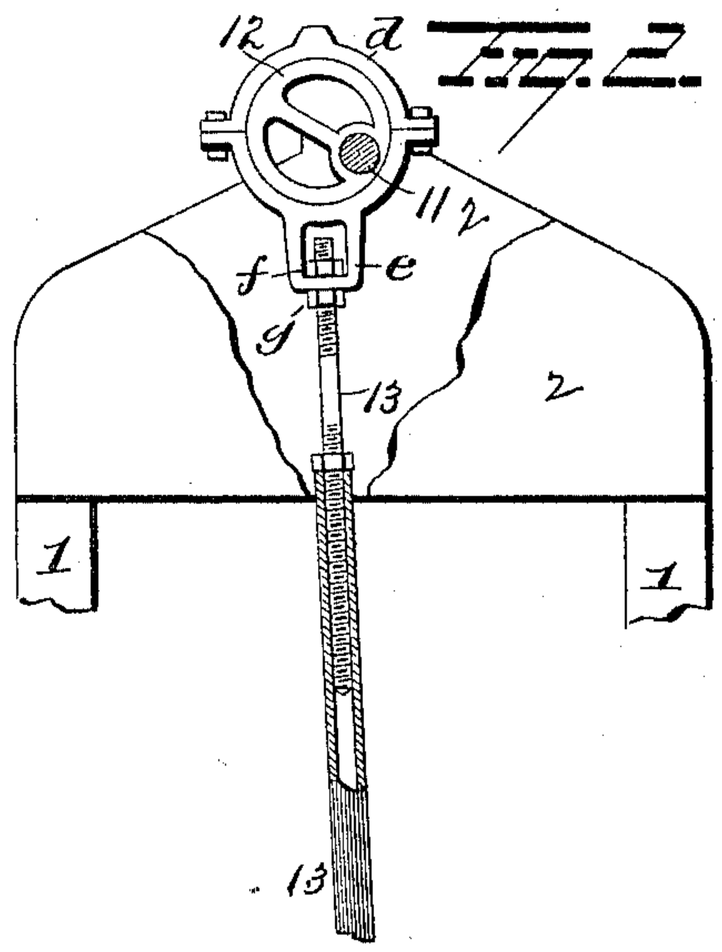


Fig. 3.

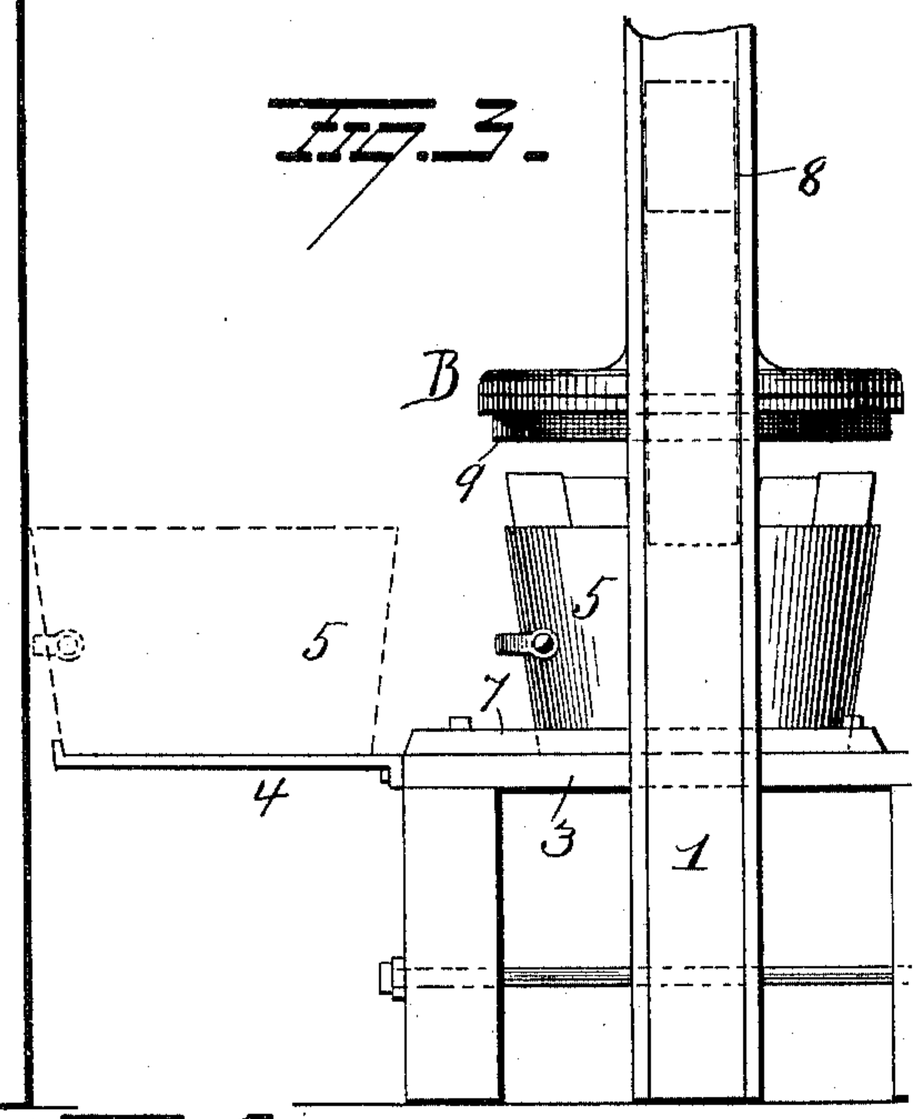
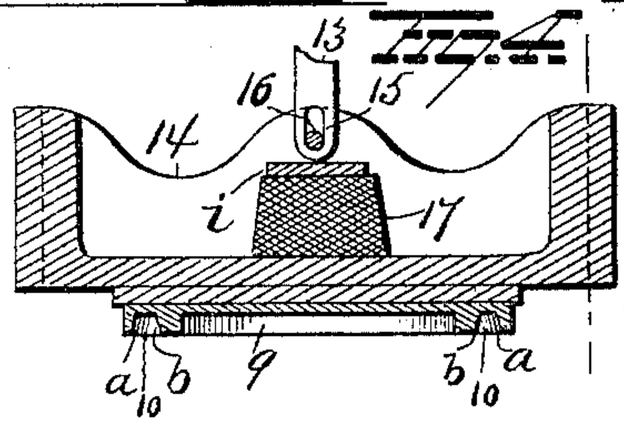


Fig. 5.

Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

MATHEW CORCORAN, OF FREMONT, NEBRASKA.

TRUSSING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 581,695, dated May 4, 1897.

Application filed December 2, 1896. Serial No. 614,204. (No model.)

To all whom it may concern:

Be it known that I, MATHEW CORCORAN, of Fremont, in the county of Dodge and State of Nebraska, have invented certain new and useful Improvements in Trussing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an improvement in trussing-machines for use in the manufacture of tubs, &c.; and the invention consists in certain novel features of construction and combinations and arrangements of parts, as hereinafter set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a front elevation. Fig. 2 is a view showing a portion of the driving mechanism. Fig. 3 is a side elevation of a portion of the machine. Figs. 4 and 5 are detail views.

A represents a frame comprising uprights 1, cross-heads 2 at the upper end thereof, and a base or table 3. A shelf 4 projects from the base or table 3 for the reception of a form 5, into which the staves of a tub are inserted, said form being of an internal contour to conform to the shape of the proposed tub and is provided internally with a series of shoulders 6 for the reception of the rings or hoops *c* of the tub. The staves are inserted into the form in the usual manner and the rings made to rest on the shoulders 6. The form is then moved within the framework and under a plunger B, the correct position of the form under the plunger being insured by means of stops 7, secured to the base or table 3.

The plunger B is adapted to move in guides 8 in the uprights 1 and to the under face of said plunger a plate 9 is secured. The plate 9 is made circular in form and is made in its under face with an annular groove 10 in proximity to its periphery, said groove being made approximately V-shaped in cross-section. When the plunger is moved down, (in a manner presently explained,) the face *a* of the groove 10 will engage such staves as may project outwardly, and the face *b* will engage such staves as may project inwardly, and all the staves will thus be brought into line, so that their upper edges will mark a true circle.

A shaft 11 is mounted transversely on the cross-heads 2 and provided between its ends with an eccentric 12. A strap *d* encircles the eccentric 12 and is provided with an open arm *e*, having a hole in its free end for the accommodation of the screw-threaded upper end of a pitman 13, which latter is held fixed in the position to which it may be adjusted by means of nuts *f g*. The pitman is made in two parts, and the lower end of the upper part is screw-threaded to enter a similarly-threaded portion at the upper end of the lower part of said pitman, whereby to permit the ready adjustment of the pitman for length. The lower end of the rod or pitman terminates between flanges 14 on the plunger B and is provided with an elongated slot 15 for the reception of a transverse pin 16, said pin also passing through the parallel flanges 14, and thus connects the rod or pitman with the plunger.

A rubber block or buffer 17 is disposed between the flanges of the plunger and under the lower end of the rod or pitman 13, so that when the pitman is made to descend for the purpose of forcing the face-plate on the plunger down on the staves the pressure will be equalized and the staves will be forced down to their proper positions, made to abut closely against each other; and be uniform or even at their upper edges. A metal plate *i* is inserted between the end of the pitman and the rubber block, whereby to prevent injury to the latter.

A shaft 18 is mounted in suitable bearings secured to one of the cross-heads 2 and provided at one end with pulleys 19, to one of which motion may be imparted in any suitable manner.

At a point between the ends of the shaft 19 a worm 20 is secured and adapted to transmit motion to a worm-wheel 21, secured to the transverse shaft 11, and thus motion is imparted to the eccentric 12, pitman 13, and finally to the plunger B. From this construction and arrangement of parts it will be seen that during a revolution of the eccentric 11 the plunger will be made to descend, collect the staves into a true circle, and compress them or force them down into the form, so that they will be pressed intimately together within the form and the rings or hoops *c*, after which the plunger will ascend, whereupon the form can be removed and recharged

or another form containing staves and rings inserted in position under the plunger.

The improvements are simple in construction, comparatively cheap to manufacture, and effectual in all respects in the performance of their functions.

Slight changes might be resorted to without departing from the scope of the invention or limiting its scope, and hence it is not described to be limited to the exact details herein set forth.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a trussing-machine, the combination with a form adapted to receive staves therein, and a platen having a groove in its lower face adapted to receive the upper ends of the staves when the platen is down, of a pitman having a sliding pivotal connection with the plunger, and yielding means interposed between the pitman and the plunger for retaining them yieldingly apart.

2. In a trussing-machine, the combination with a form, adapted to receive staves and hoops, and a platen having a groove therein to receive and center the upper ends of the staves, of an extensible pitman having a sliding pivotal connection with the platen, and a yielding device interposed between the platen and the pitman for holding the two yieldingly in their normal position.

3. In a trussing-machine, the combination with a pair of uprights having grooves in their inside faces, a platen having its ends in said grooves, said platen having a groove which receives the upper ends of the staves and regulates their positions relative to one another, of a pitman having an elongated slot at the lower end, a pin passing through the slot whereby to effect a sliding pivotal connection with the plunger, an elastic block beneath the end of the pitman and between the latter and the plunger, means for lengthening and shortening the pitman, a rotary shaft having an eccentric thereon with which an end of the pitman is connected, and a worm and worm-gear for driving the shaft.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

MATHEW CORCORAN.

Witnesses:
ALFRED D. SEARS,
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