

(No Model.)

J. TOMLINSON.

STAVE PACKER.

No. 309,421.

Patented Dec. 16, 1884.

Fig. 1.

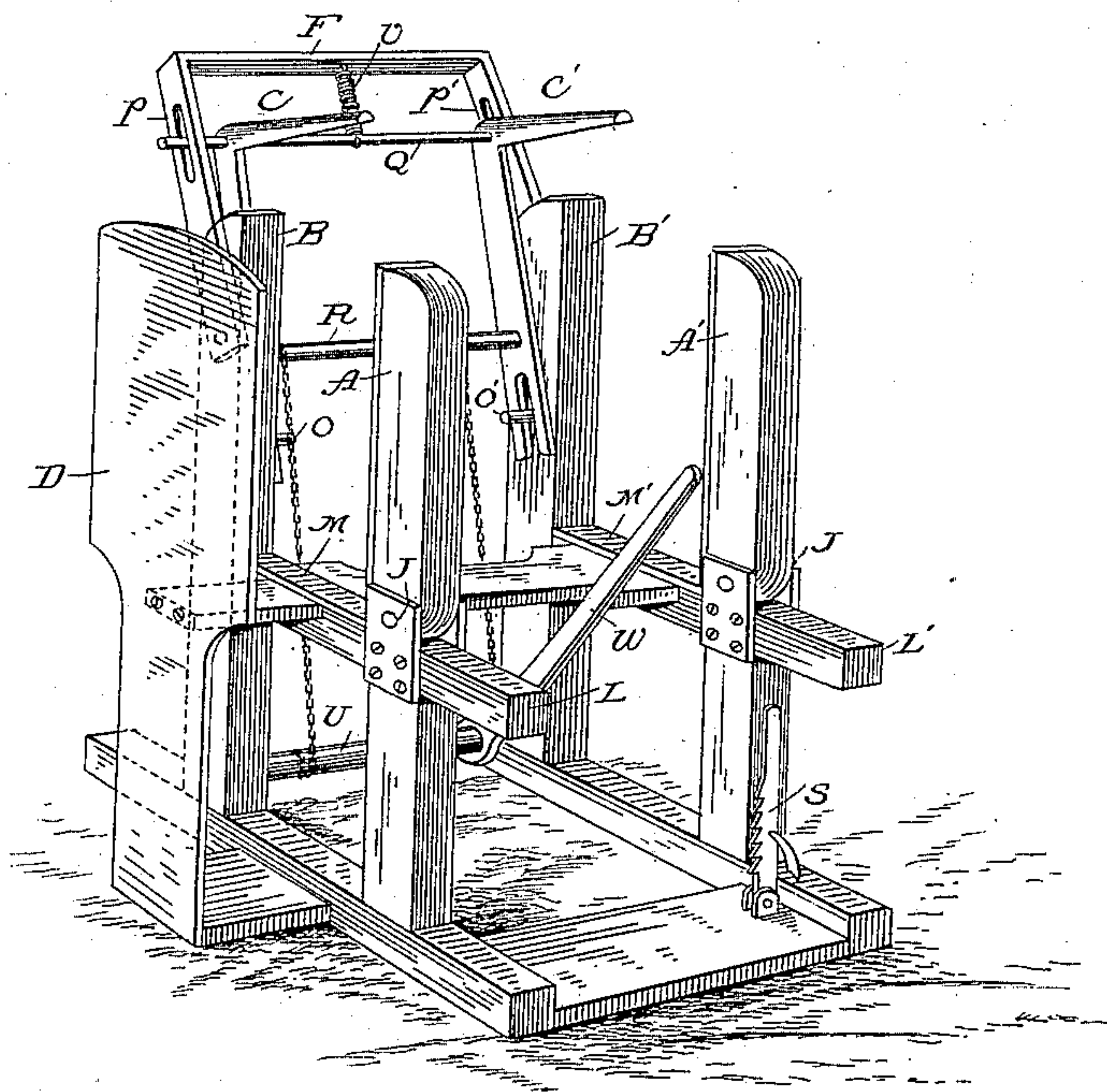
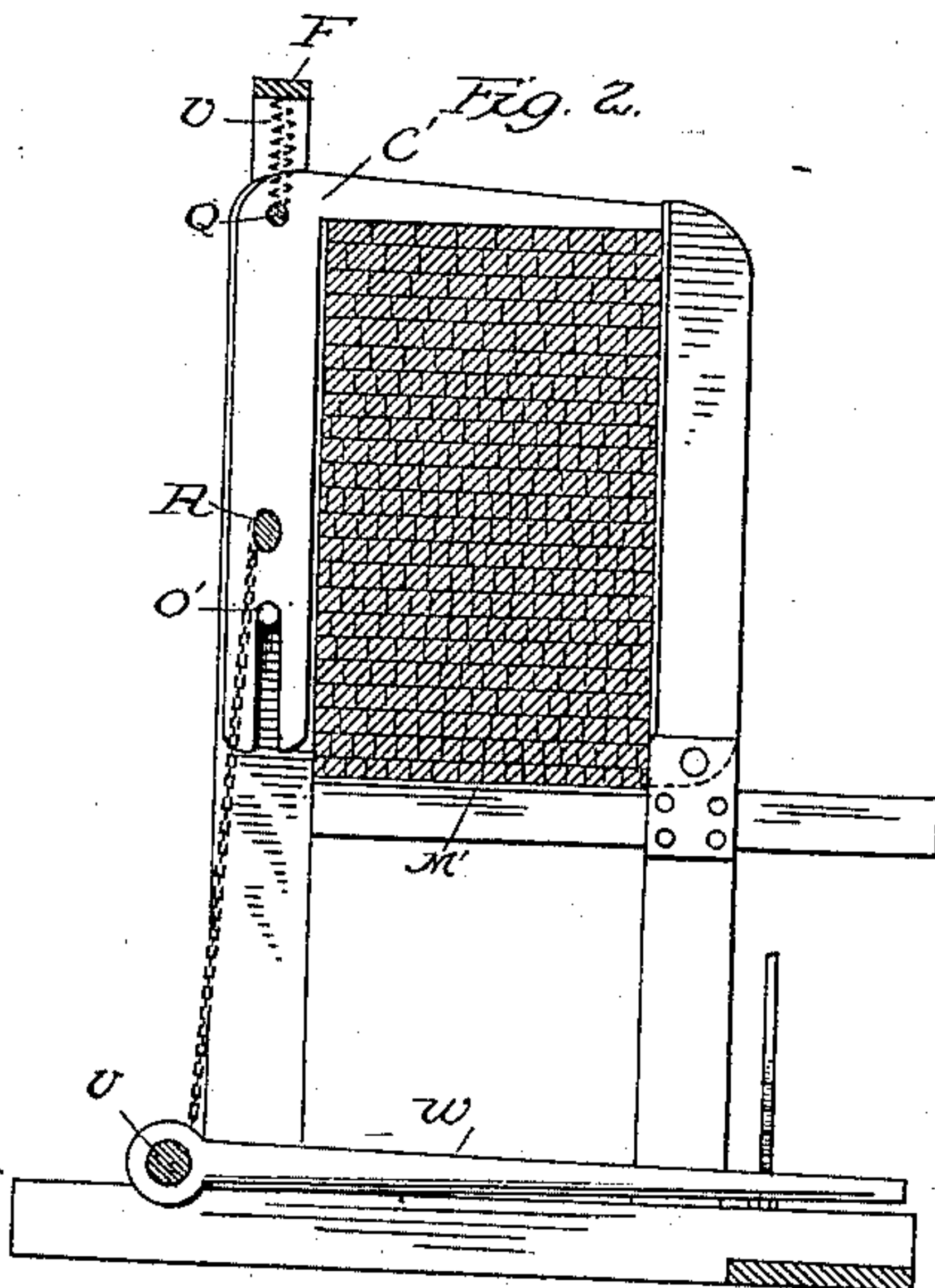


Fig. 2.



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UNITED STATES PATENT OFFICE.

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STAVE-PACKER.

SPECIFICATION forming part of Letters Patent No. 309,421, dated December 16, 1884.

Application filed May 10, 1884. (No model.)

To all whom it may concern:

Be it known that I, JAMES TOMLINSON, of Detroit, Wayne county, Michigan, have invented a new and useful Improvement in Stave-Packers; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

Figure 1 represents a perspective view of my machine, and Fig. 2 a section from front to rear, showing the portion of the compressing part of my machine when in position for compressing a bundle of staves.

In packing staves or shingles it is desirable to have, first, a receptacle of proper size and shape within which the staves or shingles may be placed, and by which the contour of the package may be formed. It is further desirable that the package may then be tightly compressed and secured, so that it may be handled and shipped without danger of breakage. I secure these results by means of four upright posts, A A' B B', rising above a strong base, of which the cross-pieces L L' form a part. A fifth upright piece, D, with a broad face, is placed opposite the opening between the two uprights A and B. This piece D is about as broad as the opening between A and B, and about half as far from them as the distance from A to A'. The two standards A A' do not continue below the cross-pieces L L', but are held in position upon L L' by means of a hinged joint. (Shown at J J.) The standards A A', when made of wood, have metal pieces M M' secured thereto near the bottom by upturned portions, and extending out at right angles from the standards, and adapted to rest upon the top of the cross-pieces L L', as shown. The pieces M M' may be turned up just enough to be secured to the standards A A'; or, if desired, they may, as shown, extend to the top of the same to form a facing therefor. The entire piece A M may be cast of iron in a single piece, but I prefer that the part M be of band-iron bent to fit the right angle between A and L (when A is upright) and bolted or otherwise secured to the upright A. The entire piece A M always forms a right angle, or practically a right angle, between its arms, but may be turned upon the hinge at J

through any desired angle to enable a package to be easily removed from between the uprights. The cross-pieces L L' are elevated by frame-work above the base of the press sufficient to allow ease in packing and sufficient space for the movement of the lever W, hereinafter described.

On the standards B B', I place the pins O O', and upon these pins hang a frame made of two right-angled hooks, C C', connected by cross-bars Q R. The lower end of each of the hooks C C' has a longitudinal slot (or fork) through which the pins pass, thus holding the lower end of said frame in position, and at the same time permitting the pressure-hooks to move vertically. To the hooks, or the cross-bar R connecting them, are attached chains, which pass to and are attached to a winch, U, held in boxes near the bottom of the frame. This which is operated by a lever, W, and by it the chain is wound on the drum of the winch and the hooks drawn down with any desired amount of force, and any desired pressure is exerted upon the package under the hooks. A second frame, F, is hinged to the standards B B'. In the side pieces of this second frame are longitudinal slots *pp'*, through which pass guide-pins extending from the sides of the hooked arms C C'. The frame F, when turned upon its hinges, imparts motion to the hooked frame, controlling the movement of the same by means of the pins *pp'*, projecting through the slots in the side pieces of the frame.

From the upper cross-bar of the frame F to the upper cross-bar of the hooked frame is passed a sustaining-spring, V, which holds up the hooked frame and allows it freedom of movement over the material to be pressed, keeping it in adjustment for immediate use.

In using my machine the elbowed arms, composed of the parts M A M' A', are placed with the parts M M' parallel to and lying upon the cross-pieces L L' and the arms A A' upright and parallel to B B'. The desired amount of material to be packed is now placed between the standards in a regular pile. The frame F is then brought forward, bringing with it the hooks until the hooks are well over the package. The winch U is turned, and, drawing down the hooks, the package is firmly compressed and held under pressure by the ser-

rated detent S catching and holding the lever W. While under pressure the package is tied or banded. The pressure is then removed and the elbowed arms A M A' M', with the package 5 resting in the angle between them, are turned on the hinges J J' until the package can be easily removed.

Having thus described my invention and its mode of use, what I claim as new, and desire 10 to have secured to me by Letters Patent, is—

1. In a stave-packer, an elbowed retaining-arm, the two parts of said arm being adapted to form two sides of a receptacle within which staves are packed, and the said arm being 15 hinged at its elbow to enable the relative position between it and the other parts of the frame to be changed.

2. In a stave-packer, the combination, with the upright posts, of an angled hook pivoted 20 on the rear posts, so as to have vertical motion between the same, and lever-connections, substantially as described, whereby one arm of the angle is brought over the top of the package between the uprights, substantially as described, and for the purpose set forth. 25

3. In combination with the upright posts of a stave-packing machine, an angled hook having one of its arms adapted to pass over

the top of a bundle placed between the uprights, and having the other end slotted or 30 forked to embrace a pin inserted in the side of the upright, and held to the said upright by means of said pin passing through said slot or fork, but adapted to be moved upon said pin through the length of the slot or 35 fork.

4. In combination with the uprights of a packing-machine, a movable frame hinged thereto, having slots in the side pieces thereof, which embrace pins projecting from the sides 40 of hooks, also hinged to said uprights, by means whereof said hooks are easily thrown in or out of position for compressing a package.

5. In a stave-packing machine, the arrangement of the jointed hinged arms A M A' M', hooks C C', frame F, sustaining-spring V, winch U, and connecting-chains T T', constructed and operating substantially as described. 45

JAMES TOMLINSON.

In presence of—

CHARLES F. BURTON,
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GEORGE MAITLAND.