

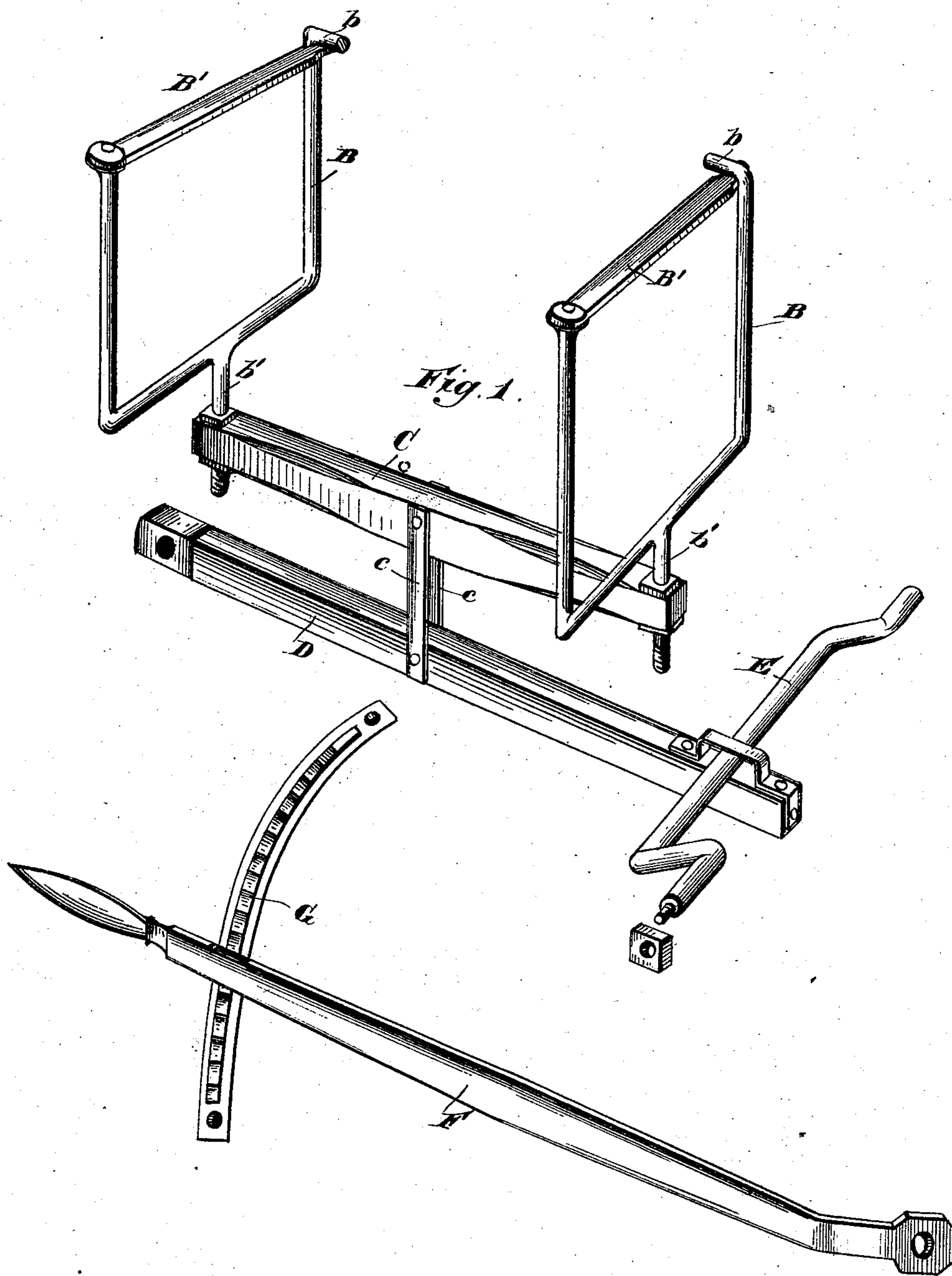
(No Model.)

2 Sheets.—Sheet 1.

C. A. HARRIS.  
STAVE BALING MACHINE.

No. 287,672.

Patented Oct. 30, 1883.



*Witnesses:*

Charles S. Hoyer.

J. A. Rutherford

*Inventor* :

*Charles A. Harris*

By James L. Norris.  
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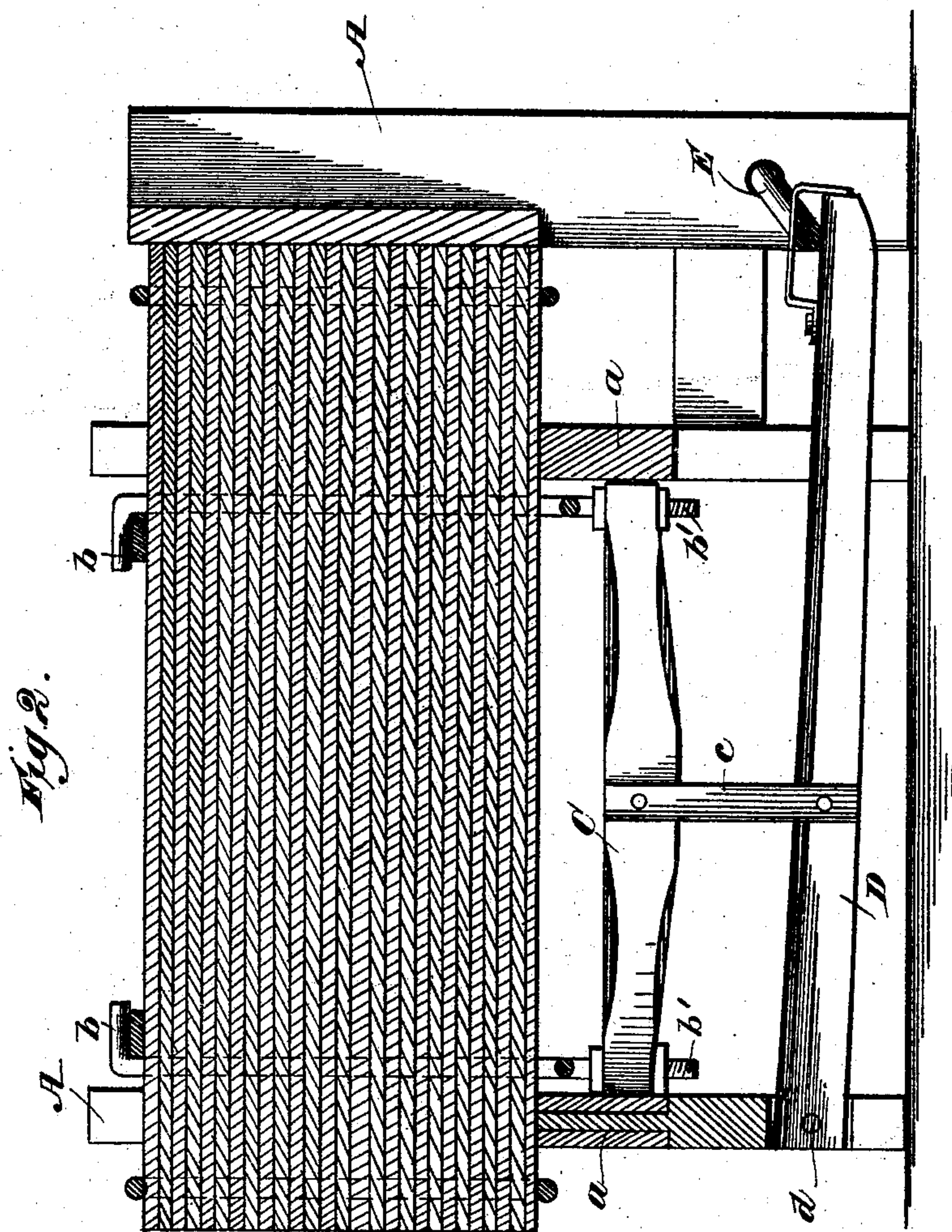
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# UNITED STATES PATENT OFFICE.

CHARLES A. HARRIS, OF MILLBURY, OHIO, ASSIGNOR OF ONE-HALF TO  
CHARLES P. CURTIS AND EDWARD KARCHNER, BOTH OF SAME PLACE.

## STAVE-BALING MACHINE.

SPECIFICATION forming part of Letters Patent No. 287,672, dated October 30, 1883.

Application filed August 17, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES A. HARRIS, a citizen of the United States, residing at Millbury, in the county of Wood and State of Ohio, have invented new and useful Improvements in Stave-Baling Machines, of which the following is a specification.

This invention relates to certain improvements in machines for baling or bundling staves; and it consists in the construction and arrangement of parts hereinafter described, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of the operating parts of my machine removed from the frame, with the hand-lever and ratchet attached; and Fig. 2, a longitudinal section of my machine, showing a bundle or bale of staves placed in position and compressed.

Referring to the drawings, A A represent the frame-work of my machine, having sills *a*, upon which the staves to be baled are placed.

B B represent two U-shaped yokes or frames, united at their tops by two locking-arms, B' B', each one of said locking-arms being pivoted to one of the arms of the U-shaped yoke, the other arms of said yokes terminating in bent portions or hooks *b b*. Said yokes are provided with screw-threaded arms or extensions *b' b'*, by means of which and nuts they are secured to the opposite ends of a beam, C. The beam C is provided at its center with two links, *c c*, by means of which it is secured to a beam, D. Said beam D is pivoted at one end, as at *d*, to one end of the frame A A, and at the other end is loosely connected with a crank-shaft, E, journaled in the frame A A. One end of the said crank-shaft extends through the side of the frame, and is provided with a hand-lever, F.

G represents a ratchet-segment secured to one side of the frame, near the handle end of the hand-lever F, for the purpose hereinafter described.

The operation of my machine is as follows: The locking-bars B' B' are first swung around

out of the way and the hand-lever F raised to its highest position. The staves are now placed in the yokes B B, resting upon their sills *a a*, their ends closely abutting against one end of the frame, as shown in Fig. 2. In placing the staves in position to be baled a wide and a narrow stave compose each layer, and the layers are so built up that they will alternately break joints. The staves are piled up in position in the machine until they are piled as high as the lock-bars B' B', when said lock-bars are swung around over the staves and their free ends passed under the hooks *b b*. The hand-lever F is now depressed, thus depressing the yokes B B through the medium of the crank-shaft E and beams D and C, and compressing the staves into a compact bundle. The hand-lever F is now slipped into engagement with the ratchet-segment G, securely holding the bundle of staves in its completed condition. The cords usually employed for the purpose are now passed around the ends of the bundle of staves and tightly tied, and the hand-lever released. The staves are now in a compact and secure bundle for transportation, and are removed from the machine and the operation repeated.

Having thus described my invention, what I claim is—

1. The combination of the frame A A, yokes B B, locking-arms B' B', beams C D, crank-shaft E, and hand-lever F, substantially as described.
2. The frame A A, having sills *a a*, in combination with the yokes B B, having locking-arms B' B', the beams C D, connected as shown, the crank-lever E, hand-lever F, and ratchet-segment G, all constructed and arranged substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

CHARLES A. HARRIS.

Witnesses:

WILLIAM H. TUCKER,  
JOSEPH N. CLOUSE.