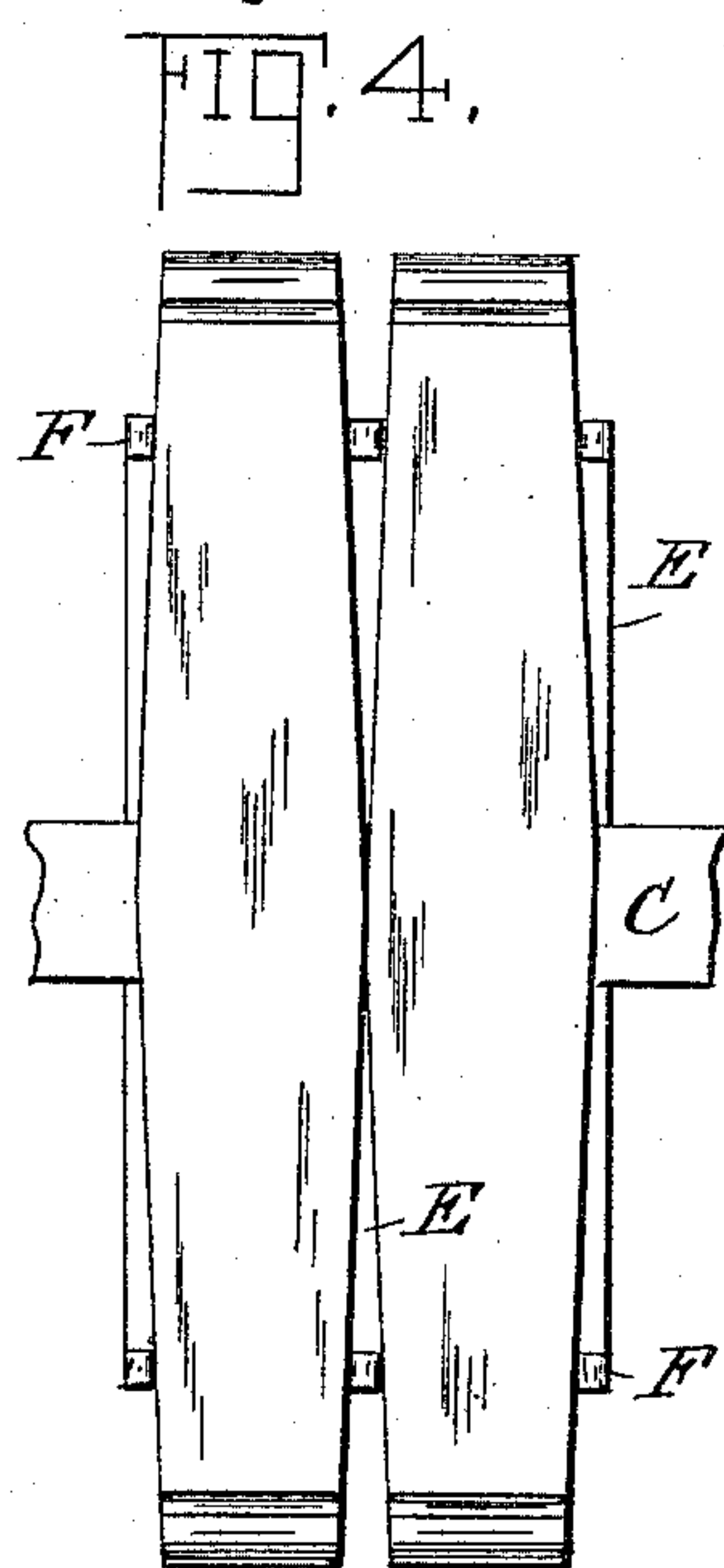
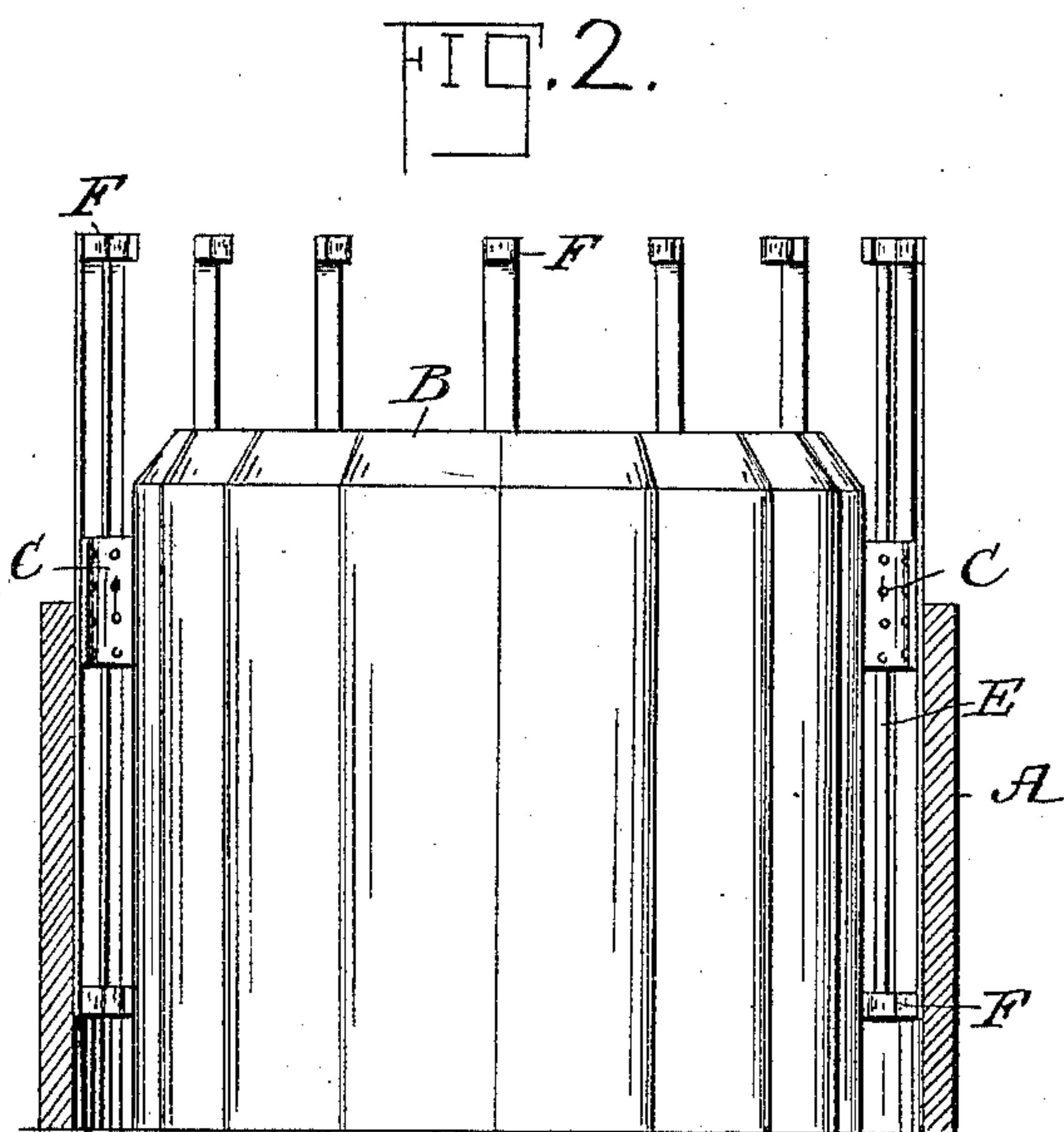
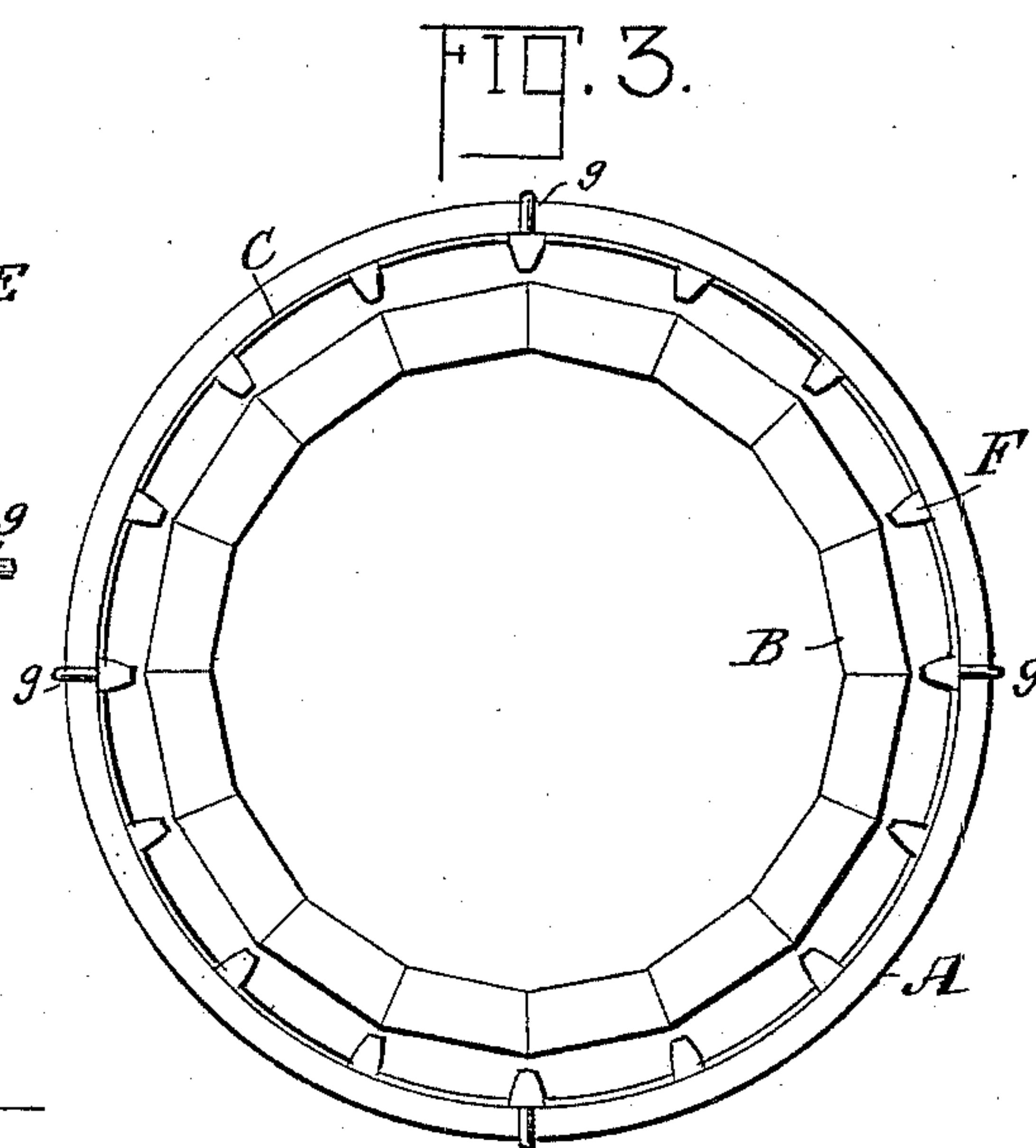
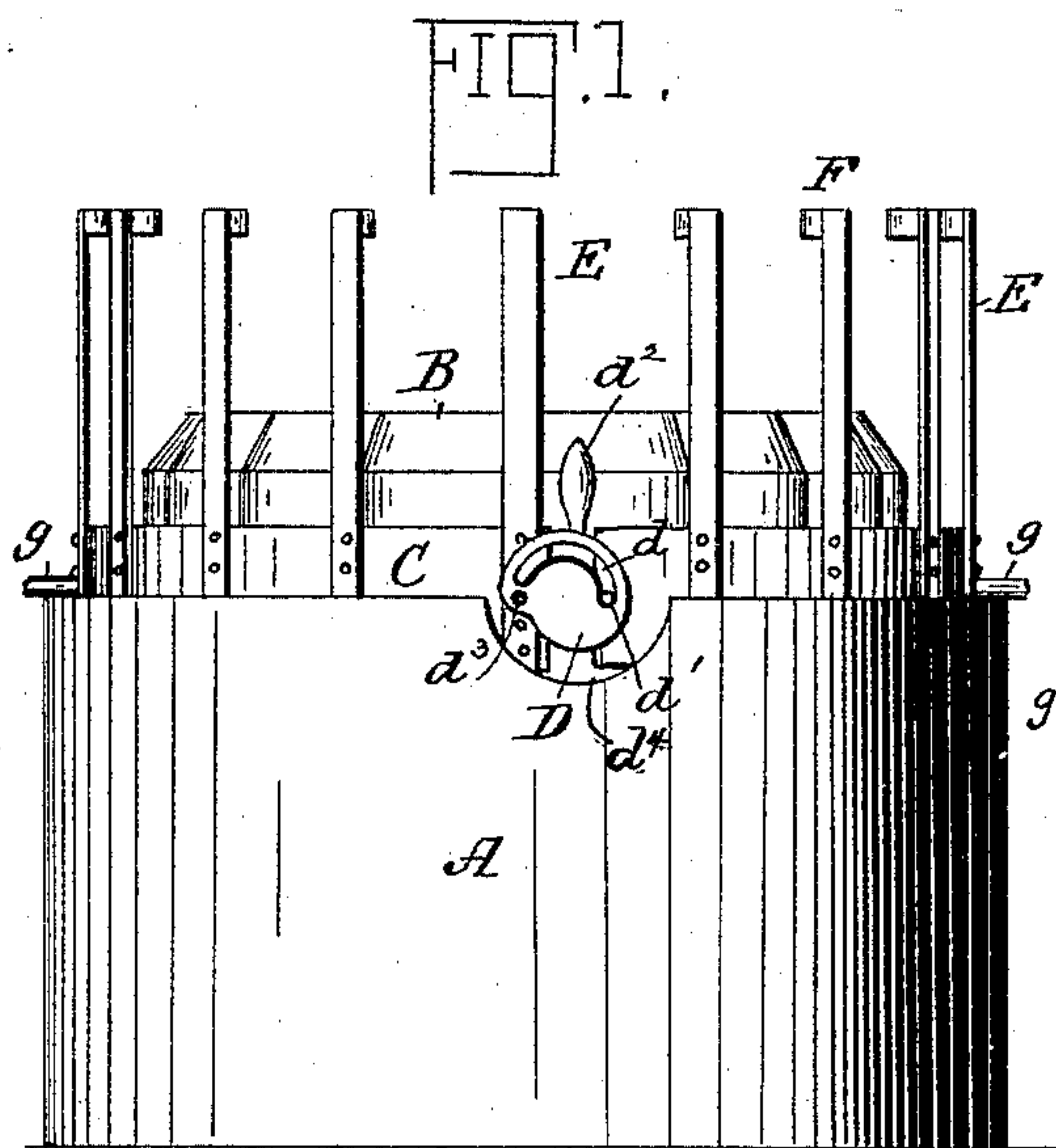


(No Model.)

J. PLEUKHARP.
BARREL FORMER.

No. 453,023.

Patented May 26, 1891.



WITNESSES:

Saml. R. Turner
Van Buren Hillyard.

INVENTOR

James Pleukharp

BY

R. A. Lacey
HIS ATTORNEY'S:

UNITED STATES PATENT OFFICE.

JAMES PLEUKHARP, OF COLUMBUS, OHIO.

BARREL-FORMER.

SPECIFICATION forming part of Letters Patent No. 453,023, dated May 26, 1891.

Application filed September 19, 1890. Serial No. 365,535. (No model.)

To all whom it may concern:

Be it known that I, JAMES PLEUKHARP, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Barrel-Formers; 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 a barrel-former, and has for its object to provide a contrivance to facilitate the setting up and formation of staves into barrel form prior to their transfer to the hooping-machine.

The invention is especially designed for forming barrels of standard size, the staves being of equal length, width, and thickness, and straight on their inner side and curved on their exterior in cross-section.

Obviously with slight changes the invention can be adapted for setting up barrels of ordinary construction, and is to be so regarded in its application.

The improvement consists of the novel features which will be hereinafter more particularly described, and pointed out in the claims, and which are shown in the annexed drawings, in which—

Figure 1 is a side view of a barrel-former embodying my invention. Fig. 2 is a vertical cross-section of the former. Fig. 3 is a top plan view of the invention. Fig. 4 is a detail view of a portion of the clamping-band, showing its application and relative position to the staves.

The former comprises a receiving-cylinder A, a core B, concentric with the cylinder, and a clamping-band C. The cylinder A is circular on its interior, and the core B is a polygon, the sides corresponding with the width of the staves. The cylinder and core are secured to the floor or any suitable base, so as to preserve a fixed relative position. The core is hollow and composed preferably of staves, and its upper end is beveled to permit the ready insertion of the staves in the space between the core and the said cylinder.

The clamping-band C, which is preferably of metal to retain its circular form, is provided with projections *g*, which rest upon the

top of cylinder A and hold the band in proper position during the process of setting up the barrel. These projections are provided in sufficient number to give a firm support to the band and project at right angles therefrom.

The arms E, secured to the band, project about an equal distance above and below the same, and have tapering extensions F projecting inward from their extremities to come between the opposing edges of each two staves at their narrow ends to hold the staves in a fixed position. (See Fig. 4.) These arms E are adapted to yield to force the tapering projections F in between the edges of the staves more or less, as will be readily appreciated. Any suitable fastening may be employed to bring the ends of the band together and secure them. However, the fastener shown is preferred, because of its simplicity and efficiency and convenience of operation, being a plate or disk D pivoted at one side to one end of the band at d^3 and having curved slot d , through which projects pin d' , which is secured to the other end of the band. The plate D is provided with handle d^2 to obtain sufficient leverage for operating the same in the fastening and the unfastening of the said band. The core is preferably higher than the cylinder A, in that this construction is found to give the best results, admitting of the staves being thrust into the space between the core and the cylinder without any extra care on the part of the cooper, the projecting portion of the core serving as a guide and directing the ends of the staves into the said space.

The operation of the invention is as follows: The staves to form the barrel are slipped down in the space between the core and the cylinder, the clamping-band being previously placed in position, care being taken to have the flat sides of the staves come opposite the flat sides of the core. After a sufficient number of the staves have been set up to form the barrel the clamping-band is drawn together and binds the staves in the required form. The barrel thus set up is lifted from the former and hooped in any desired and well-known way. The clamping-band is used repeatedly, being detached from the barrel in the process of hooping. The recess d^4 in the

upper edge of the cylinder opposite the plate D gives clearance for the said plate when operating the same to clamp the staves together.

It will be observed that the annular stave-receiving recess between the opposing sides of the core and the cylinder is of uniform area from the top to the bottom of the said cylinder, thereby forming a support for the staves the moment the ends thereof are inserted in the said space. The sides of the core and the cylinder serve as guides to the staves from the moment they enter the said space until they reach the bottom thereof, thereby facilitating the process of forming and setting up barrels. By having the core higher than the cylinder the projecting portion forms a stop against which the staves in the process of forming the barrel are thrust and dropped, the said staves being directed into the said space between the core and the cylinder without any further care on the part of the operator.

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

1. A barrel-former comprising a cylinder, a core concentric with the cylinder and forming an annular stave-receiving recess between the opposing sides of the cylinder and core, which recess is of uniform area from the top edge of the cylinder to the bottom edge thereof, substantially as shown and described, and a clamping-band, substantially as and for the purpose set forth.

2. A barrel-former comprising a cylinder, a polygonal core having its sides of uniform width and placed concentrically within the said cylinder to form an annular stave-receiving recess between its sides and the sides of the cylinder, which is of uniform area from

the top edge of the cylinder to the bottom thereof, and a clamping-band, substantially as and for the purpose described.

3. A barrel-former composed of a cylinder, a core concentric with the cylinder and slightly higher than the same and having its upper portion beveled inward away from the cylinder, and a clamping-band, substantially as set forth.

4. The combination, with the cylinder and the core, of a clamping-band having arms projected therefrom, and having projections extended in from the said arms to come between the edges of the staves, substantially as specified.

5. The combination, with the cylinder and the core, of a clamping-band having arms and having tapering projections extended in from the said arms, substantially as shown, for the purpose described.

6. The combination, with the cylinder and the core, of a clamping-band having yielding arms projected therefrom and having tapering projections extended in from the said arms, substantially as set forth.

7. The combination, with the cylinder and the core, of the clamping-band having supporting projections, and arms which extend above and below the band and have projections extended in therefrom to come between the edges of the staves, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES PLEUKHARP.

Witnesses:

BARTON GRIFFITH,
HARRY PRICE.