(No Model.) 3 Sheets—Sheet 1.

H. A. EVANS.

ROLLER COTTON PRESS.

No. 366,943. Patented July 19, 1887.

Fig. 1.

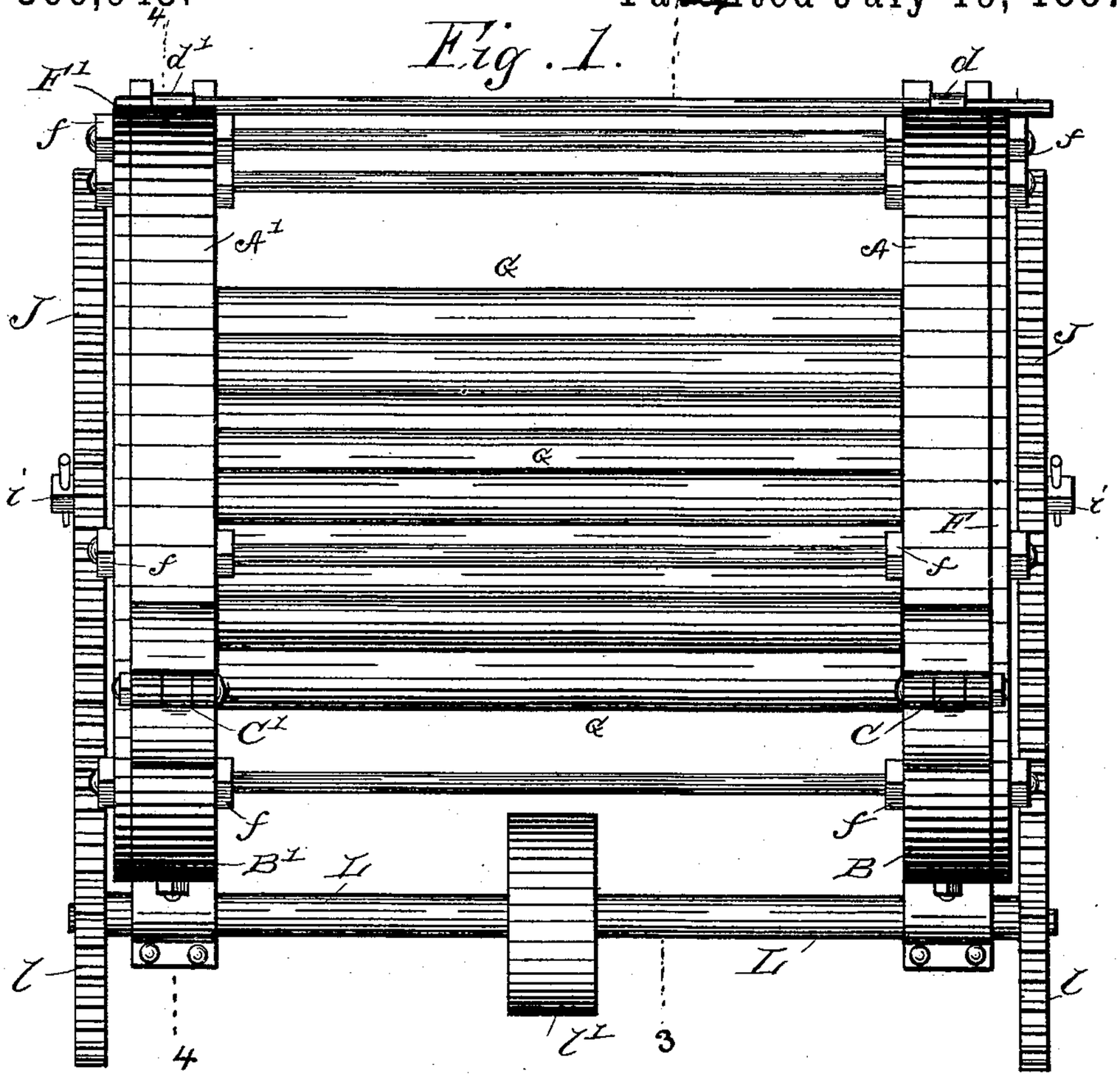


Fig. 6.

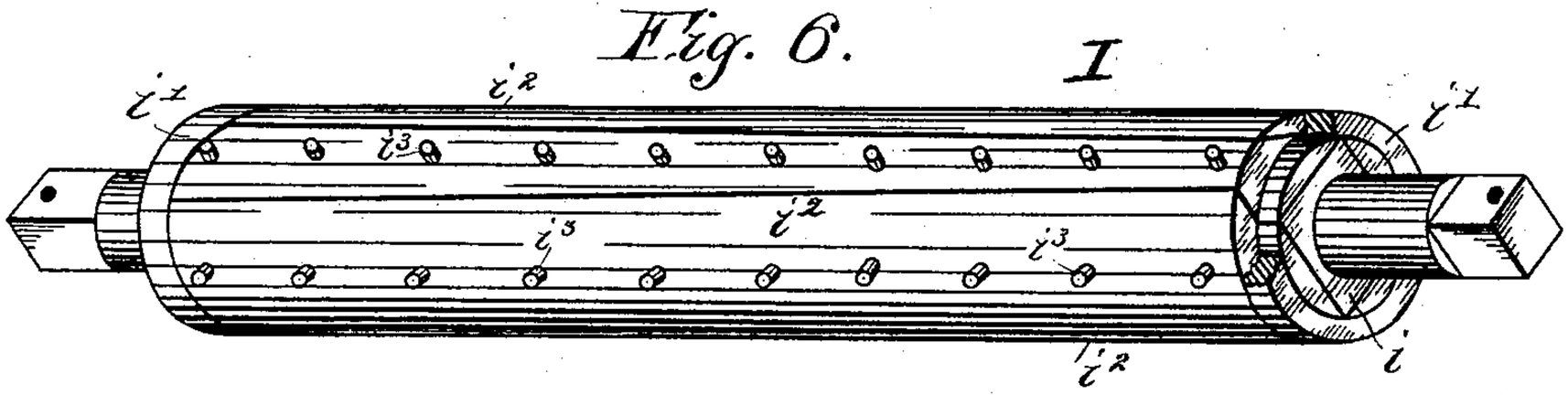
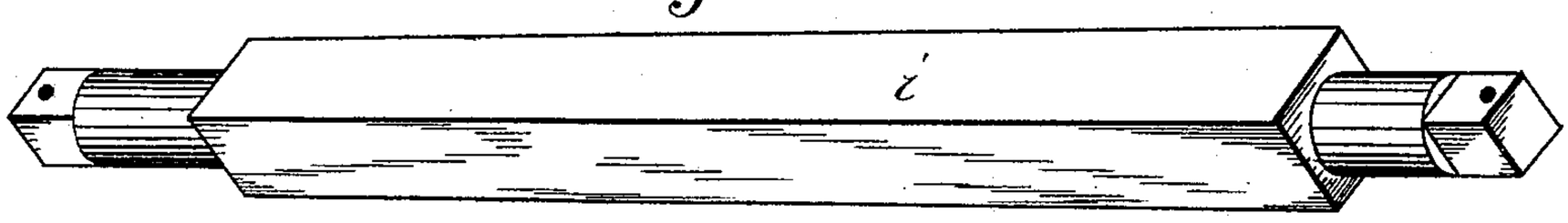


Fig. 7.



Witnesses

Percy White

R. M. Bell

Henry A. Evans Inventor

G. H. Ballock

By Attorney

(No Model.) 3 Sheets—Sheet 2.

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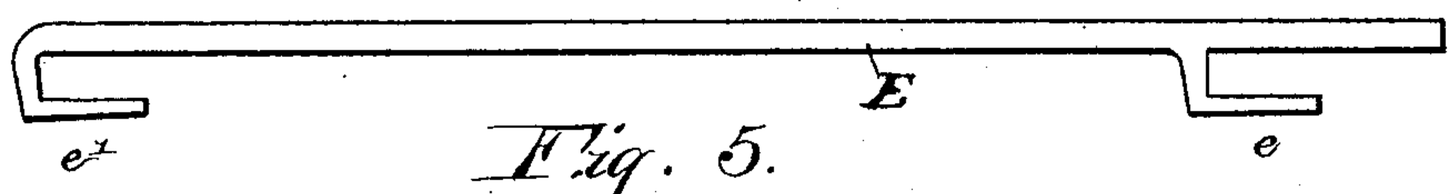

Fig. 5.

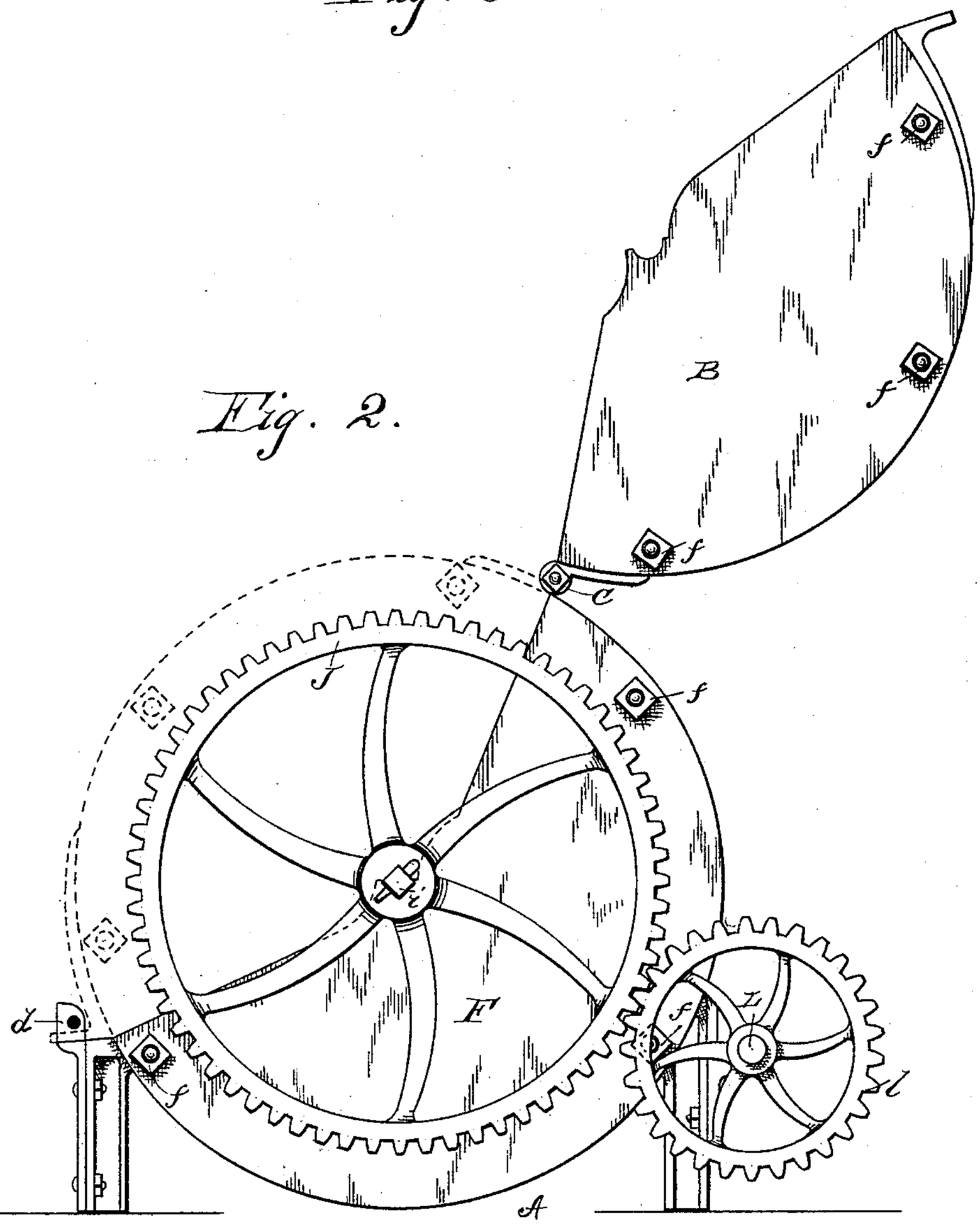

Fig. 2.

Witnesses
Percy White.
R. M. Bell

Henry A. Evans Inventor
By G. W. Ballock Attorney

(No Model.) 3 Sheets—Sheet 3.

H. A. EVANS.

ROLLER COTTON PRESS.

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Fig. 4.

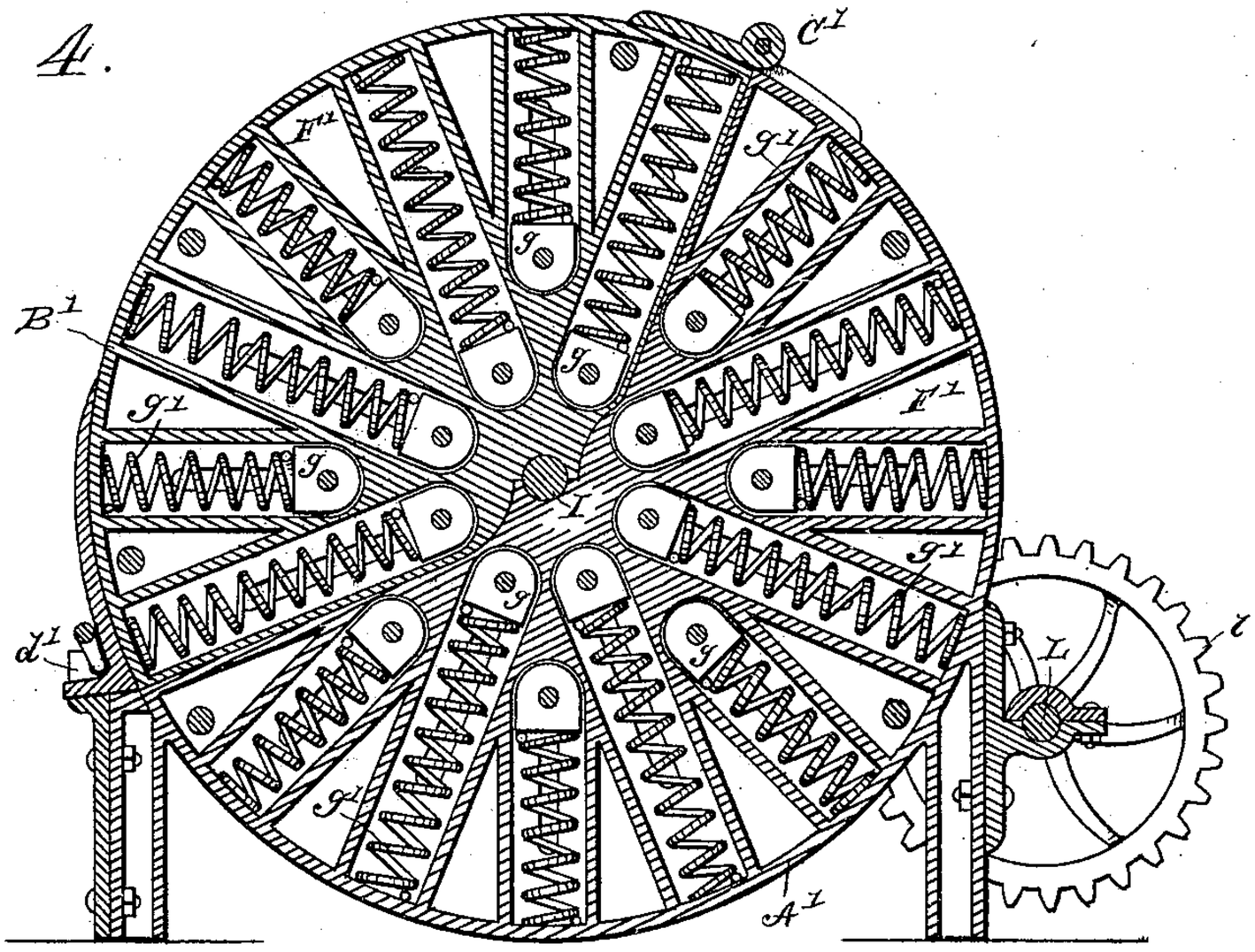
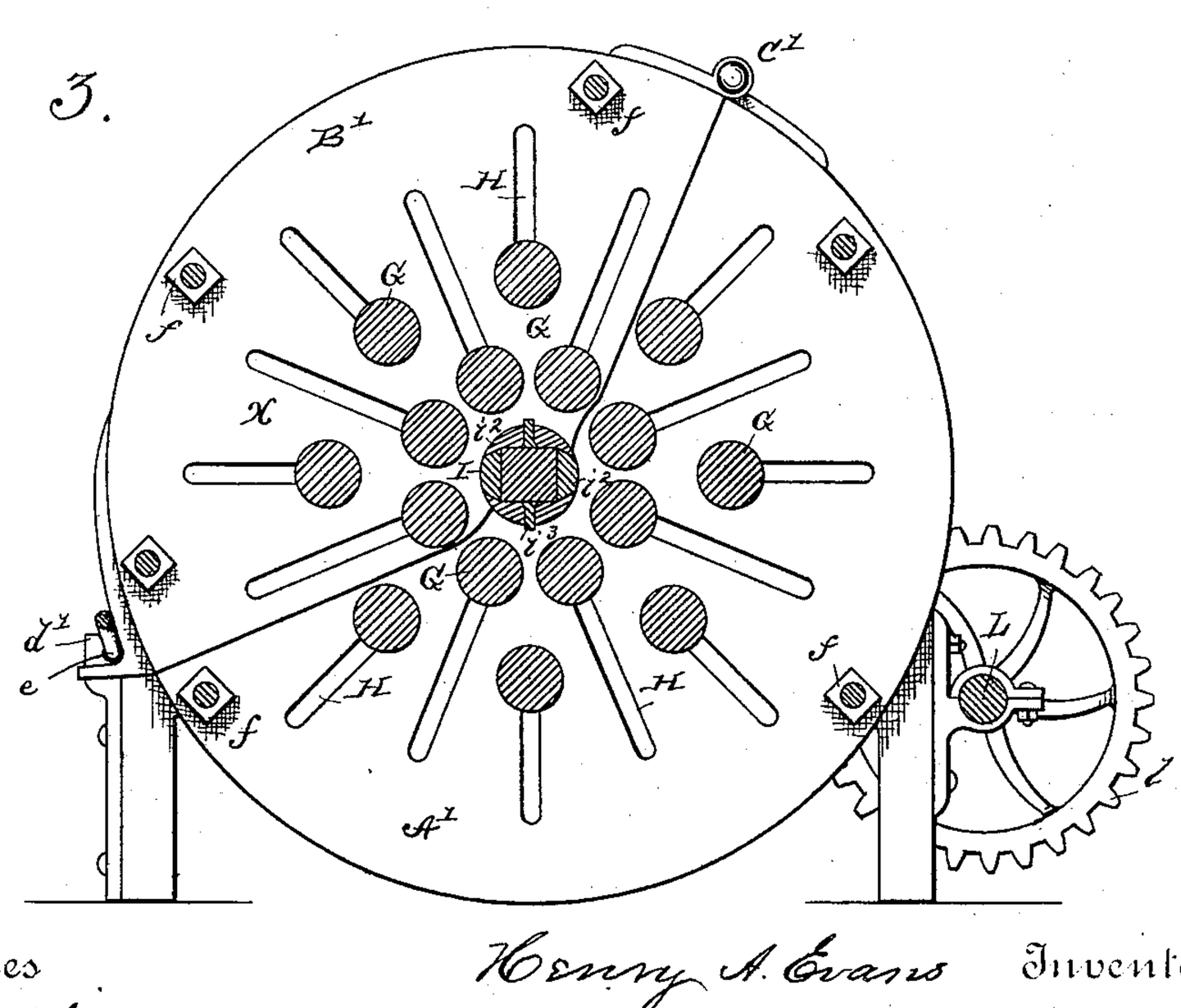


Fig. 3.



Witnesses
Percy White.
R. M. Bell.

Henry A. Evans Inventor
by D. W. Bullock
By Attorney

UNITED STATES PATENT OFFICE.

HENRY A. EVANS, OF MARSHALL, TEXAS.

ROLLER COTTON-PRESS.

SPECIFICATION forming part of Letters Patent No. 366,943, dated July 19, 1887.

Application filed March 1, 1887. Serial No. 229,321. (No model.)

To all whom it may concern:

Be it known that I, HENRY A. EVANS, a citizen of the United States, residing at Marshall, in the county of Harrison and State of Texas, have invented certain new and useful Improvements in Roller Cotton-Presses; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to machines for compressing cotton and other similar material into the form of cylindrical bales; and the object of my invention is to provide a machine which shall take cotton directly from the gin and compress it with a continuous action into the form of a roll or cylinder having a longitudinal opening through its center, whereby the contents of the bale may be readily examined and sampled; also, in a product consisting of a tubular compressed cotton-bale.

In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 is a plan view of my improved machine. Fig. 2 is a side elevation of the same, with the cover or upper portion of the machine in raised position. Figs. 3 and 4 are sectional views of the machine, respectively on the lines 3 3 and 4 4 of Fig. 1. Fig. 5 is a detail view of the device for securing the two parts of the machine in closed position. Figs. 6 and 7 are detached views of the central roll, showing details of its construction.

Referring to the said drawings, A A′ designate the two frames which form the ends of the base of the machine, and B B′ designate the two frames which form the ends of the upper portion or cover of the same, the frames B B′ being hinged, as shown at C C′, to the frames A A′, and said frames B B′ being so formed as to extend down upon the frames A A′, so as to form a practically united structure when the top is let down upon the base-frame.

d d′ designate perforated ears or lugs, which are formed, respectively, upon the frame-sections A A′ B B′, and which are designed to receive the arms *e e′* of a bar, E, for holding the free ends of the sections B B′ when brought down upon the sections A A′, as shown in Fig. 2.

The frame-sections A A′ and B B′ are of hollow form, being provided, respectively, with face-plates F F′, removably secured thereto by bolts *f*, and within said frame-sections are mounted a number of rollers, G, arranged around the center of the frame, as shown. These rollers G are provided at their ends with sliding journal-boxes *g*, and are pressed toward the center of the frame by coiled springs *g′*, said journal-boxes and springs being located within the frame-sections A A′ B B′, and the ends of said rollers being arranged to move in radial slots H, which are formed in said frame-sections, as shown in Figs. 3 and 4. The rollers G are arranged in two or more series, successively receding from the center of the casing, and at the central point of said casing is mounted a cylinder or roll, I, as shown. Upon the ends of the roll I are keyed removable gear-wheels J, the teeth of which mesh with smaller gear-wheels, *l*, upon a driving-shaft, L, which also carries a driving-belt pulley, *l′*, and which is mounted horizontally in the lower part of one side of the frame-sections A A′.

From the above description it will be seen that the cotton will be fed directly from the gin into the machine at the point marked *x* in Fig. 3, and that it will be received upon the central roller, I, and wound thereon. As the winding action progresses, the successive series of rolls G will press upon the increasing bulk of material, then recede and give place to the more remote rolls, so that a powerful and uniform pressure will be exerted by said rolls. When the mass of cotton is pressed, the bagging and ties are inserted and properly secured, after which the bale, together with the central roll, I, is removed, and said roll is withdrawn from the bale and replaced in the machine in readiness for another pressing operation. The bale when thus removed will have a central longitudinal opening, by means of which the contents of the bale may be readily inspected, and from which samples may be readily removed.

By virtue of this construction the presence of lint is entirely avoided and the baling op-

eration is greatly expedited, while a perfectly hard bale of easily portable form is produced.

In order to facilitate the removal of the shaft or roll I from the bale, the said shaft is provided or formed with a square or angular section, *i*, which is tapered from one end to the other, as shown, and upon this angular tapered section are removably secured, by rings *i'*, a number of elongated segments, i^2, which form an inclosing-cylinder for the said shaft. Thus by striking upon one end of the shaft it may be readily removed from the bale, and the sections i^2 may then be withdrawn for replacement upon the shaft. Studs i^3 are formed upon the outer surfaces of the sections i^2, and serve to hold the cotton during the process of winding.

It will be observed from the above description that I produce a compressed bale of cotton of a cylindrical form, taking the sliver directly from the gin and winding it in a convolute manner, leaving a central hole through the bale and condensing the sliver in the act of winding it.

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

The combination, with the divided casing and its perforated lugs, of the bar E, with its arms *e e'*, substantially as set forth.

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

HENRY A. EVANS.

Witnesses:
JNO. B. CARTER,
J. P. ALFORD.