No. 653,191.

Patented July 3, 1900.

A. L. TREESE.

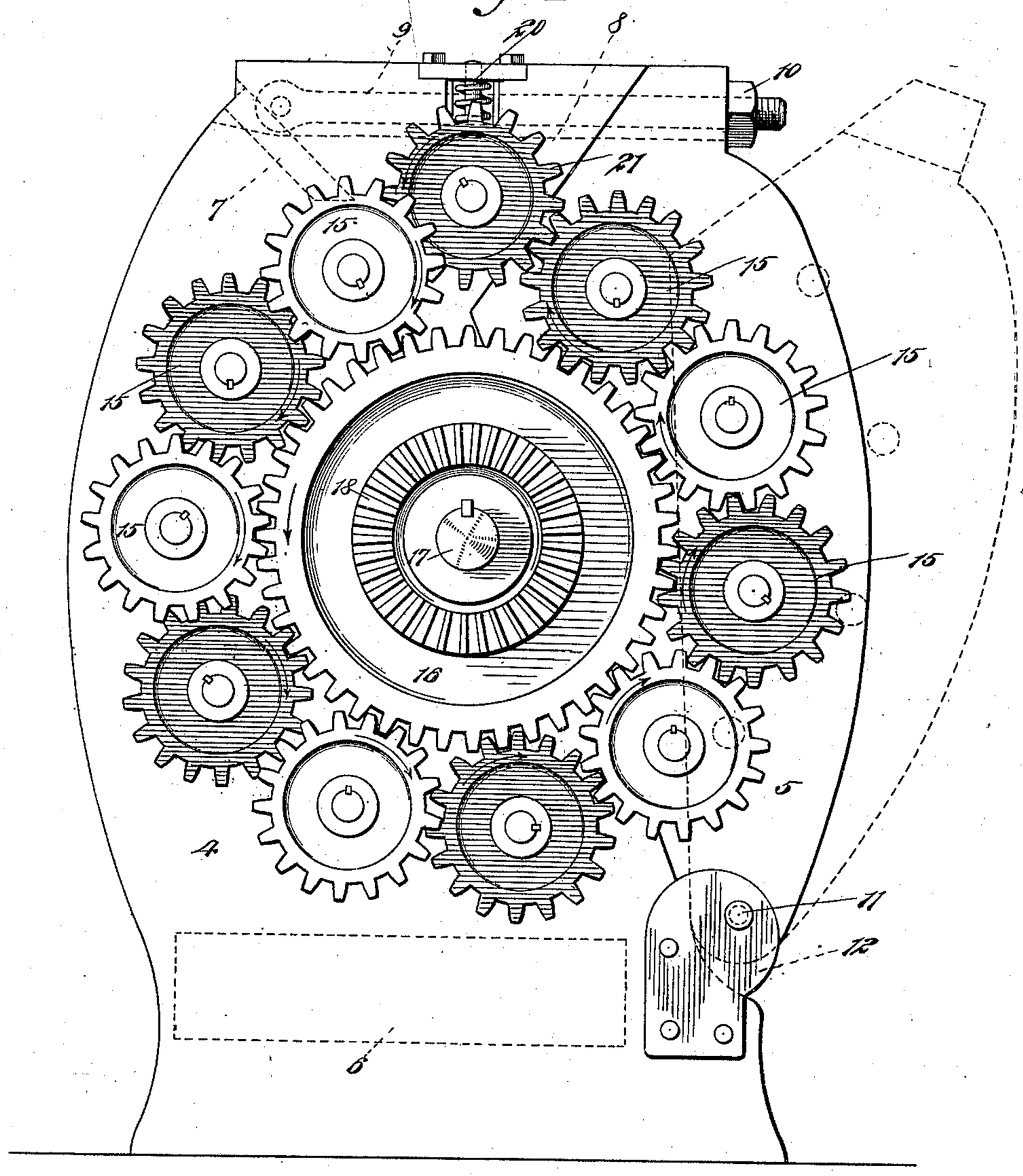
COTTON PRESS.

(Application filed Oct. 18, 1899.)

(No Model.)

3 Sheets—Sheet 1.

Fig. 1.



WITNESSES:

C. W. Smith

J. Blevins

INVENTOR

A. L. Treese

BY

Munn & Co

ATTORNEYS

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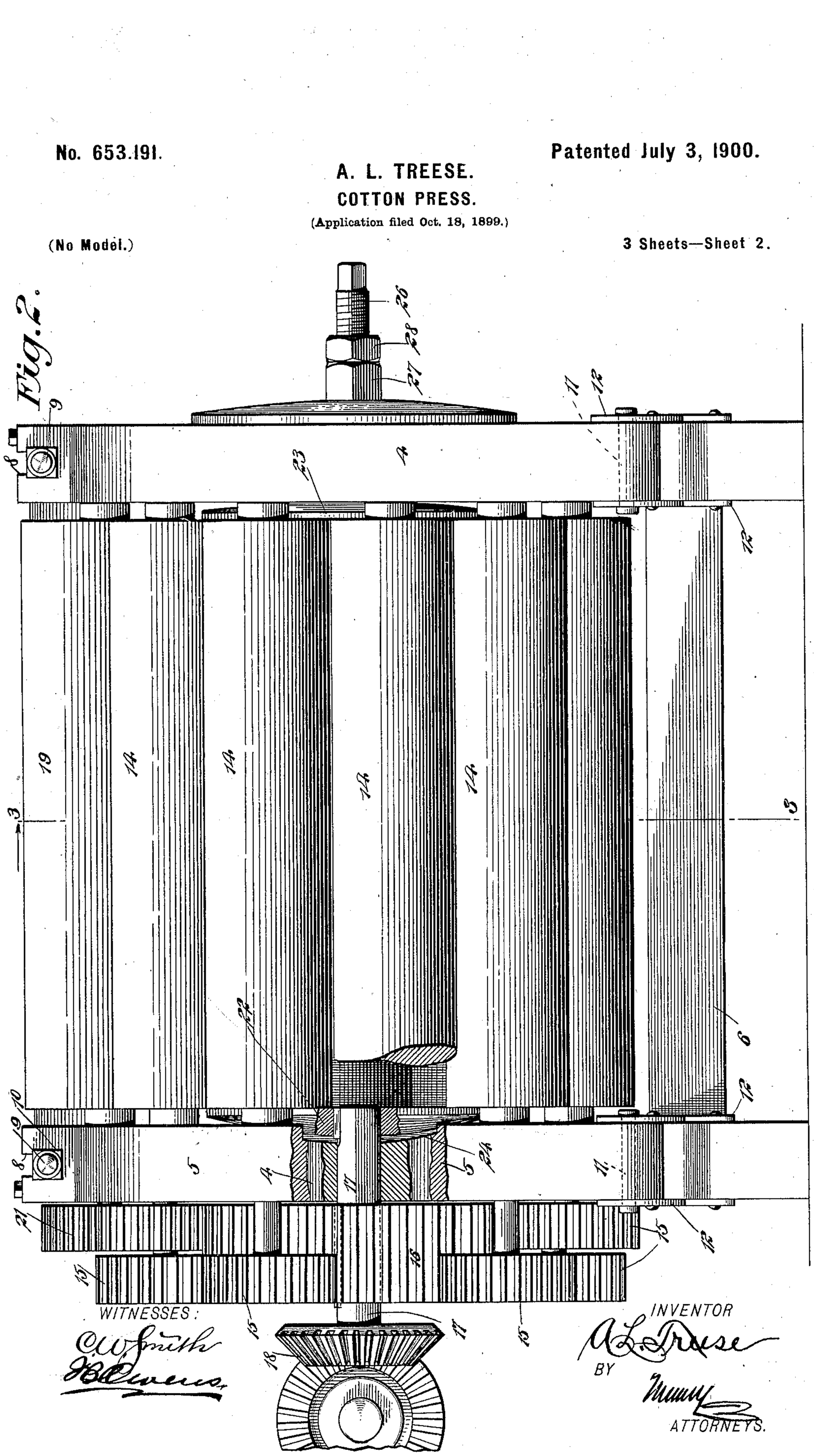
(No Model.) 3 Sheets—Sheet 2.

Fig. 2.



WITNESSES:

C. W. Smith

H. B. Owens.

INVENTOR

A. L. Treese

BY

Munn & Co.

ATTORNEYS.

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A. L. TREESE.

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Fig. 4.

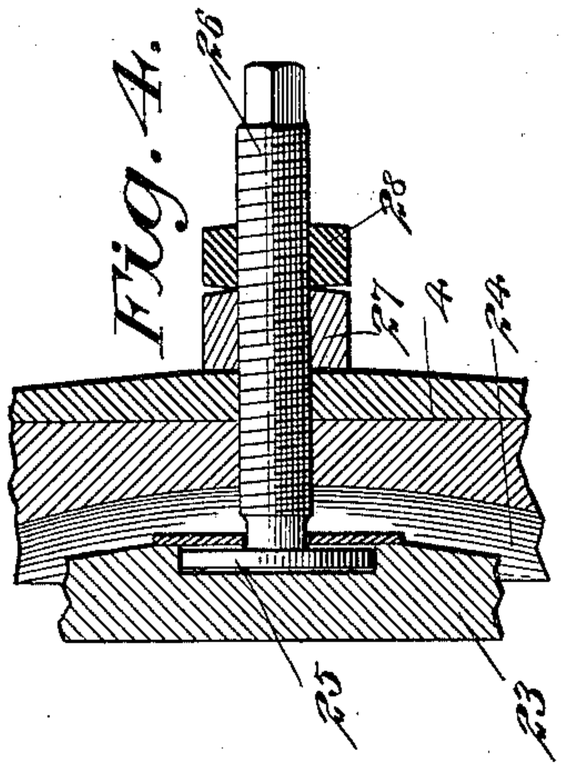
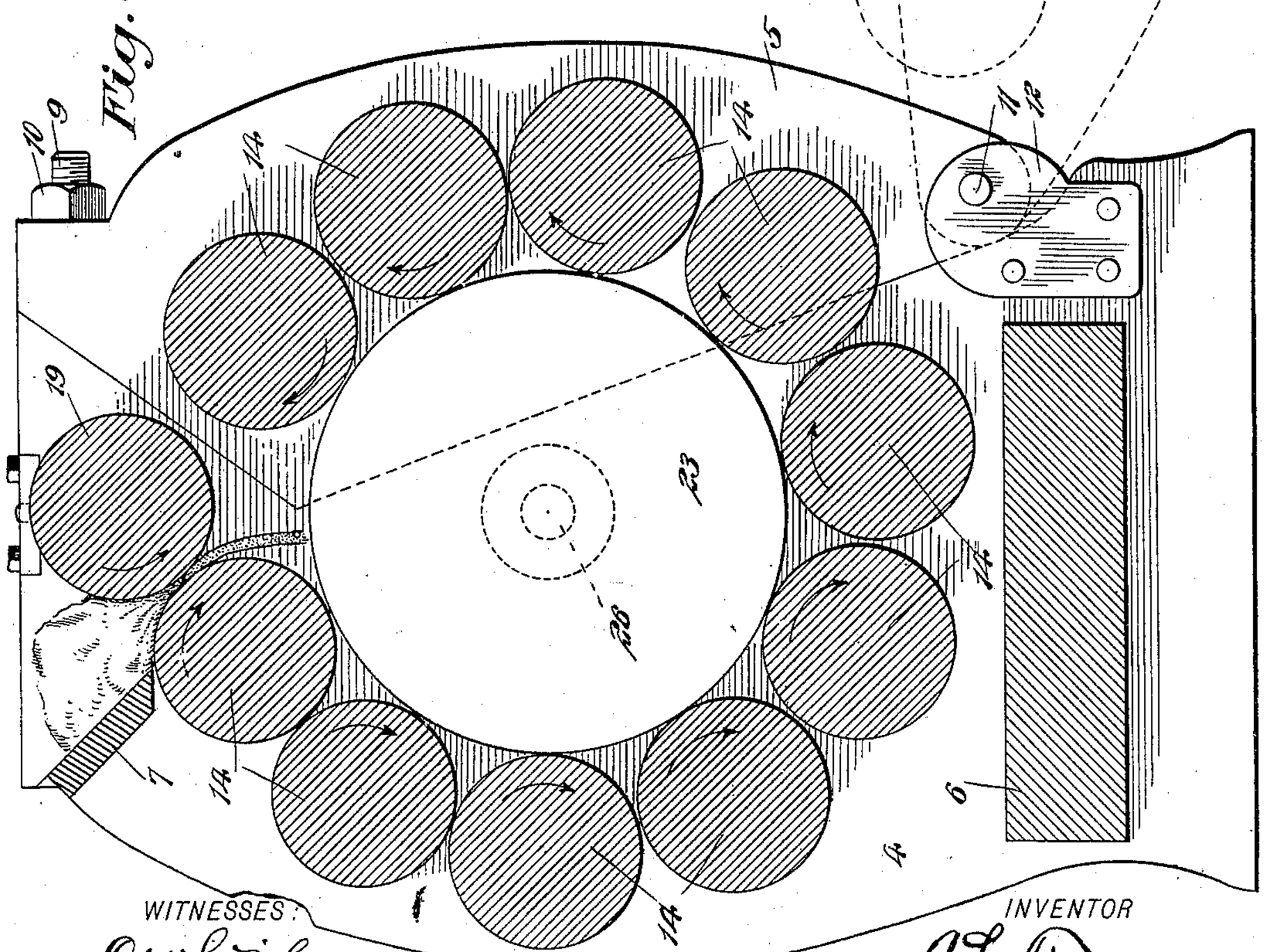


Fig. 3.



WITNESSES:

C. W. Smith

J. B. Lucas.

INVENTOR

A. L. Treese

BY

Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

ALBERT LEROY TREESE, OF JENNINGS, OKLAHOMA TERRITORY, ASSIGNOR TO HIMSELF, WILBUR E. CANFIELD, AND GEORGE W. CANFIELD, OF SAME PLACE.

COTTON-PRESS.

SPECIFICATION forming part of Letters Patent No. 653,191, dated July 3, 1900.

Application filed October 18, 1899. Serial No. 733,976. (No model.)

To all whom it may concern:

Be it known that I, ALBERT LEROY TREESE, of Jennings, in the county of Pawnee and Territory of Oklahoma, have invented a new and Improved Cotton-Press, of which the following is a full, clear, and exact description.

The purpose of this invention is to provide a cotton-press for forming cylindrical bales by rolling a continuous length of batting, by which arrangement to produce not only a more compact and easily-handled bale, but one less liable to become fired.

This specification is the disclosure of one form of my invention, while the claim defines the actual scope thereof.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is an end elevation of the invention, showing particularly the gearing thereof. Fig. 2 is a side elevation with parts broken away. Fig. 3 is a cross-section on the line 3 3 of Fig. 2, and Fig. 4 is a fragmentary section of the left-hand end of the press.

The frame of the press consists of two vertical end pieces, each comprising a stationary section 4 and a swinging section 5, mounted on the stationary section, the end pieces being rigidly connected by a brace 6 at the bottom and a feed-board 7 at the top. Other means of connection may of course be provided, if desired. The sections 4 and 5 of the end pieces are arranged to fit snugly together in the closed position, as shown by full lines in Figs. 1 and 3, and are formed at their top edges with matching grooves 8, in which are adapted to lie tie-bolts 9, such bolts being hinged to the sections 4 and provided with nuts 10, by which to engage the sections 5, thus drawing the two sections forwardly together and forming solid end pieces. The sections 5 of the end pieces are mounted on the sections 4 by pivots 11 at the lower ends of the sections 5, such pivots being carried in bearing-plates 12, as shown.

A number, preferably ten, of rollers 14 are mounted between the end pieces of the frame and have their right-hand journals projecting beyond the frame and provided with pinions 15, fast thereto. Alternate pinions 15 are projected out beyond the other pinions, so that none of the pinions 15 are directly in mesh with each other. All of these pinions are in mesh with a broad-faced spur-gear 16, mounted fast on a shaft 17, which is carried in the right-hand end piece of the frame. This shaft 17 may be driven by gearing 18 or any other desired means. The revolution of the shaft 17 will cause the pinions 15 and their rollers 14 to be driven simultaneously in the same direction, as indicated by the arrows in Fig. 3. The rollers 14 are arranged in close proximity with each other, so as to form a completely-inclosed space, in which the cotton is compressed, the arrangement of the rollers being such as to prevent the escape of the cotton-batting, yet the rollers are not so closely engaged as to hinder their movement by frictional engagement with each other. By means of this arrangement the bale is kept continually revolving in the press, and the batting being drawn into the press by the revolution of the bale and by feeding devices, which will be hereinafter described, is thus rolled and compressed into a compact cylindrical bale. It will be observed that a part (four rollers) of the rollers 14 are carried on the movable sections 5 of the end pieces of the frame. When the sections 4 and 5 of the end pieces are engaged, as shown by the full lines in the drawings, they will have rigid connection with each other and will hold all of the rollers in the proper relative position. When it is desired to remove the bale, however, the tie-bolts 9 should be cast off of the sections 5, and such sections, with their connected rollers 14, thrown outward to the position indicated by dotted lines in Fig. 3, thus permitting the bale to fall out of the press, as also indicated by the dotted lines in Fig. 3.

The cotton is formed into a continuous batting by means of a feed-roller 19, mounted in the upper extremities of the stationary sections 4 of the end pieces of the frame and working with the rear upper roller 14. These two rollers are juxtaposed to the feed-board 7, as shown in Fig. 3, so that the cotton

placed on such board will be passed between the two rollers referred to and fed into the press in the form of a batting or sheet. The roller 19 is yieldingly pressed downward by springs 20, mounted in the frame, as shown, and the roller 19 is driven by a pinion 21 21, fast to its right-hand journal outside of the frame and meshing with the upper front pinion 15, as shown in Fig. 1, so that the roller 19 is driven in the direction indicated.

The press is provided with two disk-like heads 22 and 23, which are situated, respectively, against the inner sides of the end pieces of the frame, cavities 24 being formed in such end pieces for the reception of the same. The head 22 is carried fast on the inner end of the shaft 17 and turns therewith, while the head 23 is mounted loosely on the circular head 25 of a threaded shaft 26. This shaft is carried in a nut 27, secured to the left-hand end piece of the frame, so that by turning the shaft 26 the head 23 may be advanced toward or retracted from the head 22. A lock-nut 28 is provided for the shaft 26, the lock-nut bearing against the nut 27, so as to hold the shaft in a desired position. The bale is formed between these heads 22 and 23, and it will be seen that the head 22 is driven in time with the revolution of the bale caused by the action of the rollers 14, while the head 23 may turn pivotally on its shaft 26. If desired, the head 22 may be made loose on the shaft 17; but it is preferred to have it fast, as described.

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

A press, comprising the combination of a frame or support, a number of rollers mounted to turn in the framing or support and disposed circularly to form a circular compression-chamber, a driven spur-gear mounted on the framing or support centrally with respect to said circular compression-chamber, and a gear fastened to each roller, alternate of such gears being situated out of the plane of the other gears on the rollers and overlapping said other gears, and all of the gears on the rollers being meshed with the spur-gear, the face of such spur-gear being of greater width than that of the faces of the gears on the rollers.

ALBERT LEROY TREESE.

Witnesses:
C. G. CANFIELD,
OMER. C. COPPEDGE.