

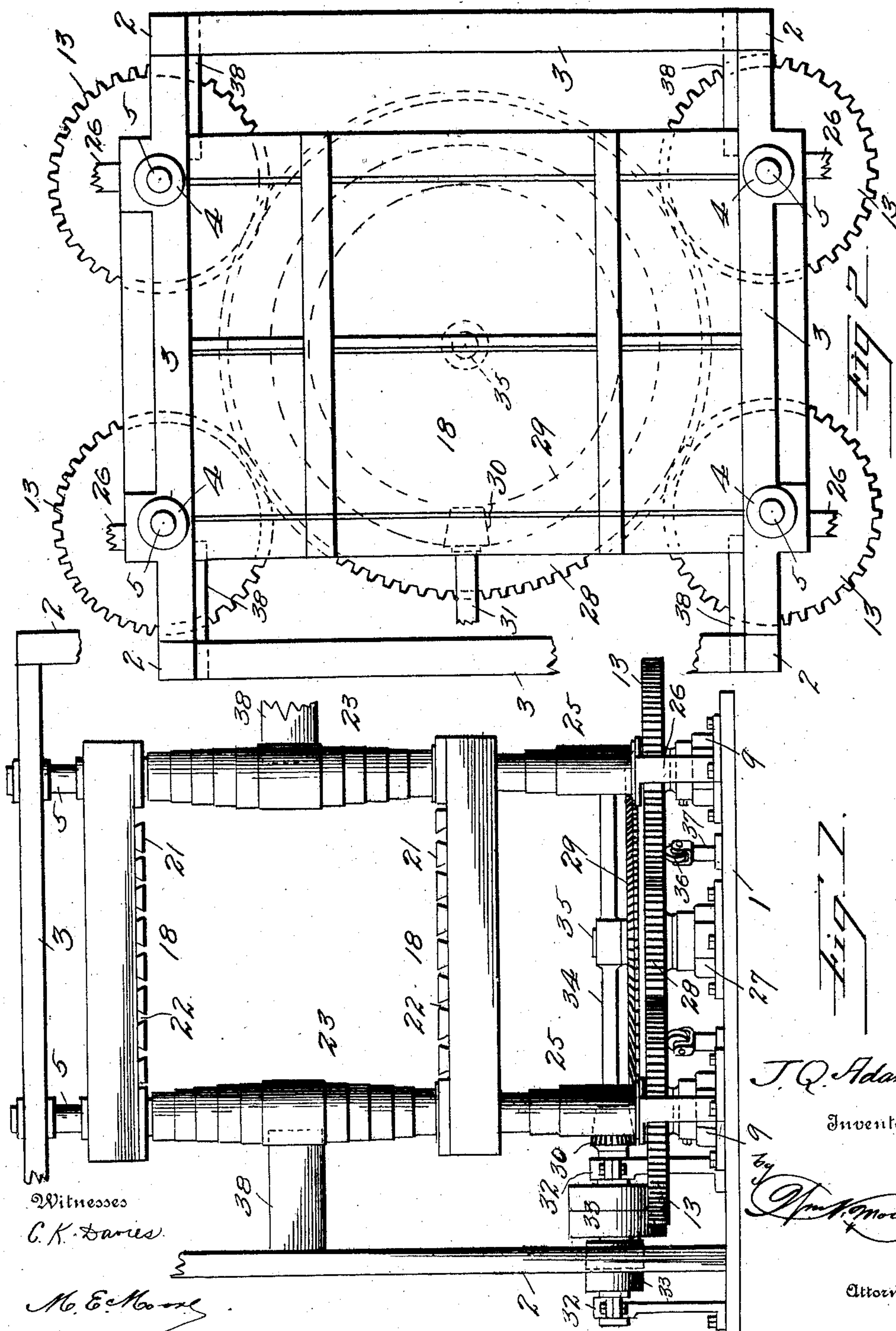
No. 859,637.

PATENTED JULY 9, 1907.

J. Q. ADAMS.
BALING PRESS.

APPLICATION FILED NOV. 27, 1906.

2 SHEETS—SHEET 1.



Witnesses
C. K. Davis.

M. E. Moore

J. Q. Adams
Inventor

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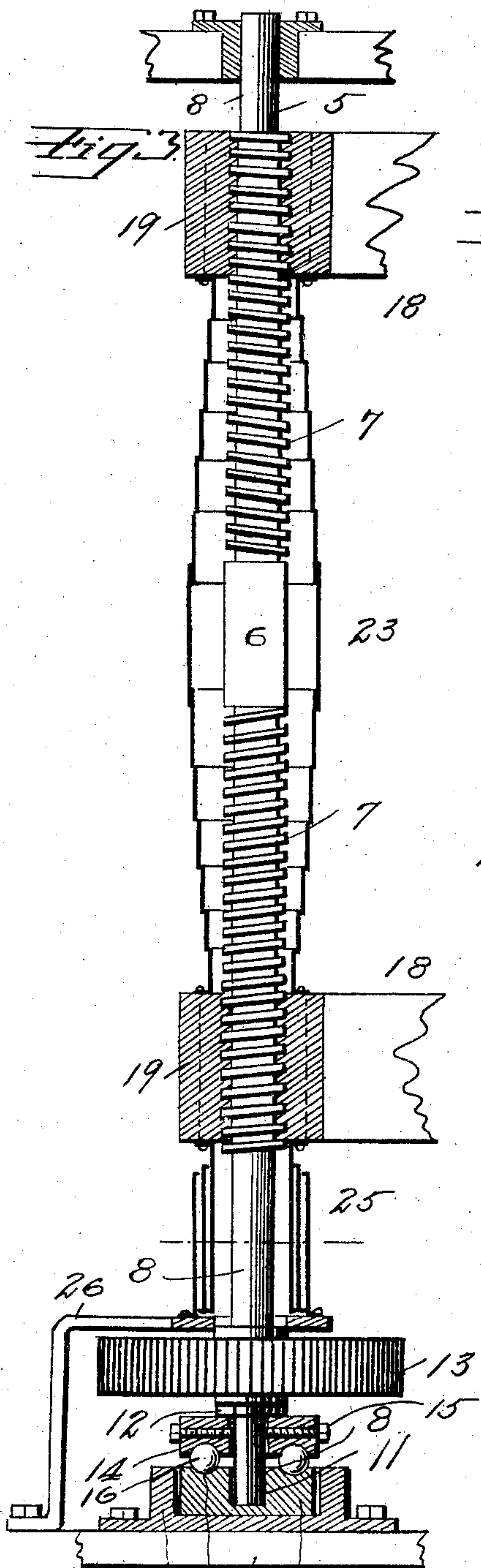
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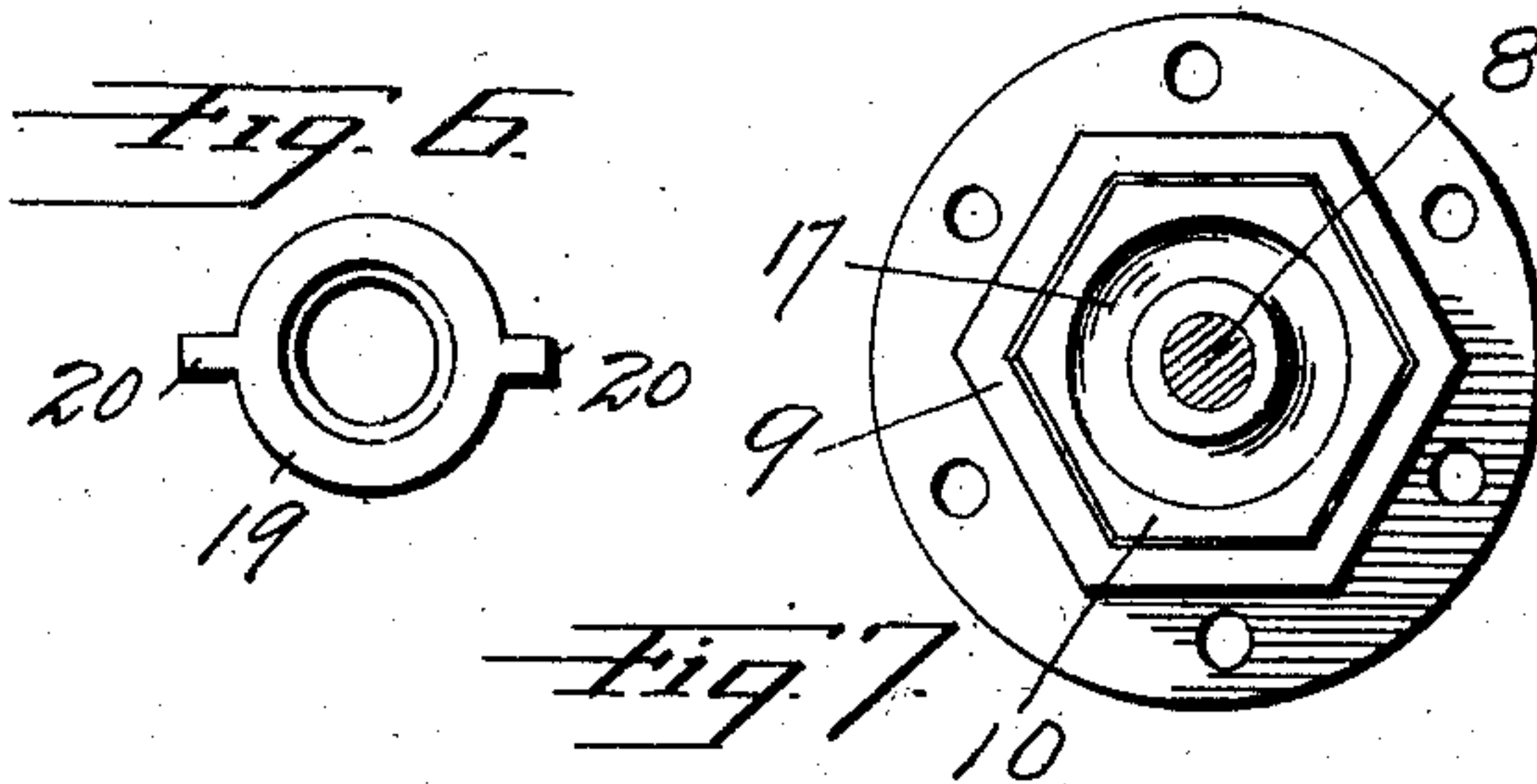
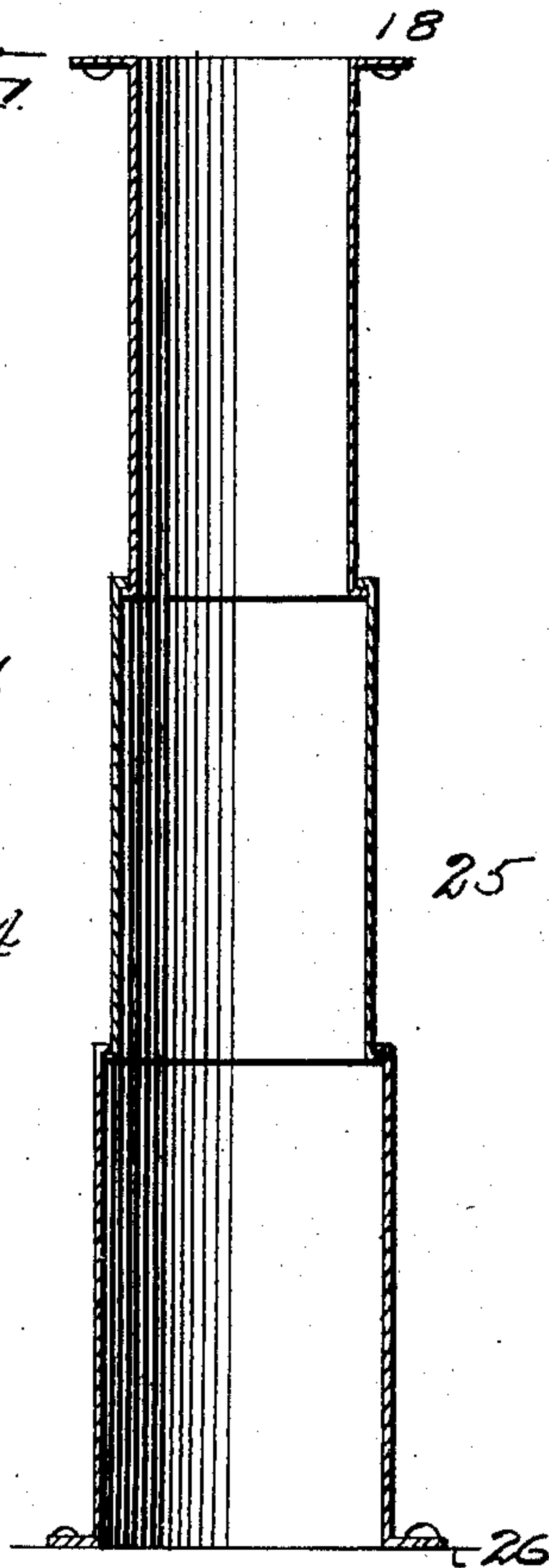
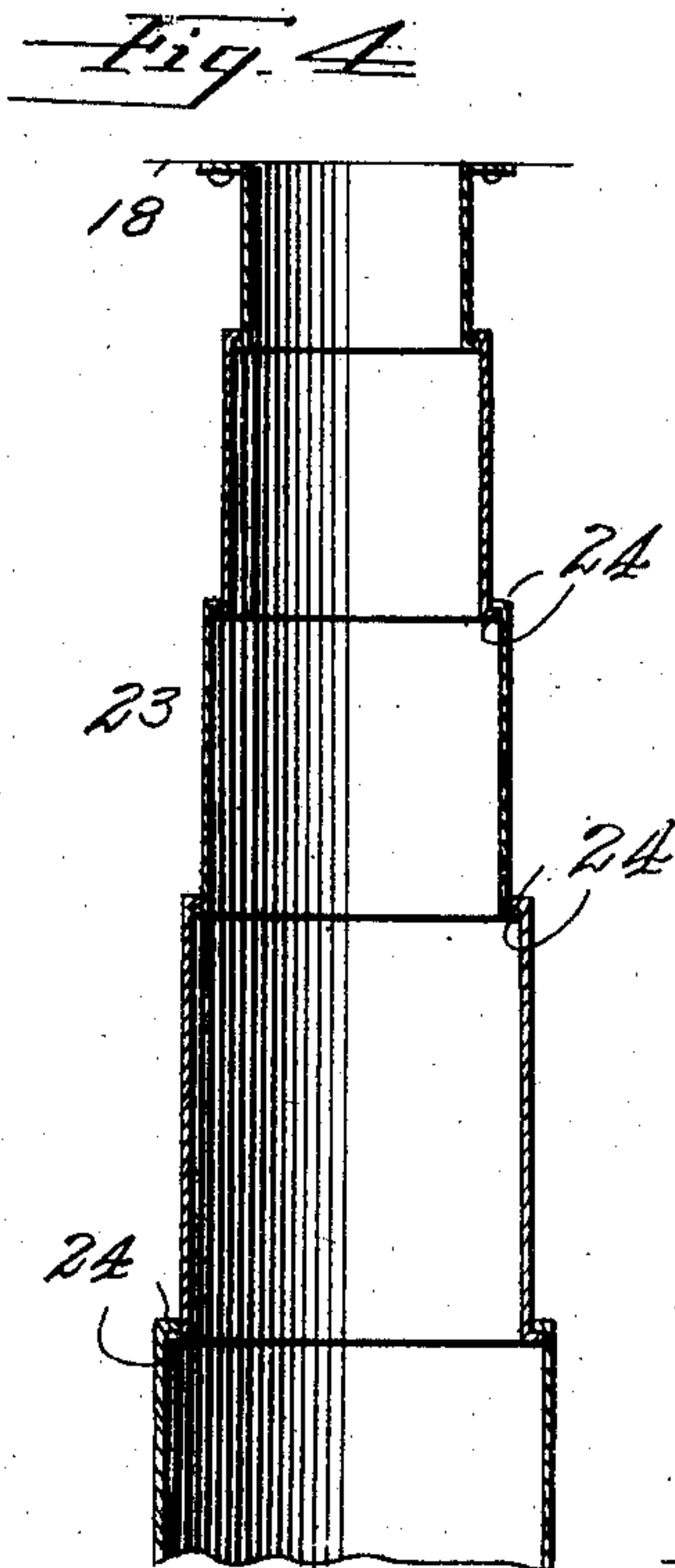
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2 SHEETS—SHEET 2.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN Q. ADAMS, OF ALEXANDRIA, LOUISIANA.

BALING-PRESS.

No. 859,637.

Specification of Letters Patent.

Patented July 9, 1907.

Application filed November 27, 1906. Serial No. 345,289.

To all whom it may concern:

Be it known that I, JOHN Q. ADAMS, a citizen of the United States, residing at Alexandria, in the parish of Rapides and State of Louisiana, have invented certain new and useful Improvements in Baling-Presses, of which the following is a specification.

My invention relates to improvements in baling presses, and refers particularly to a press designed for baling cotton, the object of the invention, being the provision of a baling press of substantial and simple construction, and one which will operate effectively with a minimum expenditure of energy.

Another object of my invention is the provision of a baling press in which the pressure will be brought to bear evenly upon all parts of the bale, and also to provide guards for protecting the retracting members of the press from dust, dirt and other foreign material.

With these and other objects in view, my invention consists of a baling press embodying a frame, retracting posts arranged at the corners of the frame, these posts having telescopic guards surrounding them to protect them against injury, presser platforms mounted upon the posts and adapted to travel toward or away from each other, and suitable gear connections for operating the retracting posts; and the invention further comprises a baling press embodying certain other novel features of construction and arrangement of parts substantially as herein disclosed.

In the accompanying drawings: Figure 1, is a side elevation of my improved press, with the frame partially broken away to more fully illustrate the different parts. Fig. 2, is a top plan view of the same. Fig. 3, is an enlarged detail view of one of the supporting or retracting posts, the bearings therefor being shown in section. Fig. 4, is an enlarged sectional view of one of the telescopic guards for the supporting posts. Fig. 5, is a similar view of one of the guards for the lower end of the posts. Fig. 6, is a plan view of one of the nuts or threaded sleeves which are carried in the four corners of the presser frames. Fig. 7, is a like view of one of the bearings for the lower ends of the posts, the post being shown in section.

Referring to the drawings in detail, in which similar numerals indicate the same parts throughout the several views: the numeral 1, designates the base which forms a support for the press, and 2, the four corner posts which are connected at the top by the horizontal connecting bars 3. Bearing sleeves 4, are mounted in the bars 3, and form journal bearings for the upper ends of the supporting or retracting posts or shafts 5, these posts having a plain central portion 6, extending from each end of which, are the oppositely-disposed screw threads 7, leading towards the ends of the posts, but terminating short of the ends so as to leave a plain journal portion 8, at each end of the post. Hexagonal socket plates 9, are secured to the base of the press,

and in said sockets, are fitted the hexagonal bearing blocks 10, having a socket 11, to receive the journal on the lower end of the posts, as clearly shown in Fig. 3. As clearly shown in Figs. 3 and 7, these bearing blocks are loosely confined in the angular sockets so that by means of wedges or other suitable elements, the blocks may be adjustably secured in the sockets.

A shouldered portion 12, is formed near the lower end of the posts or shafts upon which portion is mounted a driving gear wheel 13, and abutting against the lower face of the shouldered portion, is a collar 14, rigidly secured to the shaft by set screws 15, or other suitable means. Balls 16, are confined in a raceway 17, between the bearing block and the collar so that the shaft is supported upon a ball bearing.

The pressing members comprise the co-acting platforms 18, in the four corners of which are secured the nuts or threaded sleeves 19, which receive the threaded post. The nuts are secured in the platforms against turning by means of the integral flanges or tenons 20, which engage corresponding openings in the material of the platforms. The floor of the platforms are formed by the slats 21, having the wedge-shaped openings 22, therebetween.

To protect the threaded posts against dust and foreign material, I provide the telescopic casing 23, which incloses the post and is secured at either end to the inner face of the presser platforms. This casing is formed of concentric tubes, tapering in size from the center toward the ends, and each individual tube provided at its ends with interior and exterior flanges 24, to secure it to the adjacent tube. I also provide similar protective casings 25, for that portion of the posts beneath the lower presser platform, the casing being secured at the upper end to the lower face of the platform, and having its lower end secured to a bracket 26.

Centrally mounted beneath the press in a bearing block 27, is a master gear wheel 28, which meshes with each one of the smaller gears 13, the upper face of the master gear being provided with bevel teeth 29, which are engaged by the driving bevel pinion 30. This driving pinion is mounted upon a shaft 31, journaled in suitable bearings 32, and rotated from a suitable source of power, either by means of the pulleys 33, or gearing as desired. A supporting bar 34 forms a journal bearing for the upper end of the shaft 35, upon which the master gear is mounted. Rollers 36, journaled in brackets 37, engage the lower face of the master gear to prevent any lateral movement thereof. Guiding bars 38, are carried by the corner posts of the press frame and project inwardly beyond the protective casings on the retracting posts, to protect the posts and guide the bale between the presser platforms.

In use, the master gear is driven by the bevel pinion and thereby imparts rotative motion to each of the threaded posts by means of the smaller gear wheels on

such posts. This rotation of the posts causes the presser platforms to advance toward each other and the bale is thereby compressed to the proper uniformity. The presser platforms are separated by reversing the
 5 rotation of the master gear wheel. During the movement of the platforms, the telescopic guards either collapse or expand according to the movement of the platforms, but at all times, the threaded posts are entirely inclosed and protected. The bearing blocks at the
 10 foot of the retractive posts may be moved in the socket plates to cause the gears to mesh either more or less.

From the foregoing description taken in connection with the drawings, it will be evident that I have accomplished all the objects herein set forth, and have
 15 provided a substantial and practical baling press.

I claim:

1. A baling press comprising a base, a frame work mounted thereon, annular sockets secured on the base, bearing blocks adjustably confined in said sockets, retract-
 20 ing posts supported on said blocks and having their upper ends journaled in the frame, collars adjustably mounted near the lower ends of said posts, a ball raceway being formed between said collars and the bearing blocks and balls confined in said raceways, pinions affixed near the
 25 lower ends of the posts, a crown gear centrally mounted on the base having spur teeth meshing with the pinions on the posts, a bevel pinion for driving the crown gear, brackets secured to the base and overhanging the pinions, platforms mounted on the posts, telescopic casings secured
 30 between the platforms and surrounding the posts, and similar casings supported on the brackets and secured to the lower platform.

2. A baling press comprising a base, a frame mounted thereon, annular sockets secured on the base, bearing
 35 blocks adjustably confined in said sockets, retracting posts supported on said blocks having their upper ends journaled

in the frame, collars adjustably affixed on the lower portions of the posts, ball raceways being formed between said collars and the bearing blocks and balls confined in said raceways, pinions mounted on the lower ends of the
 40 posts, a bearing block arranged centrally on the base, a crown gear journaled therein having spur teeth to engage the pinions, forked posts on the base, rollers journaled therein to engage and support the lower face of the crown gear, a bevel pinion for driving the crown gear, brackets
 45 mounted on the base and overhanging the pinions on the posts, platforms mounted on the retracting posts, telescopic casings secured between the platforms and surrounding the retracting posts, similar casings supported on the brackets and secured to the lower platform, and
 50 guards secured to the frame for directing the bales between the posts.

3. A baling press comprising a frame, vertical retracting posts mounted therein, ball bearing thrusts supporting the foot of the posts, gear pinions on the lower ends of the posts, supporting brackets overhanging said pinions, telescopic protective casings inclosing the posts and supported on the brackets, presser platforms mounted on the posts, and means for guiding the bale between the posts.
 55

4. A baling press comprising a frame, vertical retracting posts mounted therein, ball bearings supporting the foot of the posts, gear pinions on the lower ends of the posts, supporting brackets overhanging said pinions, telescopic casings supported on the brackets and inclosing the posts, a crown gear journaled centrally in the base of the
 60 frame having spur teeth engaging the pinions, roller supports for the rim of said crown gear, presser platforms mounted on the posts, and guides for directing a bale between the posts.
 65

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

JOHN Q. ADAMS.

Witnesses:

G. A. HICKMAN,
 W. JONES.