No. 835,054. PATENTED NOV. 6, 1906.

W. A. BRIGHT.

BALING PRESS.

APPLICATION FILED JAN. 29, 1906.

2 SHEETS—SHEET 1.

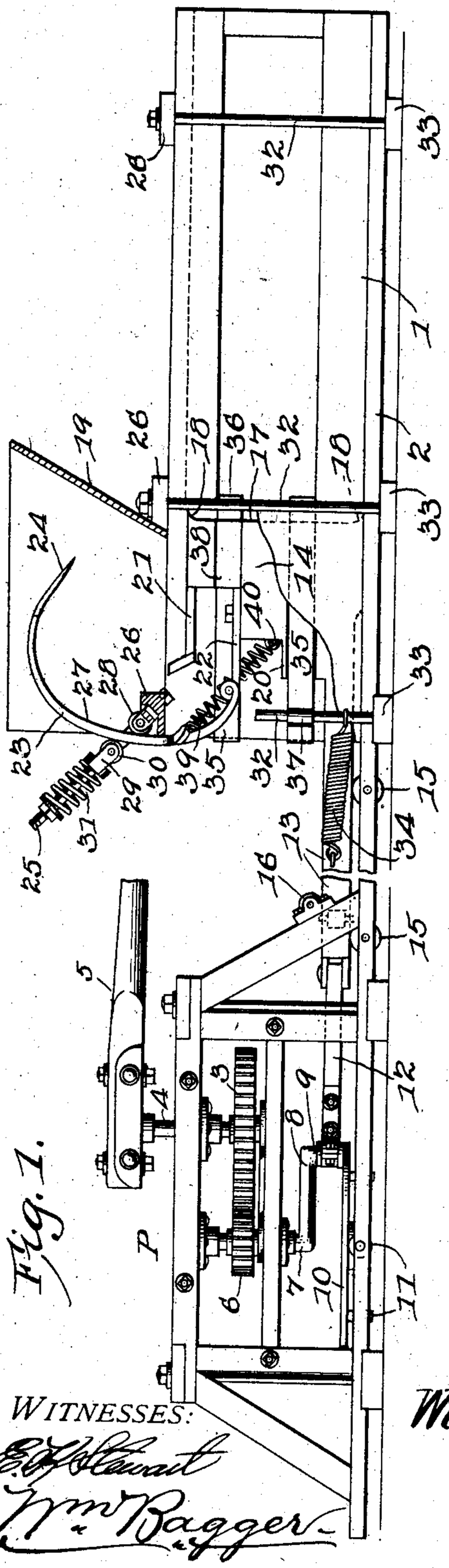

Fig. 1.

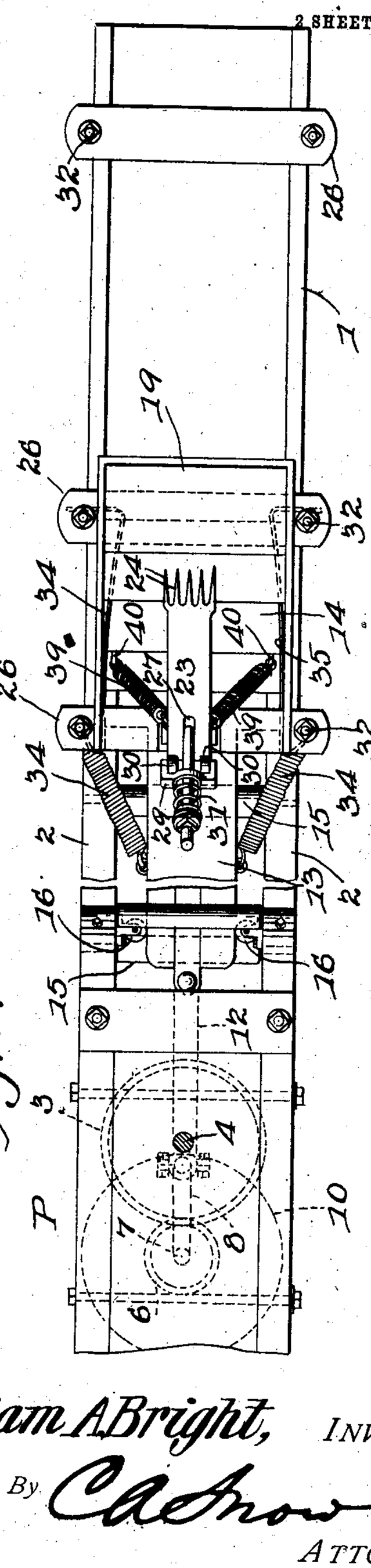

Fig. 2.

WITNESSES:

E. F. Stewart

Wm. Bagger

William A. Bright, INVENTOR

By Cachow & Co

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2 SHEETS—SHEET 2.

Fig. 3.

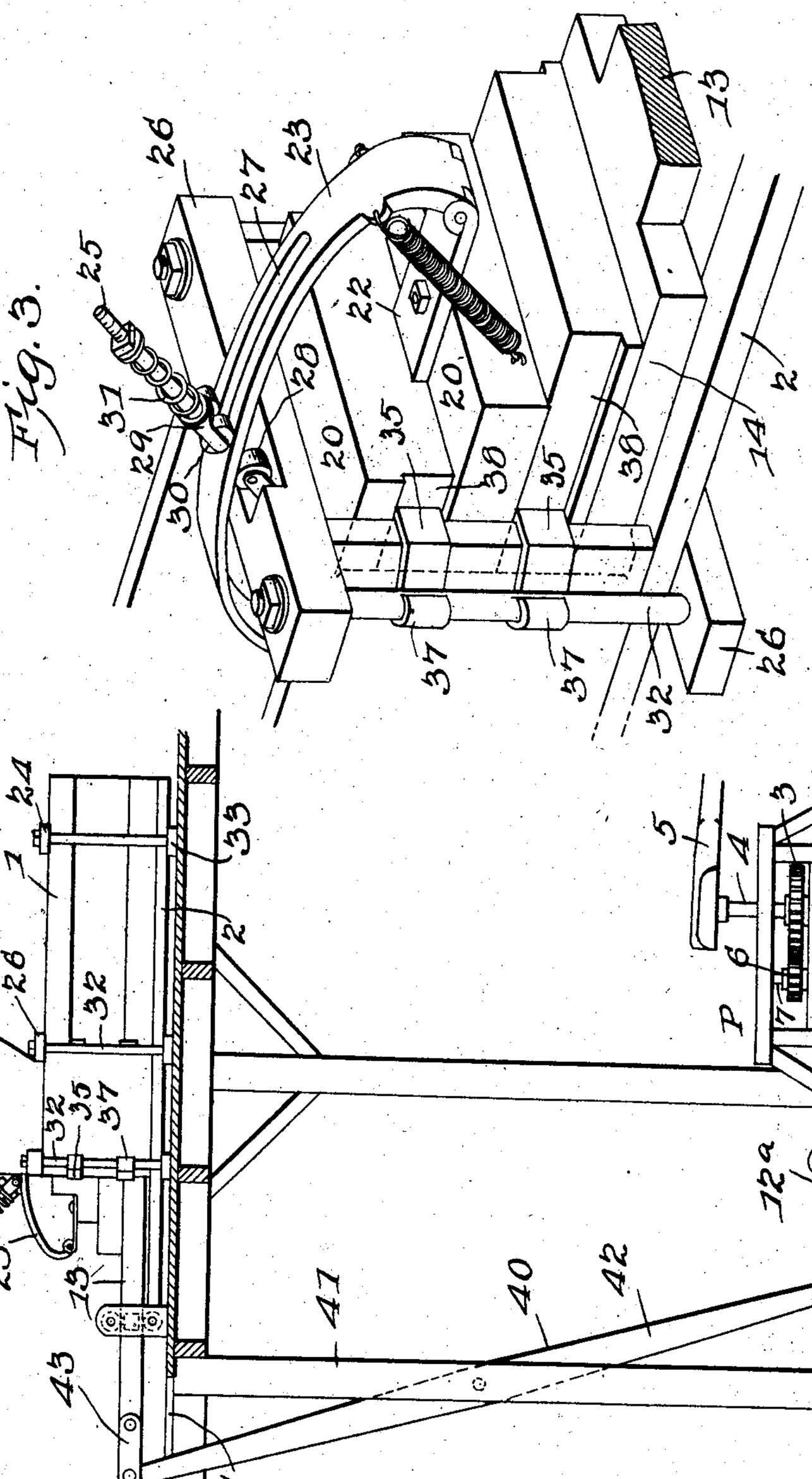

Fig. 4.

WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM A. BRIGHT, OF SEDALIA, OKLAHOMA TERRITORY.

BALING-PRESS.

No. 835,054. Specification of Letters Patent. Patented Nov. 6, 1906.

Application filed January 29, 1906. Serial No. 298,496.

To all whom it may concern:

Be it known that I, WILLIAM A. BRIGHT, a citizen of the United States, residing at Sedalia, in the county of Roger Mills, Oklahoma Territory, have invented a new and useful Baling-Press, of which the following is a specification.

This invention relates to baling-presses; and it has for its objects to simplify and improve the construction and operation of this class of machines.

With these and other ends in view, which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations, and modifications within the scope of the invention may be made when desired.

In the drawings, Figure 1 is a side elevation, partly in section, of a baling-press constructed in accordance with the principles of the invention. Fig. 2 is a top plan view. Fig. 3 is a perspective detail view of the front end of the press-box, showing the plunger and the feeder, the latter being in lowered position. Fig. 4 is a diagrammatic elevation showing the press arranged above the power and means for transmitting motion from the power to the press.

Corresponding parts in the several figures are indicated throughout by similar characters of reference.

1 designates a press-box of ordinary construction, and which has been illustrated in Figs. 1 and 2 as including sills 2 2, which are extended longitudinally in front of the press, so as to constitute a portion of the framework of a horse-power P, whereby the press is operated. The horse-power includes a master-wheel 3, mounted upon a shaft 4, with which is connected a sweep 5, to which the draft-animals are hitched. The master-wheel 3 meshes with a pinion 6 upon a shaft 7, having a crank 8, provided with a wrist-pin 9, which is connected with a horizontally-disposed disk 10 supported for rotation upon, antifriction-rollers 11. The wrist-pin 9 is connected, by means of a link 12, with the stem 13 of the press plunger or follower 14, which latter is supported for longitudinal movement in the press-box. The plunger-stem is supported upon antifriction-rollers 15, that are journaled between the sills 2 2, and vertically-disposed antifriction-rollers 16 bear against the sides of the follower-stem for the purpose of preventing lateral movement of the latter. The plunger or follower will thus be guided evenly and smoothly.

The plunger or follower 14 is provided upon its rear side or face with a cavity or recess 17, whereby sharp upper and lower edges 18 are formed, said edges serving to shape the end of the bale and to force the material that is to be compressed away from contact with the top and bottom of the press-box. The latter is provided with a feed-box or hopper 19 for the reception of the material that is to be compressed. When the follower is at the rearward limit of its movement, as shown in Fig. 1 of the drawings, said follower will be disposed beneath the hopper, so that material placed in the latter will rest upon the follower until the latter moves in a forward direction, receding from the press-box, when the material will pass from the hopper into the press-box in rear of the follower.

The follower has been shown as provided upon its front side with a series of steps 20, with the uppermost one of which may be connected a flanged supporting-plate 21, which when the follower is in the position shown in Fig. 1 assists in supporting the contents of the hopper. Upon one of the steps 20 there is secured a leaf or plate 22, with which is hingedly connected a feeder 23, said feeder consisting of an upwardly and forwardly curved member having a series of terminal prongs 24. The feeder extends into the hopper, and when the follower recedes from the press-box said feeder is adapted to swing into the press-box in the rear of the follower, forcing the contents of the hopper into the press-box. For the purpose of guiding the feeder to perform this swinging movement a guide-rod 25 is provided, said guide-rod being connected with a cross-bar 26 at the front end of the press and extending through a slot 27 in the feeder, said slot being of sufficient length to enable the feeder to move with the follower. The guide-rod is provided with antifriction-rollers 28, supporting the feeder, and upon said guide-rod is slidably mounted a sleeve 29, having friction-rollers 30, bearing against the upper side of the feeder, said

sleeve being forced in the direction of the feeder by the action of a suitably-arranged spring 31. It is obvious that under this construction when the follower recedes from the press-box the feeder will swing into the latter, while when the follower moves into the press-box the feeder will recede and move to the position indicated in Fig. 1.

The top, bottom, and sides of the press-box are connected in the usual manner by means of bolts 32, extending through cross-bars 26 and 33 at the top and the bottom of the press-box. The front bolt 32 is connected with the follower-stem by means of springs 34, which assist in forcing the follower into the press-box. Likewise connected with the front bolt 32 are straps 35, of spring metal, which extend into the press-box and are provided with bent extremities extending through slots in the sides of the box, as at 36, said straps constituting dogs for the purpose of preventing the material compressed within the box from expanding in a forward direction. By connecting these dogs with the bolts 32 they may be made of considerable length and of great resiliency, and their efficiency will thus be greatly increased. At the same time they may be secured very firmly without the use of bolts or rivets, whereby the construction would be weakened by simply forming the front ends of the trip 35 with loops or ears 37, engaging the bolts. The sides of the follower may be grooved, as shown at 38 in Fig. 3 of the drawings, for the accommodation of the strips constituting the dogs.

To assist in the operation of the feeder and to render its operation more certain, auxiliary springs, as 39, may be employed, said springs connecting the feeder with loops or staples 40 upon the follower. The construction of the latter with the steps 20 provides for the accommodation of the auxiliary springs when the machine is in operation.

In Fig. 4 of the drawings has been illustrated a modified arrangement of the improved press under which the power P is arranged in a barn and the press-box is supported in the loft of said barn. A post or upright 41 supports a walking-beam or lever 42, one end of which is connected with the crank of the horse-power by means of a pitman, (here designated 12^a,) while the other or upper end of said lever is connected with the follower-stem 13 by means of a link, (here designated 43.) Motion will thus be transmitted from the power below to the press above, the lever 42 operating through a slot 43′ in the loft-floor.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation and advantages of this invention will be readily understood by those skilled in the art to which it appertains.

The construction of the improved press is simple and inexpensive. It is easily operated and efficient in operation.

Having thus described the invention, what is claimed is—

1. A press-box having longitudinally-extended sills, a follower movable in said press-box and having a forwardly-extending stem, supporting-rollers for said stem journaled between the sills, vertically-disposed rollers bearing against the sides of the stem, a power-frame supported upon the sills, a shaft journaled in said power-frame, a sweep and a master-wheel upon said shaft, a crank-shaft journaled in the power-frame and having a disk at its lower end, antifriction-rollers supporting said disk, a pinion upon the crank-shaft meshing with the master-wheel, and a pitman connecting the crank with the follower-stem.

2. A press-box, a follower, a feeder hinged upon the follower, a guide connected with the press-box and having supporting-rollers for the feeder, and rotary spring-actuated guide members forcing the feeder in the direction of the supporting-rollers.

3. A press-box, a feeder, rotary supporting means for the feeder, and spring-actuated rotary guide means engaging the feeder and forcing it in the direction of the rotary supporting means.

4. A press-box, a feeder, a guide-rod connected with the press-box and extending through a slot in the feeder, rotary supporting means for the feeder connected with said guide-rod, a spring-actuated sleeve upon the latter, and rotary members connected with said sleeve and bearing against the feeder.

5. A press-box having a feed-opening, a follower having a series of steps upon its front side, a supporting-plate connected with the uppermost step, a strap supported upon an intermediate step, a feeder hinged upon said strap, guide means for said feeder, and springs connecting the latter with the follower.

6. In a baling-press, a press-box having upper and lower cross-pieces and slotted side walls held in assembled position by vertical bolts, resilient strips bearing against the side walls and having loops or ears engaging the front bolts, said strips being disposed longitudinally within the press and having bent ends extending through slots in the sides of the press-box, and a reciprocatory follower provided with grooves in the sides thereof to accommodate the resilient strips.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM A. BRIGHT.

Witnesses:

SILAS S. DENHAM,

ALBERT BETTS.