(No Model.) 2 Sheets—Sheet 1.

P. C. SOUTHWICK.

BALING PRESS.

No. 534,292. Patented Feb. 19, 1895.

Fig. 1.

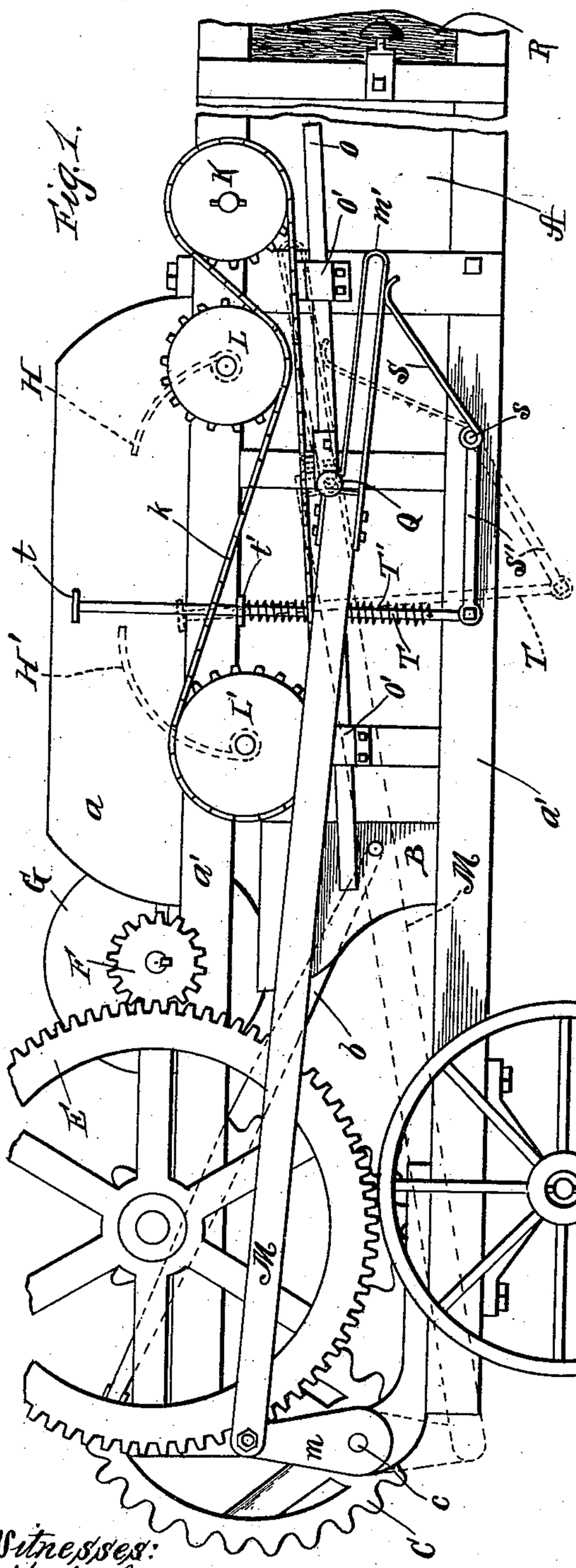
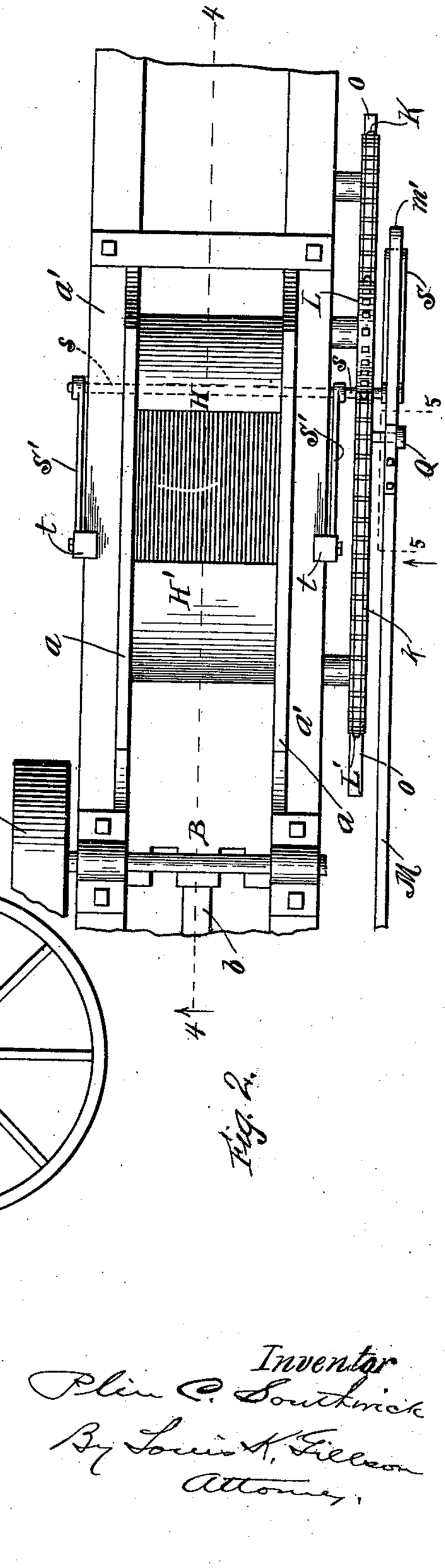


Fig. 2.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

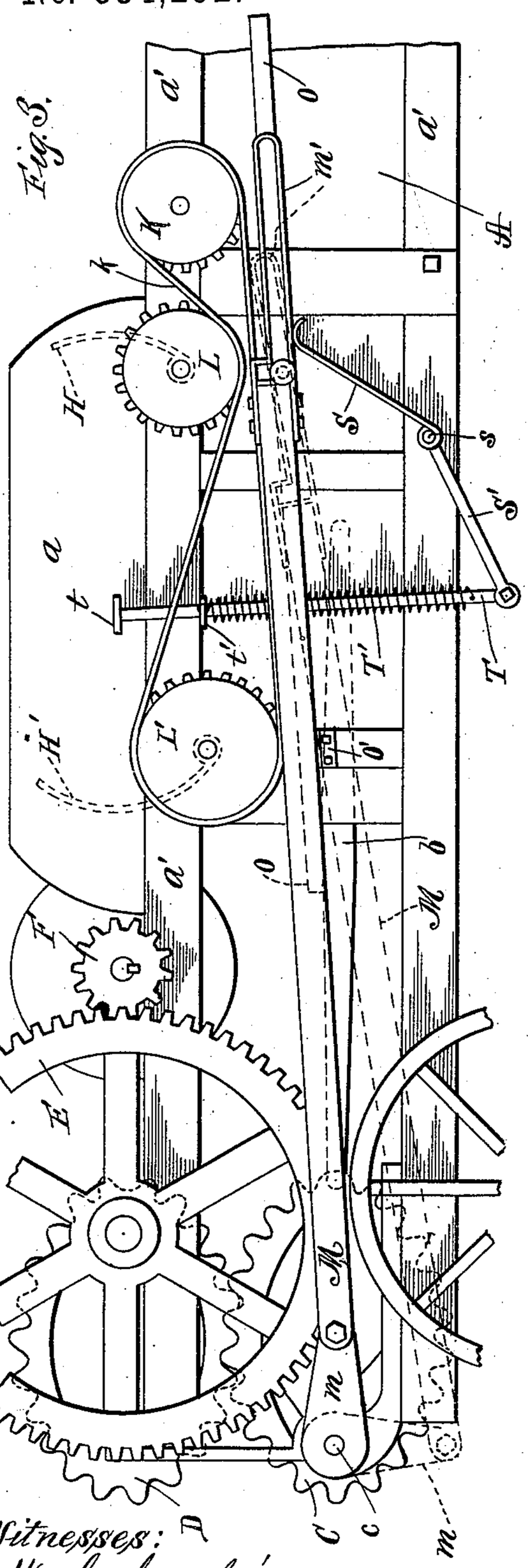

Fig. 4.

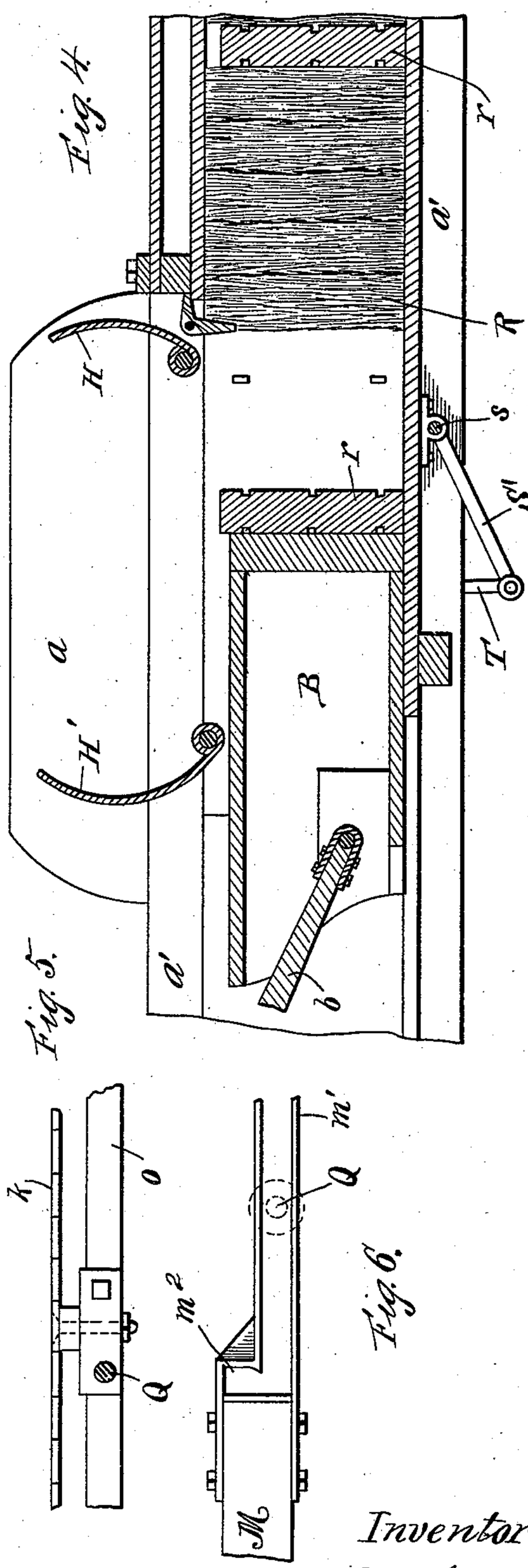

Fig. 5.

Fig. 6.

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UNITED STATES PATENT OFFICE.

PLIN C. SOUTHWICK, OF SANDWICH, ILLINOIS.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 534,292, dated February 19, 1895.

Application filed October 25, 1894. Serial No. 526,929. (No model.)

To all whom it may concern:

Be it known that I, PLIN C. SOUTHWICK, a citizen of the United States, residing at Sandwich, in the county of De Kalb and State of Illinois, have invented certain new and useful Improvements in Baling-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 of reference marked thereon, which form a part of this specification.

My invention relates to hay baling presses in which a plunger reciprocates within a chambered body having a lateral feed opening into which the hay is forced by a pair of swinging feeding plates.

The object of the invention is to provide means for throwing the feeding plates out of action at the will of the operator for the purpose of enabling him to more conveniently insert within the feed opening the followers used to separate the bales.

The invention is especially adapted to the press forming the subject of my application for Letters Patent, Serial No. 514,261, filed June 11, 1894, in which the feeding plates are actuated by means of a sprocket chain to which a reciprocating motion is communicated by means of a pitman and consists of a special form of pitman adapted to be connected with or disconnected from the chain at pleasure, and more particularly to a stud and notch connection between the chain and pitman, and a lever for lifting the pitman from the stud.

The invention consists also in such further details of construction as are hereinafter described.

In the accompanying drawings, Figure 1, is a side elevation of a baling press to which the invention is applied, the feeding plates being in connection with the driving mechanism. Fig. 2, is a plan view of the same. Fig. 3, is a side elevation, the connection between the feeding plates and the driving mechanism being broken. Fig. 4, is a longitudinal vertical section of the press. Fig. 5, is a detail on the line 5—5 of Fig. 2. Fig. 6, is a detail of the pitman for driving the feeding plates.

The chambered body of the press is shown at A, its feed opening being flanked by the wings *a*, *a*. The plunger is represented at B, its pitman at *b*, and the elliptic gears for driving the plunger at C, D, power being applied to the gears by the wheel E, and its pinion F, the latter being carried by the shaft *f*, upon which is mounted the belt pulley G, which is driven from the source of power.

The feeding plates are shown at H, H′, and are mounted upon shafts journaled across the body A, and carrying sprocket wheels L, L′, which are driven in opposite directions by a sprocket chain *k*, returning over an idler K. A slide bar *o*, is carried by and adapted to reciprocate in guide loops *o′*, *o′*, attached to the side of the body A, and is immediately below and parallel with the lower turn of the chain *k*, and to which it is permanently attached.

A crank arm *m*, is carried by the shaft *c*, of the elliptic gear C, and is connected with the slide bar *o*, by means of a pitman M, which detachably engages a stud Q, carried by the slide bar.

The attachment between the pitman M, and the stud Q, is by means of a loop *m′*, forming the outer end of the pitman and serving as a sliding bearing for the stud and having, preferably at its inner end, a recess at its upper side adapted to receive the stud so as to lock the pitman and slide bar together.

A crank arm S, carried by a rock shaft *s*, journaled in the sills *a′*, of the body A, bears against the under side of the loop *m′*. A crank arm S′, carried by the rock shaft *s*, and projecting oppositely from the arm S, is connected with a vertical thrust rod T, sliding in a guide loop *t′*, secured to the side of the body A, and having a head *t*, adapted to receive the foot of the operator. Downward pressure upon the rod T, throws the crank arm S, upwardly and lifts the pitman M, so as to disengage the recess of the loop *m′*, from the stud Q. The pitman now slides freely upon the stud, the sprocket chain. The wheels and the feeding plates remain stationary. The recess of the loop *m′*, being at its inner end the stud Q, will be pushed to the limit of the forward thrust of the pitman, thereby throwing back the feeding plates and leaving them in that position as the pitman recedes. The

length of the loop m', is equal to the stroke of the pitman, so that the plates are not again moved until the crank arm S, is lowered and the pitman falls when the recess of the loop reaches the stud, bringing the parts again in to engagement. The follower r, is introduced into the chamber of the body while the plates H, H', are stationary without danger to the operator and is pushed up to the hay R, already compressed.

The rock shaft s, may be provided with a crank arm S', at each end, as shown in Fig. 2, so that there may be a thrust rod T, upon each side of the body A.

I claim as my invention—

1. In a baling press the combination with a chambered body A, having a feed opening, of a pair of feeding plates adapted to oscillate in and out of the feed opening, sprocket wheels mounted with the plates, a sprocket chain for driving the wheels in opposite directions, a stud in fixed connection with the chain, a reciprocating pitman, a loop forming an extension of the pitman and adapted to inclose and slide upon the stud and having a recess at its inner end for engaging the stud, and means for disengaging the stud from the recess.

2. In a baling press the combination with a chambered body having a feed opening and a plunger adapted to reciprocate within the body across the feed opening, of feeding plates adapted to swing into the body through the feed opening between the strokes of the plunger, means for actuating the plunger and feed plates from a common source of power and means for throwing the plates out of action at the will of the operator.

3. In a baling press the combination with a chambered body having a lateral feed opening, of feed plates mounted at the sides of the feed opening and adapted to swing in and out of the same, sprocket wheels mounted with the plates, a chain for driving the wheels in opposite directions, and a reciprocating pitman in detachable engagement with the chain.

4. In a baling press the combination with a chambered body having a lateral feed opening, of feed plates mounted at the sides of the feed opening and adapted to swing in and out of the same, sprocket wheels mounted with the plates, a chain for driving the wheels in opposite direction, a stud connected with the chain, a reciprocating pitman having a notch or lateral recess for engaging the stud, and means for disengaging the notch from the stud.

5. In a baling press the combination with a chambered body having a lateral feed opening, of feed plates mounted at the sides of the feed opening and adapted to swing in and out of the same, sprocket wheels mounted with the plates, a chain for driving the wheels in opposite direction, a stud connected with the chain, a reciprocating pitman having a notch or lateral recess for engaging the stud, a swinging lever adapted to be brought into sliding contact with the pitman whereby it may be elevated and disengaged from the stud, and means for swinging the lever.

6. In a baling press the combination with a chambered body having a lateral feed opening, of feed plates mounted at the sides of the feed opening and adapted to swing in and out of the same, sprocket wheels mounted with the plates, a chain for driving the wheels in opposite direction, a stud connected with the chain, a reciprocating pitman having a notch or lateral recess for engaging the stud, a swinging lever adapted to be brought into sliding contact with the pitman, whereby it may be elevated and disengaged from the stud, a rock shaft for carrying the swinging lever and a crank arm for rocking the shaft.

7. In a baling press the combination with a chambered body having a lateral feed opening, of feed plates mounted at the sides of the feed opening and adapted to swing in and out of the same, sprocket wheels mounted with the plates, a chain for driving the wheels in opposite direction, a stud connected with the chain, a reciprocating pitman having a notch or lateral recess for engaging the stud, a swinging lever adapted to be brought into sliding contact with the pitman, whereby it may be elevated and disengaged from the stud, a rock shaft for carrying the swinging lever, a crank-arm for rocking the shaft, and a thrust rod in pivotal engagement with the crank arm.

8. In a baling press the combination with a chambered body having a lateral feed opening, and with feed plates adapted to swing in and out of the opening, of a rock shaft for carrying the plates, sprocket wheels mounted upon the shafts, a chain adapted to drive the wheels in opposite directions, a stud connected with the chain, a reciprocating pitman having an elongated loop at its end adapted to inclose and slide upon the stud and having a recess at its inner end for engaging the stud and thereby driving the chain, a swinging lever adapted to raise the pitman and disengage its recess from the stud, a rock shaft for carrying the lever, a crank arm for rocking the shaft and a pedal for actuating the crank.

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

PLIN C. SOUTHWICK.

Witnesses:
G. W. GURLEY,
C. A. PHELPS.