(No Model.)

W. F. SOUTHARD.

COTTON PRESS ATTACHMENT.

No. 379,828. Patented Mar. 20, 1888.

Fig. 1.

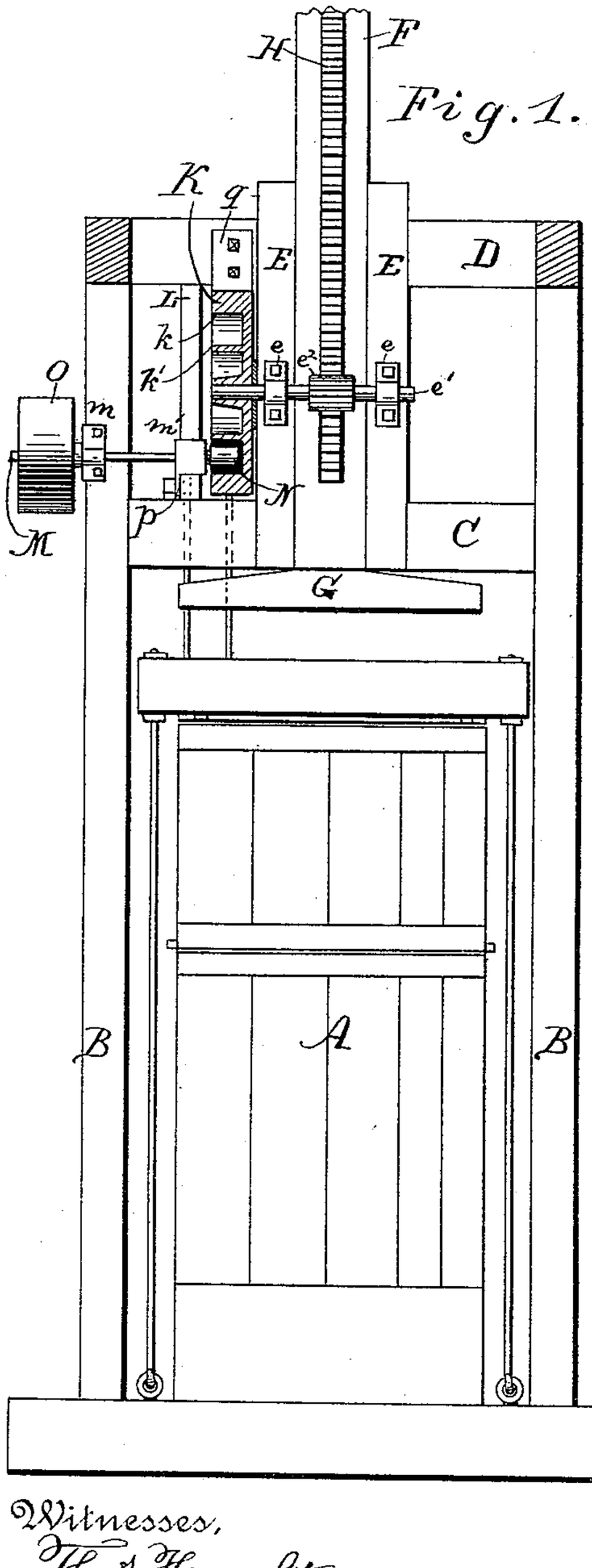
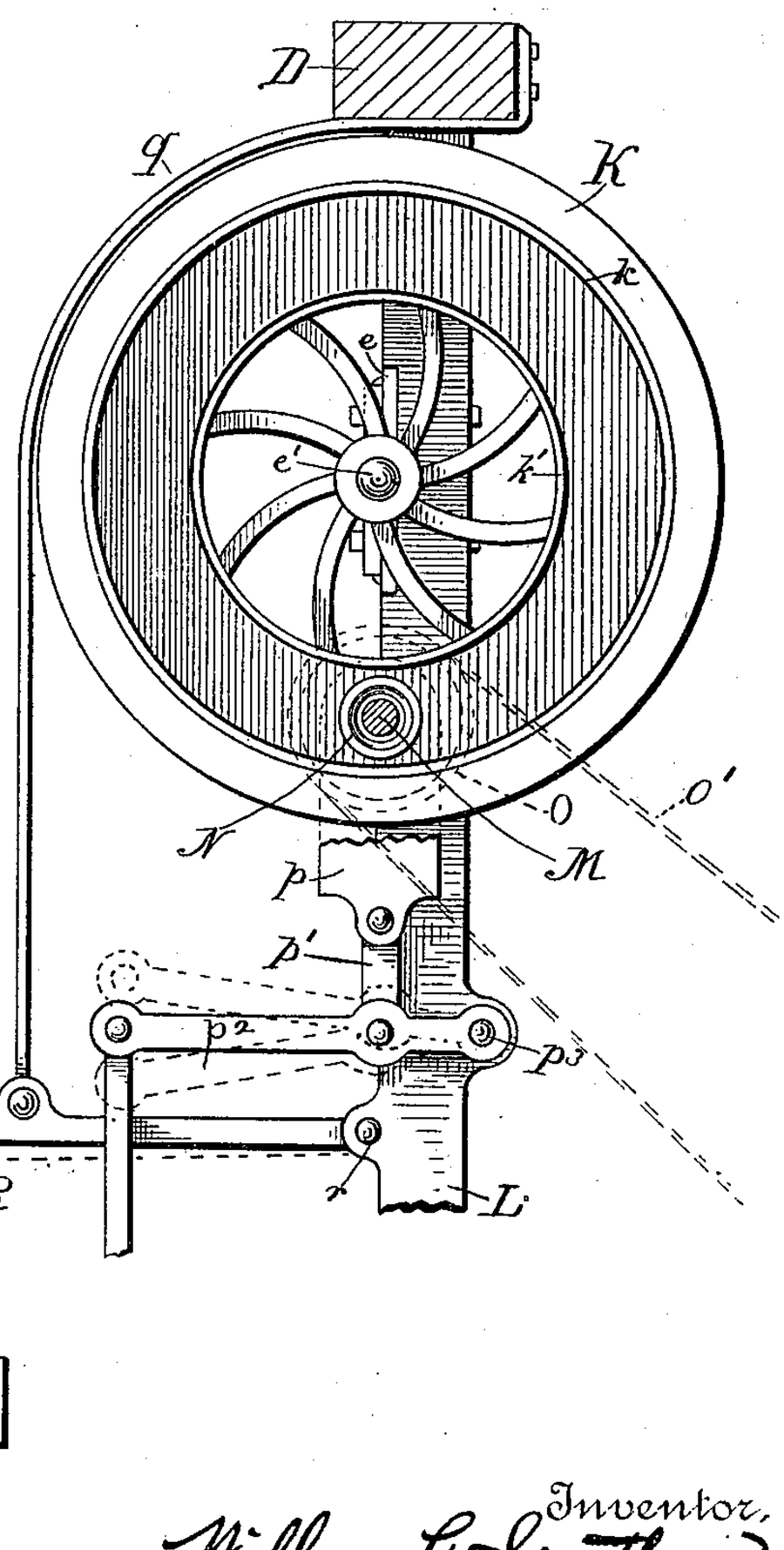


Fig. 2.



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UNITED STATES PATENT OFFICE.

WILBER FERDNAND SOUTHARD, OF CHARLESTON, ARKANSAS.

COTTON-PRESS ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 379,828, dated March 20, 1888.

Application filed September 15, 1887. Serial No. 249,736. (No model.)

To all whom it may concern:

Be it known that I, WILBER FERDNAND SOUTHARD, a citizen of the United States, residing at Charleston, in the county of Franklin and State of Arkansas, have invented certain new and useful Improvements in Cotton-Press Attachments; 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 has relation to cotton and hay presses; and it consists in a device or machine attached to the press for the purpose of packing the cotton or hay into the press-box preparatory to compressing it into the bale, and may be called a "tramper." It can be attached to almost any style of cotton or hay press now in use, and does away with the laborious task of tramping the cotton or hay into the bale-box by muscular power.

In the accompanying drawings, Figure 1 is a face view of my machine. Fig. 2 is a detail view.

My invention is described as follows:

B B are upright beams secured to and rising from the bed of the press-box A, and extending to a considerable distance above the top of the same. In the upper end of these upright beams are secured two cross-beams, C being a short distance from the top of the press and D in the extreme upper ends of said uprights. To the face of these cross-beams C and D and immediately over the top of the press-box are secured two other uprights, E E, between which is placed a rammer, F. This rammer is so fitted and dovetailed between the uprights E E that it will slide easily up and down. Its track may be lined with brass, iron, or other material, and the rammer may have its friction-surface also covered with such material, so that it may slide up and down freely, or the friction may be prevented by rollers, or it may be used without any covering or rollers. To the lower end of said rammer is secured rammer-head G, which exactly fits into the press-box A, and plays up and down, to compress the cotton or hay. To the face of the rammer is secured a cog-bar, H.

To the face of the uprights E E is pinioned, by bearings *e*, a journal, *e'*, having rigidly secured on its center a cog-pinion, e^2, the cogs of which mesh with the cogs of said cog-bar. On the extended end of said journal *e'* is rigidly secured a large heavy friction-pulley and balance-wheel, K. This friction-pulley is so constructed that it has two friction-faces, *k k'*, so that it may be made to run in either direction, as hereinafter described. Immediately to the left of said friction-pulley is secured another upright, L, to which is pinioned a journal, M, by means of bearings *m* and *m'*. On the inner end of this journal M is rigidly secured a friction-pulley, N, and on the outer end is rigidly secured a band-pulley, O. The socket in the inner bearing, *m'*, is made a little long, so that the inner end of the journal M may play up and down, and thus the friction-pulley N may be thrown against the faces *k* and *k'* of the wheel K alternately without changing the course of the band-pulley O, through which means the rammer may be run up and down as rapidly and as often as desired. The friction between the said friction-pulley and the friction-faces *k k'* is brought about by means of a yoke, *p*, which is fastened around the journal M, under the bearing *m'*, or near the friction-pulley N, its lower end extending down below the lower end of said bearing, in which is riveted a strap, *p'*, the lower end of which is pivoted to the lever p^2, the short end of which lever is pivoted to the upright L at the point p^3, its long end extending out, so that it may be reached and operated by the hand; or it may have attached to it an arm hanging down nearly to the ground, by which it may be operated.

To the upper cross-beam, D, immediately over the wheel K, is bolted a brake-band, *q*, which passes around, very close to the periphery of the said balance-wheel, its lower end being pivoted to a lever, R. This lever R has its short end pivoted to the upright L at the point *r*, while its long end extends out from the machine, or may have attached to it a swinging arm, by which it may be operated. By means of this brake *q* and lever R the speed of the

said balance-wheel may be checked, or it may be entirely stopped.

It will be observed that in describing the wheel K, I have sometimes called it a "balance-wheel" and sometimes a "friction-pulley." It is both, and, as a modification of my machine, I may dispense with the friction-faces *k k'* and run the friction-pulley N against the periphery of the said wheel K, in which case it would be necessary for me to reverse the action of the band-pulley O in order to reverse the course of the wheel K and to run the rammer F up and down. For ordinary purposes it would only be necessary to use the pulley N to run the said rammer up, its own weight would start it down, and the said wheel K, being quite heavy, would continue to press it downward even after it had met with considerable resistance from the cotton or hay below.

In Fig. 2 the circular dotted lines O represent the band-pulley, and the straight dotted lines O' represent the band.

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

1. In combination with the press-box of a cotton or hay press, the uprights B B, extending above the press-box, the cross-beams C D, secured in the upper ends of said uprights, the uprights E E and L, secured to said cross-beams, the rammer F, adapted to slide up and down between the said uprights E E and bearing on its lower end the rammer-head G, adapted to fit into and work up and down in the box A, said rammer having secured to its face cog-bar H, journal *e'*, journaled in suitable bearings on uprights E E and having rigidly secured on it cog-pinion e^2, meshing with the cog-bar H, situated and adapted to run the same up and down, the double-faced friction-pulley K, rigidly secured on the extended end of the journal *e'*, the journal M, journaled on uprights B and L by suitable bearings, having on its outer end band-pulley O and on its inner end friction-pulley N, running between the friction-faces *k k'* of said wheel K, yoke *p*, its upper end working over the journal M, near the friction-wheel N, strap *p'*, secured to the said yoke and the lever p^2, and the lever p^2, pivoted to said upright, all substantially as shown and described, and for the purposes set forth.

2. In combination with the press-box of a cotton or hay press, the uprights B B, extending above the press-box, the cross-beams C D, secured in the upper ends of said upright, the uprights E E and L, secured to said cross-beams, the rammer F, adapted to slide up and down between the said uprights E E and bearing on its lower end the rammer-head G, adapted to fit into and work up and down in the box A, said rammer having secured to its face cog-bar H, journal *e'*, journaled in suitable bearings on uprights E E and having rigidly secured on it cog-pinion e^2, meshing with the cog-bar H, situated and adapted to run the same up and down, the double-faced friction-pulley K, rigidly secured on the extended end of the journal *e'*, the journal M, journaled to uprights B and L by suitable bearings, having on its outer end band-pulley O and on its inner end friction-pulley N, running between the friction-faces *k k'* of said wheel K, yoke *p*, its upper end working over the journal M, near the friction-wheel N, strap *p'*, secured to the said yoke and the lever p^2, lever p^2, pivoted to said upright, brake-band *q*, its upper end bolted to the cross-beam D, its lower end pivoted to the lever R, and the lever R, pivoted to said upright L, all substantially as shown and described, and for the purposes set forth.

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

WILBER FERDNAND SOUTHARD.

Witnesses:
R. M. SOUTHARD,
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