(No Model.) 2 Sheets—Sheet 1.

L. A. CORNING.

BALING PRESS.

No. 497,090. Patented May 9, 1893.

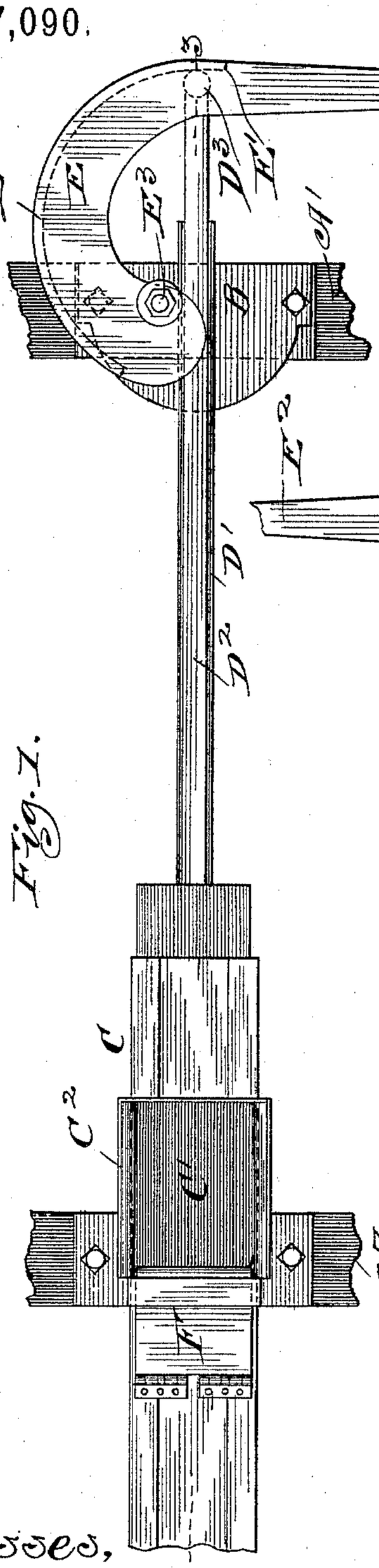

Fig. 1.

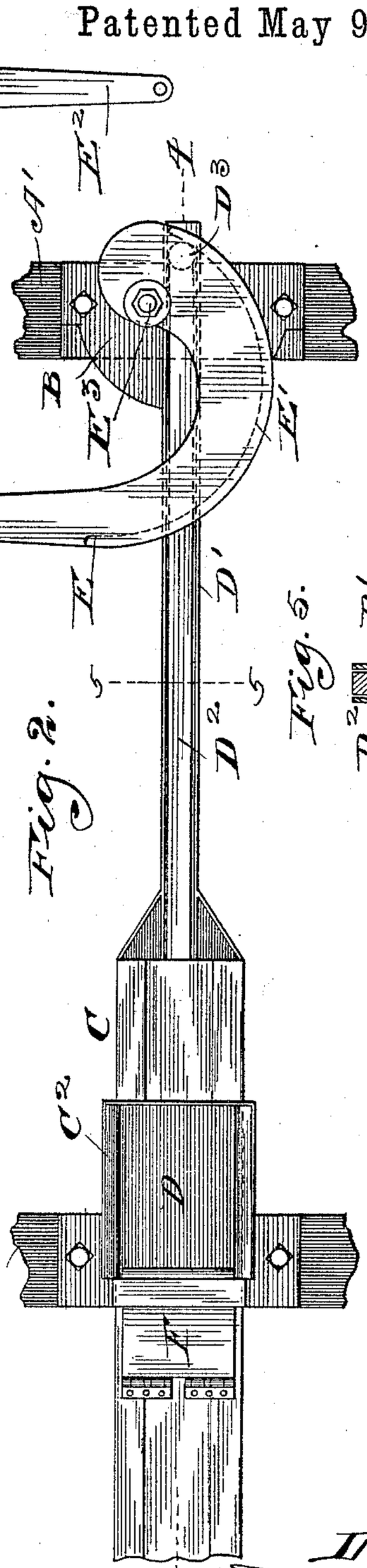

Fig. 2.

Fig. 5.

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(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

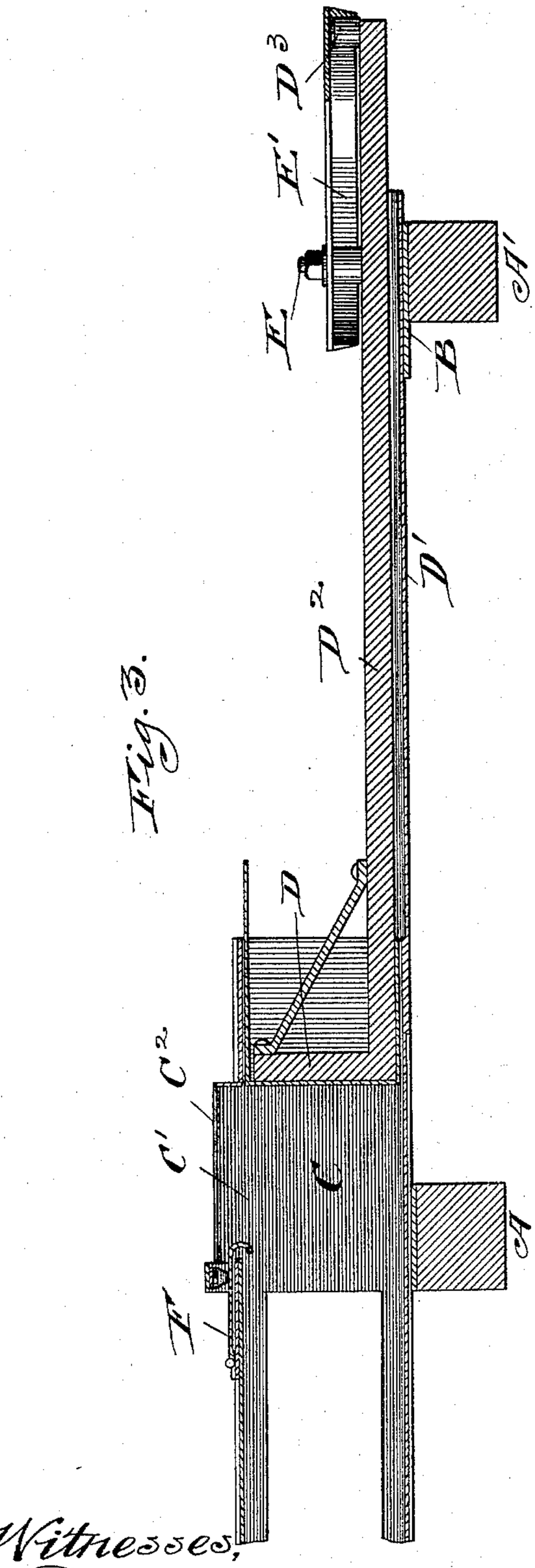
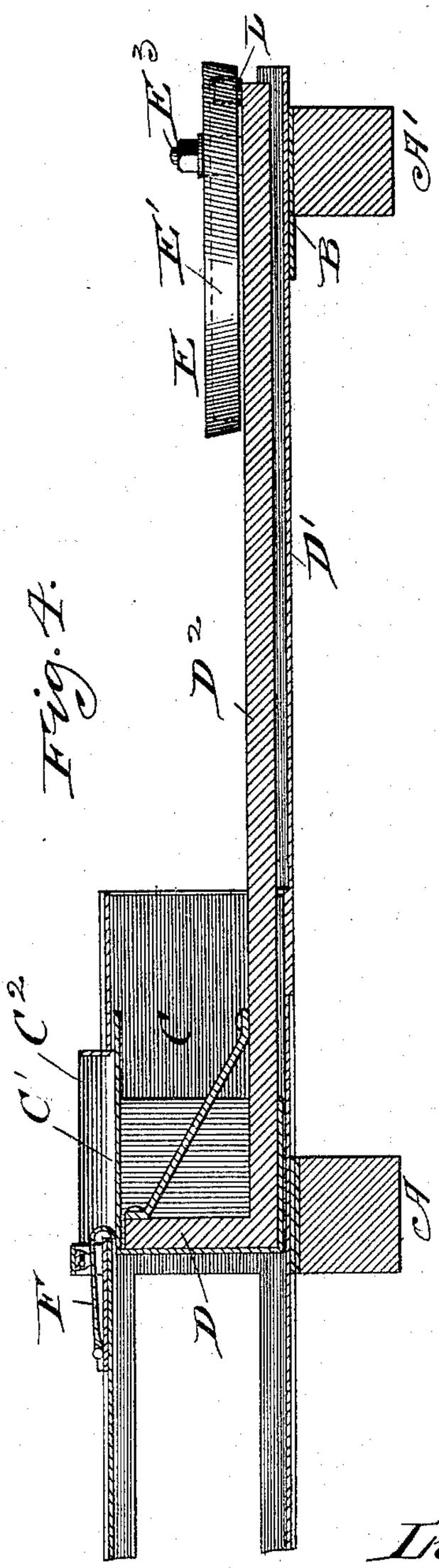


Fig. 4.



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UNITED STATES PATENT OFFICE.

LUCY A. CORNING, OF ROCKFORD, ILLINOIS.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 497,090, dated May 9, 1893.

Application filed January 23, 1892. Serial No. 419,016. (No model.)

To all whom it may concern:

Be it known that I, LUCY A. CORNING, a citizen of the United States, residing at Rockford, in the county of Winnebago and State of Illinois, 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, as already stated, the several novel and useful features whereof will be fully described and claimed hereinafter.

Referring to the accompanying drawings, which form a part of this specification, Figure 1 is a top plan view of my improved baling-press, with the baling-chamber ready to receive, and the plunger in position to bale, a charge of hay. Fig. 2 is a like view of the same, showing the position of the plunger as it is about to complete the baling of a charge of hay. Fig. 3 is a vertical longitudinal section of the baling-press, at the dotted line 3..3 in Fig. 1. Fig. 4 is a like view of the same, at the dotted line 4..4 in Fig. 2—except that the cam-lever is not shown in section in Fig. 4. Fig. 5 is a vertical transverse section, at the dotted line 5..5 in Fig. 2, of parts there shown.

Like letters of reference indicate corresponding parts throughout the several views.

A A′ are any bearings suitable for the machine to rest upon. These bearings may consist of the rear axle and bolster of a wagon—when a portable press is required—the wheels whereof may be removed or sunk into the earth, in order to bring the press sufficiently near the ground to allow the animals operating the same to readily pass over the plunger-bar thereof.

B is a base-plate fast to the part A′.

C is a baling-chamber, having a feed-opening C′ therein and a feed-hopper C^2 located over the latter.

D is a plunger, adapted to be freely reciprocated in the baling-chamber C.

D′ is a way—preferably of channel-iron—connecting the baling-chamber C and base-plate B.

D^2 is a plunger-bar, fast by its inner end to the plunger C and adapted to be freely slid in the way D′.

D^3 is a friction-pulley mounted on the free end of the plunger-bar D^2. Obviously a lug or other similar rigid part might be substituted for the friction-pulley D^3, without departing from the spirit and scope of my invention, though with less satisfactory results.

E is a cam-lever, approximating in form a figure 6, provided with a downwardly-projecting cam-flange E′ curved to coincide substantially with the bent portion thereof, and pivotally mounted on the base-plate B by means of a stub-shaft E^3.

F is a folder, hinge-jointed by one end to the baling-chamber C, projecting into and operative in the feed-opening C′ therein, and actuated downwardly by means of a spring F′. The function of the folder F is to fold or turn down the upwardly projecting loose portions of each charge of hay as it is baled, thereby leaving the top of the completed bale smooth and even.

The herein-described baling-press is adapted to be operated by means of animals—hitched to the free end of the cam-lever E—traveling round-and-round.

It is well understood, by those versed in the operation of baling-presses, that the power therefor must be applied in an increasing ratio, that is, the first part of the operation requires, but very slight, and the last part of the operation very great, power. Having this fact in mind, I have contrived the cam-lever employed herein so that the cam-portion E′ thereof, when it first engages with the plunger-bar D′, Fig. 1, drives the latter and its plunger D rapidly, at the expense of power, while the cam-portion E′ thereof, as it is about to disengage from the plunger-bar D′, Fig. 2, drives the latter very slowly and with very great force, at the expense of speed—the long arm of the lever lengthening and the short arm shortening as the operation of baling progresses.

I claim—

1. In a baling-press, in combination, the plunger, the plunger-bar connected, by one end thereof, therewith, the cam-lever approximating in form a figure 6, provided with a downwardly-projecting cam-flange E′ curved to coincide substantially with the bent portion thereof and adapted to engage with the free end of the plunger-bar and drive the same and its plunger into the baling-chamber of the press, and suitable bearings for all said

parts, substantially as and for the purpose specified.

2. In a baling-press, in combination, the baling-chamber, the plunger adapted to freely reciprocate therein, the plunger-bar connected with and projecting from the rear end of the plunger, the friction-pulley mounted on the outer end of the plunger-bar, the pivotally-mounted cam-lever approximating in form a figure 6, provided with a downwardly-projecting cam-flange E′ curved to coincide substantially with the bent portion thereof and being adapted to engage with the friction-pulley and thereby drive the plunger-bar and its plunger into the baling-chamber, substantially as and for the purpose specified.

3. In a baling-press, in combination, the baling-chamber having a feed-hopper opening thereinto, the plunger adapted to slide therein, the plunger-bar fast thereto and provided with a way wherein to slide, the cam-lever E approximating in form a figure 6, provided with a downwardly-projecting cam-flange E′ curved to coincide substantially with the bent portion thereof and pivotally-mounted and engaging with the friction-pulley thereon, when all of said parts are arranged and combined substantially as and for the purpose specified.

4. In a baling-press, in combination, the baling-chamber provided with a feed opening having a folder operative therein, the plunger adapted to slide in the baling-chamber, the base-plate having a suitable bearing, the way connecting the baling-chamber and base-plate, the plunger-bar fast to the plunger and adapted to slide in said way, the cam-lever E approximating in form a figure 6, provided with a downwardly-projecting cam-flange E′ curved to coincide substantially with the bent portion thereof and pivotally-mounted on the base-plate and engaging by said cam-flange with the friction-pulley on the free end of the plunger-bar, substantially as and for the purpose specified.

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Witnesses:
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