

H. M. TALLMAN.

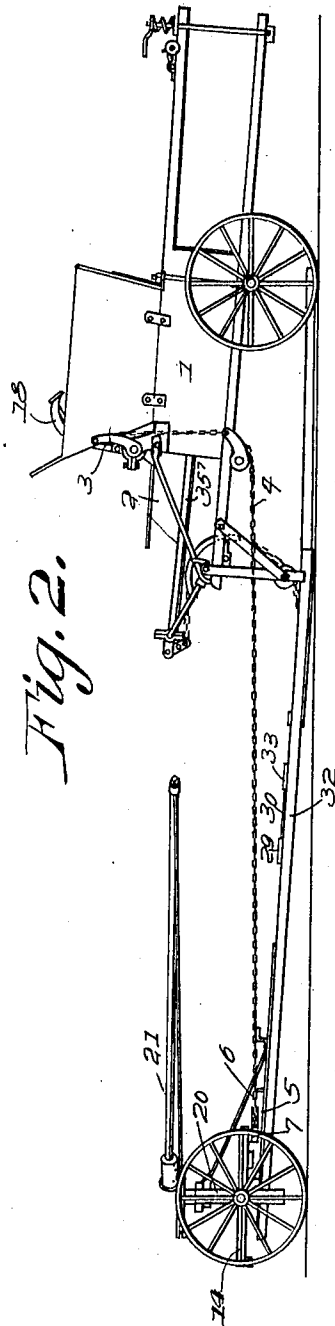
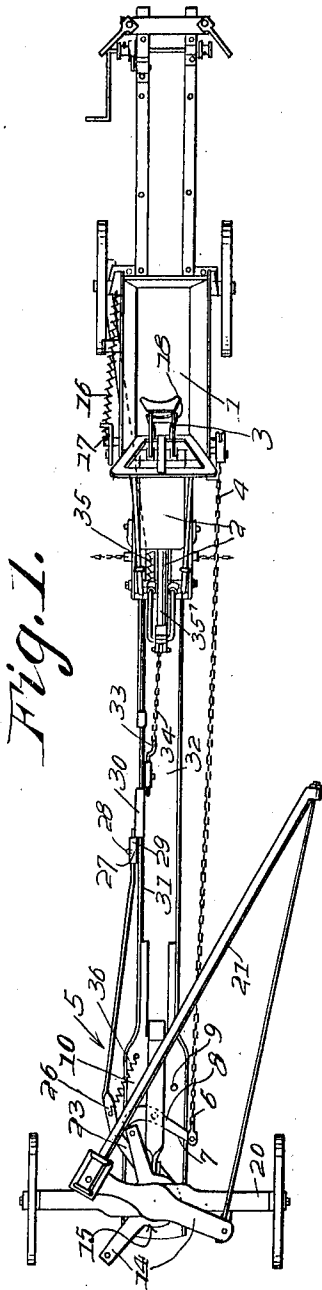
BALING PRESS.

APPLICATION FILED OCT. 7, 1911.

1,035,263.

Patented Aug. 13, 1912.

3 SHEETS-SHEET 1.



Witnesses
Wm. Van de pool.
A. J. Andes.

INVENTOR.
Horace M. Tallman.

H. M. TALLMAN.
BALING PRESS.

APPLICATION FILED OCT. 7, 1911.

Patented Aug. 13, 1912.

3 SHEETS-SHEET 2.

1,035,263.

Fig. 3.

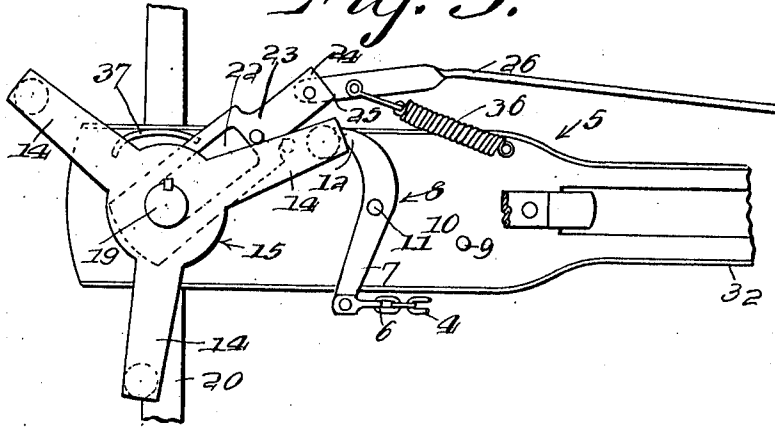


Fig. 4.

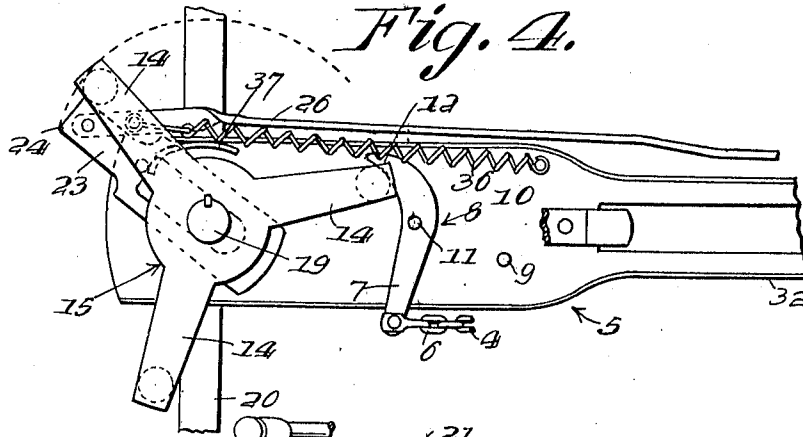
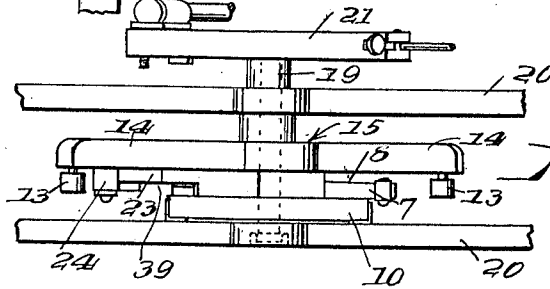


Fig. 5.



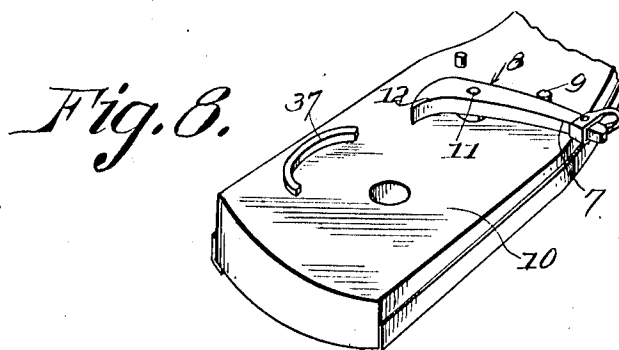
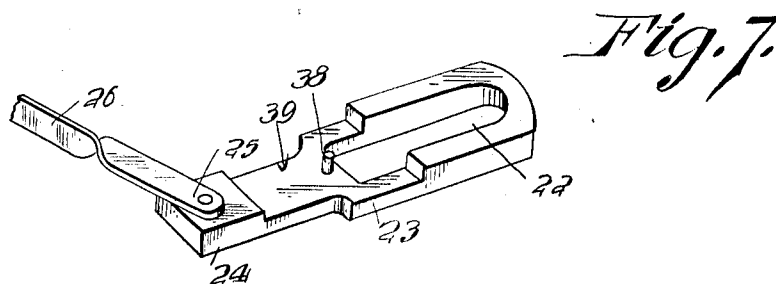
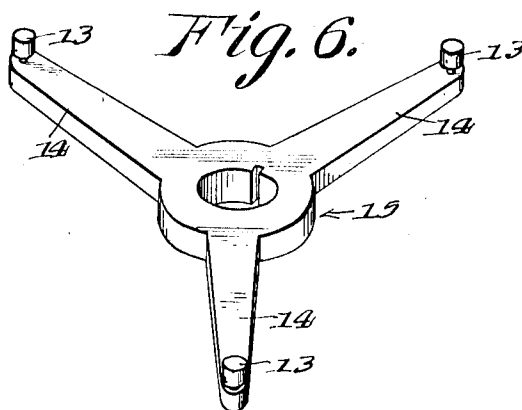
Witnesses
Wm. Vandepool
A. J. Andes.

INVENTOR.
Horace W. Tallman.

1,035,263.

H. M. TALLMAN.
BALING PRESS.
APPLICATION FILED OCT. 7, 1911.

Patented Aug. 13, 1912.
3 SHEETS-SHEET 3.



Witnesses
Wm. Vandepool,
A. J. Andes.

INVENTOR.
Horace H. Tallman,

UNITED STATES PATENT OFFICE.

HORACE M. TALLMAN, OF SHELBYVILLE, ILLINOIS.

BALING-PRESS.

1,035,263.

Specification of Letters Patent.

Patented Aug. 13, 1912.

Application filed October 7, 1911. Serial No. 653,424.

To all whom it may concern:

Be it known that I, HORACE M. TALLMAN, a citizen of the United States, residing at Shelbyville, in the county of Shelby and State of Illinois, have invented certain new and useful Improvements in Baling-Presses, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The present invention relates to improvements in baling presses, and the primary object of the same is the provision of a very efficient and durable form of power link, provided in the present instance with three 15 fingers to the link, so that three separate and successive compressive movements of the plunger and self-feed are produced each full revolution of the power link, a link or lever operating the baling plunger, being slotted 20 at its pivotal point, which is the power post of the machine, so that as it is engaged by the respective fingers of the power link, the said lever will have imparted a sliding radial movement toward the front of the 25 press, to be released and returned automatically for the next engagement.

A further object of the present invention is the provision of means carried by the platform to co-act with the lever and the operating finger of the power link, to impart 30 to the said lever an outward movement while the power link rotates said lever, the outward movement, when at the desired highest point of the compression of the baling plunger causing the lever to be released from the 35 finger of the power link, to have the lever slid inwardly and guided to its extreme inward movement by the inner side of the means carried by the platform, this feature 40 being of the highest importance.

A still further object of the present invention in addition to the slidably mounted and rotatable plunger actuating lever journaled upon the power post of the press, is 45 the provision of a hooked lever disposed in the path of the fingers of the power link, whereby a single power link will operate alternately the plunger control lever and the hooked lever, which operates a self-feed 50 mechanism, thus completing in one revolution of the power link three compressing actions and three self-feed actions.

In the drawings:—Figure 1 is a top plan view of a complete baling press embodying the present invention. Fig. 2 is a side elevation thereof. Fig. 3 is an enlarged top

plan view of the power link end with the link in the position when at the last of the self-feed stroke and prior to releasing its hook and engaging the plunger actuating 60 lever. Fig. 4 is a similar view, showing in dotted lines the curve the plunger actuating lever takes in going from the position of Fig. 2 to its fullest forward movement, and just prior to its release. Fig. 5 is an elevation 65 of the power link and adjacent portions of the platform and mechanism operated by the power link. Figs. 6, 7 and 8 are detail views of various parts of the power link and adjacent parts. 70

Referring to the drawings, the numeral 1 designates the baling chamber, having the pressing mechanism 2, and the self-feed mechanism 3, the latter of which has a flexible connection or chain 4, connected operable 75 thereto, and extending to the forward or power end 5 of the press. The forward end 6, of the chain is connected to the straight end 7, of the lever 8, which is limited in its extreme rearwardly inclined position by the 80 pin 9, and is pivoted upon the front platform 10, by a pin 11. The forward end 12 of the lever 8, is curved outwardly toward the left side of the press, and normally is held in the path of to engage the roller 13, 85 carried upon the extreme underside of one of the fingers 14, of the power link 15, by a spring 16, which is connected to the crank arm 17, and the baling chamber, thus normally holding the feeding fingers 18 of the 90 self-feed mechanism above the chamber.

The power link 15 is keyed for rotation with the power post 19, which as shown is journaled at its lower end in the platform 10, and at its upper end in the wheel carrying yoke or frame 20, the upper thereof being 95 connected to the braced power beam 21, of the usual construction.

Having its slotted portion 22 loosely fitting about the power post 19, between the 100 underface of the power link or trip-lever 15, is the plunger actuating lever 23, whose outer end 24, has connected at the underside thereof the front end 25 of a plate or strip 26, whose rear portion is twisted to be vertically disposed, said end being provided 105 with apertures 27 for the removable reception of the pin 28, to adjustably connect the sleeve 29, of the guide plate 30, which slidably fits upon one edge 31, of the channel plate 32, which forms the main connection and a telescopic connection between 110

the baling chamber and power end of the press. The parallel and off-set arm 33, of the plate 30, has connected to it within the said channel plate 32, a chain or flexible connection 34, whose other end is operably
5 connected to the baling mechanism, a spring 35 holding the plunger arm 35' thereof out of the baling chamber, while a spring 36, connected to the platform and the forward
10 end of the strip 26, holds the lever 23 in its rearmost position, and its end 24 in the path to be engaged by the roller 13 of the respective fingers of the power link or trip-lever 15.

It is desired as the roller 13 engages the end 24 of the lever 23, that the greatest possible leverage be exerted upon the said lever during the movement of the finger from the position as shown in Fig. 3, to that
20 shown in Fig. 4, thus exerting the greatest possible pull to actuate the baling plunger, just after the self-feed has been actuated to feed a bunch of hay to the chamber, and to accomplish this said lever as above stated is
25 slidably and rotatably mounted about the power post. To impart this movement there is a cam guide strip carried by the platform adjacent to the power post, and positioned to receive a stop or pin 38 positioned centrally of the cut-away portion 39, upon the
30 underside of the lever 23, the said pin being pushed against the outer curved edge of the cam strip 37, as the lever 23 is moved forwardly by the finger of the power link, and said cam strip and pin 38 thus impart
35 an outwardly sliding movement to the lever as it is moved, thus increasing the length thereof and its leverage to pull upon the plate or strip 26, chain 34 and operating the baling plunger, the plunger being moved
40 to its fullest point of compression just after the lever 23 has passed the transverse center line of the power post. At this point, the spring 36 exerts a pull inwardly toward
45 the power post, and as the cam strip 37 is curved, the pin 38 rides thereagainst, and the outer end of the lever 23 slides inwardly beyond and out of engagement with moving roller 13 of the power link finger, being
50 released, and returned to the position as shown in Fig. 3, the pin 38 having passed upon the inside of the cam strip 37, and thus guided rearwardly in such retracted position.

From the foregoing description taken in connection with the drawings, and more particularly Figs. 3 and 4, it is evident that
55 as the power link or trip-lever is rotated that one of the fingers thereof will bring its roller 13 first into engagement with the hooked end of the self-feed operating lever 8, operating the self-feed, and just after the point of releasing said lever 8, that the roller 13 will engage the rear face of the
60 lever 23, move it forwardly therewith, and

that by the aid of the slotted forward end of said lever with the power post as its fulcrum, the cam strip 37 and pin 38 will impart an outward sliding movement to said
70 lever 23, increasing its leverage during the heaviest portion of the compression work of the baling plunger, and being automatically released at the completion of such stroke, to be retracted and returned to re-
75 set position, so that with three fingers to the power link or trip-lever, six movements, or three self-feeds and compressing actions are given the press, thus providing a highly efficient, practical and durable form of mechanism.

What I claim, as my invention, and desire to protect by Letters Patent, is:—

1. A baling press, having a self-feed mechanism, a pressing mechanism, a rotatable power link having a plurality of fingers, means for operating the self-feed
85 mechanism disposed in the path of to be engaged by the fingers thereof one at a time in succession, a slidably mounted lever operably connected with the pressing mechanism and in the path of to be engaged by
90 the fingers of the power link one at a time in succession, and coöperative means carried by said lever and adjacent thereto for increasing the leverage thereof during the pressing operation.

2. A baling press, having a baling mechanism, a rotatable power link having a plurality of fingers, a slidably mounted lever operably connected with the baling mechanism and disposed in the path to be engaged
100 one at a time in succession by the fingers of the power link, and coöperative means carried by said lever and adjacent thereto for increasing the leverage thereof during the baling operation.

3. A baling press, having a baling mechanism, a rotatable power link having a plurality of fingers, a slotted lever having the slotted portion thereof mounted for oscillatory and sliding movements upon the
110 journal of said power link and disposed in the path of to be engaged by the respective fingers of the power link, coöperative means carried by said lever and adjacent thereto for increasing the leverage thereof during the movement of the lever with the
115 respective fingers of the power link, and means for releasing said coöperative means and retracting said lever, and returning the lever for engagement with the next finger of the power link.

4. A baling press, having a baling mechanism, a rotatable power link having a plurality of fingers, a slidably mounted lever
125 operably connected with the baling mechanism and disposed in the path to be engaged one at a time in succession by the fingers of the power link, a pin carried thereby, and a cam disposed to be contacted by said pin
130

as the lever is moved by one of the fingers of the power link to increase the leverage of the said lever during the baling operation.

5 A baling press, having a baling chamber, a baling mechanism operable therein, a power link having a plurality of actuating fingers carried thereby, a slidably mounted lever operably connected with the baling mechanism and disposed in the path to be
10 engaged by said fingers one at a time in succession, a pin carried thereby, a cam disposed to be contacted by said pin as the lever is moved by one of the fingers of the power link to increase the leverage of the
15 lever during the operation of the baling mechanism, and means for retracting the lever to disengage it from the finger and return said lever to inoperative position.

6. A baling press, having a baling chamber, a baling mechanism operable therein, a power link having a plurality of actuating fingers carried thereby, a slidably mounted lever operably connected with the baling mechanism and disposed in the path to be
25 engaged by said fingers one at a time in succession, a pin carried thereby, a cam disposed to be contacted by said pin as the lever is moved by one of the fingers of the power link to increase the leverage of the
30 lever during the operation of the baling mechanism, and a spring operably connected to the lever for retracting the lever when at its fullest stroke to disengage the lever from the finger and return the lever
35 to reset position.

7. A baling press, having a baling chamber, a baling mechanism, a rotatable power link having a plurality of fingers, a slotted lever having the slotted portion thereof
40 mounted for oscillatory and sliding movements upon the journal of the power link and disposed to have its free end in the path of to be engaged by the respective fingers of the power link, cooperative means carried
45 by said lever and adjacent thereto for increasing the leverage of the lever during its movement by the respective finger, and a spring operably connected to the lever for retracting the lever to release the same from
50 the finger and return it to reset position.

8. A baling press, having a baling chamber, a baling mechanism, a rotatable power link having a plurality of fingers, a slotted lever having the slotted portion thereof
55 mounted for oscillatory and sliding movements upon the journal of the power link and disposed to have its free end in the path of to be engaged by the respective fingers of the power link, a projection carried by the
60 lever, a cam disposed in the path of to be en-

gaged by said projection when the lever is moved by the finger, said cam and projection coacting to project the lever to increase its leverage during the baling operation, and a spring operably connected to said lever
65 for retracting and releasing the projection from the cam and returning the lever to reset position.

9. A baling press, having an operating mechanism therefor, comprising a power
70 post, a power link having a plurality of fingers carried by and rotatable with said post, means for rotating the post, a lever having a slot fitting upon the post below the power link to be moved in one direction
75 by the rotation of the fingers of the power link, and cooperative means carried by the lever and adjacent thereto for imparting to the lever an outward movement while being moved by the power link.
80

10. A baling press, having an operating mechanism therefor, comprising a power
80 post journaled for rotation, a power link carried thereby, means for rotating the post, a lever having a slot fitting upon the post
85 and in the path to be engaged by the power link during the rotation thereof, cooperative means carried by the lever and adjacent thereto for imparting to the lever an outward movement while being moved by the
90 power link to increase the leverage of the lever, and means for releasing the lever from the power link, retracting it and returning the lever to reset position.

11. A baling press, having an operating
95 mechanism, comprising a power post journaled for rotation, a power link carried thereby, means for rotating the post, a lever provided with a slot through its inner end, said slot fitting upon the post to per-
100 mit the lever a sliding and oscillatory movement upon the post, the outer end of the lever being disposed to be engaged and carried a predetermined distance by the power link, a projection carried by the lever,
105 cam in the path of the projection to co-act with the projection when engaged thereby during the movement of the lever by the power link to project the lever to increase the leverage thereof, and a spring operably
110 connected with the lever to retract the lever and return the same when released from engagement with the power link.

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

HORACE M. TALLMAN.

Witnesses:

WM. VANDERFOOL,
A. J. ANDES.