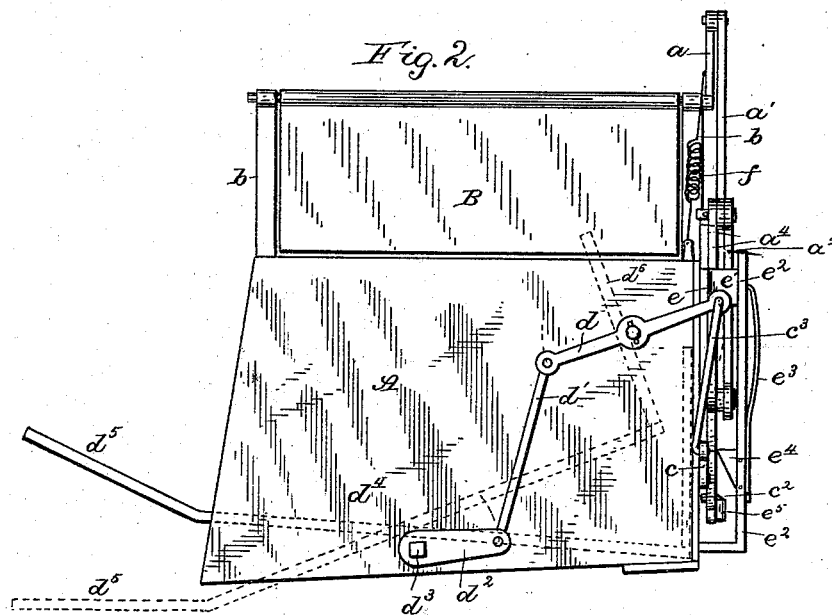
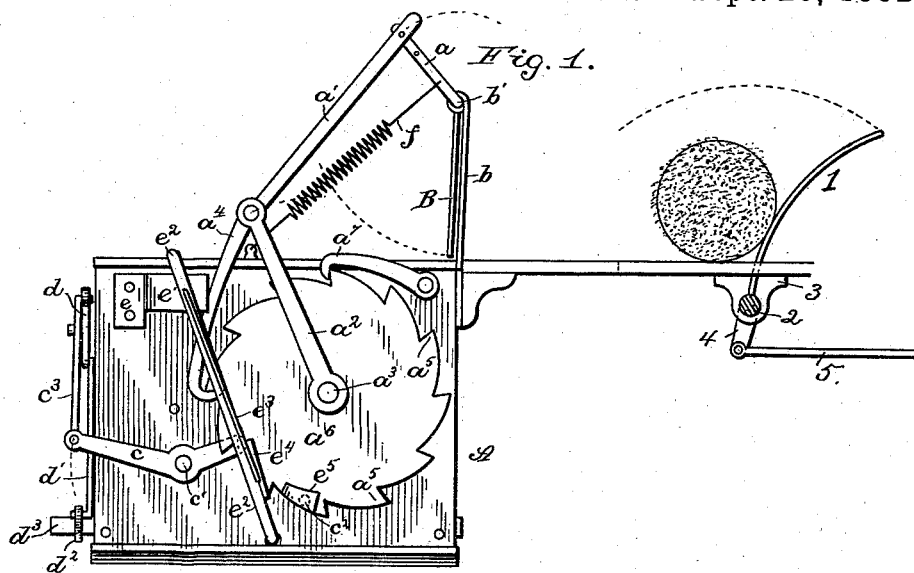


J PEARCE.

SHEAF DUMPER FOR SELF BINDING HARVESTERS.

No. 264,896.

Patented Sept. 26, 1882.



Witnesses:

J. B. Garner.

W. S. D. Haines.

Inventor:

Jonathan Pearce

per Howard G. Lyon
Atty.

(No Model.)

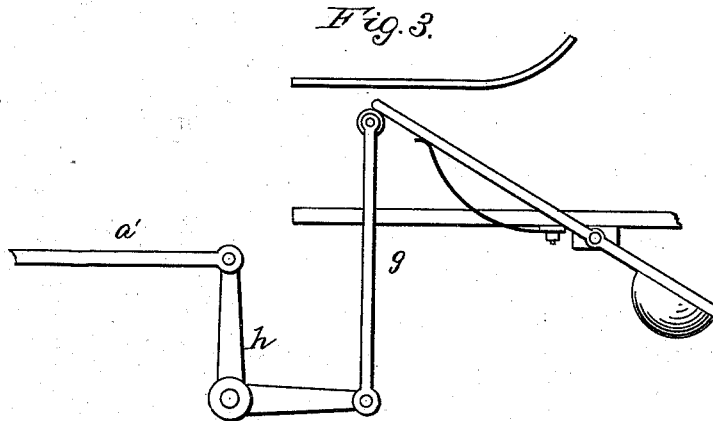
2 Sheets—Sheet 2.

J. PEARCE.

SHEAF DUMPER FOR SELF BINDING HARVESTERS.

No. 264,896.

Patented Sept. 26, 1882.



Witnesses:

J. W. Garner?
W. S. D. Haines.

Inventor:

Jonathan Pearce,
per Thomas A. Thom.
Atty.

UNITED STATES PATENT OFFICE.

JONATHAN PEARCE, OF KANSAS CITY, MISSOURI.

SHEAF-DUMPER FOR SELF-BINDING HARVESTERS.

SPECIFICATION forming part of Letters Patent No. 264,896, dated September 26, 1882.

Application filed August 2, 1882. (No model.)

To all whom it may concern:

Be it known that I, JONATHAN PEARCE, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Sheaf-Dumpers for Self-Binding Harvesters, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to bundle carriers and dumpers for grain-harvesters; and it consists in the construction and arrangement of its several parts, as will be hereinafter fully set forth, and pointed out in the claims.

In the drawings, Figure 1 is a front end view of my carrier and dumper attached to the binding-table of a harvester. Fig. 2 is a side elevation, and Fig. 3 is a detailed modification.

A is the carrier and dumper box, which receives the bundles of grain from the harvester. It is attached to the outer side of the binding-table in any secure manner.

Journaled by the rod b' upon the frame b , which rises vertically from the inner side of the box A, as shown, is the swinging gate B, which forms the medium of transmission of the power from the binder to the box mechanism.

Secured to the forward end of the rod b' is the rock-arm a , and pivoted in any one of a series of holes in the outer portion of the arm is the connecting-rod a' . The opposite end of the rod is pivoted to the upper end of the reciprocating lever a^2 , which is journaled to the front end of the box, a little to the right hand of the center, on the journal-pin a^3 , as shown. Also journaled in the outer end of the lever a^2 is the pawl a^4 , which engages with the ratchets a^5 , formed upon the periphery of the wheel a^6 , journaled on the pin a^3 , between the lever a^2 and the end of the box, as shown. Pivoted to the upper right-hand corner of the box is the lock-pawl a^7 , which engages with the ratchets a^5 , and prevents the wheel from slipping back while in operation.

Placed upon the inner face of the wheel a^6 , just within the line of the ratchets, is the tilt-lug c^2 , which tilts up the inner end of the tilt-lever c in the operation of the device. Pivoted to the other end of the lever, which is journaled to the front end of the box on the pin c' , is the rod c^3 , the upper end of which is pivoted to the

forward end of the transmitting-lever d , journaled to the outer side of the box A, near its upper right-hand corner, as shown.

Pivoted to the rear end of the lever d is the rod d' , the lower end of which is pivoted to the crank d^2 , secured on the tilt-shaft d^3 , which is journaled across the bottom of the box, somewhat to the rear of the center, and has secured to its upper side the inclined bottom d^4 , (shown in dotted lines,) which has an upwardly-inclined slatted projection, d^5 , extending from its rear end, and a vertical projection, d^6 , upon its front end, (shown in Fig. 2 in dotted lines,) by means of which the bundles are prevented from falling under the bottom when it is tilted.

Secured to the upper left-hand corner of the front end of the box is a plate, e , having an angled projection, e' , to the outer side of which is fastened the spring-latch e^2 , which extends downwardly across the wheel a^6 , near its outer edge, as shown. Its lower portion is bent inwardly and passes through the end of the box above the bottom, and through a suitable opening in the face d^6 , and prevents said bottom from tilting by an accumulation of bundles upon its rear portion. The spring e^3 , which is a bent extension of the pivotal pin of the latch, extends downwardly along the latch, pressing against its lower portion, and holds the latch within the box.

Placed upon the inner side of the latch is the lug e^4 , and so placed upon the wheel a^6 that it will revolve under the lug e^4 is a beveled projection, e^5 , which operates to withdraw the latch from the box when the bottom is to be tilted. A spiral spring, f , extends from the rock-arm a to the upper edge of the front end of the box, and operates to draw the gate B back to its vertical position after the bundle has passed under it.

It is well known that in self-binding harvesters suitable mechanism is provided to expel or shove the bundles from the binding-table as they are bound by the binder-arm. A suitable mechanism for this purpose is shown in Fig. 1 of the drawings. 1 is the expeller-arm, secured to a shaft, 2, journaled in suitable brackets, one of which is shown at 3. Also secured to the shaft is the rock-arm 4, having pivoted to it the rod 5, by which motion is transmitted to the expeller. A bundle

of wheat is shown in position in front of the arm. So, in the operation of my device the bundles, when forced from the table by the mechanism before mentioned, are driven against the swinging gate B, which is forced open, and the bundle drops into the box B. When the gate is forced open, as above, the rock-arm *a* is carried inwardly, drawing with it the rod *a'*, reciprocating lever *a²*, and pawl *a⁴*. The pawl *a⁴* engages with the ratchets *a⁵*, by which the wheel *a⁶* is given a partial revolution, equal to the extent of the throw of the arm *a* from left to right. When the wheel has received a sufficient number of partial revolutions to bring the lug *c²* under the lever *c* the inner arm of said lever is tilted upwardly, the outer arm depressed, the lever *d* tilted by the rod *c³*, and the crank *d²*, shaft *d³*, and bottom *d⁴* are tilted by the rod *d'*, which is pivoted to the rear end of the lever *d*, as shown. Just before the lug *c²* strikes the lever *c* the projection *c⁵* reaches the lug *e⁴* and withdraws the bent end of the latch *c²* from the box. After a bundle has passed under the gate and dropped into the box the spring *f*, having been stretched by the opening of the gate, will act to overcome the tension upon it, drawing the gate back to its vertical position, by which movement the rock-arm *a* carries the rod *a'* and lever *a²* outwardly, and causes the pawl *a⁴* to engage with the next ratchet. The bottom drops back by its own weight after the bundles have been dumped.

In Fig. 3 I show a modification in which the gate is hinged on the binder-table, and the bundle passing over the table depresses it,

forces down the rod *g*, which tilts the crank *h*, and draws over the connecting-rod *a'*. (Shown in Figs. 1 and 2.)

Having described my invention, what I claim is--

1. In a self-binder, the combination of the bundle-expelling mechanism, the box secured to the side of the binder-table, the gate, the tilting bottom, and the mechanism for connecting it with said gate, whereby the bottom is positively tilted at regular intervals, as set forth.

2. The combination, with the pivoted bottom *d⁴*, having the extensions *d⁵* *d⁶*, and the tilt-crank *d²*, of the actuating mechanism whereby the bottom is tilted, consisting of the lever *d*, rods *d'* and *c³*, lever *c*, ratchet-wheel *a⁶*, having the lug *c²*, supporting-lever *a²*, pawl *a⁴*, rod *a'*, gate B, its rock-arm *a*, spring *f*, and the bundle-expelling mechanism of a harvester, all arranged to operate substantially as shown and described.

3. In a self-binder, the combination of its bundle-expelling mechanism, the box secured to the side of the binder-table, the gate, the tilting bottom, the latch for releasing it, and the mechanism for connecting the bottom with the gate, whereby said bottom is released and positively tilted at regular intervals, as shown and described.

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

JONATHAN PEARCE.

Witnesses:

W. J. OSGOOD,
P. PINETZ.