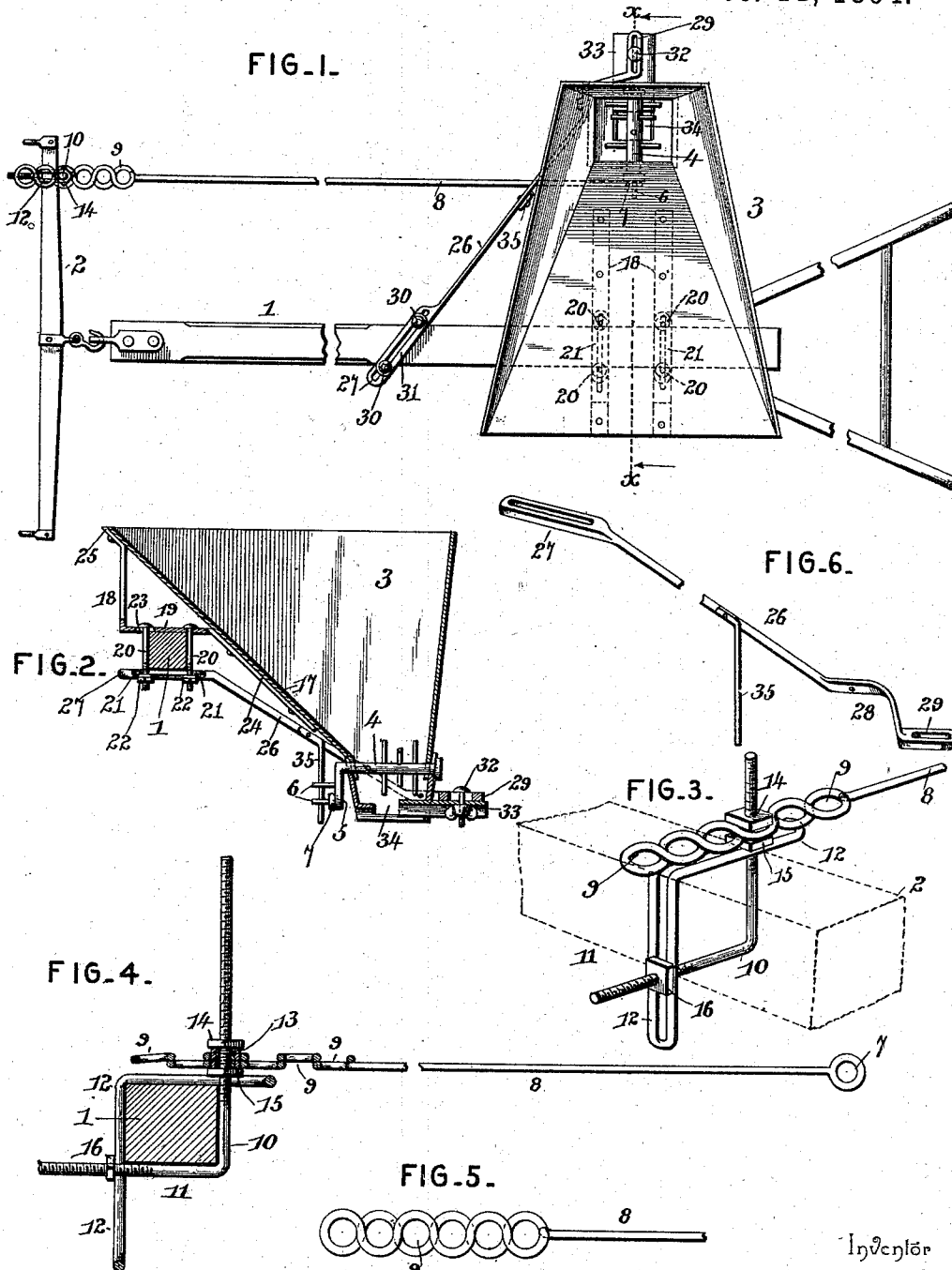


(No Model.)

P. E. JOHNSON.
FEED ACTUATING DEVICE FOR PLANTERS.

No. 530,532.

Patented Dec. 11, 1894.



Witnesses

Jas. H. McLaughlin
J. H. Riley

By *his* Attorneys.

Perry E. Johnson

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

PERRY E. JOHNSON, OF ROME, NORTH CAROLINA.

FEED-ACTUATING DEVICE FOR PLANTERS.

SPECIFICATION forming part of Letters Patent No. 530,532, dated December 11, 1894.

Application filed March 10, 1894. Serial No. 503,158. (No model.)

To all whom it may concern:

Be it known that I, PERRY E. JOHNSON, a citizen of the United States, residing at Rome, in the county of Johnston and State of North Carolina, have invented a new and useful Feed-Actuating Device for Planters, Fertilizer-Distributors, &c., of which the following is a specification.

The invention relates to improvements in feed actuating devices for planters, fertilizer-distributors, &c., receiving their movements from the motions of the draft horse attached to such machine as imparted by it to the singletree.

The objects of the invention are to provide a simple device, that is inexpensive, and may be readily attached to any singletree, and is capable of being adjusted for connection with the crank or vibrating feed shaft of a machine.

A further object of the invention is to enable a hopper for this kind of machine to be readily attached to and supported on a draft beam.

The invention consists in the construction and novel combination and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings—Figure 1 is a plan view of a fertilizer-distributor provided with my improvements. Fig. 2 is a transverse sectional view of the same. Fig. 3 is a detail perspective view of the whiffletree attachment. Fig. 4 is a longitudinal sectional view of the same. Fig. 5 is a plan view of the front portion of the connecting rod or pitman. Fig. 6 is a detail perspective view of the inclined adjustable brace.

Like numerals of reference indicate corresponding parts in all the figures of the drawings.

As before intimated, my invention is applicable to various kinds of machines, the only essential being, that the same include in their make up the usual transverse oscillating feed shaft terminating at one end in a crank, and a singletree arranged at the front of the machine.

In the present instance, 1 designates the beam of the machine, to which is attached, in the usual manner, the singletree 2; and mounted upon the beam at the rear end there-

of is a hopper 3, in which is located a transverse oscillatory feed shaft 4, having its inner end terminating in a crank 5 provided with wrist pins 6. One of the wrist pins 6 receives an eye 7 of a connecting rod or pitman 8, which has its front portion bent at intervals in alternately opposite directions, or sinuously, and at the middle of this sigmoidally curved portion, the same is doubled upon itself and secured in any suitable manner, such as welding and the like at its inner terminus, whereby a series of circular openings or eyes 9 are provided. Any one of the eyes 9 is adapted to receive the upper extended portion of an L-shaped bolt 10 of a clamp 11, in order to vary the length of the connecting rod or pitman, to adapt it readily to be applied to any ordinary machine of this character.

The clamp 11, which is adapted to be readily applied to any ordinary singletree, comprises an L-shaped link arranged on the upper and front faces of the singletree, and the said L-shaped bolt, which is located on the lower and rear faces of the singletree, together with nuts for clamping the parts in their adjustment. The ends or arms of the L-shaped bolt and link are extended considerably beyond the singletree, to enable the clamp to be readily adjusted to whiffletrees of different sizes; and the upper vertical portion of the L-shaped bolt 10, arranged at the rear face of the singletree, is extended, and has arranged on it a metallic sleeve 13, which is secured between nuts 14 and 15, and which is provided with a lining of leather or similar material to prevent it from wearing the threads of the bolt. The depending portion of the link 12 and the horizontal portion of the L-shaped bolt 10, are clamped by a nut 16 arranged at the front face of the singletree. By this construction it will be readily apparent that the connecting rod or pitman may be readily attached to any singletree, to enable this mechanism to be quickly and conveniently applied to any ordinary fertilizer distributor, planter or similar machine.

The hopper 3 has its side 17 adjacent to the hopper inclined. It is mounted on the beam 1 by means of bracket bars 18, which have approximately L-shaped upper portions; which have their horizontal arms 19 resting upon

the beam; and which are secured to the latter by vertical bolts 20, arranged at opposite sides of the beam. The lower ends of the bolts are threaded. They extend through links 21, and are securely clamped by nuts 22. The links 21 extend slightly beyond the beam at opposite sides thereof to afford an adjustment, and the horizontal arm 19 of each of the bracket bars is provided with a slot 23 receiving one of the bolts, and permitting an adjustment to accommodate different sizes of beams. Each bracket bar 18 is provided with a depending inclined extension 24, which is riveted or otherwise secured to the adjacent inclined side of the hopper, and the upper extremity 25 of the vertical arm of the L-shaped portion of the bracket bar is inclined to conform to the inclination of the hopper to which it is secured. The hopper is further supported by a brace 26 having its front end 27, which is slotted, secured to the beam; and it inclines rearward and downward from the beam to the bottom of the hopper at the front and outer sides thereof; and is provided with an angular bend 28, and a slotted outward extension 29. The slotted upper extremity 27 of the brace 26 is secured to the lower face of the beam by means of vertical bolts 30 located at opposite sides of the beam and a link 31 arranged on the upper face thereof. The angular bend 28 of the brace is secured to the hopper at the lower front outer corner thereof; and the slotted outer extremity of extension 29 receives a clamping bolt 32, which secures a slide 33 at any desired adjustment for regulating the size of the discharge opening 34 at the bottom of the hopper.

It will be readily apparent that the hopper may be readily attached to, and quickly removed from a beam when desired.

The brace is provided intermediate of its ends with a depending arm or guard 35, arranged at the inner side of the connecting rod or pitman to prevent the eye 7 at the rear end thereof from becoming disengaged from its wrist pin.

When the attachments are in position, it will be seen, that at each swinging movement of the singletree, as caused by the draft animal advancing one foot in front of the other, the rod is caused to operate the crank of the feed shaft, and thus the latter is caused to oscillate, and to agitate the substance within the hopper, insuring a proper feed or discharge. It will also be seen that the attachment is applicable to any style of machine, and by reason of the series of eyes it may be readily adjusted to such. Furthermore, by reason of the connecting devices applied to the singletree, the latter is not marred or weakened by boring, and yet a strong connection is provided, which may be readily detached when desired. It will also be apparent that the mechanism may be duplicated for operating a hopper at each side of the machine.

Changes in the form, proportion, and the

minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

What I claim is—

1. The combination with the cranked feed shaft and singletree of an agricultural machine, of a bolt projecting upward from the singletree, and a rod terminating at its rear end in an eye for engaging the crank, and at its front end in a series of eyes, any one of which may be engaged with said bolt, substantially as described.

2. The combination with the cranked feed shaft and singletree of an agricultural machine, of an L-shaped link embracing two of the sides of the single trees, an L-shaped bolt embracing the remaining sides of the singletree and passing through and beyond the link, and the rod connected at its front end to the bolt and at its rear end to the crank of the shaft, substantially as described.

3. The combination with the cranked feed shaft and singletree of an agricultural machine, of the L-shaped link embracing two of the sides of the singletree, the opposite L-shaped bolt embracing the other sides of the singletree and extending through and beyond the link and having an elongated vertical portion, nuts arranged on the bolt, the cylindrical sleeve mounted on the vertical portion of the bolt and having an internal lining, and a rod terminating at its rear end in an eye to receive the crank of the shaft and provided at its front end with a series of eyes to receive the sleeve, whereby the rod is adjusted, substantially as described.

4. The combination with the cranked feed shaft and singletree of an agricultural machine, of a rod terminating at its rear end in an eye for receiving the crank and having its front portion bent sinuously and doubled on itself and producing a series of eyes, and a bolt for connecting any one of the eyes to the singletree, substantially as described.

5. The combination in an agricultural machine, of a hopper having a feed shaft terminating in a crank and provided with wrist pins, a beam, and a singletree connected with the front end of the beam, of a rod terminating at its rear end in an eye for engaging a pin of the feed shaft and provided at its front end with means for connecting it to the singletree, and a brace extending from the beam to the hopper and provided with a depending arm or guard arranged at the inner side of the rod to retain the eye on the wrist pin, substantially as described.

6. The combination with a beam, of a hopper arranged at one side of the beam, the bracket bar resting upon the beam and having approximately L-shaped portions and inclined extremities secured to the hopper, bolts arranged at opposite sides of the beam passing through the bracket bars and provided with nuts, and links located on the lower face of the beam, and connecting the

lower extremities of the bolts, substantially as described.

7. The combination with a beam and a hopper having an inclined side adjacent to the beam, of bracket bars having L-shaped upper portions mounted on the beam and provided with inclined extensions secured to the hopper, and a brace arranged in advance of the hopper and having its inner end secured to the beam and inclining downward and rearward therefrom and secured to the hopper, substantially as described.

8. The combination of a beam, a hopper arranged at one side thereof, bracket bars mounted on the beam and secured to the hopper, the rearwardly and downwardly inclined brace having an upper slotted extremity located beneath the beam and provided at its outer extremity with an angular bend and slotted extension, bolts located at opposite sides of the beam and arranged in the slot at the inner end of the brace, a link connecting the upper ends of the bolts, a slide mounted at the bottom of the hopper for regulating the discharge opening thereof, and a clamping bolt connected with the slide and arranged in the slot of the extension, substantially as described.

9. The combination of a beam, a hopper having an inclined side adjacent to the beam, L-shaped bracket bars arranged on the beam and having inclined extremities secured to the hopper, bolts passing through the bracket bars and located at opposite sides of the beam and provided with nuts, a slide arranged at the bottom of the hopper for regulating the discharge and provided with a clamping bolt, an inclined brace having slotted extremities and provided near its outer end with an angular bend and secured thereat to the hopper, the outer extremity of said brace being arranged over the slide and receiving the clamping bolt and the inner extremity of the brace being located on the lower face of the beam, bolts arranged at opposite sides of the beam and fitting in the slot of the brace and provided with nuts, and a link arranged on the upper face of the beam and connecting the bolts to the brace, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

PERRY E. JOHNSON.

Witnesses:

J. C. TORT,

J. R. WOODALL.