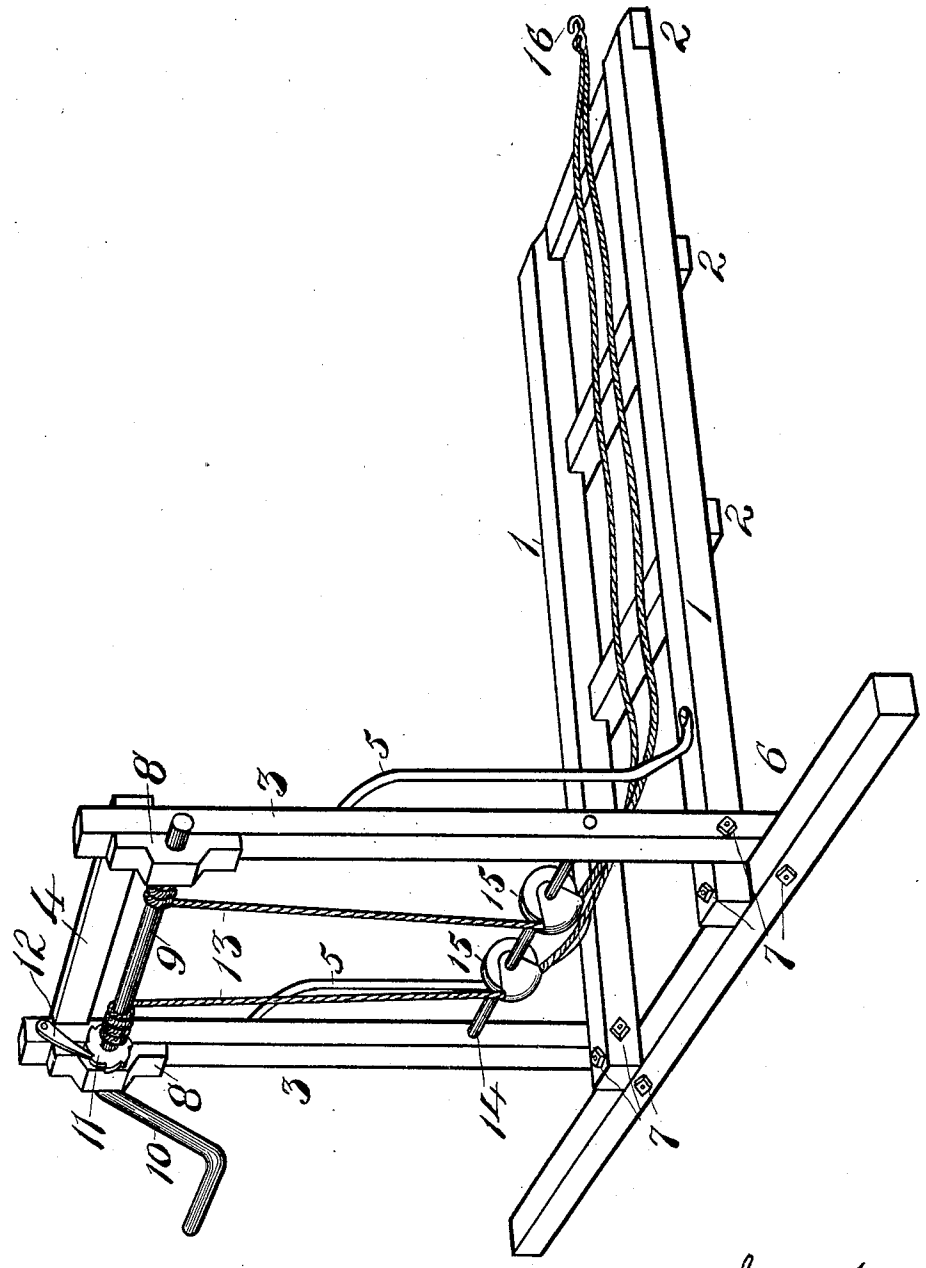
No. 813,646. PATENTED FEB. 27, 1906.

J. GRILL, JR.

FODDER BINDER.

APPLICATION FILED OCT. 9, 1905.

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# UNITED STATES PATENT OFFICE.

JOHN GRILL, JR., OF FRANKLIN TOWNSHIP, SUMMIT COUNTY, OHIO.

## FODDER-BINDER.

No. 813,646. Specification of Letters Patent. Patented Feb. 27, 1906.

Application filed October 9, 1905. Serial No. 282,067.

*To all whom it may concern:*

Be it known that I, JOHN GRILL, Jr., a citizen of the United States, residing in Franklin township, in the county of Summit and State of Ohio, have invented new and useful Improvements in Fodder-Binders, of which the following is a specification.

My invention relates to mechanism for shocking cornstalks or binding them into compact bundles after the corn is detached therefrom, the purpose being to provide a simple and easily-operated machine whereby the stalks may be bunched and compressed into snug bundles or shocks until properly tied, whereby the shocks may be in proper condition for loading upon a cart or wagon or may be stacked on the ground until they are wanted.

It is my object to provide means for the purpose specified whereby the shock can be temporarily snugly compressed and compacted until secured by a permanent binding device.

The invention further aims to provide a device for the foregoing object which is simple, strong, durable, inexpensive of construction, and conveniently portable.

With the foregoing and other objects in view the invention consists of the novel construction, combination, and arrangement of parts constituting the invention to be hereinafter referred to, and illustrated in the accompanying drawing, which forms a part of this specification, in which is shown the preferred embodiment of the invention; but it is to be understood that changes, variations, and modifications can be resorted to which come within the scope of the claim hereunto appended.

The drawing presented represents a perspective view of my improved device.

The reference-numerals 1 1 in said drawing indicate two parallel side pieces or bars connected by transverse braces or beams 2, the whole frame forming a ladder-shaped structure of any suitable length and of a width to support the stalks and shocks into which they are gathered.

At one end of the frame are arranged vertical standards or posts 3, rising from near the ends of the side pieces 1, the upper ends being rigidly braced by a cross-bar 4, and these standards 3 are further supported by braces 5, which unite with and are fastened to the side pieces 1 at a distance from the standards 3. These braces also constitute a guard to protect the mechanism, hereinafter described, from being engaged by the stalks which are to be formed into a shock on the side pieces 1 1.

It will be obvious of course that these braces 5 may be constructed in any shape which will best serve the purpose of this invention, and their inclination with respect to the standards 3 may be changed to suit the fancy or desires of the user of this device.

Attached to the rear ends of the cross-pieces 1 1 and also to the base portions of the standards 3 is a transverse bar 6, which serves to retain the device from being accidentally tipped over when in use.

The side pieces 1, standards 3, and bars 6 are all united by means of bolts 7, whereby there is produced an unusually strong and rigid framework to support the mechanism herein described.

Suitably mounted in journal-boxes 8 near the upper ends of the standards 3 is a rotatable shaft 9, provided at one end with a crank 10, by which the shaft 9 is rotated. This shaft 9 also bears a ratchet 11, which is arranged to be engaged and held against reverse revolution by means of a pawl 12, fastened to one of the standards 3. This shaft 9, in connection with the ratchet 11 and pawl 12, constitutes a windlass on which are wound ropes, cords, cables, or belts 13, which are used for temporarily compressing the stalks into a shock.

Below the shaft 9 and extending between the standards 3 is a shaft 14, having mounted thereon a pair of hooded pulleys 15. These pulleys 15 are designed to be freely slid longitudinally of the shaft 14. The ropes or cable 14 are carried from the shaft 9 around the pulleys 15 and are laid out on the cross-beams and united at their ends to a hook 16.

This device is designed to be so made as to be relatively of such lightness that a person can transport it from place to place in a field without the necessity of mounting the same on a vehicle.

The operation of this device is as follows: The parts being arranged approximately as shown in the drawing, a suitable quantity of cornstalks or other material which is to be converted into a shock is laid transversely across the two side pieces 1 1 approximately parallel with the cross-beams 2 until sufficient stalks or other material has been placed thereon to make a shock of the desired size. The hook 16 on the ends of the ropes 13 is

then passed around the bundle of stalks and is hooked onto the central portion of the shaft 14, preferably between the pulleys 15. The crank 10 is then operated, which revolves the shaft 9 and winds up the ropes 13 thereon in the manner of an ordinary windlass, thus drawing the ropes 13 tightly about the stalks lying on the cross-pieces 1 and compressing them into a snug bundle against the braces 5. It will be seen that the braces 5 will act as guards and prevent the shock from being drawn against the pulleys 15, and thus avoid any danger of their action being impaired. As soon as the bunch of cornstalks has been compressed tightly enough a permanent binder of any kind—such as wire, string, or any other suitable material—is passed around the shock and secured. Then the pawl 12 is released from engagement with the ratchet 11 and the strain on the ropes 13 removed, permitting the hook 16 to be disengaged from the shaft 14 and to be placed in the position occupied in the drawing. The shock is then removed from the side pieces 1 1 and carried to any desired place. It will be noted that as the pulleys 15 are longitudinally slidable on the shaft 14 they will follow along the shaft toward each other as the coil of rope increases in width on the shaft 9, thus presenting at all times the pulleys to the action of the ropes in their proper position.

What I claim, and desire to secure by Letters Patent, is—

The combination in a device of the class described, of a pair of approximately parallel side pieces suitably united by cross-beams, a cross-bar fastened to the ends of said side pieces and extending laterally therefrom to constitute a means to prevent the overturning of said device, a pair of standards mounted adjacent said bar and attached to said side pieces, a cross-brace uniting said standards at their upper ends, a revoluble shaft mounted on said standards provided with a crank-handle for operating said shaft, a pawl and ratchet arranged to prevent unintentional reverse motion of said shaft, a second shaft mounted between said standards below said revoluble shaft, a pair of pulleys slidably mounted on said second shaft, a pair of ropes wound on said revoluble shaft arranged to pass around said pulleys, and a hook to unite the ends of said ropes substantially as shown and described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN GRILL, Jr.

Witnesses:
C. E. Humphrey,
Glenara Fox.