





# UNITED STATES PATENT OFFICE.

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## CORN-SHOCK COMPRESSOR.

SPECIFICATION forming part of Letters Patent No. 688,618, dated December 10, 1901.

Application filed July 22, 1901. Serial No. 69,180. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY L. FERRIS, a citizen of the United States of America, residing at Harvard, in the county of McHenry and State of Illinois, have invented certain new and useful Improvements in Corn-Shock Compressors, of which the following is a specification.

My invention relates to certain improvements in corn-shock compressors—that is to say, in a device by means of which a shock of corn may be handily compressed for tying. For this purpose a device is desirable which is adapted for convenient use in connection with the tying device, ordinarily of twine, which also has appropriate means for its support during the operation of compression and which locks automatically against release because of the expansive force of the shock of corn, but which is at the same time easily releasable by hand when the shock is securely tied. To these various ends I have devised a compressor which answers the various requirements and which will be fully described in the form preferred at the present time, the essential characteristics of improvement being clearly defined in the claims.

In the drawings, Figure 1 is a perspective of a complete device, showing its application to a shock of corn. Fig. 2 is a side elevation of the device with one of the side plates removed and certain portions in the line 2 2 of Fig. 3. Fig. 3 is an edge elevation with a part broken away to show the rope-clamp, and Fig. 4 is an oblique section in the line 4 4 of Fig. 2.

Referring to the drawings, A is a pulley-frame provided with a hook *a* and a stud *a'* for the pulley B, the stud being preferably centrally perforated at *a''* and a supporting-hook C secured to the frame by passing one of its ends *c* through this central perforation and clenching it upon the opposite side of the frame, as seen at *c'*. A complete eye *c''*, turned in the shank of the hook, provides a convenient means of holding the twine in accessible position for tying the shock, and the upper bent end *c'''* of the hook furnishes means by which the whole device may be supported

upon the shock of corn. A removable plate D completes the pulley-frame, and between it and the opposite frame-plate a rope guide and clamp E is pivoted upon the central stud by means of arms *e e'*, perforated for that purpose. The rope-guide has a suitable channel *e''* in it for the rope and is provided with two laterally-extending wings *e''' e''''*, between which is pivoted a dog F, with a cam-face *f*, adapted by movement toward the pulley to clamp the rope in the guide and above its pivot with teeth *f'*, in mesh with a segment *g*, secured to the pulley-frame and extended in the form of a handle G, which may be grasped in connection with the rope-guide to pull the two together and release the pressure of the cam upon the rope, so that the latter may slide freely through the guide.

For use in connection with this device a rope H should be employed having some sort of an eye *h* in one end convenient for hooking over the hook *a*. In the use of the device the hook *c''* is thrust in the shock of corn to support the same. The end of the twine is then passed through the eye *c''* and carried around the shock together with the end of the rope having the ring *h*, and said ring hooked upon the hook *a*. The free end of the rope H is then pulled until the loop around the shock is drawn taut and until the desired degree of tension is reached, when the rope can be jerked to the left, swinging the rope-guide in the same direction and clamping the dog upon the rope and preventing the same against withdrawal. The twine is then secured tightly about the shock and the compressor released therefrom by swinging the rope and rope-guide to the right or by pressing the handle G and the rope-guide together and thereafter unhooking the rope from the hook *a*.

By means of this device one person can readily perform the operation of tying a shock of corn which would otherwise require two or more persons, and the operation of passing the compressing-rope around the shock and also putting the twine in place therein may be accomplished at the same time.

I do not consider the invention limited to



the specific details of construction, as the latter are capable of variation without departing from said invention.

I claim as new and desire to secure by Letters Patent—

1. In a device of the class described, the combination with a pulley-frame, pulley thereon, a flexible compressing device running over the pulley and adapted at one end to be temporarily secured to the pulley-frame, of a rope-guide pivoted upon the axis of the pulley, a rack upon the pulley-frame concentric with the axis of the pulley, a clamp pivoted to the guide and having teeth meshing with said rack, to automatically clamp the compressing device against withdrawal, by movement upon said pivot in one direction, and a suitable portion secured to the frame in position to be grasped in connection with said guide to force said guide in the opposite direction; substantially as described.

2. In a device of the class described, the combination with a pulley-frame, pulley, a flexible device running over the pulley adapted to be passed about the corn-shock and temporarily secured to the frame at its end, of the hook, C, secured upon the pulley-frame and adapted for engagement with the shock, and the eye,  $c^2$ , formed in the shank of said hook and adapted to hold one end of a tying-twine while the other end is carried around the shock; substantially as described.

3. The combination with the pulley-frame, A, having an automatic rope-clamp and a handle portion, G, adapted to be grasped in connection with said rope-clamp to release the latter, of a flexible encircling device adapted to be secured at one end to the frame, to pass over the pulley and be engaged by said clamp, and a supporting-hook secured upon the pulley-frame and having an eye in its shank, whereby the pulley-frame may be supported upon the shock, one end of the tie-twine supported by the pulley-frame, the end of the encircling device and the other end of the tie-twine carried around the shock together, and the encircling device tightened upon the shock and automatically clamped thereon, while the two ends of the tie-twine are secured together; substantially as described.

4. In a device of the class described, the combination with a pulley-frame, pulley, and a rope running over the pulley, adapted to be passed about the corn-shock and temporarily secured to the frame at its end, of a rope-guide pivoted upon the pulley-frame, a clamp pivoted upon the rope-guide, a rack upon the pulley-frame and teeth upon the rope-clamp meshing with said rack and adapted by movement in one direction with respect to the pulley-frame, to clamp the rope in the guide; substantially as described.

5. In a device of the class described, the combination with a pulley-frame, pulley, and devices for clamping a rope thereto, of a suspending-hook passing through the axis of the pulley and bent to form an eye immediately above the pulley-frame, through which a tie-cord may be guided, and bent upon the other side of the pulley-frame to prevent its withdrawal; substantially as described.

6. In a device of the class described, the combination with a pulley-frame and pulley journaled therein, of a tubular rope-guide directing the rope running over said pulley and an eccentric clamp pivoted upon said guide and engaged with the pulley-frame to be rotated upon its pivot by angular movement of said rope-guide with respect to said pulley-frame; substantially as described.

7. In a device of the class described, the combination with a pulley-frame, pulley and flexible device running over the same, adapted to be passed around the shock and secured at one end to the pulley-frame, of a hook extending through said pulley-frame at right angles to the plane of the pulley, and upward from said frame, and bent upon itself to form an eye upon one side of the pulley-frame and into a hook upon the opposite side thereof; substantially as described.

In witness whereof I have hereunto set my hand, at Harvard, in the county of McHenry and State of Illinois, this 16th day of July, A. D. 1901.

HENRY L. FERRIS.

Witnesses:

BLAKE B. BELL,  
W. S. DODGE.