

(No Model.)

W. OGDEN.
CORD HOLDER FOR GRAIN BINDERS.

No. 420,092.

Patented Jan. 28, 1890.

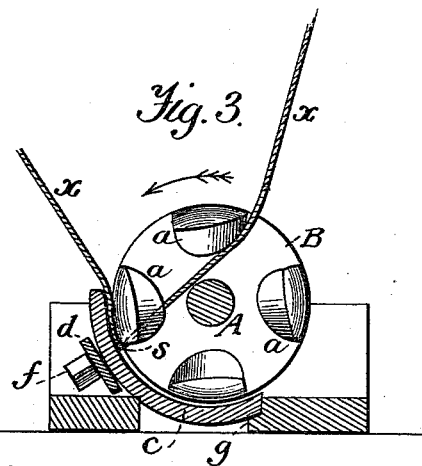
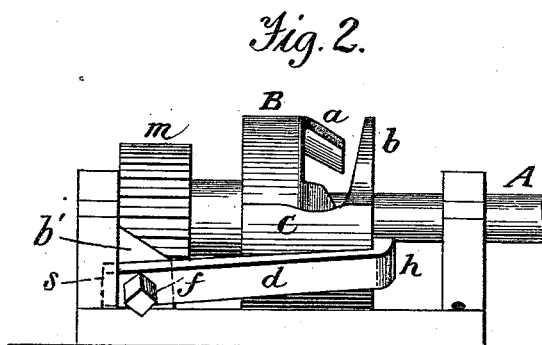
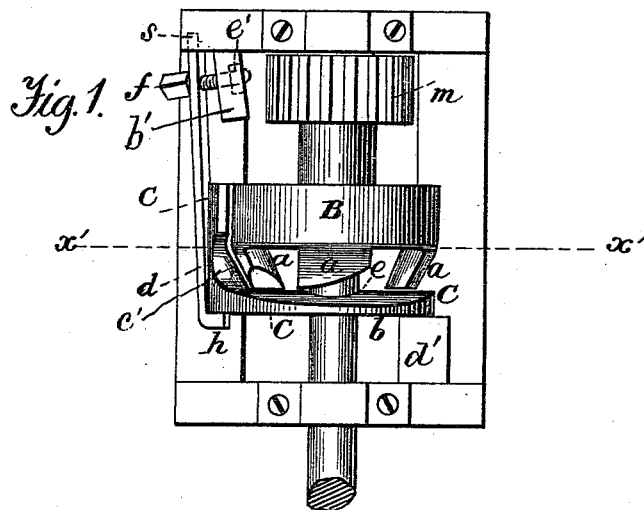
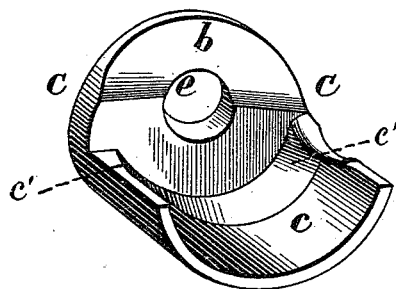


Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

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CORD-HOLDER FOR GRAIN-BINDERS.

SPECIFICATION forming part of Letters Patent No. 420,092, dated January 28, 1890.

Application filed December 18, 1888. Serial No. 293,950. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM OGDEN, a citizen of the United States, residing at Clay Centre, in the county of Clay and State of Kansas, have invented certain new and useful Improvements in Cord-Holders for Grain-Binders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to grain-binder mechanism; and it consists in certain improvements in the construction of cord-holders for use in connection with the knotter, as hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a plan view of a cord-holder for a binder constructed according to my invention. Fig. 2 is a side view of the same. Fig. 3 is a vertical transverse section taken on line $x'x'$ of Fig. 1. Fig. 4 represents the clamping-shoe detached.

A designates a horizontal shaft, which is mounted in suitable bearings, which are carried by the knotter-frame. On the said shaft is placed a wheel B, which is provided with teeth a , which extend laterally from the side of the wheel, as shown. The said teeth are somewhat inclined toward the shaft, being somewhat in the form of hooks, and are beveled on their outer surfaces, as shown, so that the cord may readily slip past them and may be caught under them.

C indicates the clamping-shoe, which is placed on the shaft A, said shoe forming a shell which partly incloses the wheel B, and has the vertical portion or disk b , which has an aperture e for the shaft, and the curved part or flange c , which extends under and conforms to the periphery of the wheel B. The aperture e is somewhat larger than the shaft, so that the shoe may have a slight movement from the pressure of the cord being clamped. That portion of the inner surface of the shoe indicated by c' is inclined or made to conform to the outer surfaces of the teeth a , so that the cord may be held between the beveled outer surface of a tooth and the inner surface c' of the shoe. The shoe C is placed on the

shaft, with the inner face of the vertical disk b toward and near the teeth a and the flange c extending under and about the periphery of the wheel B, as shown. The said shoe is prevented from rotating by a stop formed on or projecting from the stationary part of the frame to bear against the edge of the flange c , as seen at g . A plate-spring d is secured at one end by a set-screw f , and has at its free end a detent h , the said spring serving to actuate the clamping-shoe and also to retain the shoe in place toward the wheel B. The secured end of the spring d extends into a recess in the frame, as indicated at s , and the screw f passes through the spring and through a projection or fixed piece b' of the frame and has a nut e' on its inner end, the nut being sunk in said fixed piece. The pressure of the spring against the shoe may be increased or diminished by means of the set-screw f . The shaft A is rotated by means of a rack or gear-wheel, (not shown,) which engages with a pinion m on the shaft A.

As shown in the drawings, the wheel B is provided with four teeth a , and when thus constructed the shaft A is rotated one-fourth of a revolution in the direction of the arrow, Fig. 3, in order to clamp the cord between the outer surface of a tooth and the inner surface of the shoe. A projection d' on the frame adjacent to the disk serves to keep the shoe C in proper position. As the needle moves forward, the cord (indicated at x in Fig. 3) is laid between the wheel B and the disk b of the shoe and slips under a tooth a . As the wheel is rotated, it is brought under the shell at S at one-quarter of a revolution of the wheel, and the shoe being pressed by the spring d the cord is held as required.

I claim—

1. In a cord-holder for a binder, a wheel secured to a shaft and provided with teeth which extend from one side of the wheel and are beveled on their outer surfaces, as shown, in combination with a non-revoluble shoe loosely mounted on said shaft and provided with a disk to extend in front of the toothed side, and a curved flange to close against the periphery of the wheel, the said flange being provided with an inclined inner surface c' ,

which conforms to the outer beveled surfaces of said teeth, substantially as and for the purposes described.

2. The shaft A and the wheel B, provided with lateral teeth *a*, which are beveled on their outer surfaces, as shown, in combination with the shoe C, provided with a disk *b*, and a curved flange which has an inclined inner surface *c'*, an adjustable spring *d*, adapted to press the said shoe to the wheel

B, and a stop in position to prevent the rotation of the shoe C, substantially as set forth and described.

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

WILLIAM OGDEN.

Witnesses:

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W. F. CARTER.