

(No Model.)

J. E. BUXTON.
KNOTTER FOR GRAIN BINDERS.

No. 307,377.

Patented Oct. 28, 1884.

Fig. 1.

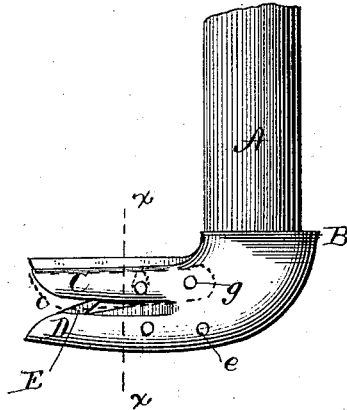


Fig. 2.

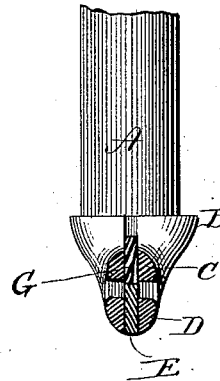


Fig. 3.

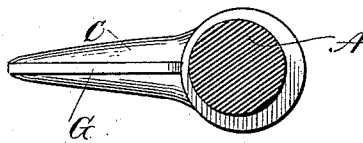


Fig. 5.

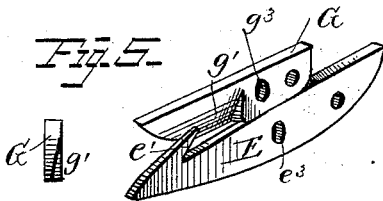
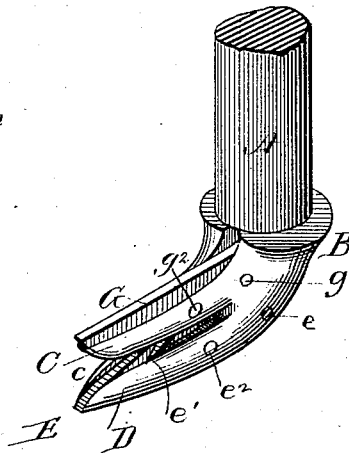


Fig. 4.



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JOHN E. BUXTON, OF OWATONNA, MINNESOTA.

KNOTTER FOR GRAIN-BINDERS.

SPECIFICATION forming part of Letters Patent No. 307,377, dated October 28, 1884.

Application filed July 28, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN E. BUXTON, a citizen of the United States, residing at Owatonna, in the county of Steele and State of Minnesota, have invented certain new and useful Improvements in Knotters 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is a side view of the knotter which I shall hereinafter describe and claim. Fig. 2 is a vertical cross-section taken in the plane indicated by dotted lines *xx* on Fig. 1. Fig. 3 is a plan view. Fig. 4 is a perspective view. Fig. 5 shows details of the gripper and blade.

This invention relates to knotters for grain-binders; and the object is to improve a knotter in the manner which will be fully understood from the following description, when taken in connection with the annexed drawings.

The knotter consists of the following elements, to wit: A shaft, A, which is formed at its lower end into a head, B, having rigid jaws C and D, which are constructed as follows:

C designates the upper jaw, which is slotted vertically in the plane of the longitudinal axis of the shaft A, and D designates the lower jaw, which is similarly slotted.

This knotter has its jaws beveled at their ends, having an open mouth, *e*, between the ends of the two jaws C D.

E designates a tongue, which is pivoted at *e* in the lower jaw, D, and constructed with a backwardly-directed barb, *e'*, and a beveled end coinciding in contour with the beveled ends of the lower jaw, D. This barbed tongue E, I denominate the "gripper." The inner edge of its barb *e'* is beveled to a knife-edge, and the barb is prevented from displacement by being confined within a slot cut in the lower jaw, D. The upper jaw, C, of the knotter is provided with a tongue or blade, G, which is pivoted in a slot in this upper jaw at *g*, and

the lower edge of the front end of said tongue is constructed with a bevel, *g'*, adapted to overlap one-edge of the fin or barb *e'* of the lower pivoted tongue, E.

It will be observed that when the beveled end of the tongue G overlaps the barb *e'* of the tongue E the binding-cord will be forced in past and behind the barb, so that at the proper time the cord will be cut.

The slot *e''* in the tongue E, through which passes a pin, *e''*, in the jaw D, constitutes a guide. So, also, the slot *g''* in the blade G, through which passes the pin *g''* in the jaw C, is a guide for this blade G.

The operation of my improved knotting device is as follows: The knotter revolves about the axis of the shaft A, and the loop of the knot is formed by the revolution of the head B, the end of the cord being held by the usual cord-holder, and the spool portion extending through the eye of the binder-arm in the usual well-known manner. The binding-cord is passed around the bundle of grain by the well-known curved vibrating cord-arm, and, as the knotter revolves, said cord comes between the jaws C D. During this procedure the jaws E G will yield somewhat and allow the cords to pass back of the cutting-barb *e'*. After the formation of the loop the jaws E G will be closed by the tightening of the loop about the head B, and during the last act of forming the knot, and before its release from said head, the knot will be pulled off and the cords will be severed by the cutting-edge of the barb *e'*.

The devices for holding the cord, applying it around bundles of grain, and placing the cord in the knotter, are not shown nor described, for the reason that they form no part of my present invention.

Having described my invention, I claim—

1. The combination of the shaft, the head, the slotted jaws thereon beveled at their outer ends, the pivoted cutting-tongue provided with a barb, and the pivoted beveled tongue arranged above the lower tongue, substantially as described.

2. A knotter for grain-binders, consisting of a shaft having a head and slotted jaws, provided one with a pivoted barbed cutting

tongue or blade, and the other with a pivoted beveled tongue or blade, substantially as described.

3. The pivoted barbed tongue or blade E
5 and the pivoted laterally-beveled tongue or blade G, both beveled longitudinally at their outer ends, in combination with a shaft having a head and slotted jaws, which are beveled

at their outer ends, all constructed substantially as described. 10

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

JOHN E. BUXTON.

Witnesses:

J. W. ANDREWS,
DELOS HIGBIE.