

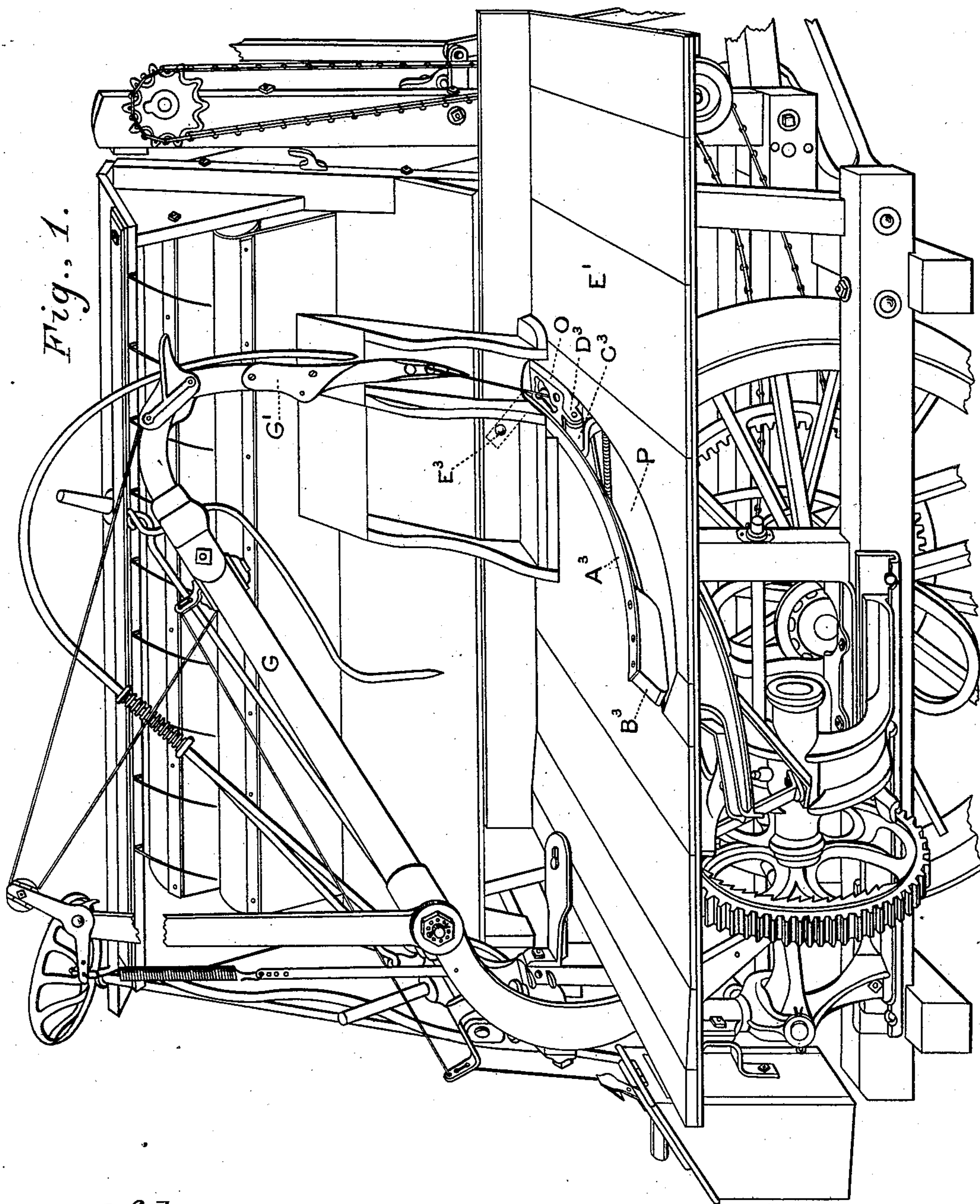
(Model.)

2 Sheets—Sheet 1.

H. J. CASE.
GRAIN BINDER.

No. 253,507.

Patented Feb. 14, 1882.



Witnesses:
 Frank L. Curand.
 Wm L. Spiden.

Inventor:
Henry J. Case
by A. L. Smith & Co.
Attorneys

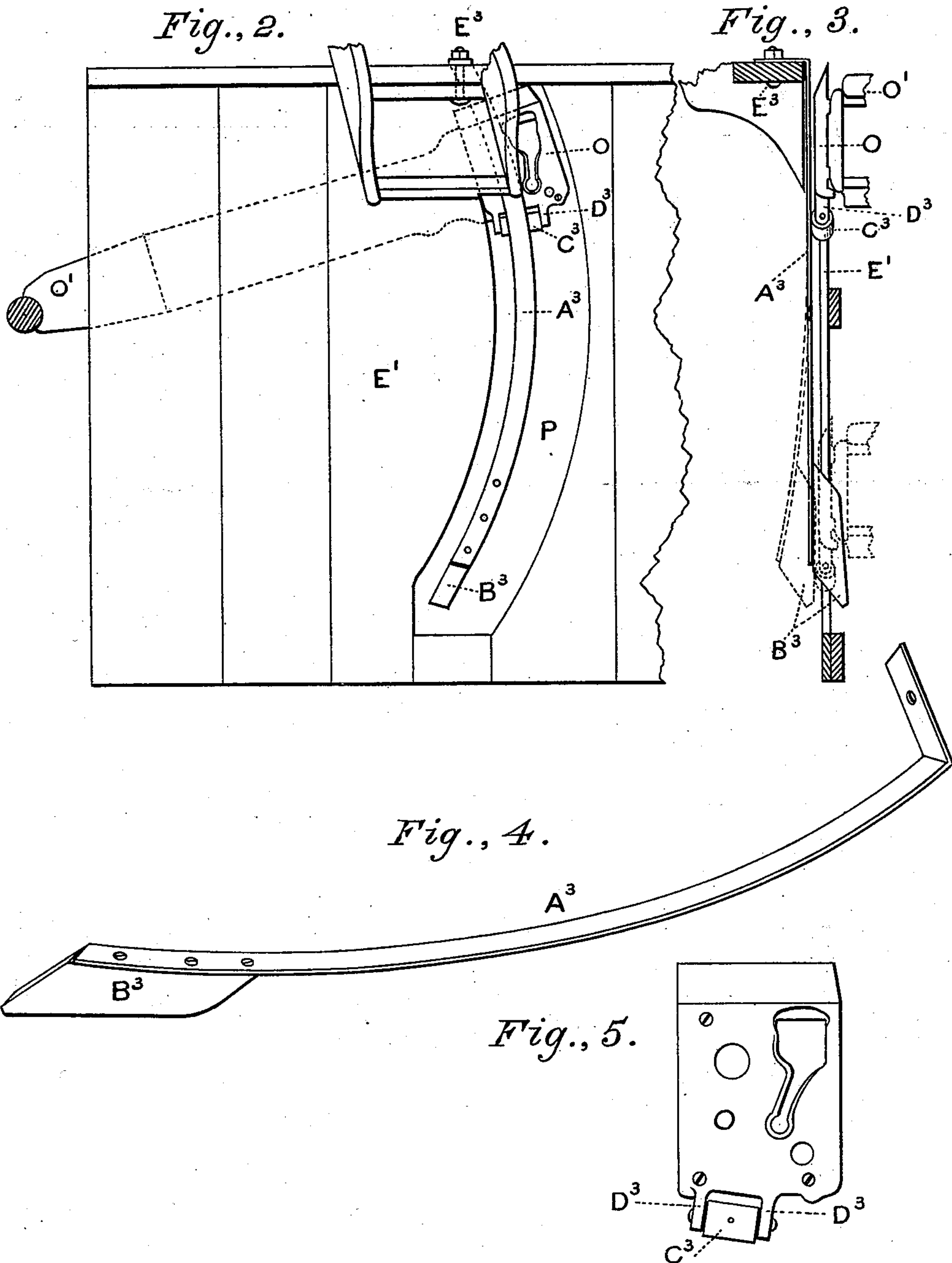
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UNITED STATES PATENT OFFICE.

HENRY J. CASE, OF AUBURN, NEW YORK.

GRAIN-BINDER.

SPECIFICATION forming part of Letters Patent No. 253,507, dated February 14, 1882.

Application filed July 23, 1881. (Model.)

To all whom it may concern:

Be it known that I, HENRY J. CASE, a citizen of the United States, residing in the city of Auburn, county of Cayuga, and State of New York, have invented a new and useful Improvement in Grain-Binders, of which the following to be a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of a grain-binder with my improvement in working position on the same. Fig. 2 is a top or plan view of the same. Fig. 3 is an edge view of the same. Fig. 4 is a perspective view of the lifting-bar detached from the grain-receiving platform, and Fig. 5 is a plan view of the shield-plate and roller.

Similar letters refer to similar parts throughout the several views.

The invention relates to that class of grain-binders employing a horizontally-oscillating arm carrying the knotting devices, said arm traveling back and forth underneath the binder table or platform and over a stationary rack and switch frame, through which the necessary movements are imparted to the knotting devices; and it consists in the employment of a yielding or spring lifting-bar attached or otherwise applied to the slotted binder platform, in connection with a roller applied to the knotter-carrying arm for the purpose of raising or elevating the bundle in its passage over the platform at the proper instant for tightening the knot formed in the band.

In the accompanying drawings, E' represents the slotted grain-receiving platform; P, the curved slot therein; G, the vertically oscillating and swinging cord-carrying arm, carrying the needle G', which in its outward sweep moves in the slot P; O, the perforated knotter shield-plate, attached to and moving with the horizontally-oscillating knotter-carrying arm O'. The above-named parts, together with the knotting devices themselves, except in particulars hereinafter noted, are similar to some now in use, and not being claimed herein, need not be particularly described.

Within the curved slot P of the grain-receiving table E' is arranged a curved spring or bar, A³, bolted at its rear or inner end to the platform at E³, through an angular foot, as shown, or in any suitable manner, said bar conforming to the curvature of the slot P, and being arranged a little to one side of the cen-

ter of the width thereof, as shown, so as not to interfere with the movement of the needle G' through said slot. To the outer free end of this curved bar A³, and on the under side thereof, is secured a block of wood or other suitable material, B³. This block has its ends beveled or inclined to permit a roller, C³, attached either to the knotter-carrying arm or to the knotter shield-plate O, as shown in Fig. 5, to pass more readily under it. Where the roller C³ is connected with the shield-plate O the latter is provided with perforated lugs or ears D³, in which the pivot of said roller is supported and between which the roller is free to revolve.

The operation of my improvement may be briefly described as follows: In the movement of the knotter-carrying arm O' backward and forward the curved bar A³ rests on the roller C³, and as the roller approaches the outer end of the curved bar it strikes the pendent block or rib B³, and forcing the latter upward, lifts the bar A³ suddenly, and with it the bundle lying across and moving over it under the action of the knotting devices. This lifting of the bundle takes place just when the knotting devices have completed the formation of the knot, and while the ends of the band are still grasped thereby, and serves to draw the knot tight, and also to withdraw the ends of the band from the knotting devices, releasing the bundle and permitting it to be discharged. The movements of the bar A³ described are indicated by dotted lines in Fig 3.

Having thus described my invention, what I claim as new is—

1. The lifting-bar A³, attached at one end to the grain-table, and provided at its outer end with the block B³, in combination with the oscillating knotter-arm O', substantially as and for the purpose described.

2. The oscillating knotter-arm O', provided with the roller C³, in combination with the lifting-bar A³, substantially as described.

3. The combination of the binder-table E', the lifting-bar A³, and the oscillating knotter-arm O', substantially as and for the purpose described.

In testimony whereof I have hereunto set my hand this 11th day of July, A. D. 1881.

HENRY J. CASE.

Witnesses:

E. B. SHERMAN,
LAKE RANSOM.