

E. M. THOMPSON.
GRAIN-BINDER.

No. 175,781.

Patented April 4, 1876.

Fig. 1.

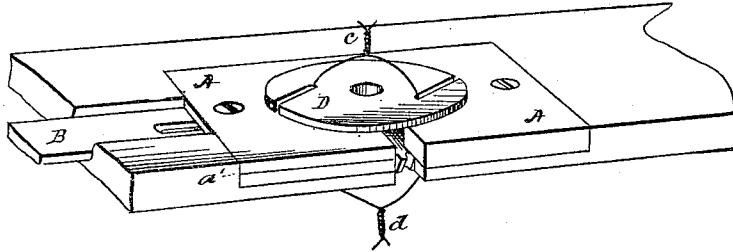


Fig. 2.

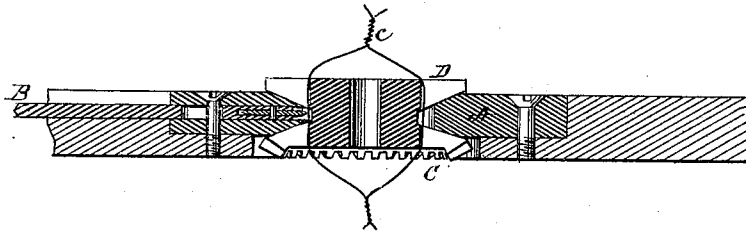


Fig. 3.

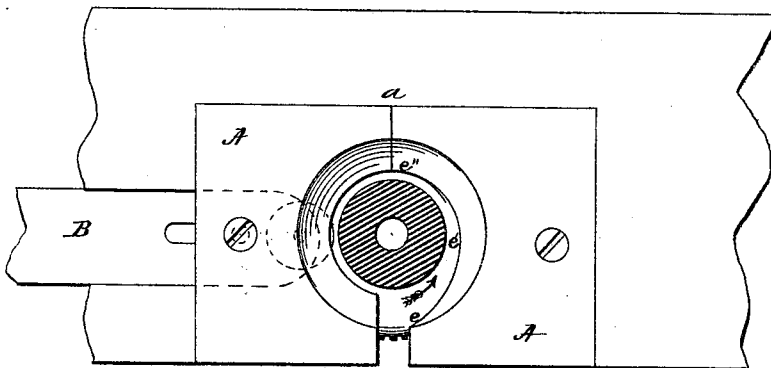
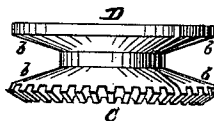


Fig. 4.



Witnesses:

Clarence Poole
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UNITED STATES PATENT OFFICE.

EVERT M. THOMPSON, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN GRAIN-BINDERS.

Specification forming part of Letters Patent No. **175,781**, dated April 4, 1876; application filed March 16, 1876.

To all whom it may concern:

Be it known that I, EVERT M. THOMPSON, of Chicago, Illinois, have invented certain new and useful Improvements in Twisting Devices for Grain-Binders, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of my invention. Fig. 2 shows a vertical section; Fig. 3, a plan view, with the top plate broken away. Fig. 4 shows a side elevation of the twister removed from the journal-plate.

My invention relates to that class of binders which are attached to reapers; and it consists in the peculiar construction of the twister, by which its operation is rendered more certain and effective.

To enable others skilled in the art to make and use my invention, I will proceed to describe the exact manner in which I have carried it out.

In the drawings, A A' represent the journal-plate of my twister bisected at *a*, as shown in Fig. 3, to enable the twister to be placed in position. The portion A is also divided horizontally at *a'*, for the more easy introduction of the slotted knife-bar B. The journal-plate is countersunk on its upper and lower faces, to fit the cone-shaped journal-bearing faces *b* *b* of the twister.

To give additional ease and steadiness to its twister in its revolutions on its bearings, the cog-wheel portion C is rigidly attached to portion D, or twister proper, each of which is constructed with a cone-shaped back, as shown in Fig. 4, with connection or axle *d* between them. Both portions of the twister—that is, the cog-attachment and the twister proper—are slotted, the latter to catch the wire and the former to admit the wire within the circle of the cog's revolutions, wherein the wire does not interfere with the imposed cog. The journal-plate A' is beveled or countersunk with an eccentric edge, *e e' e''*, which

acts as a guide when the twister is revolving in the direction of the arrow, Fig. 3, with the wire running through the slots in the twister. The wire, being drawn against this eccentric guide-edge *e e' e''*, is forced along the slot toward the center of the twister away from the imposed cog. This guide-edge acts on the wire between the cog and the twister-plate, thereby insuring an efficient movement.

The sliding cutter-bar B, with the circular knife in the end, is to be operated by any suitable arrangement, so that when it is desired that the wire should be cut, the knife is driven against the axle *d* of the twister, with which it revolves, cutting the wires between the twist *c* above the twister-plate D, and the twist *d* below the cog C.

The advantage of my construction of conic faces, supported upon a countersunk journal, will be apparent to any one skilled in the art, as it secures perfect steadiness to the twister in its revolutions and completeness in results.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The twister D, provided with the cog-plate C, and having the journal-bearing faces *b b*, substantially as and for the purpose set forth.

2. The twister D and cog-plate C, provided with slots, as described, in combination with the wire-guide *e e' e''*, substantially as and for the purpose set forth.

3. In combination with a twister, constructed so as to admit of being journaled on its upper plain surfaces and upper conical bearing, the cog-wheel C with its upper beveled surface, constructed so as to admit of being journaled on that surface.

4. The twister D, in combination with the circular revolving knife and bar B, substantially as and for the purpose set forth.

EVERT M. THOMPSON.

Witnesses:

JOHN NEIL,
JAMES E. HAYES.