

J. H. MORSE.
Grain-Binders.

No. 154,956.

Patented Sept. 15, 1874.

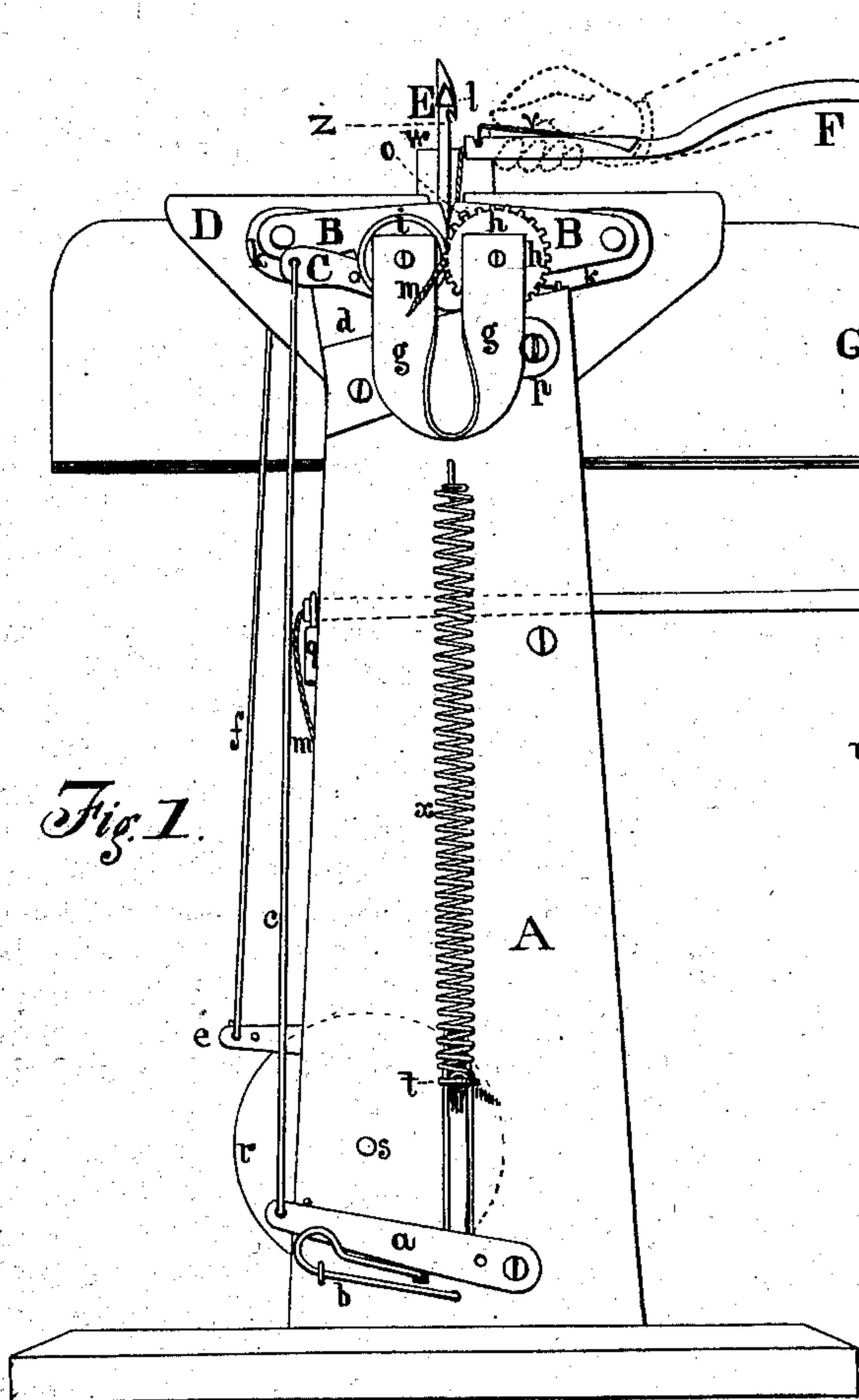


Fig. 1.

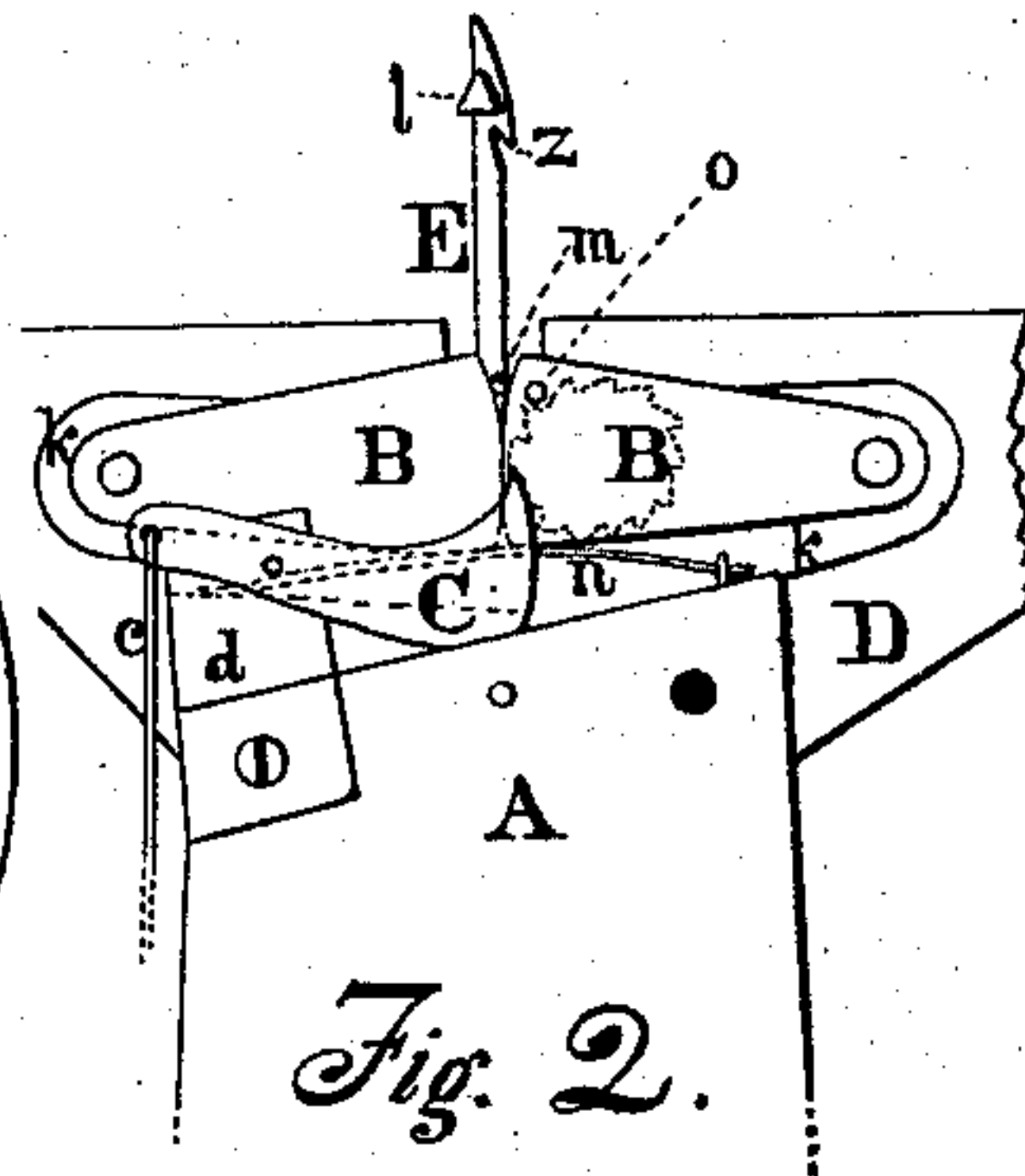


Fig. 2.

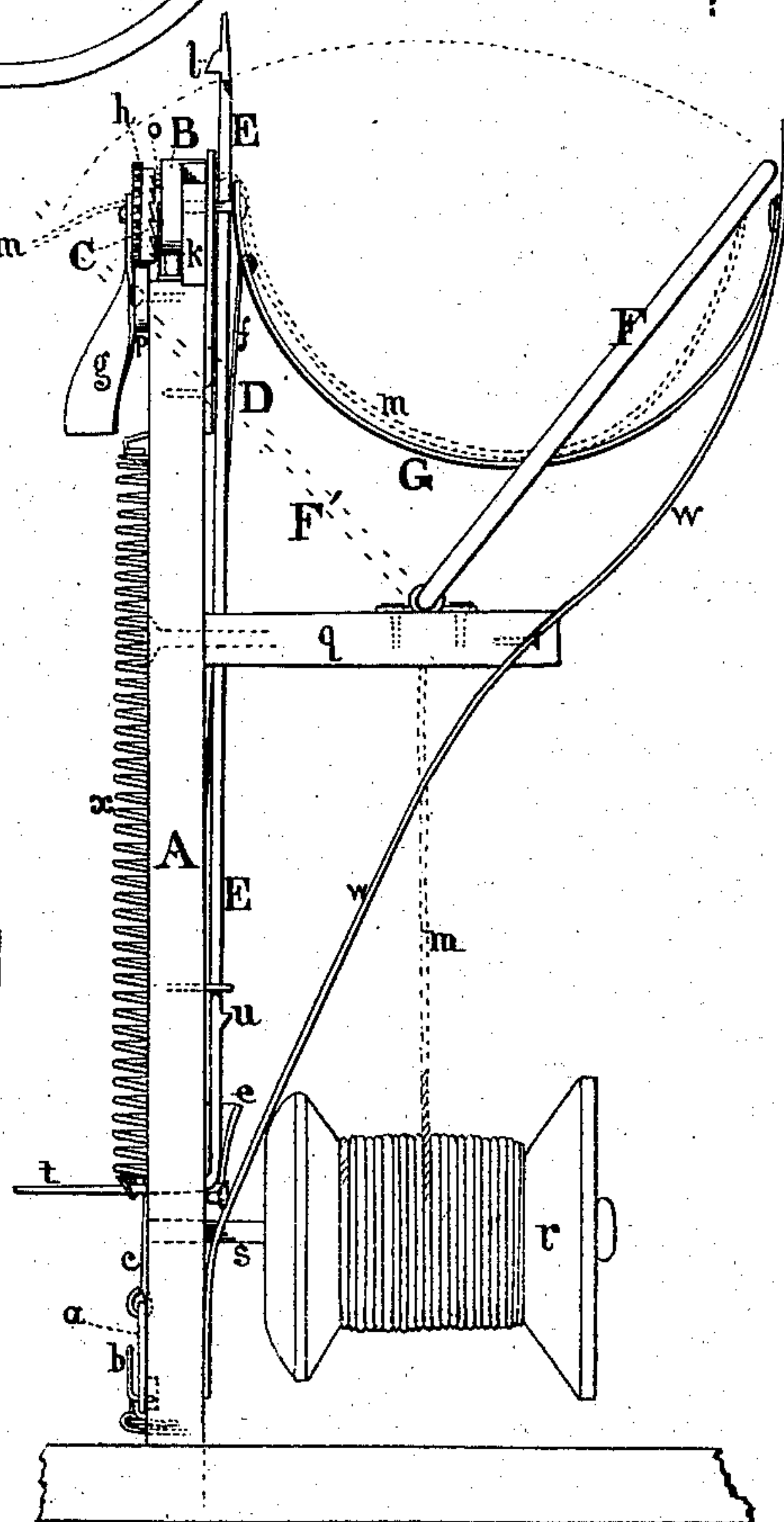


Fig. 4.

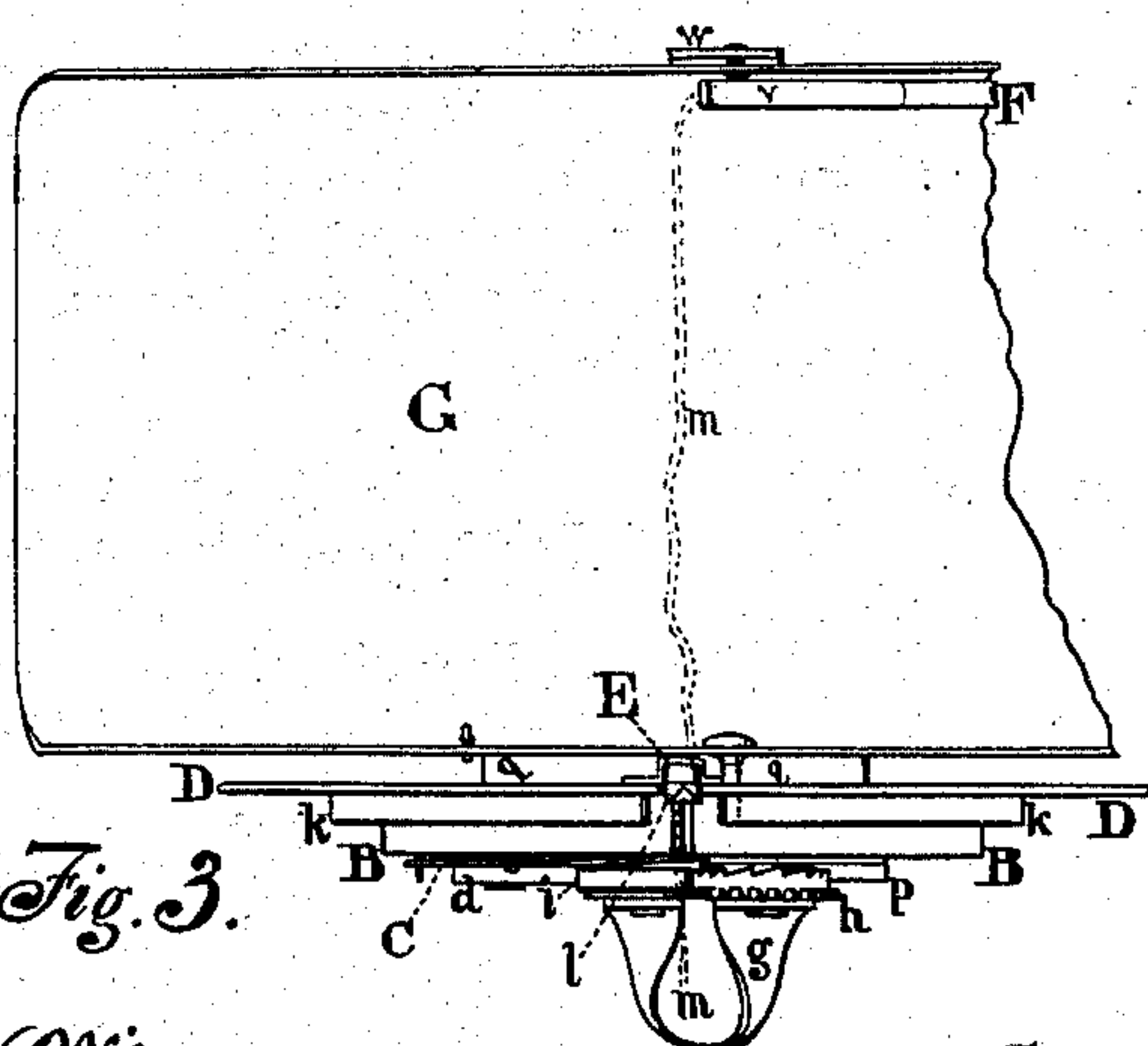


Fig. 3.

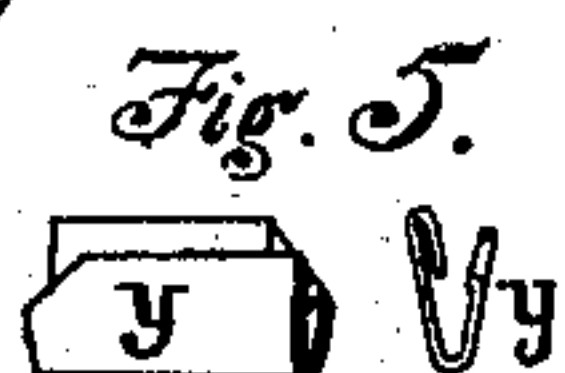


Fig. 5.

Witnesses
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UNITED STATES PATENT OFFICE.

JOHN H. MORSE, OF PEORIA, ILLINOIS.

IMPROVEMENT IN GRAIN-BINDERS.

Specification forming part of Letters Patent No. **154,956**, dated September 15, 1874; application filed September 15, 1873.

To all whom it may concern:

Be it known that I, JOHN H. MORSE, of the city and county of Peoria and State of Illinois, have invented an Improvement in Grain-Binding Machines, of which the following is a specification, reference being had to the annexed drawings, making a part of this specification, in which like letters of reference refer to like parts, and in which—

Figure 1 represents elevation of binder; Fig. 2, elevation of binder with wheels *i* and *h* and spring *g g* removed, showing jaws B B and knife C; Fig. 3, plan of machine; Fig. 4, end elevation; Fig. 5, metal clamp. This, when closed upon the cord *m*, forms the tie to the band.

A A is the frame of binder; B B, metal jaws for closing clamp *y*; C, knife for cutting cord *m* after the sheaf has been bound. E E is a perpendicular sliding rod, with the tightening-hook *z* and lug *l* at the upper end, hook *z* for tightening cord or band *m* upon the sheaf, and lug *l* for closing jaws B B. *t* is a lever or foot-piece, operated by the foot, for drawing down the rod E E; *u*, a lug near the lower end of rod E E. This tilts the sheaf-trough G by coming in contact with lever *e* in its upward motion. This motion is given by spiral spring *x* when the pressure is taken from foot-piece *t*. *c* is a connecting-rod between knife C and arm *a*, operated by foot-piece *t*. *f* is connecting-rod between sheaf-trough G and lever *e*; *g g*, spring, to which the wheels *i* and *h* are secured, these wheels holding the end of cord *m* while the sheaf is being bound. F is a hollow arm for carrying the cord *m*. Attached to the upper end of arm F is the thumb-piece or cut-off *v*, for checking the cord *m* while drawing it around the sheaf.

The manner of operating the machine is as follows: Standing in front of the machine, (see Fig. 1,) take hold of the hollow arm F with the right hand, (see Figs. 1 and 4,) and with thumb upon the stop *v*, (see Fig. 1,) as left after binding the last sheaf, the end of cord *m* being fast in wheels *i h*. (See Fig. 1.) Place a clamp, *y*, (see Fig. 5,) within the jaws B B. Now, turn back the hollow arm F to position, as seen in Fig. 4. This will carry the cord *m* across the sheaf-trough G, as seen in Figs. 3 and 4. The grain may now be

per." When sufficient for a sheaf, pull the hollow arm F forward to position, as seen in Fig. 4, dotted line, pressing with the thumb of right hand upon the stop *v*. Pull the cord tight around the bundle or sheaf. Now, with the foot, press down the foot-piece *t*. This will draw down the tightening-hook *z*, drawing the cord *m* into the clamp *y* and the lug *l* down upon the jaws B B, the jaws closing the clamp *y* securely upon the cord *m*, when the pin *o* upon the right-hand jaw B (see Fig. 2) will strike a ratchet-tooth, *o*, on inside of wheel *h*, (see Fig. 3,) turning the wheels *i* and *h* one tooth forward, and holding the cord *m*. The cord *m*, as carried back and forth by arm F, will pass over and under one tooth on wheel *h*, holding the cord securely between the wheels *i* and *h*. (See Fig. 1.) The foot-piece *t* pressing upon the arm *a*, the knife C, operated by the rod *c*, will cut the cord *m*, and the sheaf is bound.

Remove the pressure off the foot-piece, and the rod E E will be raised by the spiral spring *x*, and the lug *u* on rod E E strike the lever *e*. This being connected to the sheaf-trough G by rod *f*, the sheaf-trough will be tilted and the sheaf dumped.

What I claim by my invention, and desire to secure by Letters Patent, is—

1. The hollow arm F, having a hinged or pivotal connection upon the frame A, and arranged to carry the cord *m* from spool *r*, and provided with the stop or cut-off *v*, in combination with the sheaf-trough G, substantially as and for the purpose set forth.

2. The wheels *i* and *h*, in combination with spring *g g*, pin *o* on jaw B, with ratchet-teeth on wheel *h*, for holding cord *m* while the sheaf is being bound.

3. Lug *u* on rod E, in combination with lever *e*, tilting sheaf-trough G, and connecting-rod *f*, for dumping the bound sheaf.

4. Knife C, arm *a*, and connecting-rod *c*, in combination with foot-piece *t*, all working in the manner and for the purpose specified.

In testimony that I claim the foregoing I, JOHN H. MORSE, have hereunto set my hand this 21st day of May, 1873.

JOHN H. MORSE.

Witnesses:

JAMES M. MORSE,
HENRY W. WELLS.