M. D. Myers.

Hay Fork.

No. 35887 Patented Jul. 15, 1862.

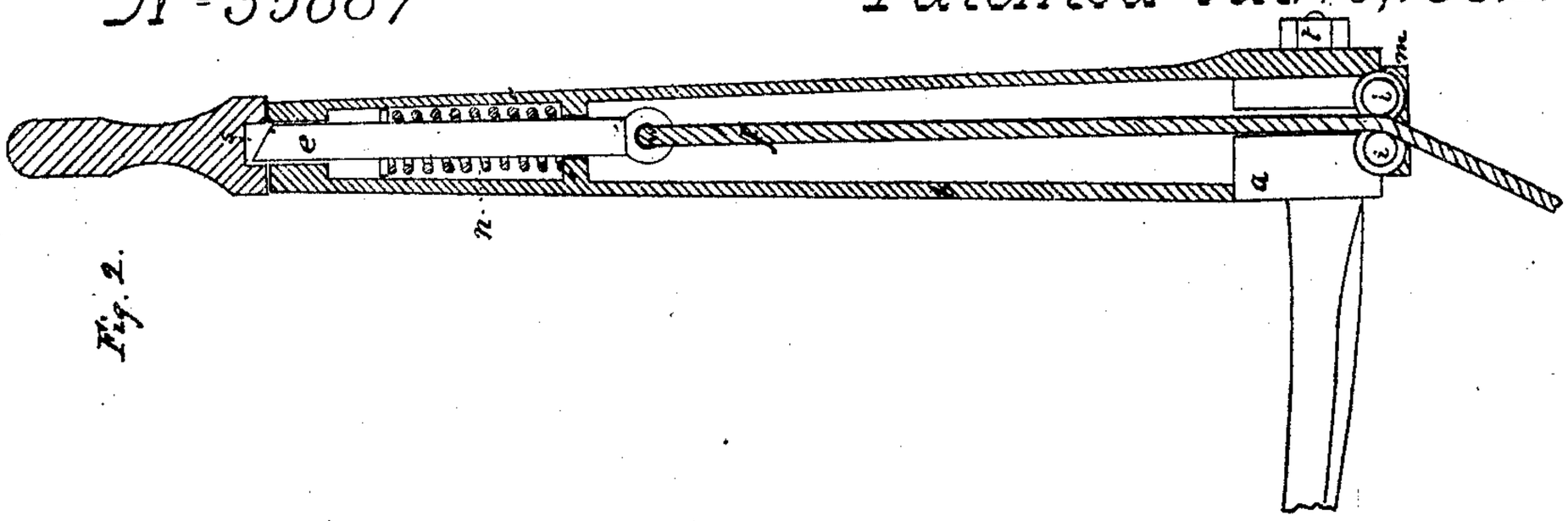

Fig. 2.

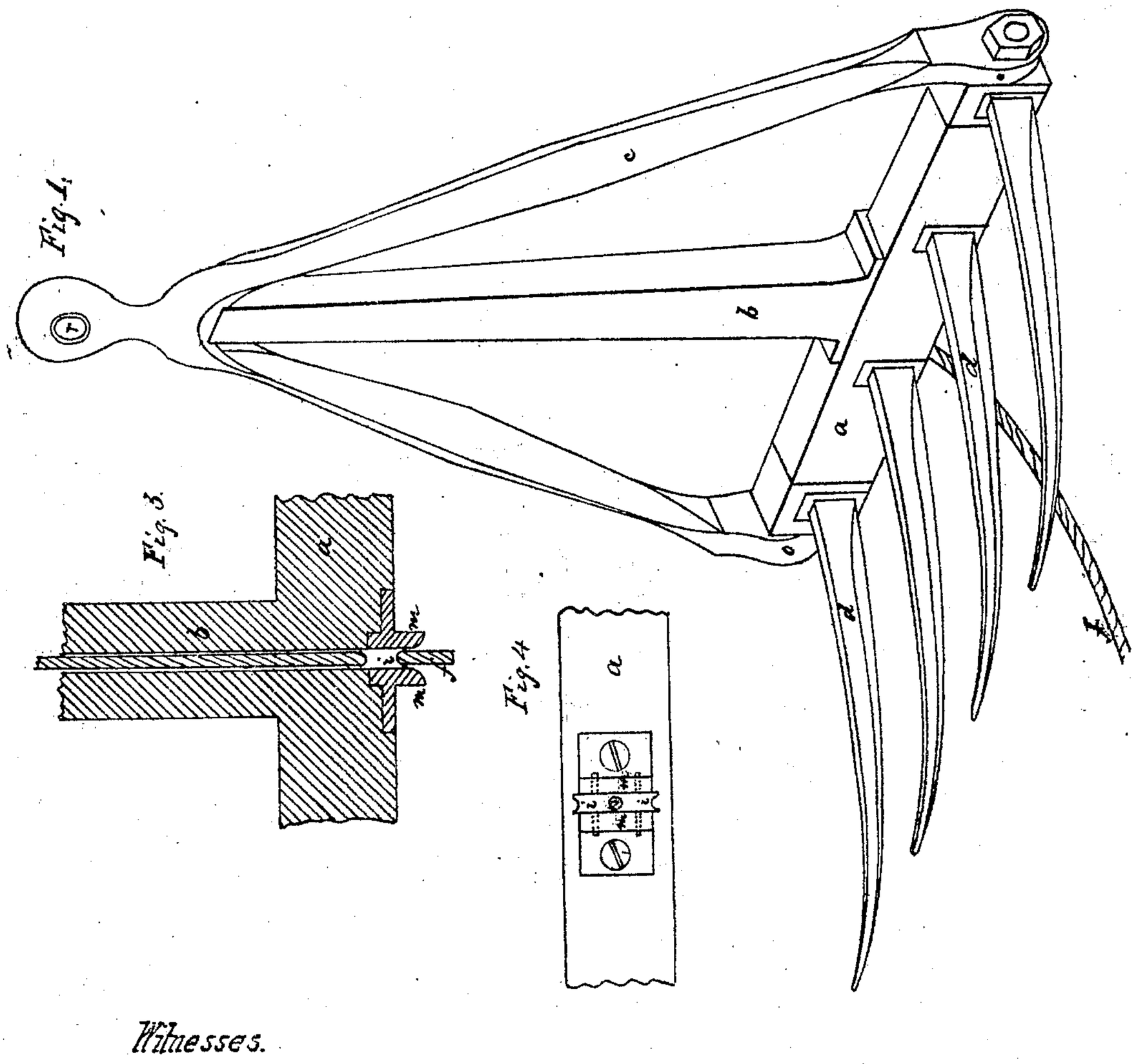

Fig. 1.

Fig. 3.

Fig. 4.

Witnesses.

W. H. Elliott

D. Rocke

Inventor.

M. D. Myers.

UNITED STATES PATENT OFFICE.

M. D. MYERS, OF ILION, NEW YORK.

IMPROVEMENT IN HAY-ELEVATORS.

Specification forming part of Letters Patent No. **35,887**, dated July 15, 1862.

To all whom it may concern:

Be it known that I, M. D. MYERS, of Ilion, in the county of Herkimer and State of New York, have invented a new and Improved Hay-Elevator; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Similar letters indicate the same devices in all the figures.

To enable others skilled in the art to make and use my invention, I will proceed to describe its nature, construction, and operation.

The nature of my invention consists in the arrangement of the several devices of a hay-elevator in such a manner that the bolt cannot be accidentally drawn by dragging the elevator against the haymow or beams of the barn; and it further consists in providing pulleys and guides for the tripping-cord.

Figure 1 is a perspective view of my elevator. Fig. 2 is a vertical section of the same. Fig. 3 is a vertical section of the same, showing the pulleys and guides in elevation. Fig. 4 is a view of the lower side of the head, showing the pulleys and guides.

a is the head; *b*, tongue; *c*, bail; *d*, teeth; *e*, bolt; *f*, tripping-cord; *i*, pulleys; *m*, guides; *n*, bolt-spring; *o*, joint of the bail; *r*, point of attachment of the elevating-ropes; *s*, mortise into which the end of the bolt falls to lock the tongue; *t*, screw-nut for fastening the teeth; *u*, point of attachment for the tripping-cord; *v*, opening in the lower side of the head, through which the tripping-cord passes.

The operation of my elevator is as follows: A strong rope is made fast to the elevator at *r* and passed over a pulley in the upper part of the barn, so that when the free end of the rope is drawn down the elevator will rise. The teeth of the elevator are then thrust into the top of the load of hay, when it is drawn up to the required height by the elevating-rope, carrying a portion of the load of hay upon its teeth. When it has been drawn over the part of the mow where the hay is to be deposited the bolt *e* is tripped by means of cord *f*, when the weight of the hay will cause the tongue to fall forward to a horizontal position and the teeth to drop down to a perpendicular position, turning upon the bearings *o* and depositing the hay. The elevator is then allowed to descend, being guided over the beams by the cord *f*. The tongue may then be readjusted, when the elevator is ready for use again.

One of the great difficulties attending the use of hay-elevators is the tripping of the bolt by dragging them over the haymow or beams of the barn. To avoid this effectually it is necessary to place the bolt, with its tripping-cord, within the tongue, bringing the cord out at the lower side of the head. By this arrangement of the bolt and cord in relation to the tongue and head of the elevator this difficulty is avoided, as no part of the bolt or cord can be caught between the elevator and the haymow or beams. To provide against injury to the cord where it passes out of the lower side of the head *a*, and to facilitate its action upon the bolt, the pulleys *i* and guide *m* are employed. The use of these pulleys is indispensable to this method of arranging the tripping devices in relation to the tongue and head of the elevator, as it is necessary to move the elevator to some distance over the mow before depositing the hay, which would cause the cord to draw over the corners of the opening *v* in the head, and so prevent it from acting freely upon the other tripping devices. In whatever direction the cord may draw in relation to the elevator the pulleys are required to prevent the cord from drawing over the corner of the opening *v*, for the reason that the head revolves a quarter-turn while the cord is acting.

I make no claim to the employment of a bolt and tripping-cord independent of the peculiar arrangement of these devices in relation to the tongue and head, herein set forth; nor do I claim the employment of the pulleys *i* in combination with a head which does not turn upon its axis when the hay is discharged; but

What I do claim, and wish to have secured to me by Letters Patent of the United States, is—

1. Arranging the tripping-cord and bolt in relation to the tongue and head as and for the purpose herein set forth.

2. The employment of pulleys *i*, in combination with cord *f*, when the cord passes through a head which turns upon its axis when the hay is discharged, as and for the purpose specified.

M. D. MYERS.

Witnesses:

W. H. ELLIOT,

E. ROCHE.