

E. McKenzie's Horse-Hay-Fork.

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PATENTED

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Fig. 1.

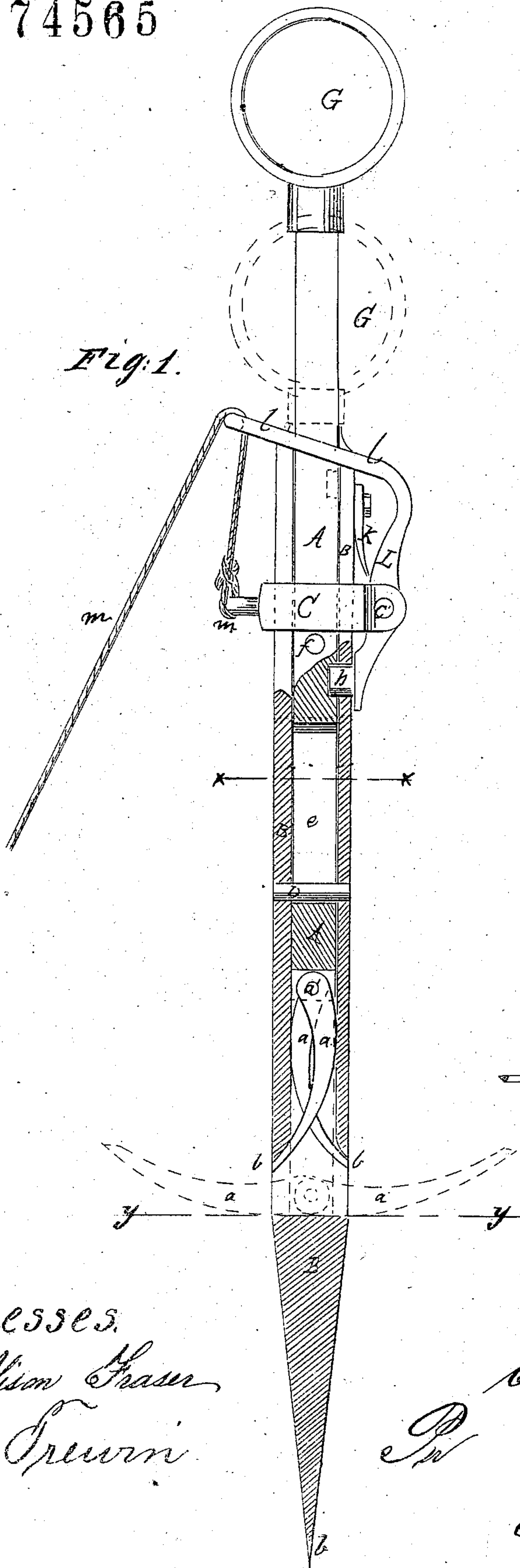


Fig. 2.

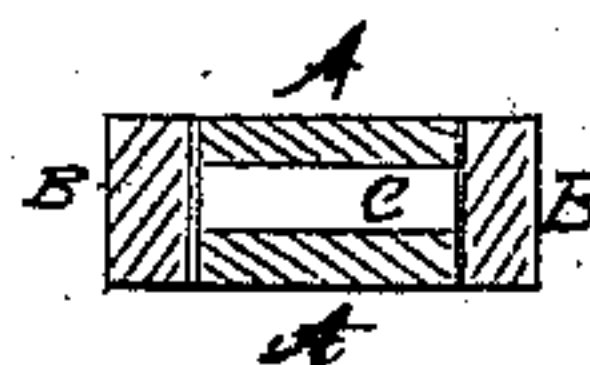
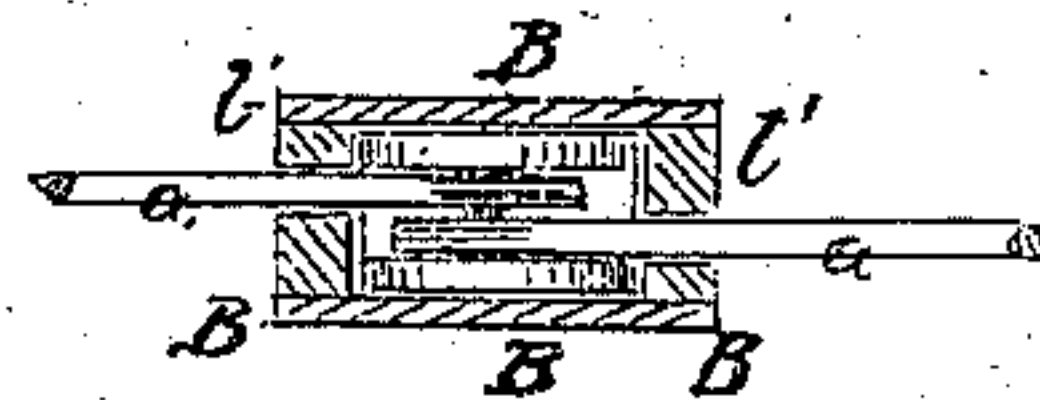


Fig. 3.



Witnesses.

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EDWIN McKENZIE, OF WATERTOWN, NEW YORK.

Letters Patent No. 74,565, dated February 18, 1868.

IMPROVEMENT IN HORSE HAY-FORKS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, EDWIN McKENZIE, of Watertown, in the county of Jefferson, and State of New York, have invented a new and improved Hay-Fork; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to an improved hay-fork, and consists in the construction of the locking-device, as will be hereinafter more fully described. In the accompanying drawings—

Figure 1 is a part front, part sectional view of my improved hay-fork, and

Figures 2 and 3 are transverse sections thereof, at lines *x x* and *y y*.

Similar letters of reference indicate corresponding parts.

A is the central rod, of iron or other suitable metal, of any suitable shape, to which the claws *a a* are pivoted at *a'*. The bar A slides between the side straps B B, welded together at their lower extremities, and forming a point at *b*. By raising or lowering the central rod A, the claws *a a* are retired or extended through the slots *b'*, in the side straps B. A sleeve, C, ties the straps B together at their upper ends, through which sleeve slides the central bar A. The side straps may be further tied by the pin or rivet D, passing through them, and through a slot, *e*, in the central bar A. Slips of metal may be riveted, soldered, or welded upon the side straps B, to cover the claws, or for the purpose of preventing the hay from clogging the same. On the central bar A is a stop, at *f*, beyond which the bar A cannot be drawn through the sleeve C, as shown in fig. 1. The positions of the suspending eye G and claws *a*, when the fork is open, are shown in red ink in fig. 1, the distance between the sleeve C (which is secured to the strap B) and the slots *b'* in said straps, being the same in all positions; but the stop at *f* would, in the position of the central bar shown in red ink, be at the same distance below the sleeve C as the said bar had passed through in approaching its eye G to the slotted portion *l* of the bent lever L; or, supposing the fork to be locked, and closed in the principal position, and to be locked open, as shown in red ink, then the stop *f* would, in the latter case, be below the sleeve C a distance equal to the length of the slot *e*, or the distance between the two holes in A, fitted to receive the bolt or pin *h*, as presently mentioned. The fork is locked by the bolt or pin *h* passing through a hole in one of the side straps B, into a similar hole, fitted to receive it, in the side of the central bar A. This bolt is attached to the under side of the arm of the bent lever L, which has its fulcrum at *c*, on the sleeve C. The bent arm *l* is provided with a slot, through which pass the central bar A and the upper ends of the side straps B. The spring K keeps bolt or pin *h* pressed against the bar A, ready to fall into the hole therein, on coming opposite to it. The trip-cord M is attached to the sleeve C at *m*, on the side opposite to the fulcrum *c* of the lever L, or to any other convenient place on the sleeve or the hay-fork, and passed through and over the bent arm or trigger, *l*, of the lever L.

To load the fork, the arm *l* is pressed down by pulling on the trip-cord, or by pinching it towards *m*, withdrawing the bolt *h*, and the central bar drawn up between the side straps, and through the sleeve C, until stopped by the stop *f*, when the arm *l* is let go, and the bolt *h* falls into the lower hole in A, fitted to receive it. The fork is then driven into the hay, straw, or other material to be raised, the arm *l* again compressed, and the central bar forced down between the side straps until the bolt *h* drops into the upper hole in A, driving out the claws *a*, and holding the hay, straw, or other material, which can then be raised into place, as desired. The trip-cord is then pulled upon, withdrawing the bolt *h*, when the weight of the material draws down the side straps, closing the claws, and allowing the hay or other material to fall from the fork.

I claim as new, and desire to secure by Letters Patent—

The locking-device, constructed as described, consisting of the bent lever L, pivoted to the sleeve C, and provided with the projection *h*, fitting through the strip B, into the sliding rod A, and held in place by the spring K, its upper end, *l*, slotted for the passage of the rod A' and side strips B, as herein shown and described.

EDWIN McKENZIE.

Witnesses:

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