

PETER J. MOOSE & JONATHAN KUHN.

Improvement in Horse Hay Forks.

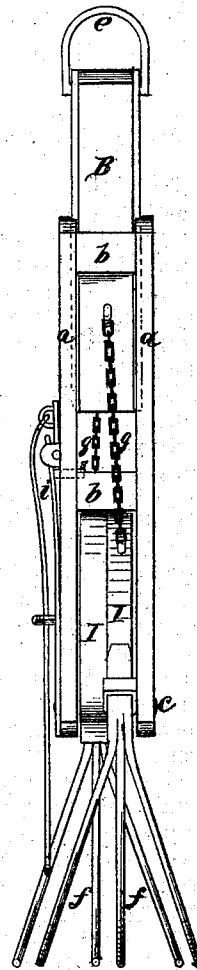
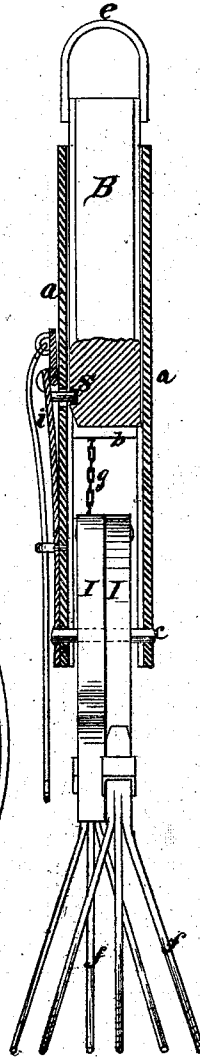
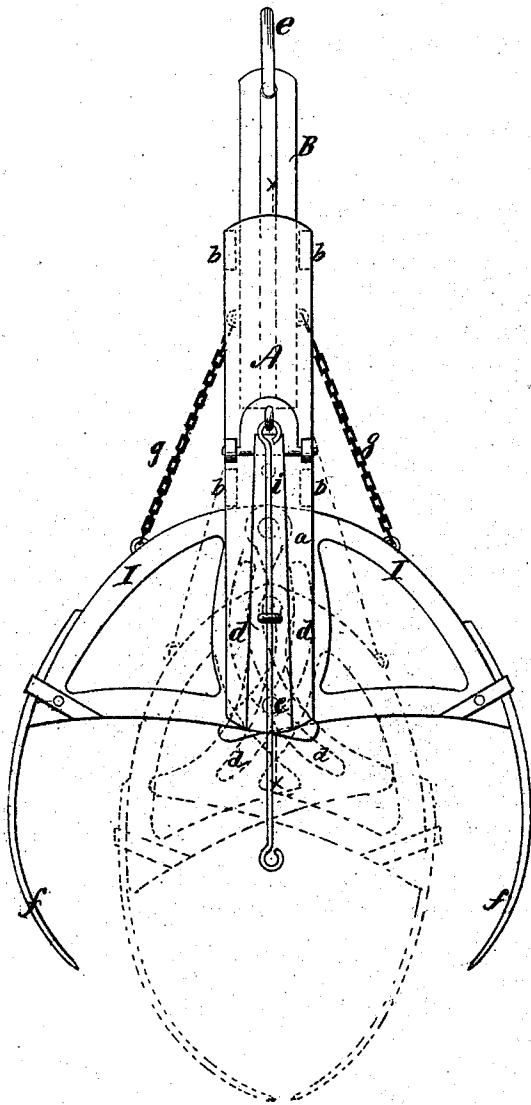
No. 120,160.

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Fig. 1.

Fig. 2.

Fig. 3.



Witnesses.

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Inventors.

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by -
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UNITED STATES PATENT OFFICE.

PETER J. MOOSE AND JONATHAN KUHN, OF DANSVILLE, NEW YORK.

IMPROVEMENT IN HORSE HAY-FORKS.

Specification forming part of Letters Patent No. 120,160, dated October 24, 1871.

To all whom it may concern:

Be it known that we, PETER J. MOOSE and JONATHAN KUHN, of Dansville, in the county of Livingston and State of New York, have invented a new and useful Improvement in Horse-Forks for Elevating Hay; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

Figure 1 represents a side view of our new fork or elevator, with dotted lines, showing its grapples closed. Fig. 2 is a longitudinal section of the same taken at the line *x x* of Fig. 1. Fig. 3 is an edge view of the same.

In the drawing, A denotes a metal frame, composed of the two wide side pieces *a a*, connected rigidly together by the four cross-ties *b*, and having a bolt or rod, *c*, which passes through the segmental slots *d* of the grapple-irons I. Within the frame A, and between the ties *b b*, the draft-bar B is inserted, as represented in the drawing. This draft-bar is provided with a ring, *e*, and two longitudinal ribs, which occupy grooves in the inner sides of the frame-pieces *a a*. These ribs and grooves serve to retain the parts in their proper relation while the machine is in use. The grapple-irons I have grapples or prongs *f f* firmly fastened to their lower corners, and are connected, by the chains *g g*, to the sides of the draft-bar B, and they overlap each other so as to work smoothly between the side pieces *a a* of frame A. As above stated these grapple-irons are provided with segmental slots *d*, through which a bolt connecting the lower ends of the frame-pieces *a a* passes, and by this connecting-bolt or pin, which works in the segmental slots *d*, the grapple-irons are actuated—that is to say, the draft, in elevating the machine, will, through the action of the pin inserted in their slots, cause the grapple-irons and their grapples to close up and retain between them the hay to be elevated. At one side of the draft-bar B, near its lower end, an inclined groove is formed, at the extremity of which a hole is made to receive a catch-pin, *s*, connected with the spring *i* secured upon one side of the frame A. The pin *s* extends through a hole in one of the side pieces *a*, and its spring *i* holds it down, causing it to enter the hole in the draft-bar B, and thus lock the parts. To detach these parts a cord or wire, *h*, may be pulled. This cord or

wire is connected to the semicircular hinged plate under the upper end of spring *i*, and by turning this plate upon its hinges the spring *i* is raised, and its stud or pin *s* will be removed from the hole in draft-bar B, thus allowing the draft-bar to slide outwardly and act upon chains *g g*, which will cause the grapples to open and discharge their load.

To set the machine, preparatory to its use, the draft-bar B must be thrust down between the sides *a a* of frame A, causing the stud *s* to traverse the inclined plane or groove at its lower end and fall into the hole which is provided in the draft-bar B, by which the parts are locked. This operation relieves the tension upon chains *g g*, and permits the grapples to be brought together by the action of the pin or bolt working in the segmental slots *d d* of the grapple-irons.

Instead of the grapples or prongs *f f*, we propose to use hook-formed tines or spurs, which will stand inwardly and laterally to the grapple-irons to which they will be attached. The compressive or clasp ing action of the grapples is produced by drawing upon the frame A, which causes the pin slots *d d* to force the grapples toward each other.

Having fully described our invention, what we claim, and desire to secure by Letters Patent, is—

1. The combination of the grapple-irons I provided with segmental slots *d d* arranged to overlap each other and be operated by their connecting-pin in frame A, and chains *g g* attached to bar B, substantially as and for the purpose described.

2. The draft-bar B provided with its ribs, in combination with the frame A, chains *g g*, and grapple-irons I, operating substantially as and for the purpose described.

3. In a horse-fork or hay-elevator, the combination of segmental slotted grapple-irons with the frame A, the chains *g g*, draft-bar B and their locking and connecting mechanism, constructed, arranged, and operating in the manner and for the purpose specified.

In testimony hereof we have hereunto set our hands this 20th day of July A. D. 1871.

PETER J. MOOSE.
JONATHAN KUHN.

Witnesses:

H. P. K. PECK,
A. C. PARSONS.