

E. V. R. GARDNER.
Horse Hay-Forks.

No. 155,233.

Patented Sept. 22, 1874.

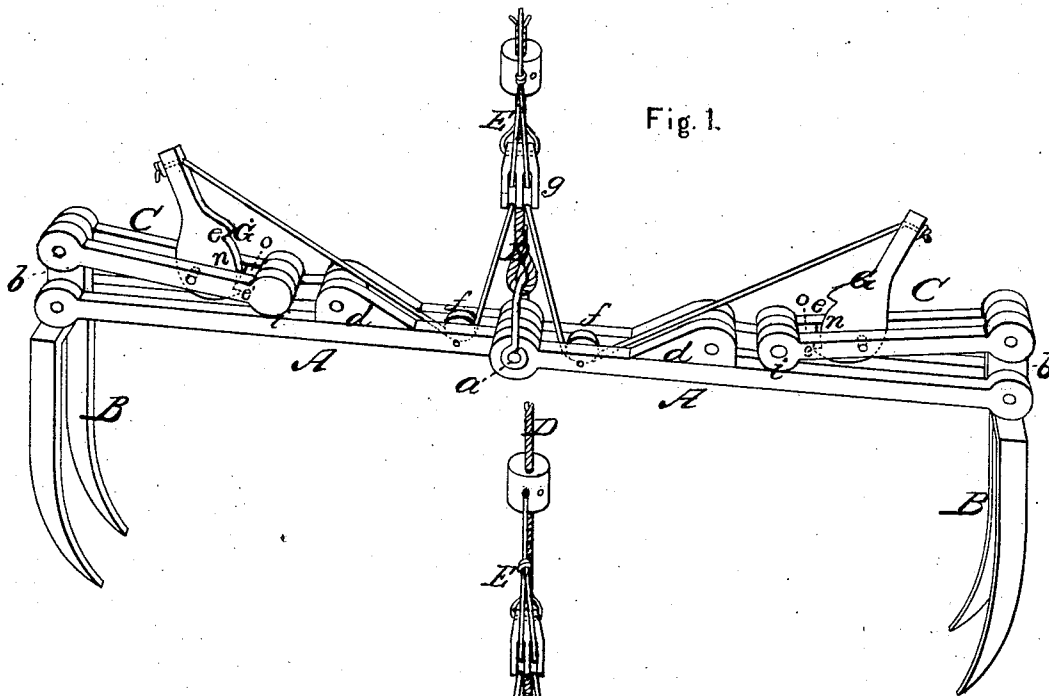


Fig. 1.

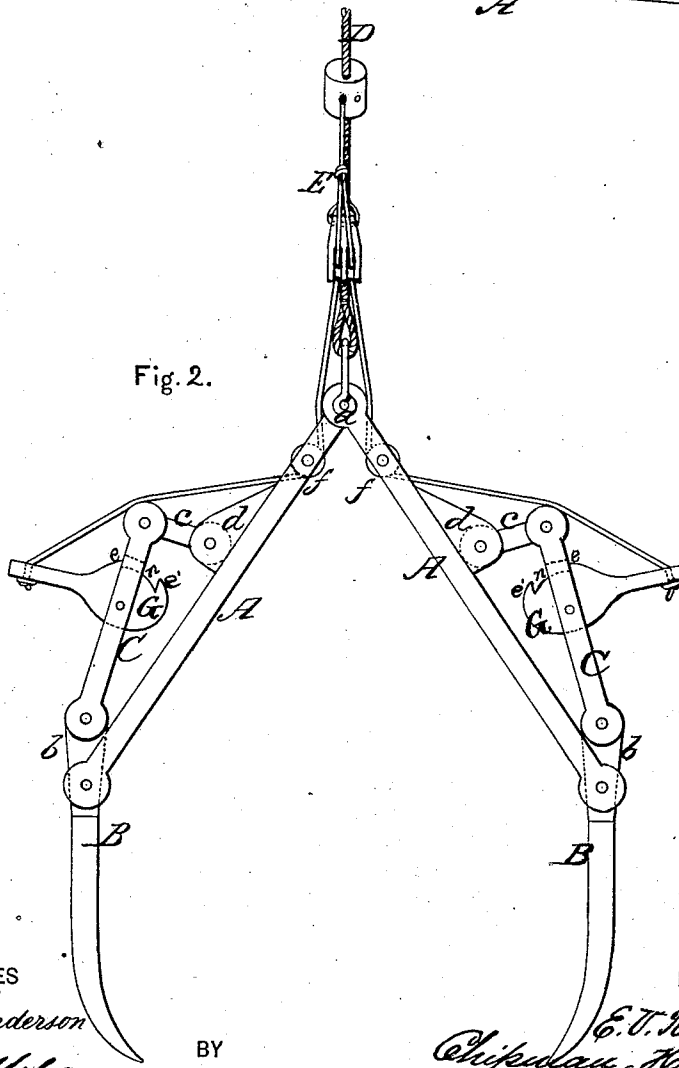


Fig. 2.

WITNESSES
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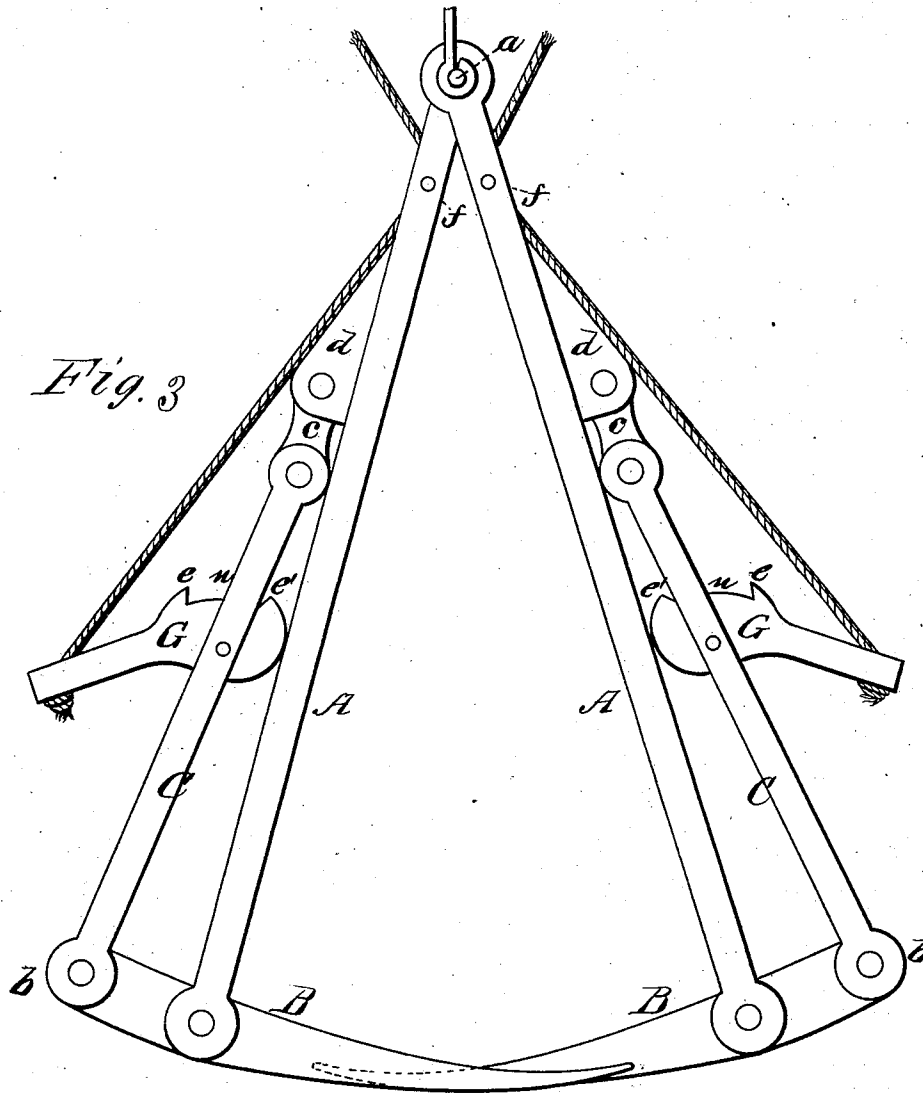
BY

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WITNESSES

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UNITED STATES PATENT OFFICE.

EMMET V. R. GARDNER, OF JOHNSON, NEW YORK.

IMPROVEMENT IN HORSE HAY-FORKS.

Specification forming part of Letters Patent No. **155,233**, dated September 22, 1874; application filed May 23, 1874.

To all whom it may concern:

Be it known that I, EMMET V. R. GARDNER, of Johnson, in the county of Orange and State of New York, have invented a new and valuable Improvement in Horse Hay-Forks; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of my horse hay-fork in position for elevating, and Fig. 2 is a view of the same in position for grasping a load. Fig. 3 is a side view, showing the fork closed.

This invention has relation to horse hay-forks for elevating hay; and it consists in the construction and arrangement of the parts, hereinafter more fully described and claimed.

In the annexed drawings, A A designate two arms, which are jointed together at *a*, and constructed, respectively, of two pieces suitably secured together so as to leave a space between them. To the free ends of the arms A A the shanks *b b* of forks B B are pivoted, which forks may have single or double tines, and they are preferably curved, as shown in the drawings, their shanks being straight. To the upper ends of the shanks *b* rods C are pivoted, which are again pivoted to short links *c*. These links *c* are pivoted to blocks *d*, which are secured to the arms A A near their joint *a*, and constitute, with the rods C, locking-joints. When the joints are adjusted as shown in Fig. 1, the points *i i* will bear upon the arms A A, and the forks will be locked in

position for embracing a load, preparatory to elevating it. G G designate two cam-shaped lever-trips, which are pivoted to the rods C C, and notched at *e e'*, so as to form shoulders, between which are blocks *n n*, that are secured to the rods C C. The notches *e e'*, engaging, respectively, with the upper and lower sides of the block *o*, arranged and secured between the inner ends of the bars C, prevent the lever-trips G G from turning in either direction beyond certain positions. These lever-trips G G have short cords attached to them, which are passed through a pulley-block, *g*, on the elevating-rope D, and fastened to a pull-cord, E. When the forks are locked the cam-lever trips are in the position shown in Fig. 1, and by pulling on the cord E the cam-shaped ends of these levers will flex the joints at *i i*, and allow the forks B B to assume the position shown in Fig. 2, and thus discharge the load. The branches of the pull-cord E are carried under pulleys *f f*, located on the arms A A, near the joint *a*.

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

In hay-forks, the cam-shaped levers G, having shoulders *e e'*, in combination with the pivoted rods C, *c*, and A, projections *d*, the pulleys *f*, and pull-cord, substantially as set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

EMMET VAN RANSELAER GARDNER.

Witnesses:

M. J. DONOVAN,
JOHN E. S. GARDNER.