J. H. BRINTON.

Horse Hay-Fork.

No. 93,590. Patented Aug. 10, 1869.

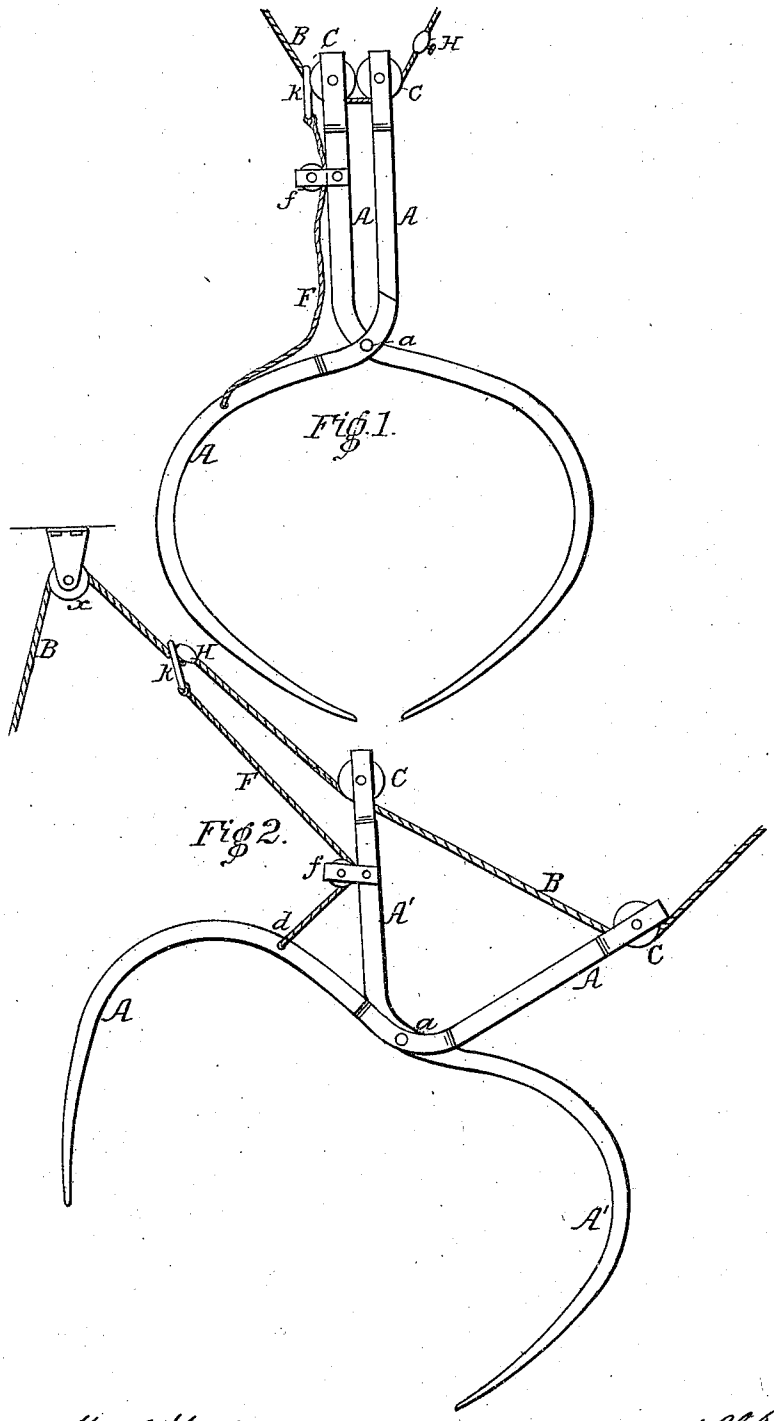


Fig. 1.

Fig 2.

Witnesses { Wm. A. Steel.
John Parker.

J. H. Brinton,
By his Atty.
H. Howson.

# United States Patent Office.

J. H. BRINTON, OF THORNBURY, PENNSYLVANIA.

*Letters Patent No.* 93,590, *dated August* 10, 1869; *antedated August* 6, 1869.

## IMPROVED GRAPPLE.

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, J. H. BRINTON, of Thornbury, Chester county, Pennsylvania, have invented an Improved Grapple; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention consists of two arms hinged together, and operated by certain cords, provided with a ring, and with a ball or projection, as described hereafter, so that an object may be held firmly by the grapple during its elevation or descent, and can be released at any desired point.

In order to enable others skilled in the art to make and apply my invention, I will now proceed to describe its construction and operation, reference being had to the accompanying drawing, which forms a part of this specification, and in which—

Figure 1 is a side view of my improved hay-elevator, and

Figure 2 the same, as it appears after the discharge of a load from between its jaws.

The apparatus consists of two metal bars, A and A′, crossed and jointed at *a*, and so bent at their lower ends as to form curved jaws, between which a mass of hay may be held, while the upper ends or arms of the said bars are straight, and nearly parallel with each other when the jaws are closed, as shown in fig. 1.

The apparatus is suspended by a rope, B, which passes through slots at the upper ends of the arms A and A′, and beneath pulleys *c c*, arranged to turn in the same, one end of the said rope being secured to some stationary object, and its opposite end passing over a pulley, *x*, and thence to the point from which the apparatus is to be operated.

The cord F is secured to the jaw A, at the point *d*, and passes around a pulley, *f*, which is attached to the upper end of the bar A′, there being at the outer end of the said cord, a metal ring or eye, *k*, through which the operating-rope passes, but the diameter of which is too contracted to admit of the passage of the ball H.

The mode of loading the grapple with hay or other material is apparent, the jaws being opened and forced downward into a mass of hay, and closing and grasping a portion of the mass, when the whole is raised by means of the operating-rope.

When the elevator and its load have been raised to the required point, the ball H of the operating-rope passes beneath the pulleys *c c*, and strikes against the ring *k* of the cord F, but cannot pass through the same, and as the ball continues to move toward the pulley *x*, carrying the ring and end of the cord F with it, the latter will draw the jaw A, and upper end of the bar A′ toward each other, until the centre of gravity of the apparatus becoming suddenly shifted, the jaws are completely opened, and the load discharged.

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

A cord, F, connected to the jaws A A′ of a grapple, and having a ring or eye, *k*, at its outer end, for the passage of the operating-rope, all substantially as and for the purpose described.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

J. H. BRINTON.

Witnesses:

E. H. BAILEY,

LOUIS BOSWELL.