J. WOODWARD.

Neck Yoke.

No. 13,472. Patented Aug. 21, 1855.

Fig. 1.

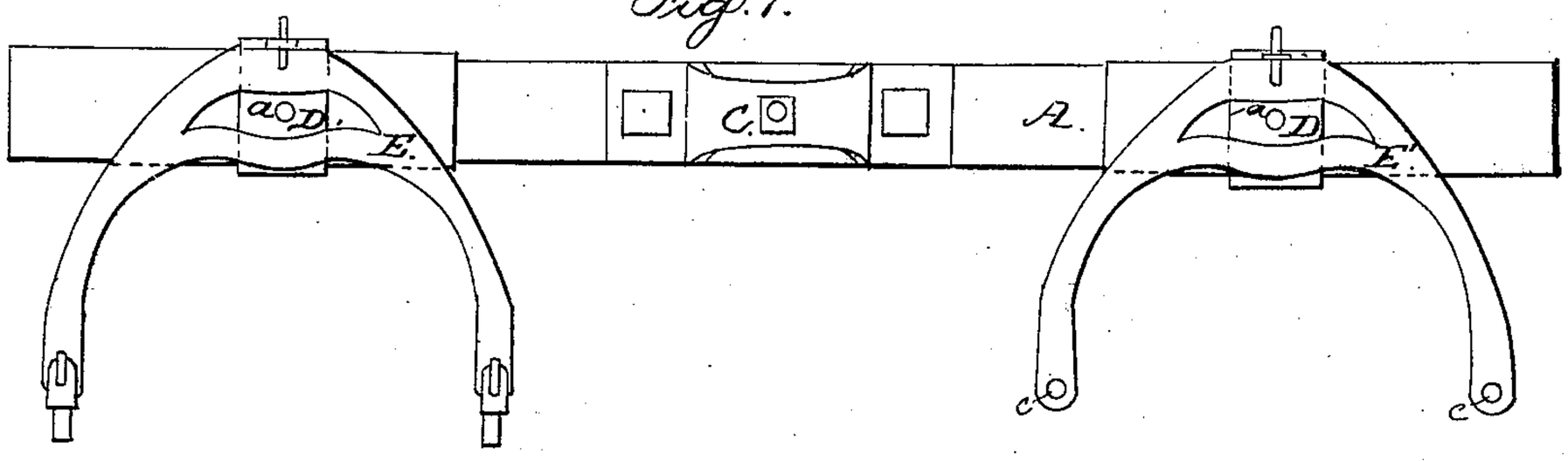


Fig 2

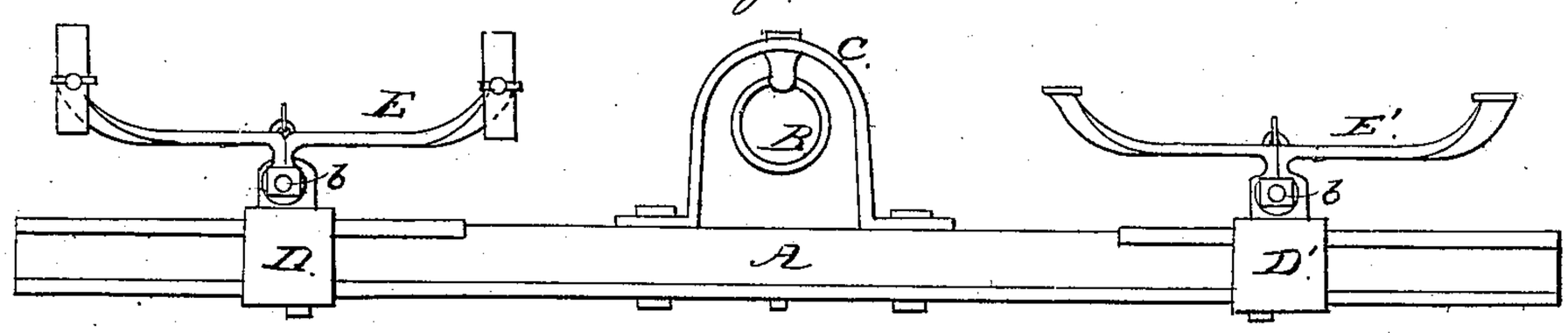


Fig. 3.

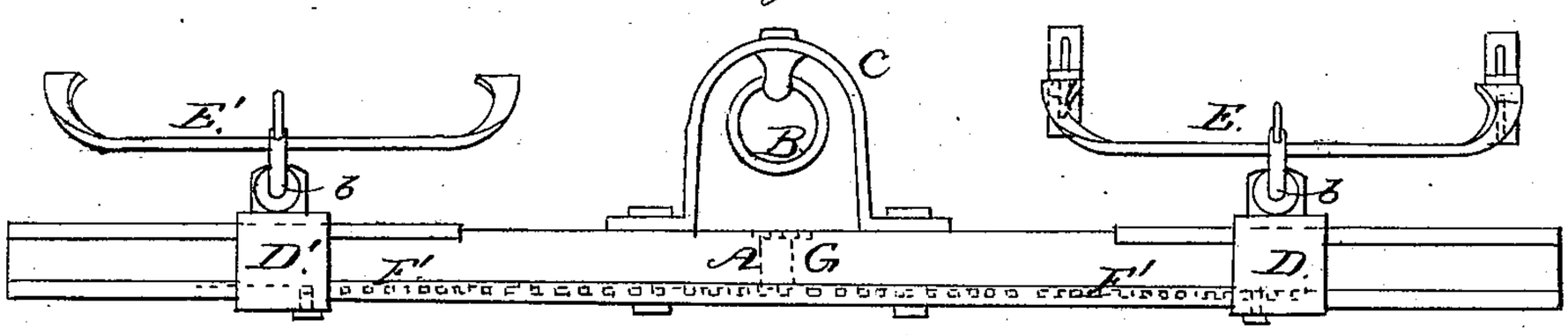
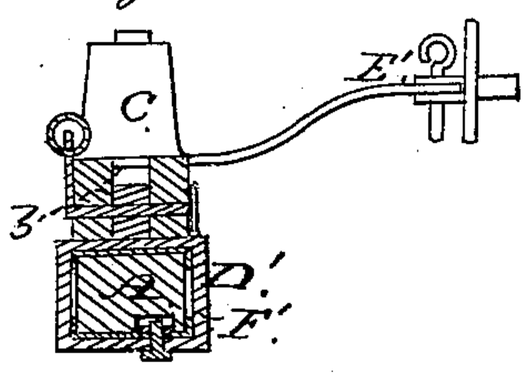


Fig. 4.



UNITED STATES PATENT OFFICE.

JOHN WOODWARD, OF WILMOT FLAT, NEW HAMPSHIRE.

HORSE-YOKE.

Specification of Letters Patent No. 13,472, dated August 21, 1855.

To all whom it may concern:

Be it known that I, JOHN WOODWARD, of Wilmot Flat, in the county of Merrimack and State of New Hampshire, have invented a new or Improved Horse-Yoke; and I do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, letters, figures, and references thereof.

Of the said drawings Figure 1, denotes a top view of the said yoke; Fig. 2, is an inside elevation of it; Fig. 3, is an underside view of it and Fig. 4 a transverse section taken through one of its hame connections.

In these drawings, A, represents a beam or bar made of any suitable material and having a pole ring, B, applied to its upper surface by means of an arched standard, C, as seen in the drawings. The said beam, A, is also provided with two slides D, D′, which embrace it transversely and slide freely upon it longitudinally. Each of said slides carries or has connected to it by means of a universal joint, a forked hame connection or connections, B, or, E′. This latter should be so applied to its slide as to be not only capable of swiveling horizontally upon a vertical journal or pin, *a*, but of twining laterally upon a horizontal journal or pin, *b*, extending through the pin, *a*. It is intended that the two outer ends of each hame connection shall be provided with holes *c*, *c*, or other suitable devices or means by which they may be so connected to the middle part of two hames of a collar to be worn on the neck of a horse as to enable him when pressing forward to transfer his propelling force through the hame connection E or E′, to the beam, A, which under such circumstances may be supposed to be attached by its ring, B, to the front end of the pole of a carriage or by any suitable means to a plough or the object to be moved or drawn along.

In order that the propelling power of each horse may always be applied at the same distance from the middle of the beam, A, there may be extended from each of the slides D, D′, a toothed rack, F, or F′, as exhibited in dotted lines in Fig. 3, both racks being made to operate in one common pinion or gear, G, placed at the middle of the beam, A. By such a connection of the two slides D, and D′, it will be seen that whenever either slide is either toward or away from the beam the other slide will have a corresponding movement imparted to it. This principle I am aware is not new in ox yokes and forms no part of my invention.

From what has been heretofore described, it will readily be seen how readily a pair of horses can be yoked together and made to operate against the beam, A, by being pressed against their collars.

I do not claim a horse yoke consisting of two eveners or horizontal bars a connecting or vertical bar, two sets of hames and hame connections arranged at the upper and lower ends of the hames, such being represented in the patent of Elijah H. Danforth granted July 28th 1846; but what I do claim is—

My above specified improved mode of constructing and arranging the hame connections with respect to a single beam, whereby such hame connections may be attached to the middles of the hames instead of at their ends and thereby render but one bar or bearer necessary to connect the hames and the pole of a carriage.

In testimony whereof I have hereunto set my signature this first day of February 1855.

JOHN WOODWARD.

Witnesses:

GEO. E. WOODWARD,

CYRUS L. JONES.