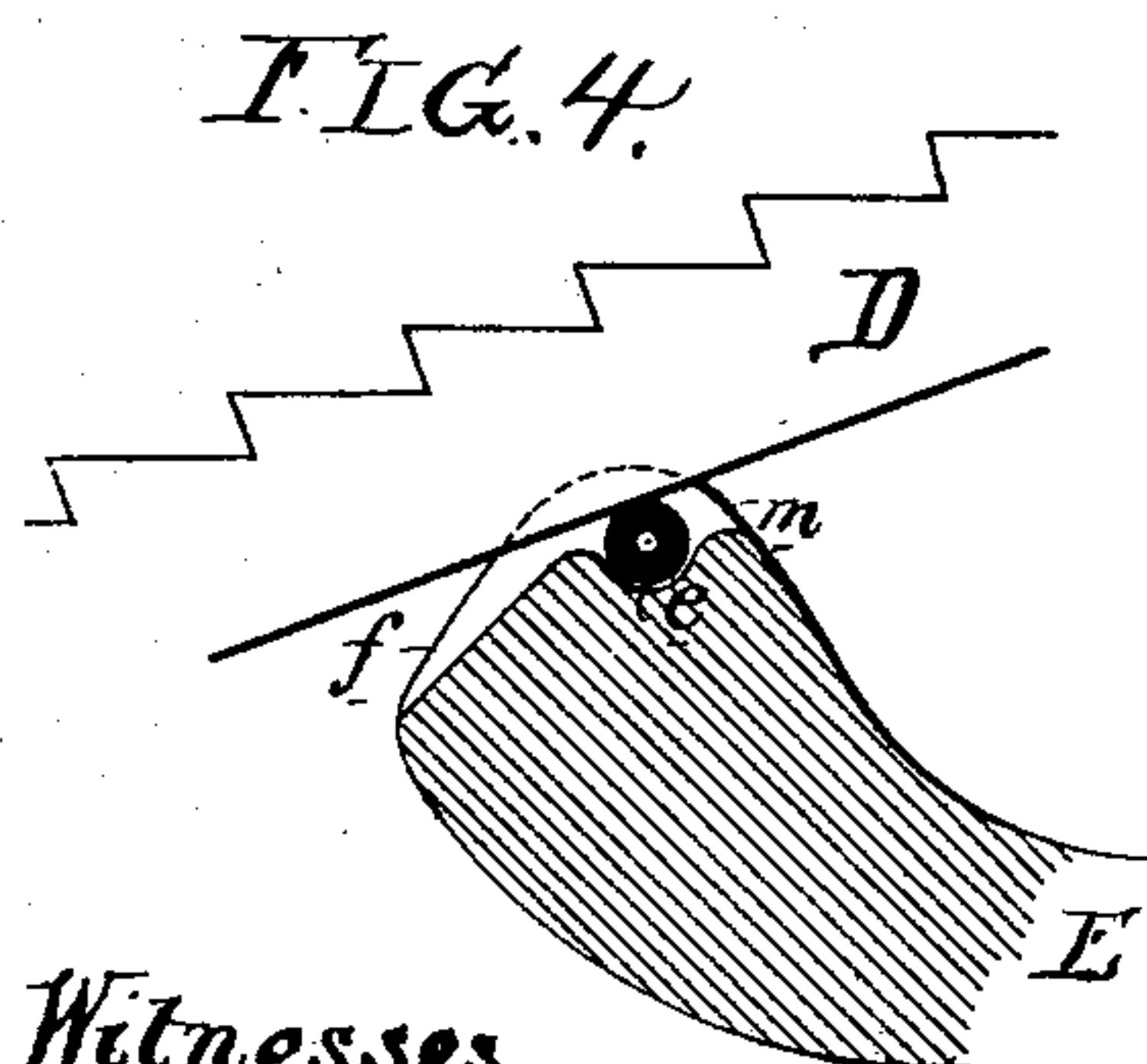
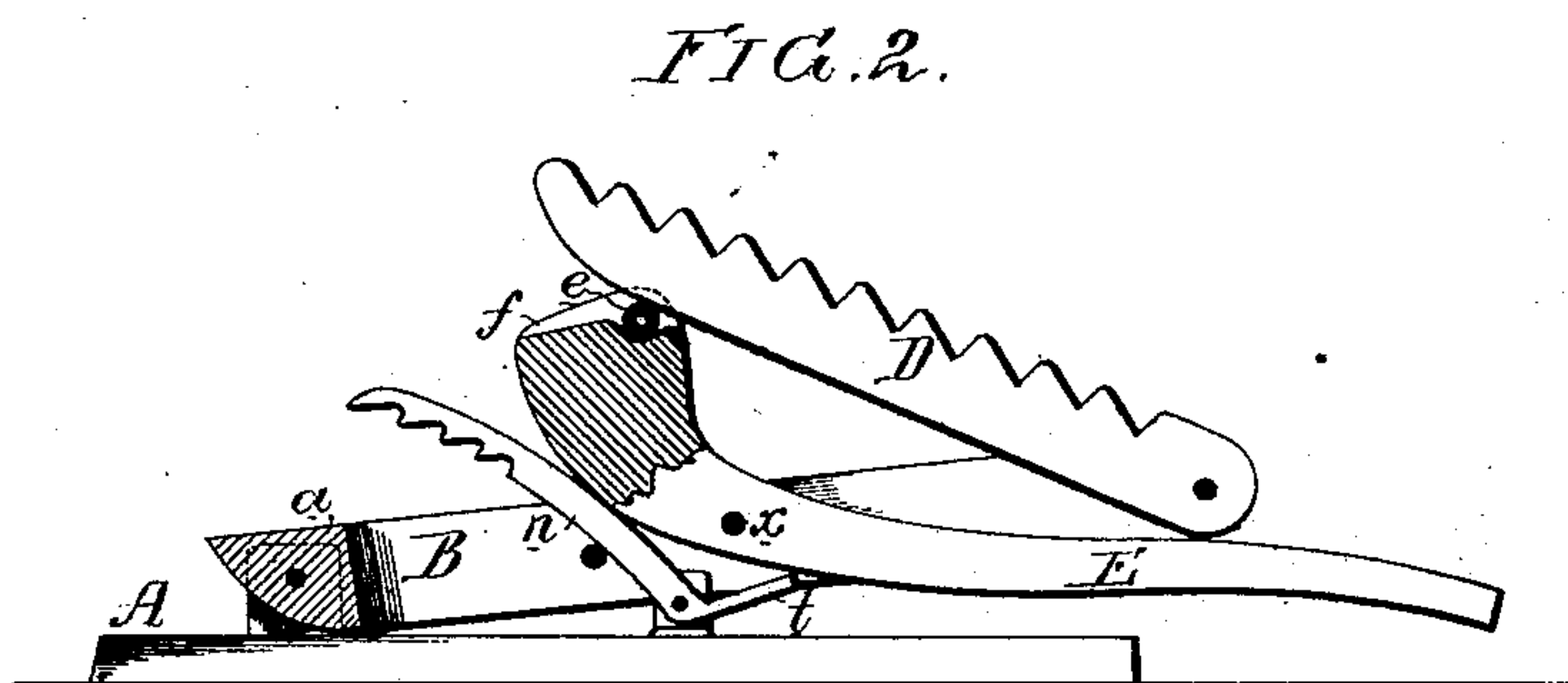
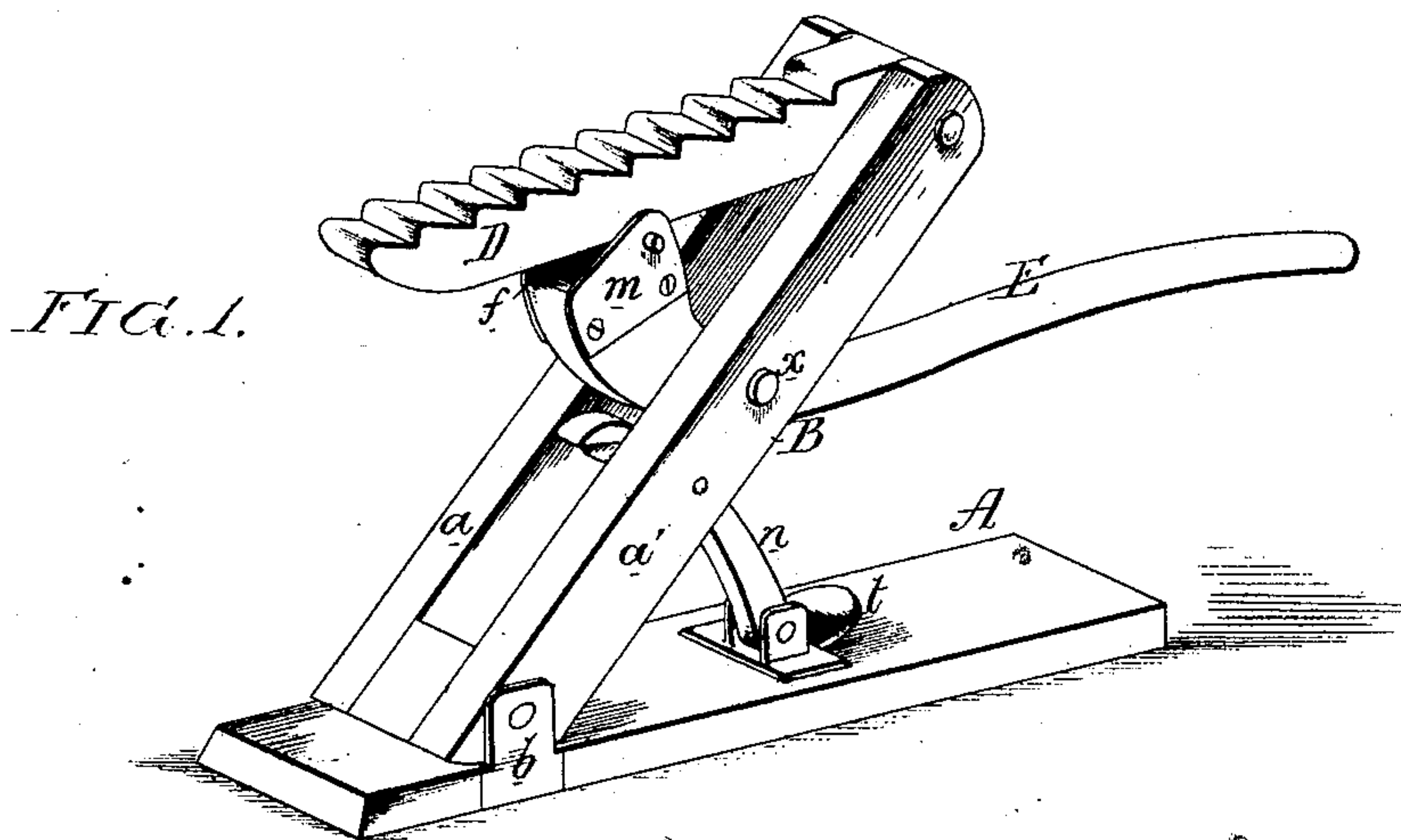


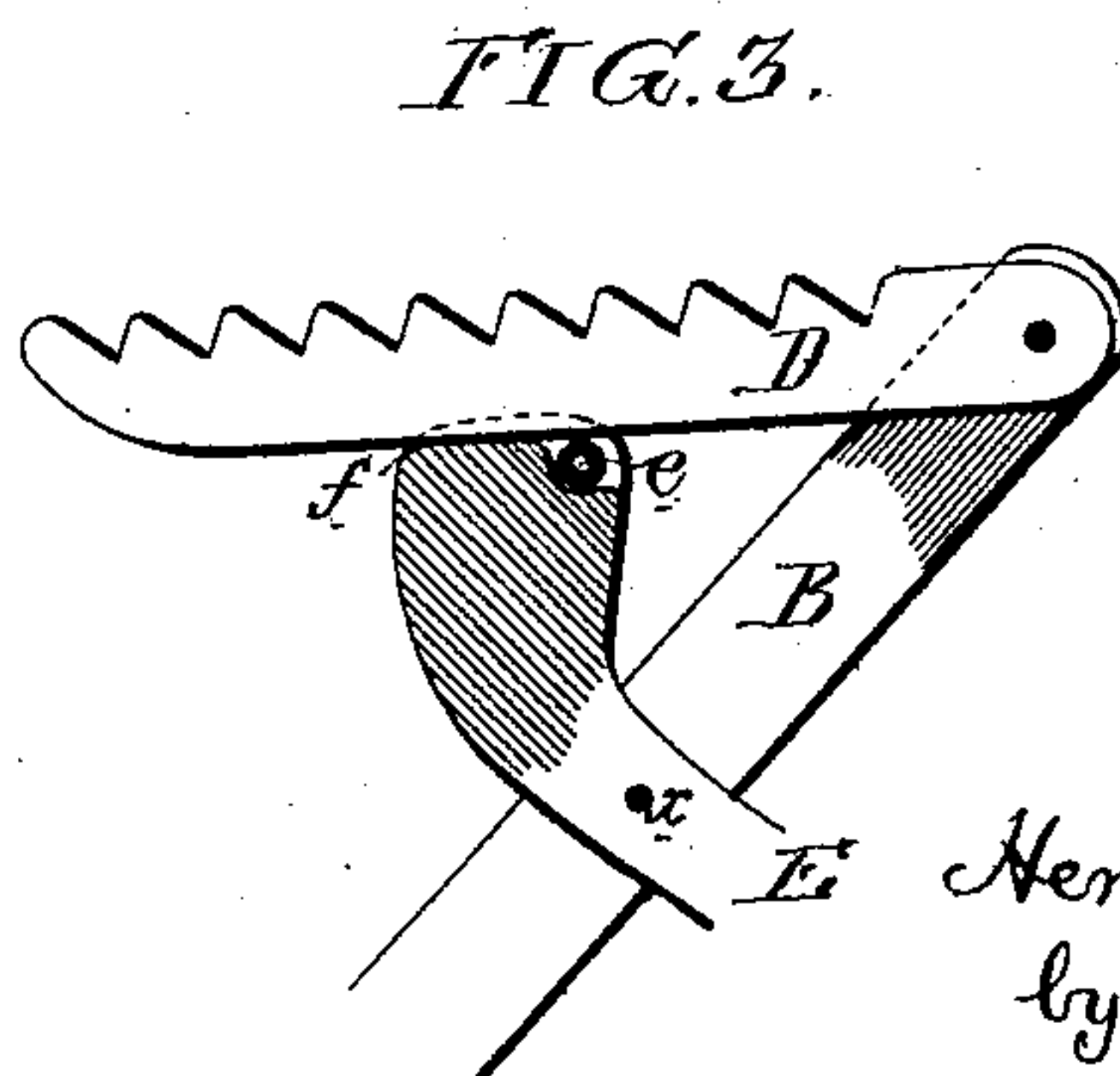
H. E. NITTINGER.
Carriage-Jack.

No. 163,798.

Patented May 25, 1875.



Witnesses,
Harry Smith
Hubert Howson



Henry E. Nittinger
by his Attorneys
H. W. Mauson

UNITED STATES PATENT OFFICE.

HENRY E. NITTINGER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF
ONE-HALF HIS RIGHT TO SAMUEL NITTINGER, OF SAME PLACE.

IMPROVEMENT IN CARRIAGE-JACKS.

Specification forming part of Letters Patent No. **163,798**, dated May 25, 1875; application filed
April 15, 1875.

To all whom it may concern:

Be it known that I, HENRY E. NITTINGER, of Philadelphia, Pennsylvania, have invented certain Improvements in Carriage-Jacks, of which the following is a specification:

The object of my invention is to so construct a carriage-jack that it can be conveniently operated by hand and readily released by the foot; and this object I attain in the manner I will now proceed to describe, reference being had to the accompanying drawing, in which—

Figure 1 is a perspective view of my improved carriage-jack; Fig. 2, a vertical section of the same, and Figs. 3 and 4 detached views of parts of the jack.

A is the wooden base of the jack, and to metal lugs *b* on this base is hinged the lower end of the frame B, consisting of two strips, *a* and *a'*, properly secured together. To the upper end of this frame is hinged the arm D, notched at its upper edge for application to the hub, axle, or other part of a carriage. E is the operating-lever, hinged by a pin, *x*, to the arm B, the short arm of this lever being provided with plates *m*, one on each side, for the lateral steadying of the notched arm D; and between these plates is an anti-friction roller, *e*, for bearing against the under side of the notched arm. The end *f* of the short arm of the lever is made straight, for an object rendered apparent hereafter. There is a pin, *h*, between the strips *a* and *a'*, which compose the frame B; and this pin is adapted to inclined notches in an arm, *n*, hinged to the base A, and provided with a treadle, *t*.

In operating the jack, the long arm of the lever E is, in the first instance, elevated, as shown in Fig. 2, and the frame B is then raised until the notched arm D is in contact, or nearly in contact, with the under side of the hub of the wheel or other part of the carriage to be elevated, and the frame and its

arm will be retained in this position by the notched arm *n*. The long arm of the lever E is now depressed, in doing which the anti-friction roller *e* will move freely along the under edge of the notched arm D, and will elevate it and its load until the straight portion *f* of the short arm of the lever is parallel with the under side of the said notched arm. The lever E may now be released, for the notched arm and its load, bearing on the flat portion of the short arm of the lever, has no tendency to disturb the latter.

When the object thus raised and retained in an elevated position has to be lowered, all that is necessary is to depress the treadle *t* with the foot, when the frame B will be released and will fall, carrying with it both operating-lever E and notched arm D.

I claim as my invention—

1. A carriage-jack in which are combined the frame B, hinged to the base A, the operating-lever E, notched arm D, and a device for retaining and releasing the said frame, all substantially as set forth.

2. The retaining-arm *n*, adapted to the central opening of the hinged frame B, having notches for the reception of a transverse pin in said opening, and provided at its lower end with a treadle, *t*.

3. The combination of the notched arm D with the operating-lever E, the short arm of which carries an anti-friction roller, *e*, and has a straight portion, *f*, as and for the purpose set forth.

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

HENRY E. NITTINGER.

Witnesses:

HUBERT HOWSON,
HARRY SMITH.