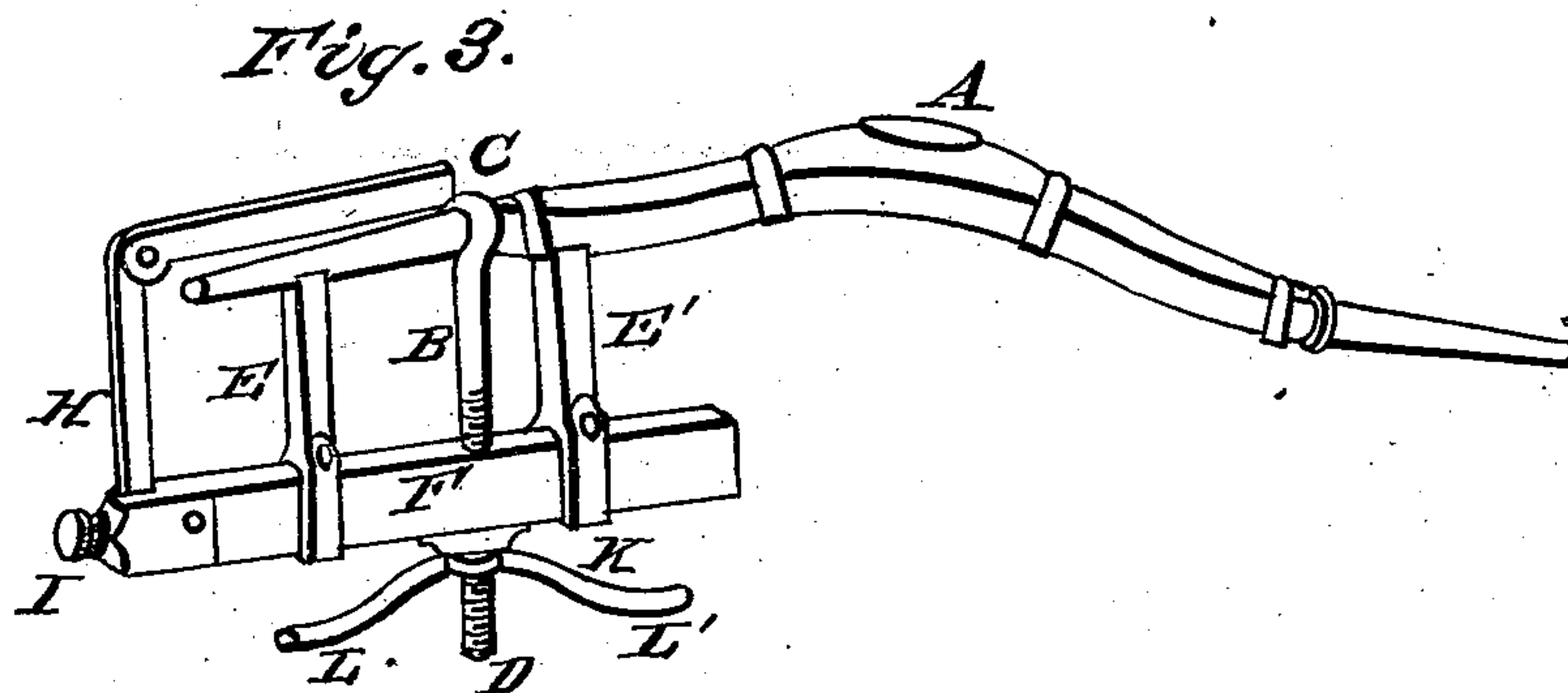
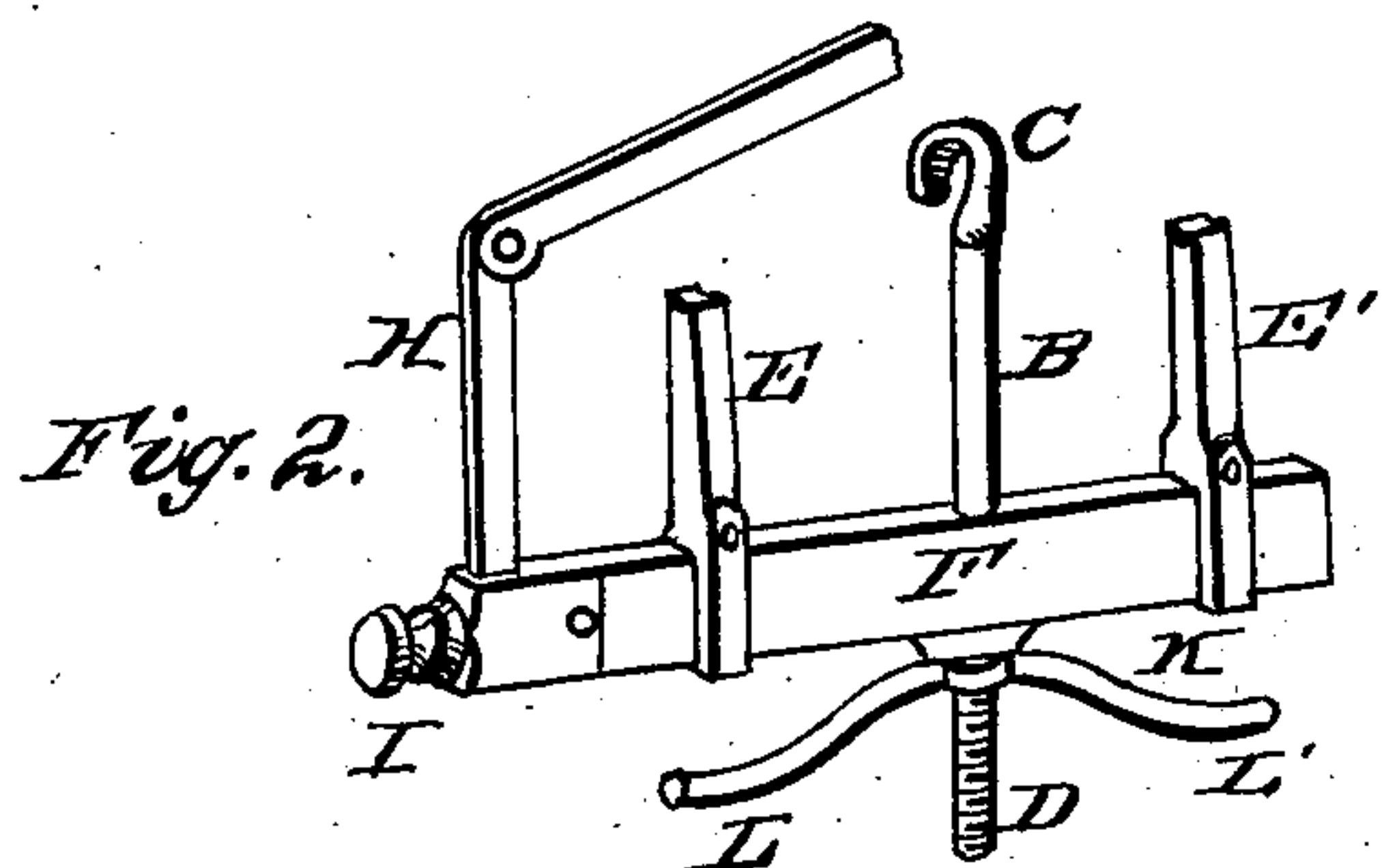
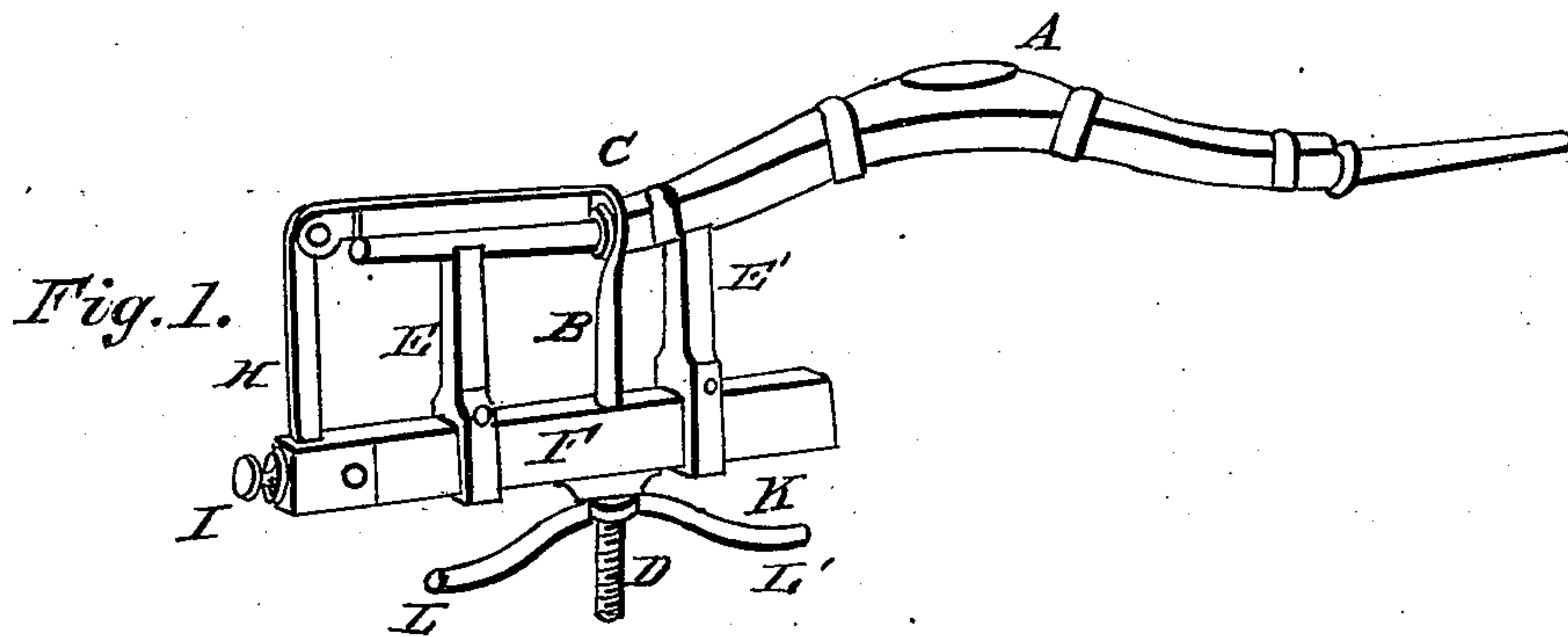


C. DUCHARNE.
Setting Axles to Vehicles.

No. 82,929.

Patented Oct. 13, 1868.



Witnesses:
Charles D. Kellum
William Fray.

Inventor:
David Ducharme
Per M. P. Norton
His Attorney.

United States Patent Office.

DAVID DUCHARNE, OF MECHANICSVILLE, NEW YORK.

Letters Patent No. 82,929, dated October 13, 1868.

IMPROVED APPARATUS FOR SETTING AXLES TO WAGONS.

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, DAVID DUCHARNE, of Mechanicsville, in the county of Saratoga, and State of New York, have invented a new and improved Device or Machine for Straightening or Setting the Axles of Wagons, Carriages, and other vehicles; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being hereby had to the accompanying drawings, which make a part of this specification.

Like letters represent and refer to like or corresponding parts.

Figure 1 is a perspective view, showing an axle of a wagon or other vehicle, and also showing my said improved device for setting the same, and also the manner of applying it thereto, substantially as hereinafter described and set forth.

Figure 2 is also a perspective view of my said machine or device for setting axles, and more clearly showing the construction of the various parts thereof, substantially as hereinafter described and specified.

Figure 3 is a view showing an axle which is bent or become crooked, and also showing the manner of applying my said device thereto, by means of which the same may be straightened and set substantially in the manner and by the means hereinafter fully described and set forth.

The nature of my said invention and improvements consists in the employment of a suitable straight piece of metal or jack, B, having at one end thereof the hook C, while the other end has a thread, D, cut upon the same, in combination and in connection with the upright fulcrum or studs E and E', both of which said fulcrum, as well as the said jack B, are fastened to and connected with the horizontal cross-bar F, whereby, and by means whereof, the said axle A may be straightened or set at any desired point, substantially in the manner, and by the means, and for the purposes more fully hereinafter described and set forth.

It also consists in the employment of the triangular-shaped metal guide H, hinged in the centre, and fastened to the cross-bar F by means of the thumb-screw I, by the use of which may be ascertained and determined the exact distance which it will be necessary to bend said axle A when it is desired to set the same, after the said axle has become crooked or bent, substantially as hereinafter described and set forth.

To enable others skilled in the art to which my invention relates to make and use the same, I will here proceed to describe the construction and operation of the same, which is as follows, to wit:

A, figs. 1, 2, and 3, is an axle of a wagon or other vehicle, and at fig. 3 the said axle is shown bent or crooked.

F, figs. 1, 2, and 3, is a cross-bar, or piece of wood or metal, made of any size and strength desired, that will best answer the required purpose.

The said upright pieces or supports, E and E', figs. 1, 2, and 3, may be made of any material thought best, and of any size and strength desired. These said uprights or studs, E and E', slide and move freely upon the said cross-bar F hereinbefore described.

The said hook or jack B may be made of any metal deemed best, and of any required length. The straight end of said hook passes through a hole or recess in the said horizontal cross-bar F, and projects below the same a sufficient distance to allow of the successful working of the nut K, having thereon the levers L and L', whereby, and by means of which, the said hook C is elevated or lowered, substantially in the manner and for the purposes hereinafter fully described and set forth.

H, figs. 1, 2, and 3, is a triangular-shaped piece of metal or other material, of any construction that will answer the required purpose, and connected at its centre by a loose pivot-joint, whereby the same may be regulated so as to show the exact distance which the said axle may have become bent or crooked, in order to facilitate the setting of the same by means of my said improved device, hereinbefore described.

The said guide H is fastened to the cross-bar F by means of the thumb-screw I, figs. 1, 2, and 3.

When it is desired to straighten or set an axle of a wagon or other vehicle by means of my said improved device, the mode or manner of operation is as follows, to wit:

The axle A is placed over and resting upon the upright fulcrum or studs E and E', the distance between such studs being regulated according to the strength of the axle to be set. The said hook C is then placed over the axle at the point where it is bent or strained, and the nut K turned by means of the levers L and L' until the axle is firmly held between said hook C and the studs E and E'. The said guide H is then adjusted and regulated so as to show just how much it is necessary to bend the said axle in order to straighten it, substantially as shown at fig. 3 in the accompanying drawings. The said nut K is then turned upwards on the thread D by means of the levers L and L', thus forcibly straightening and setting the said axle to its former place, and putting it in fit condition for use.

By the means hereinbefore described, and shown in the accompanying drawings, I am enabled to construct a device whereby the axles of wagons and other vehicles may be straightened or set with but little expense, and without the inconvenience and trouble of taking the same to a wheelwright or blacksmith.

Having thus described the nature of my said invention and improvements, what I claim as my invention, and desire to secure by Letters Patent of the United States, is—

1. The hook or jack B C, and the upright fulera or studs E and E', in combination with the horizontal cross-bar F, each being constructed and operated substantially in the manner and for the purposes herein described and set forth.

2. The triangular-shaped guide H, in combination

with the jack B, studs E and E', and cross-bar F, substantially in the manner and for the purposes herein described and set forth.

In testimony whereof, I have hereunto set my hand, this 12th day of September, A. D. 1867.

DAVID DUCHARNE.

Witnesses:

CHARLES D. KELLUM,
E. COWEN.