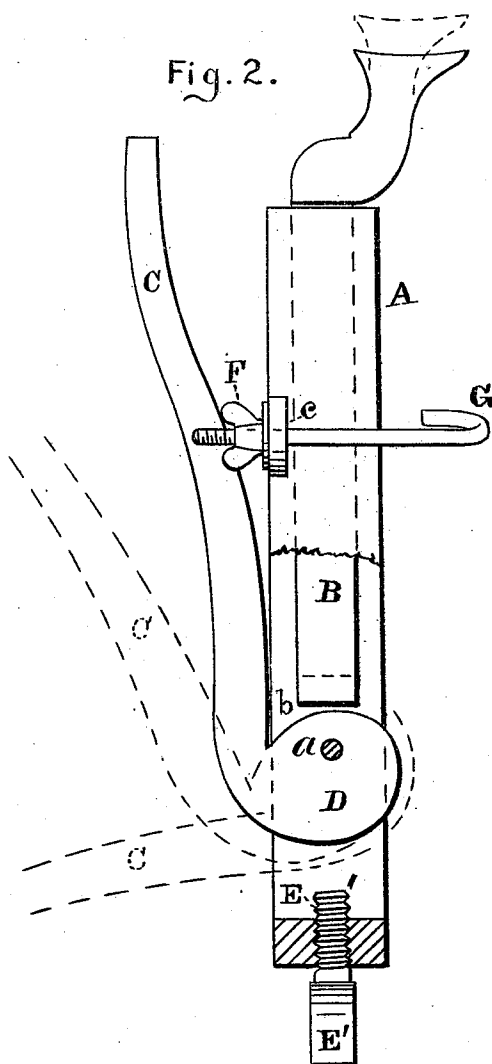
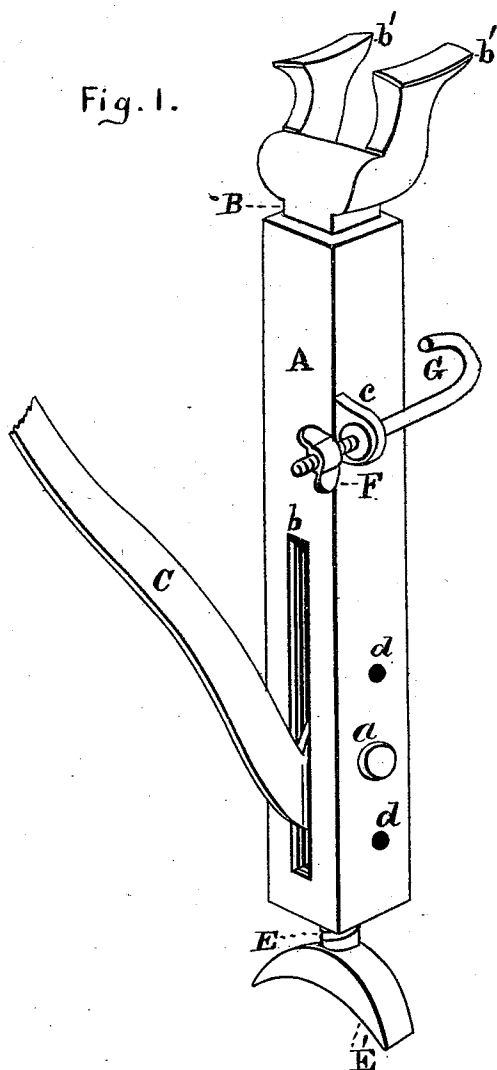


W. H. GIBBS.

TIRE-TIGHTENER AND JACK.

No. 179,697.

Patented July 11, 1876.



Witnesses:

Chas. H. Howard.
Phos. Mungen.

Inventor:

William H. Gibbs
by *W. Burris*
Attorney.

UNITED STATES PATENT OFFICE.

WILLIAM H. GIBBS, OF LYONS, IOWA.

IMPROVEMENT IN TIRE-TIGHTENERS AND JACKS.

Specification forming part of Letters Patent No. **179,697**, dated July 11, 1876; application filed May 24, 1876.

To all whom it may concern:

Be it known that I, WILLIAM H. GIBBS, of Lyons, in the county of Clinton and State of Iowa, have invented certain new and useful Improvements in Tire-Tightener and Wagon-Jack Combined; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Figure 1 is a perspective view. Fig. 2 is a side elevation, with part of the side of the standard broken off to show the cam or eccentric and follower.

My invention relates to a combined tire-tightener and wagon-jack, constructed as hereinafter described.

A represents a hollow standard, having a slot, *b*, and holes *d*, for adjusting the position of the lever and cam, and a lug, *c*, to hold the spoke-brace. B is a follower, adjusted to slide in the standard, and provided with arms *b'*, curved to fit the inner surface of the felly of the wheel. C is a lever, made with or attached to an eccentric or cam, D, adjusted in the slot *b* in the standard, and pivoted at *a*. E is an adjusting-screw in the lower end of the standard, and E' is a base, curved to fit the surface of the hub. F is a thumb-screw nut on the end of a rod, adjusted in a hole in the lug *c*, and bent at G to form a hook to hold over a spoke in the wheel.

In using the tool for tightening a tire the length of the jack is adjusted to suit the size of the wheel by means of the screw E, and, when required, by changing the position of the cam D, and the base E' is placed on the

hub and the arms *b'* against the inner surface of the felly. The hook G is placed over one of the spokes, and tightened by the thumb-nut, to hold the jack steady, and to prevent the spoke from lifting with the felly. Then, by pressing the lever downward, as shown by dotted lines in Fig. 2, the follower is moved upward by the eccentric or cam, pressing the felly tightly against the tire, and holding it there till it is properly fastened by washers or other suitable means.

In using the tool as a wagon-jack or lifting-jack the brace-hook G, when not in the way, may be left in the lug; or, when the hook is in the way, it may be readily removed. The jack may be used either end upward, and the length is adjusted by means of the screw and the adjustment of the position of the cam, as before described.

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

1. The hollow standard A, having slot *b*, and adjusting-screw E, in combination with the follower B and adjustable cam or eccentric D, provided with a lever, C, substantially as and for the purposes described.

2. The tire-tightener consisting of the hollow standard A, having slot *b*, follower B, having arms *b'*, adjusting-screw E, having base E', adjustable cam or eccentric D, having lever C, and spoke-brace G, substantially as and for the purposes described.

In testimony that I claim the foregoing as my own invention I affix my signature in presence of two witnesses.

WILLIAM H. GIBBS.

Witnesses:

CHAS. W. CHASE,
W. W. SANBORN.