

A. W. COMSTOCK & J. W. HAMPTON.

TIRE-TIGHTENER AND LIFTING-JACK.

No. 188,595.

Patented March 20, 1877.

Fig. 1.

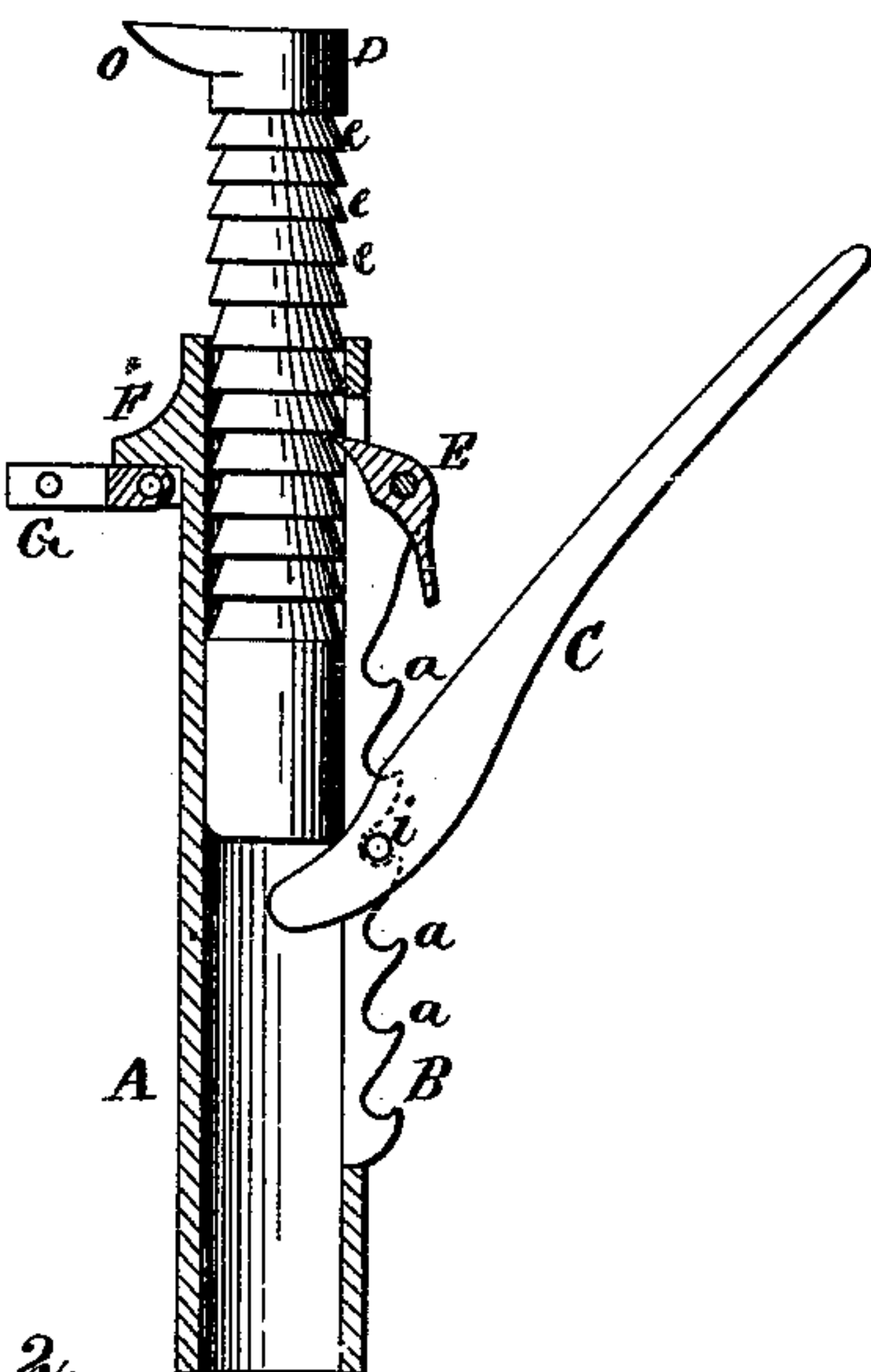


Fig. 3.

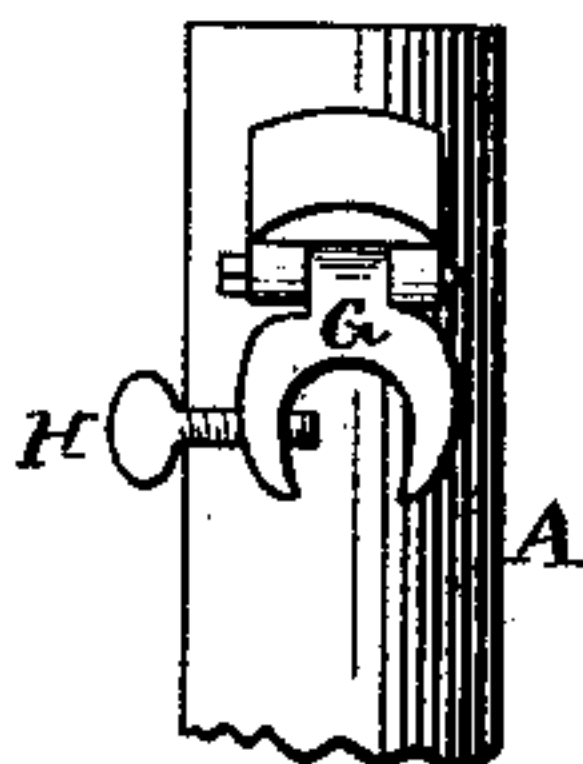
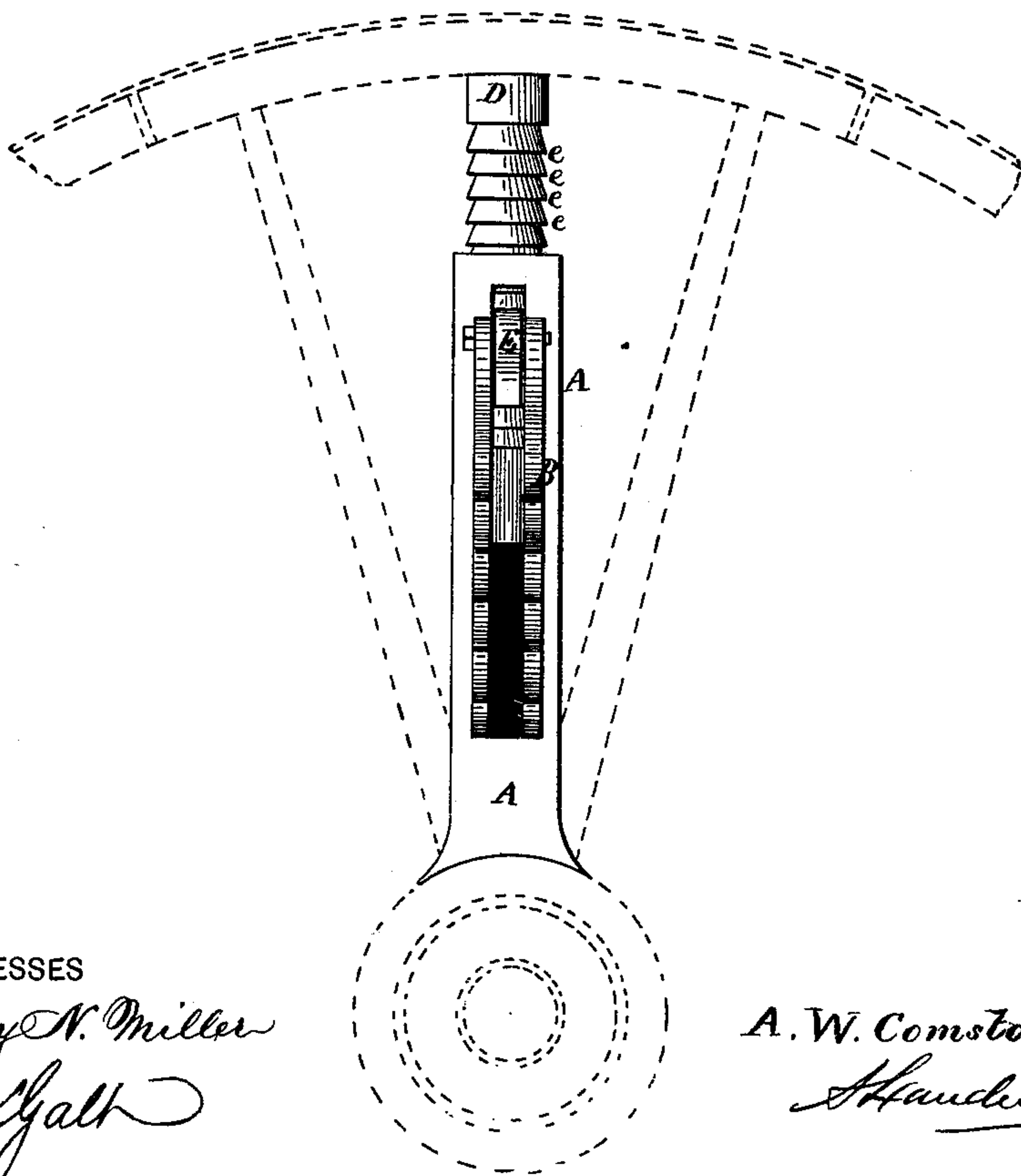


Fig. 2.



WITNESSES

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# UNITED STATES PATENT OFFICE.

AUSTIN W. COMSTOCK AND JAMES W. HAMPTON, OF MOUNT PLEASANT,  
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## IMPROVEMENT IN TIRE-TIGHTENER AND LIFTING-JACK.

Specification forming part of Letters Patent No. **188,595**, dated March 20, 1877; application filed  
February 1, 1877.

*To all whom it may concern:*

Be it known that we, AUSTIN W. COMSTOCK and JAMES W. HAMPTON, of Mount Pleasant, in the county of Henry, and in the State of Iowa, have invented certain new and useful Improvements in Tire-Tightener and Lifting-Jack; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of our invention consists in the combination and arrangement of the several devices hereinafter described for the purpose of forming a combined lifting-jack and tire-tightener, as will be set forth.

In order to enable others skilled in the art to make and use our invention, we will now proceed to describe its construction and operation.

In the accompanying drawings, making part of this specification, Figure 1 represents a longitudinal section, and Fig. 2 a side view.

In the figures, A represents a cylindrical shell, which we prefer to have made of cast-iron, a slot being cast in one side, and upon each side of this slot two flanges, B, which are provided with upturned teeth *a a*.

Between the flanges B and at their upper ends is pivoted a pawl, E. D represents a serrated lifting-bar. This bar is cylindrical, and passes into and plays in the shell A. The serrations run around the bar, so that it will operate in any position.

Near the top of the shell, and opposite the pawl E, is hinged a pair of jaws, G. These jaws can drop upon the hinge, but they cannot rise above a horizontal line, on account of a flange, F, which projects over them.

H represents a set-screw, which passes through one of the jaws.

C represents a lever, through which and near one end passes a pin or bar, *i*. The ends of this pin project on each side of the lever, and are intended to catch into the teeth *a a*.

In operating the lifting-bar the end of the

lever C is first inserted in the slot in the shell, and its pin is caught in the teeth *a a*, the end of the lever resting under the bottom of the bar D. When the outer end of the lever is pressed down the bar is lifted a notch or two, and is there caught and held by the pawl E. The lever is then removed or raised, so that the pin *i* catches into the teeth *a a* a little higher, and then the bar is lifted again. It can thus be used as a jack.

When used as a tire-tightener the bottom of the shell, which is made slightly hollowing, is placed upon the hub of the wheel, and the spoke which runs up by its side is caught between the jaws G G, and is there tightly fastened by means of the set-screw H.

Projecting pieces *o o* at the upper end of the bar D catch under the felly of the wheel, and when pressure is put upon the bar the spoke is held by the jaws G from starting in the hub, while the felly is raised from the end of the spoke sufficiently to allow a washer or washers to be inserted between the shoulder of the spoke and its felly, as is usual.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination of the hinged jaws G and set-screw H, with the shell A, having shoulder F and the lifting-bar D, all substantially as set forth.

2. The combination of the cylindrical metallic shell A, with slot and flanges, having teeth *a a*, the cylindrical metallic lifting-bar D, having annular serrations *e e*, and top projections *o*, and the hinged jaws G, set-screw H, and shoulder F, all substantially as herein set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 18th day of December, 1876.

AUSTIN W. COMSTOCK.  
J. W. HAMPTON.

Witnesses:

JOHN F. LEECH,  
JNO. S. WOOLSON.