

R. C. TUCKER.
WAGON JACK.
APPLICATION FILED AUG. 13, 1908.

939,113.

Patented Nov. 2, 1909.

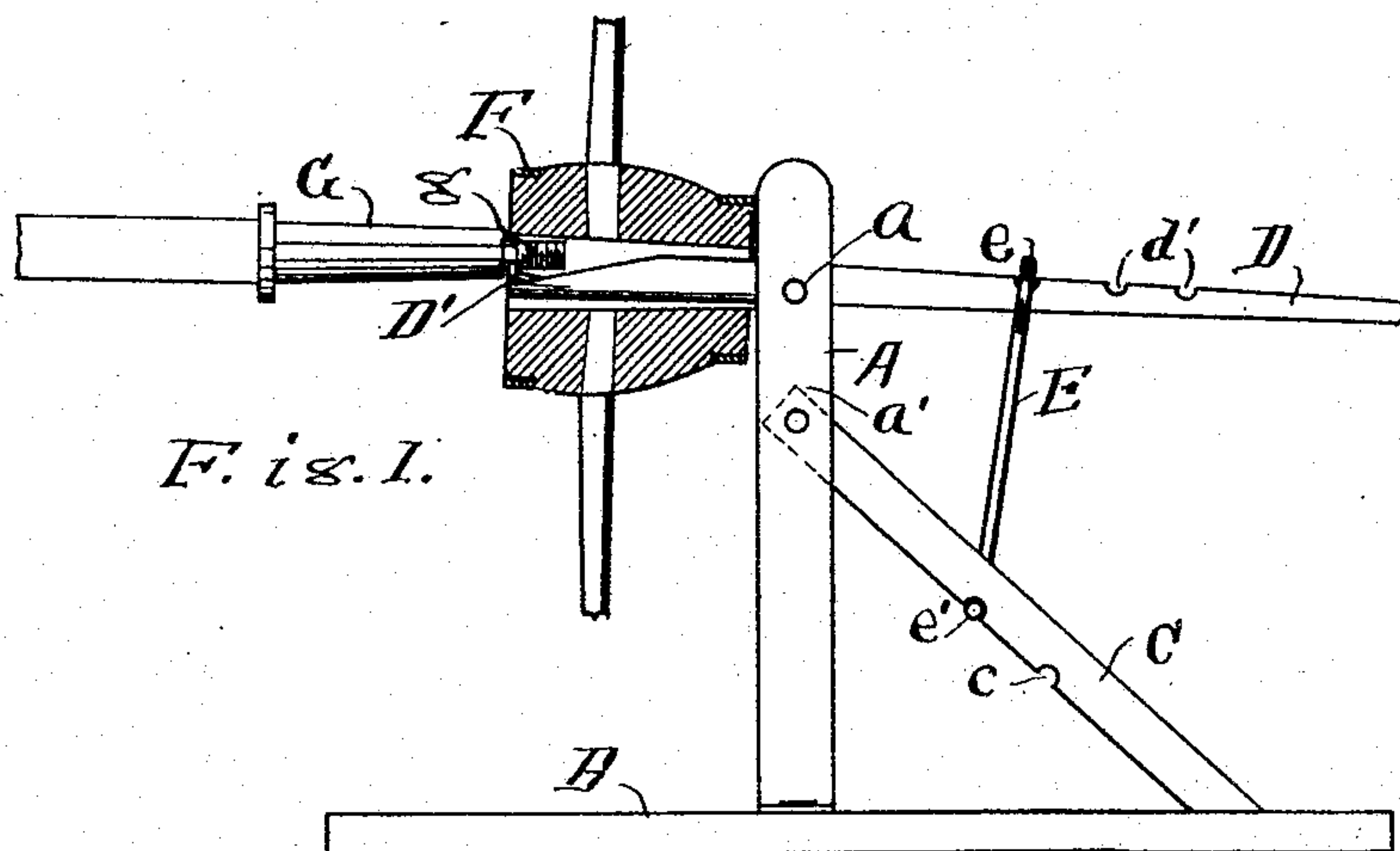


Fig. 1.

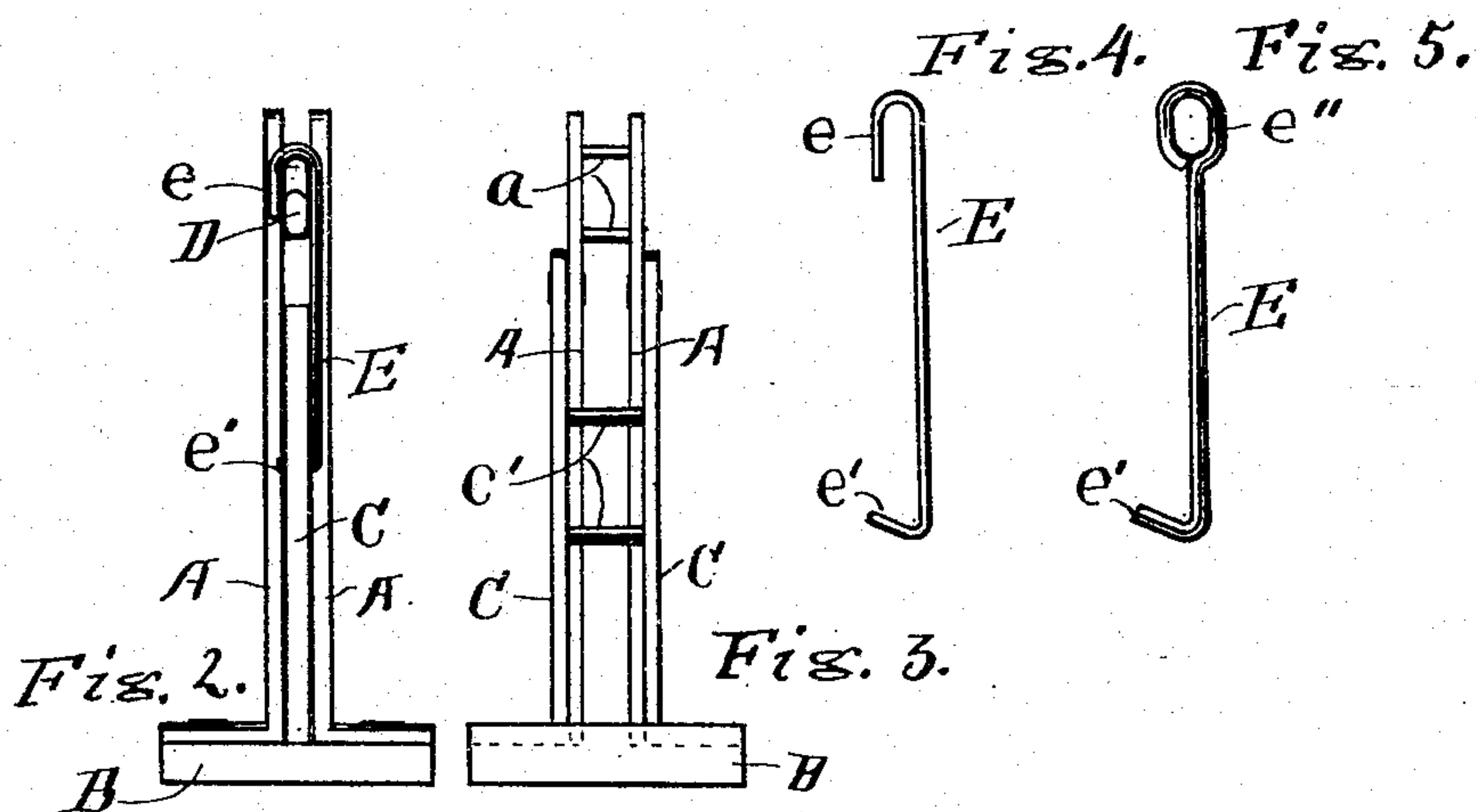


Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

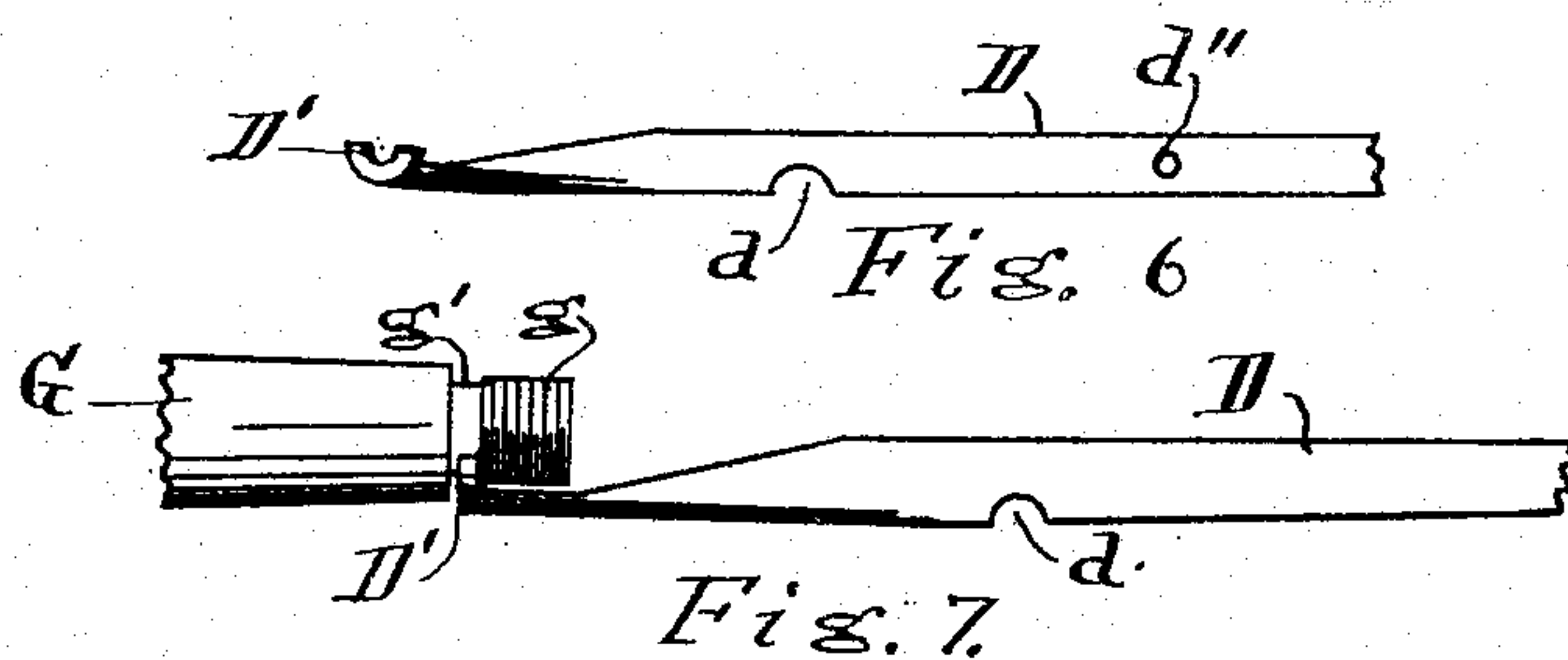


Fig. 6.

Fig. 7.

Witnesses

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WAGON-JACK.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ROBERT C. TUCKER, a citizen of the United States, residing at Lamont, in the county of Ottawa and State of Michigan, have invented certain new and useful Improvements in Wagon-Jacks, of which the following is a specification.

My invention relates to improvements in implements for raising the ends of the axles of wagons, buggies &c, for the purpose of removing the wheels, lubricating the skeins &c., and its object is to provide an implement with which the end of the lever may be inserted in the end of the wheel hub and engage the threaded portion of the skein in such a manner that the wheel may be drawn off over, and supported upon the end of the lever when greasing or otherwise working upon the skein. I accomplish this object by the mechanism illustrated in the accompanying drawing in which—

Figure 1 is a side elevation of the implement in position to support the axle of a wagon, showing the wheel hub drawn off of the skein and supported on the end of the lever. Fig. 2 is a back elevation of the same without the axletree and hub. Fig. 3 is the same showing a modified form of construction. Figs. 4 and 5 are detached views of the supporting links. Fig. 6 is a perspective of the end of the lever showing the form of the end that engages the skein, and Fig. 7 shows the same engaging the skein.

Similar letters refer to similar parts throughout the several views.

I construct this implement with two parallel upright posts or standards A that are securely attached to a base B, and a brace C that is secured, at one end, to the standards, and at the other end to the base in such a position that it will hold the standards firmly to position, and a lever D that is supported upon the pins *a a'* between the standards, and a supporting link E that is designed to engage the lever and the brace to hold the lever to place to support the axletree of the wagon, all of which are in common use in wagon jacks, so called, the germ of my invention consisting entirely in the form of the lever and the manner of applying it to the axle.

I find the most desirable and economical form of construction for the frame of this wagon jack is that shown in Figs. 1 and 2, where I use two standards A A just far enough apart to receive the end of the brace

C and rivet it firmly between them with a second rivet *a* just far enough above the upper end *a'* of the brace to provide for the difference in the height of the axles between the front wheels and the hind wheels of a wagon or buggy, and so placing the upper end of the brace that it will form an adequate and convenient fulcrum for the lever D to work over, and I form two notches *c* in the lower edge of the brace C, corresponding in height with the fulcrum points *a* and *a'*, into which the hook *e'* on the link E may be placed to hold the lever D firmly to place with the weight of the wheel and axle upon it, the link being provided with a hook *e* at the upper end arranged to engage the lever and, if desired, the lever may be provided with small notches *d'* to avert the danger of the link slipping thereon when the lever is supporting its load.

The lever D is so constructed that it may be readily passed between the standards A A and has a notch *d* in its lower edge, of such a form as to rest over and turn freely upon the fulcrum points *a a'*, and the end D' is made of practically the form shown in Figs. 1, 6 and 7, being made thin vertically, and provided with a thin upwardly projecting flange adapted to pass into the end of the hub F and engage the thread *g* or, better, the groove *g'* between the threads *g* and the end of the skein G, and so that the hub F may be moved off of the skein G onto, and be supported by the lever D, as shown in Fig. 1.

In Fig. 3 I have shown a slight modification in the construction of the frame of the jack, in which two braces are used. This construction is more available than that hereinbefore described when it is desired to use a wooden lever with a steel point between the standards and the wagon skein, to form the portion D' of the lever, but it is far less desirable for the reasons, first, that it requires more material in the construction of the standards; second, it requires the placing of two pins *c'* between the braces C and an extra pin *a* between the standards, and requires considerable more work to construct the lever, besides rendering it far more cumbersome to handle or store than the full metal lever and frame shown in Figs. 1 and 2.

In Figs. 5 and 6 I have shown the link with a full ring *e''* turned thereon, and the lever with a hole *d''* therethrough for the reception of the ring, which construction I

find desirable for use with the frame shown in Fig. 3 where the hook e' must stand at right angles with the ring to properly engage the cross pins C' , shown in Fig. 3. I find this manner of applying the jack for raising the axle of a wagon or buggy, particularly desirable for the following reasons, to wit: First, it does not require nearly as much leverage and weight to raise the buggy axle and its weight, with the lever engaging it at the extreme end of the skein and outside of the wheel as it does with the lever placed back of the wheel and more directly under the wagon or buggy box and its load, and, second, I find it far more convenient to set the jack, and to work the lever to raise or lower the axle with the jack frame and lever outside of, and entirely clear of the wheel than it is to crawl under the buggy to apply it to the axle back of the wheel and under the buggy box where it is sometimes impossible to manipulate the lever to raise and lower the axle as desired.

What I claim as new and desire to secure by Letters Patent of the United States, is:

In a wagon jack, a supporting base, two parallel standards secured at one end to the

base, a brace secured at one end to the base and thence extending diagonally upward and secured to the standards, and having notches in its lower edge, and the upper end firmly secured between the standards forming a vertical slot and a pivot point between the standards, a rivet passed through the standards to form a pivot point between the standards above the end of the brace, a lever having a notch in its lower edge arranged to work upon the latter pivot points and having one end tapered to a broad, thin horizontal plate with a concaved vertical flange at the extreme end, and arranged to pass through a buggy wheel hub and form a concave bearing for the skein on the axle-tree, and a link made to pass over the other end of the lever and extend down and engage the notches in the brace to sustain the weight of the buggy when removing a wheel.

Signed at Grand Rapids Michigan August 10, 1908.

ROBERT C. TUCKER.

In presence of—

A. ALLGIER,

ITHIEL J. CILLEY.