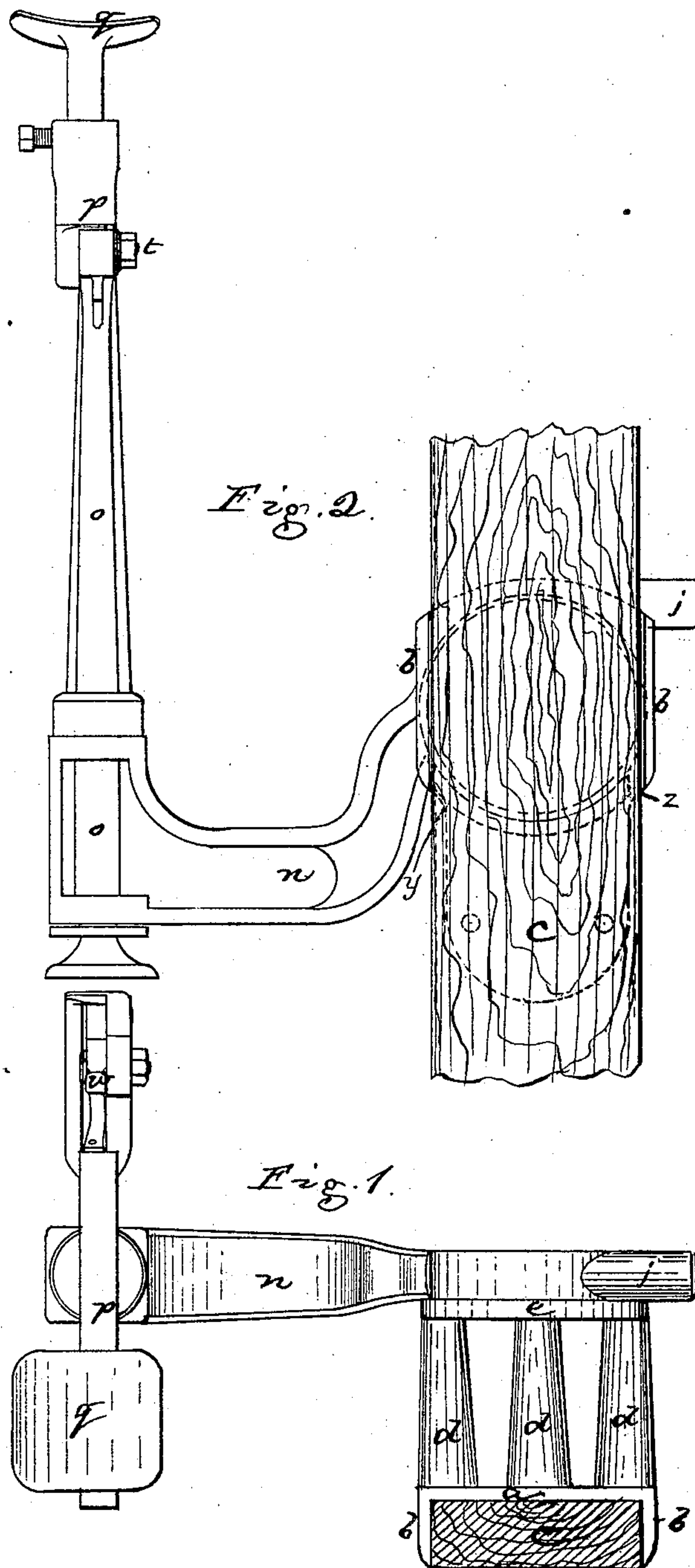


J. C. DREW.

Lasting-Jacks for Boots, &c.

No. 145,407.

Patented Dec. 9, 1873.

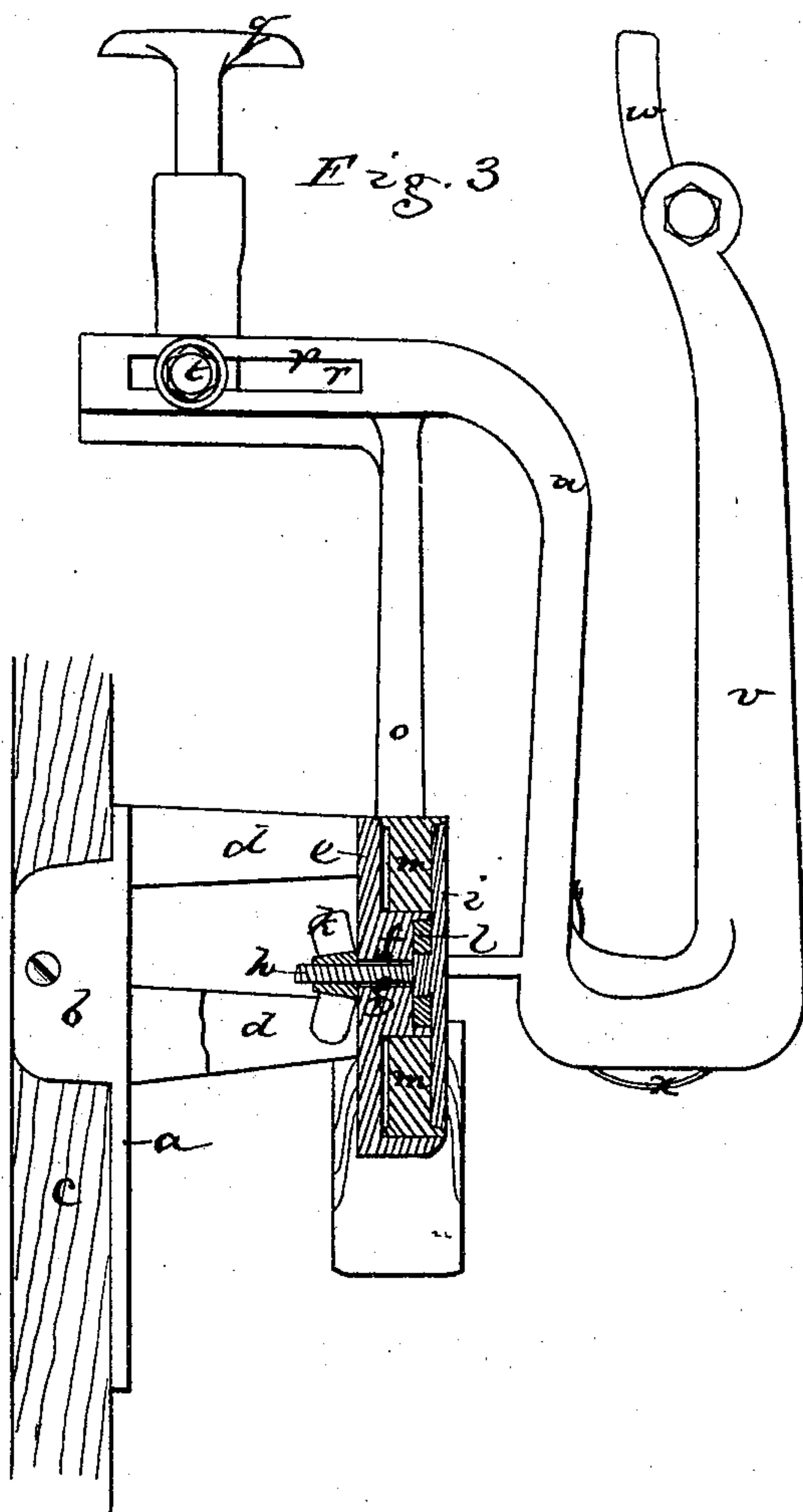


Witnesses.  
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 L. H. Latimer.

Inventor.  
 James C. Drew.  
 By his Atty.  
 Crosby & Soule.

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*Inventor*  
*James C. Drew.*  
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# UNITED STATES PATENT OFFICE.

JAMES C. DREW, OF AUBURN, MAINE.

## IMPROVEMENT IN LASTING-JACKS FOR BOOTS, &c.

Specification forming part of Letters Patent No. **145,407**, dated December 9, 1873; application filed October 2, 1873.

*To all whom it may concern:*

Be it known that I, JAMES C. DREW, of Auburn, in the county of Androscoggin and State of Maine, have invented an Improved Jack for Boots; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

The invention relates particularly to the construction of a jack to be used in finishing long-leg boots; the invention having particular reference to provision for ready attachment of the jack to a bench, and in such position as to enable it to be readily moved in every direction, as may be desirable in working upon the jacked boot. For this purpose, I use a coupling made of a vertical plate, having two ears, between which enters a vertical plank, fastened to the bench, this coupling having a pillar-plate, forming part of it, and at such distance from the main plate as the jack needs to be located for its most convenient use. This pillar-plate has a center stud or bearing, upon which the main jack-arm is hung, the arm being fastened by a bolt (having a disk-shaped head) and a nut, and so that, by loosening the nut, the arm can be tipped freely upon the bearing. This arm has, at its outer end, bearings, in which stands a vertical spindle, said spindle having two arms, to one of which a sliding toe-piece is applied, while from the other extends the pin that enters the last of the boot to be jacked. My invention consists in the coupler, by which the jack is connected to the bench, and in details of construction connected therewith and with the jack mechanism.

The drawing represents a construction embodying my invention.

Figure 1 shows the mechanism in plan. Fig. 2 is an inner side view of the same. Fig. 3 is a sectional elevation.

*a* denotes the main coupler-plate, having the two ears *b*, by which it is fastened, by screws, to the vertical bench-plank *c*, the ears embracing the edges of the plank. Pillars *d*, extending laterally from the plate, connect with it a disk or pillar-plate, *e*, from the center of which extends a hub, *f*. Through this

hub passes a bolt-hole, *g*, and through this hole a screw-bolt, *h*, the head *i* of which is a disk, the disk being held up to or toward the end of the hub by a nut, *k*, an elastic washer, *l*, being interposed between the disk and hub. Upon the hub and bolt-disk, and between the two disks *e i*, is mounted a collar or ring, *m*, from which extends the main arm *n* that supports the jack mechanism, the outer end of this arm having bearings, in which is supported the vertical jack-spindle *o*, the spindle turning freely in these bearings. From the top of the spindle extends in one direction a straight horizontal arm, *p*, upon which is mounted the toe-piece *q*, the arm having a slot, *r*, through which a bolt, *t*, extends, and the slot and bolt enabling the toe-piece *q* to be adjusted laterally, provision being also made for its adjustment vertically. Opposite to the arm *p* a curved arm, *u*, extends from the spindle *o*, the outer vertical part *v* of this arm having pivoted to its top a last-pin, *w*, said pin being made as a lever, with a spring, *x*, the stress of which presses the last toward the toe-piece. The arm that supports the jack-spindle is so connected to the coupler-plate that it may be swung freely in a vertical plane, it being loosened by turning the nut *k*, and there being a stop, *y*, against which the arm abuts to retain the jack-spindle in vertical position, and a stop, *z*, against which a projection, *j*, abuts to sustain the spindle in horizontal position.

In setting up the mechanism, the nut *k* is turned so as to cramp the washer, but not hard enough to bring the hub *f* and head *i* tightly together. The pressure of the washer will hold the jack-spindle in stationary position, but will permit it to be tipped as may be required, the tipping taking place without loosening the washer.

I claim—

1. The combination of the jack-spindle *o*, spindle-supporting arm *n*, and flanged coupler-plate *a*, substantially as and for the purposes described.

2. The combination of the disk-plate *e* and its hub *f*, and the bolt *h* and its disk-head *i*, and nut *k* for supporting the ring *m*, substantially as shown and described.

3. In combination with the coupler *a* and

arm *n*, the stops *y* and *z* and projection *j* for sustaining the jack-spindle either in vertical or in horizontal position, substantially as described.

4. In combination with the disk-plate *e* and its hub *f*, and the bolt *h*, head *i*, and nut *k*, the elastic washer or spring *l* interposed be-

tween the head and hub, substantially as shown and described.

J. C. DREW.

Witnesses:

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M. B. WATSON.