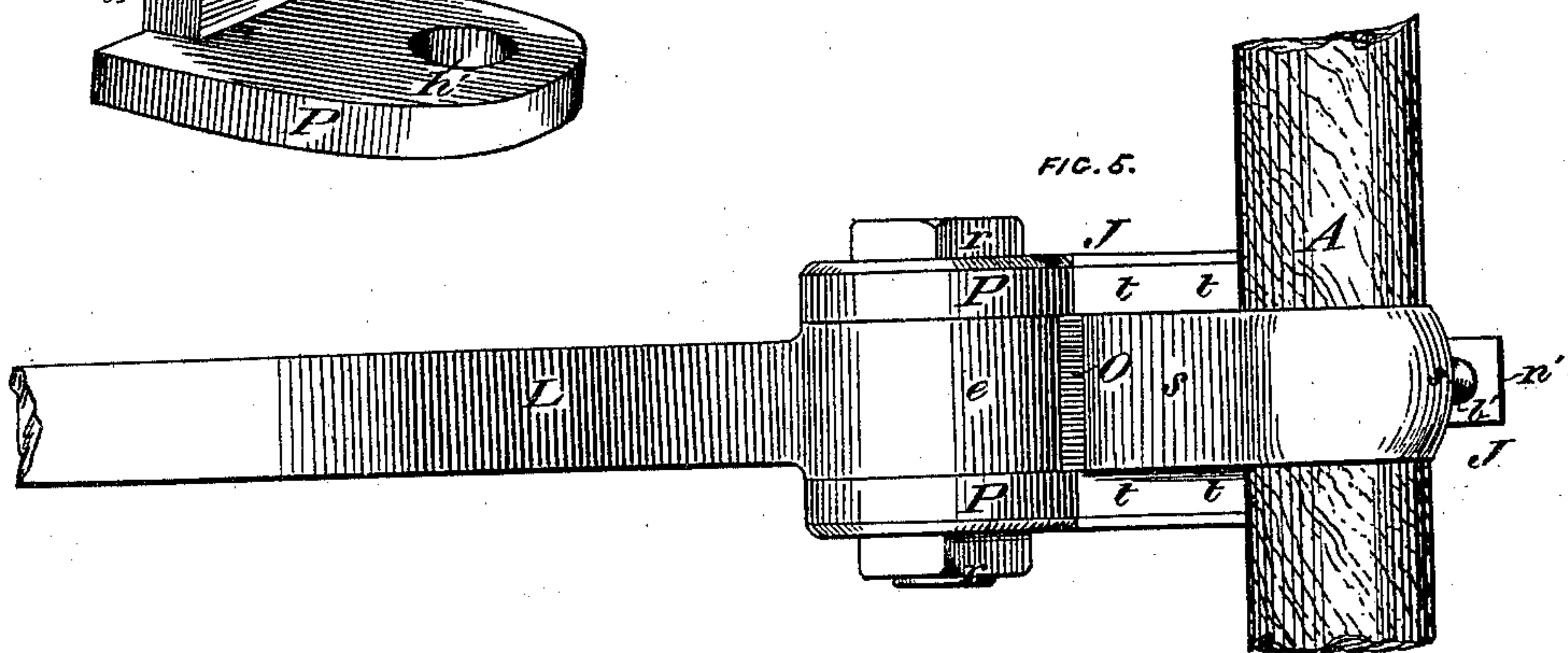
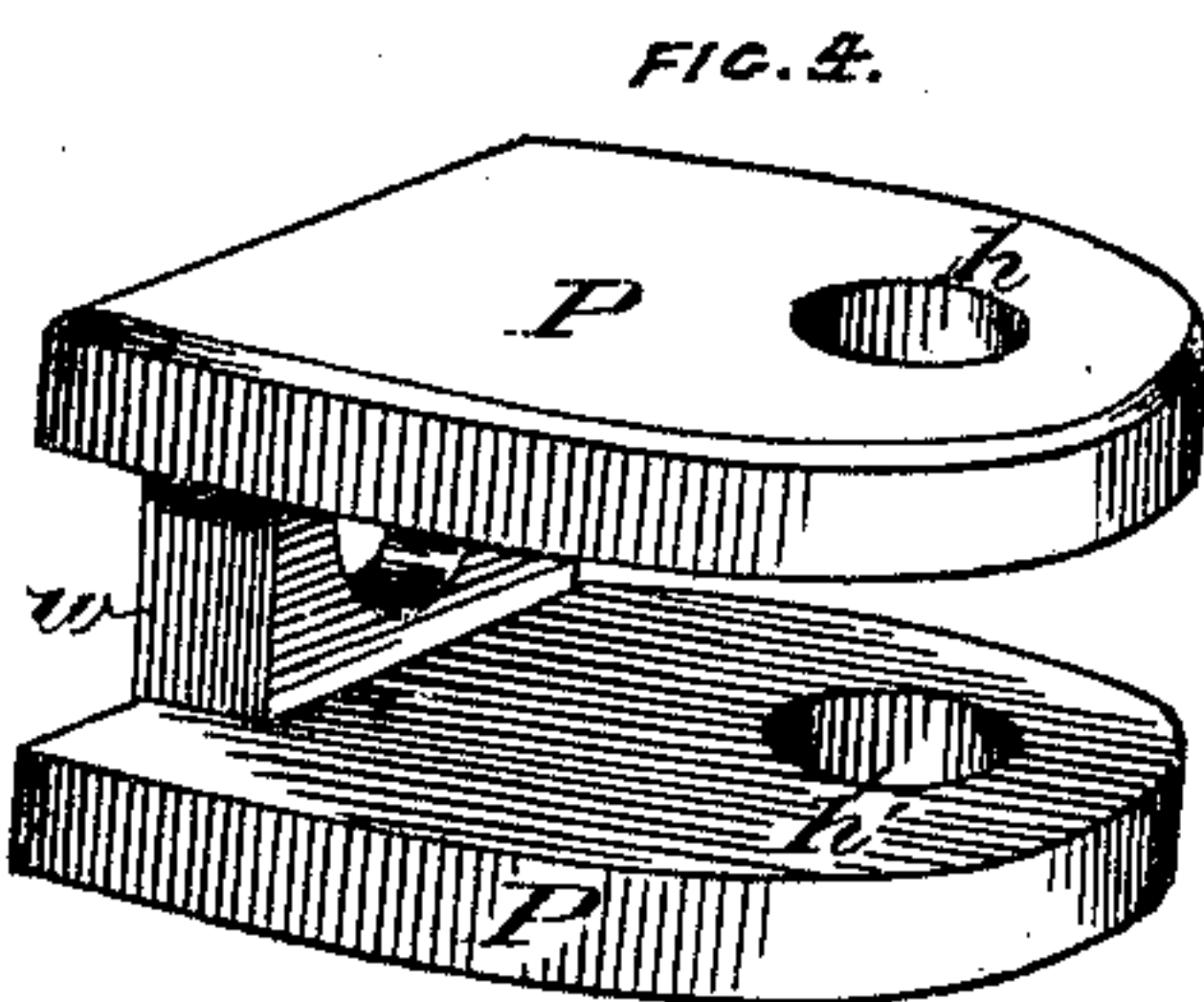
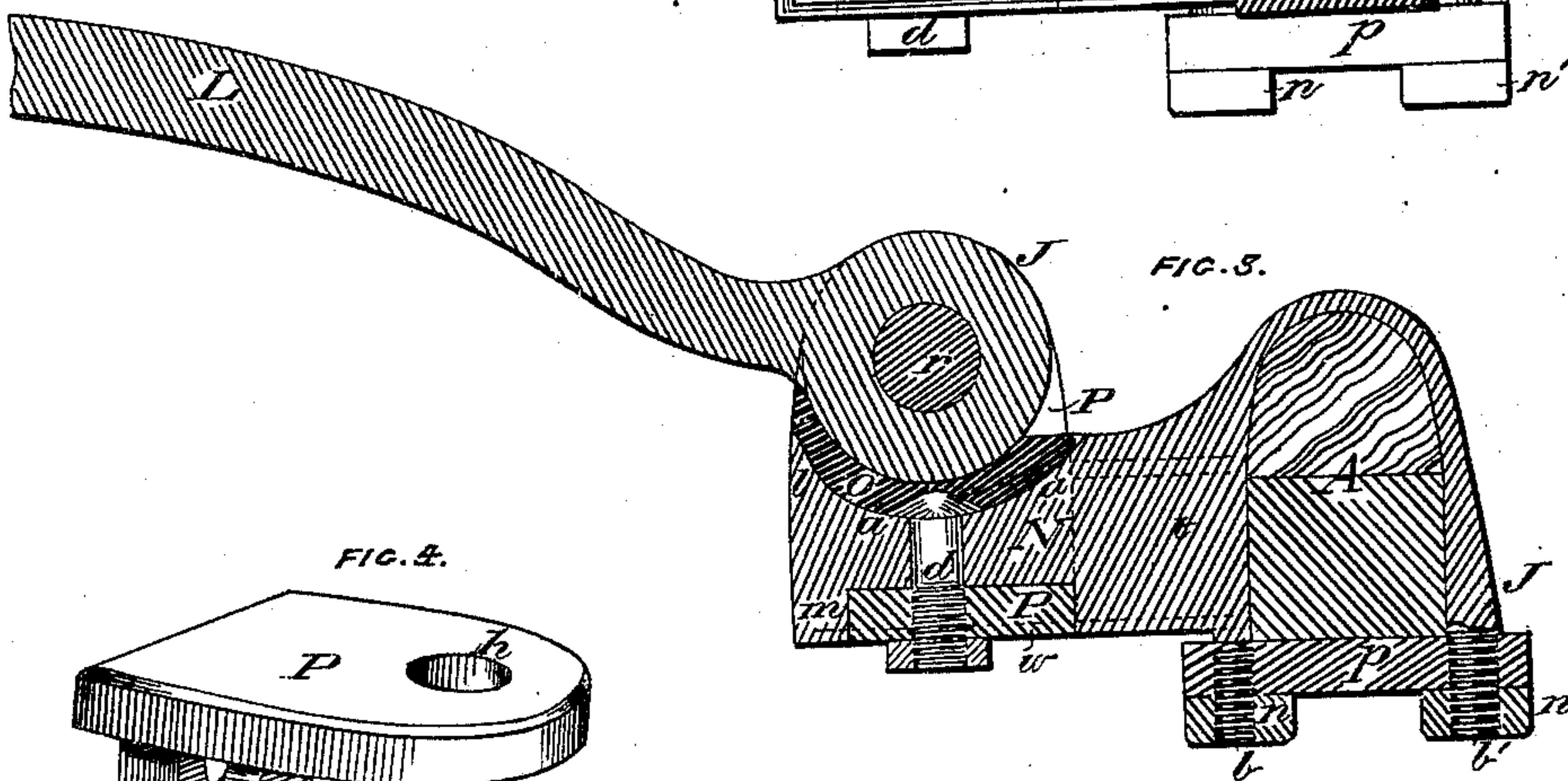
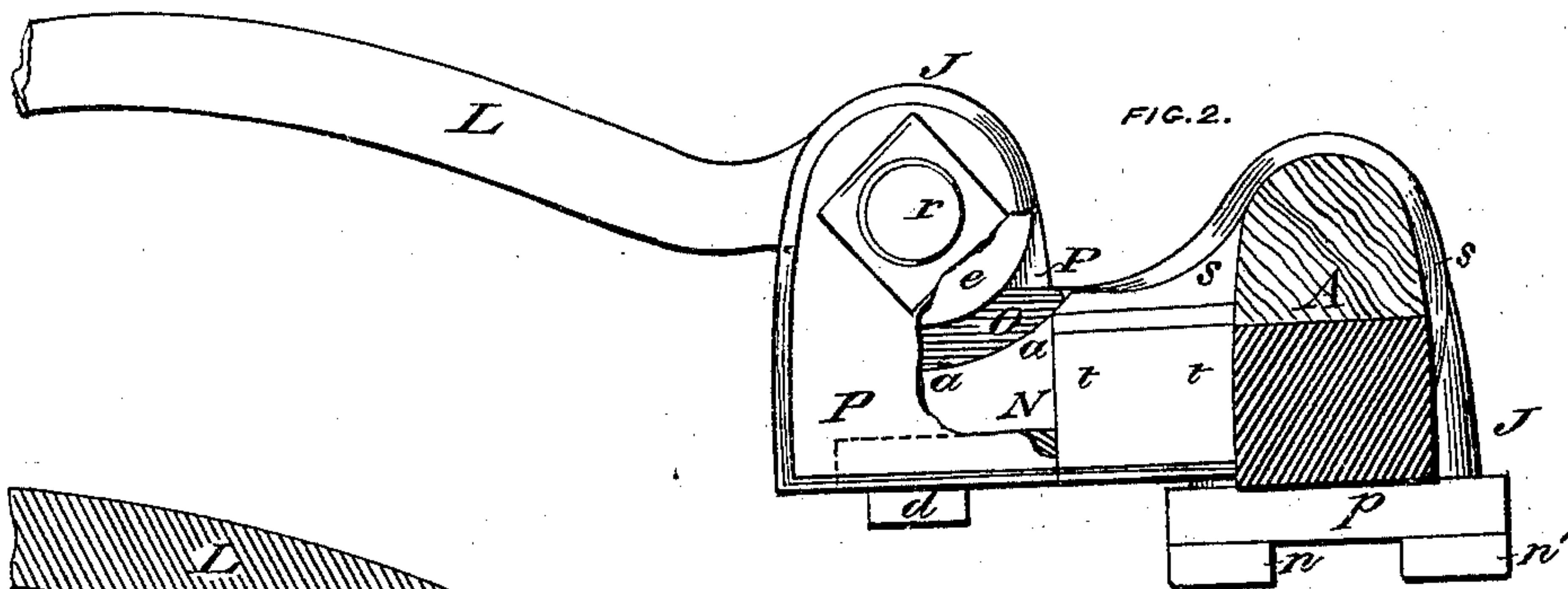
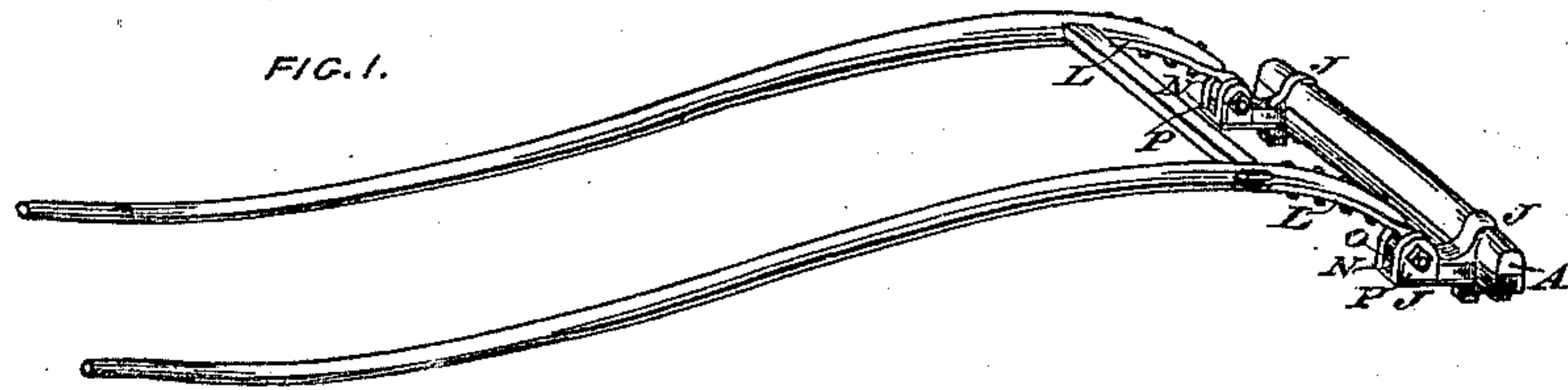


T. McCAFFERY.  
THILL-COUPLING.

No. 170,681.

Patented Dec. 7, 1875.



WITNESSES:

Algernon S. Austen.  
John H. P. H.

INVENTOR:

Thomas M. Caffery.  
Per atty. Lionel Varieas



# UNITED STATES PATENT OFFICE.

THOMAS McCAFFERY, OF SAN FRANCISCO, CALIFORNIA.

## IMPROVEMENT IN THILL-COUPINGS.

Specification forming part of Letters Patent No. **170,681**, dated December 7, 1875; application filed August 28, 1875.

*To all whom it may concern:*

Be it known that I, THOMAS McCAFFERY, of the city and county of San Francisco, State of California, have invented Improvements in Carriage or Wagon Jack-Clips, of which the following is a specification:

The first part of my invention consists, essentially, in providing the jack-clips on the axles of wagons, buggies, and other vehicles with adjustable shears for fitting the shaft-straps thereto, whereby such shears, when worn out or unfit for further use, may be readily detached from the clip, and new ones substituted therefor, in place of renewing the entire clip.

The second part of my invention relates to the arrangement of an elastic packing in the seating provided on the top of the projecting clip-neck for the shaft-strap eye to rest on when fitted into position, so that when in use this elastic packing, by being pressed in its seating against the raised lip of this clip-neck, may preserve as much as possible the bolt-holes in the adjustable shears and shaft-strap eye from being worn into an oval shape, thereby also avoiding the necessity of so frequently renewing these parts.

Figure 1 is a perspective view of a pair of carriage-shafts fitted with the jack-clips embodying my invention. Fig. 2 is a vertical longitudinal elevation of a jack-clip embodying my invention fitted to parts of a carriage-axle and shaft-strap. Fig. 3 is a vertical longitudinal section of Fig. 2. Fig. 4 is a perspective view of the adjustable shears embodying my invention. Fig. 5 is a plan of Fig. 2.

With reference to the drawing, A represents part of the axle of a wagon, carriage, or other vehicle, over which a jack-clip, J J, provided with the several devices embodying my invention, is secured. This jack-clip J J consists of an ordinary strap, s s, terminating in threaded shanks b b', which are connected beneath the axle by a plate, p, and secured by nuts n n, in the usual manner, but, in place of the usual shears for fitting the shaft-strap to, terminates in a projecting neck, N. This neck N is provided with a hollow seating, a a, in which a curved piece of india-rubber, O, is fitted, so that the shaft-strap eye e may rest thereon,

and the raised lip l at the end of this neck N may preserve this elastic packing in place, and introduce an elastic medium thereby for the pressure exerted on the shaft-strap eye e to act against. To this neck N a jaw or shears, P, is fitted, which consists of a piece of metal, preferably of steel, shaped in the form of an ordinary cross-head. For the fitting thereto of these shears P, and for retaining them in place when fitted, the neck N is provided with a square-shaped piece, m, projecting beneath and corresponding to the portion cut away in the connecting-strap w of the shears, so that when the adjustable shears are fitted into position the bottom and sides may be flush with the bottom and sides of the broad part t t of the jack-clip J J, while a centrally-fitted bolt and nut, d, having its head embedded in the elastic packing, secures these adjustable shears and neck to one another. The strap L is also similar to those in general use, and is fastened to these shears by a bolt and nut, r, which bolt fits to the holes h h', provided in the top part of this jaw or shears P and the shaft-strap eye e, and completes the arrangement for attaching the shafts to the jack-clips described as provided on wagon or carriage axles.

By this arrangement the jaw-piece or shears P, being made adjustable, may be disconnected at will when unfit for further duty, and new ones substituted in place thereof, and these shears may be manufactured of steel, and numbered to fit the various sizes of jack-clips, as described, in the same manner as it is customary with the shaft-straps at present in use, so that the necessity of rejecting a comparatively expensive portion, such as the jack-clip, by reason of the wearing away of the shears part, as is now generally the practice, is entirely avoided. Again, by this arrangement of india-rubber packing O on the seating a a, which is made to rest on the same, and to be pressed also against the lip l of the neck N of the jack-clip J J, the holes h h' of the shears P, and of the eye of the shaft-strap L, are prevented in a great measure from becoming worn and oval in shape in the direction of the strain exerted on the connecting-strap, adjustable shears, and bolt, while, at the same time, the looseness and attendant rattle of these parts when in use, consequent on the wear and tear

in the ordinary form of jack-clip, is totally done away with.

I make no claim to the straps *s s*, plate *p*, bolts and nuts *b b' n n'*, respectively, nor to the shaft-strap *L*, as I am aware that these are not new; but

I claim as my invention—

1. The adjustable shears *P*, fitted to the projecting neck *N* of the jack-clip *J J* by the bolt *d*, or its equivalent, and retaining-lug *m*, for securing the shaft-strap *L*, by the eye *e* and bolt *r*, to the axle *A*, substantially as herein set forth, and for the purposes specified.

2. The combination of the adjustable shears *P*, strap *L*, and connecting-bolt *r* with the elastic packing *O*, arranged, as described, on the seating *a a* and lip *l* of the projecting neck *N*, forming part of the jack-clip *J J*, substantially as and for the purposes herein set forth and specified.

THOMAS McCAFFERY.

Witnesses:

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LIONEL VARICAS.