

No. 618,461.

Patented Jan. 31, 1899.

T. HESTER & R. HAUPT.

THILL COUPLING.

(Application filed Apr. 28, 1898.)

(No Model.)

Fig. 1.

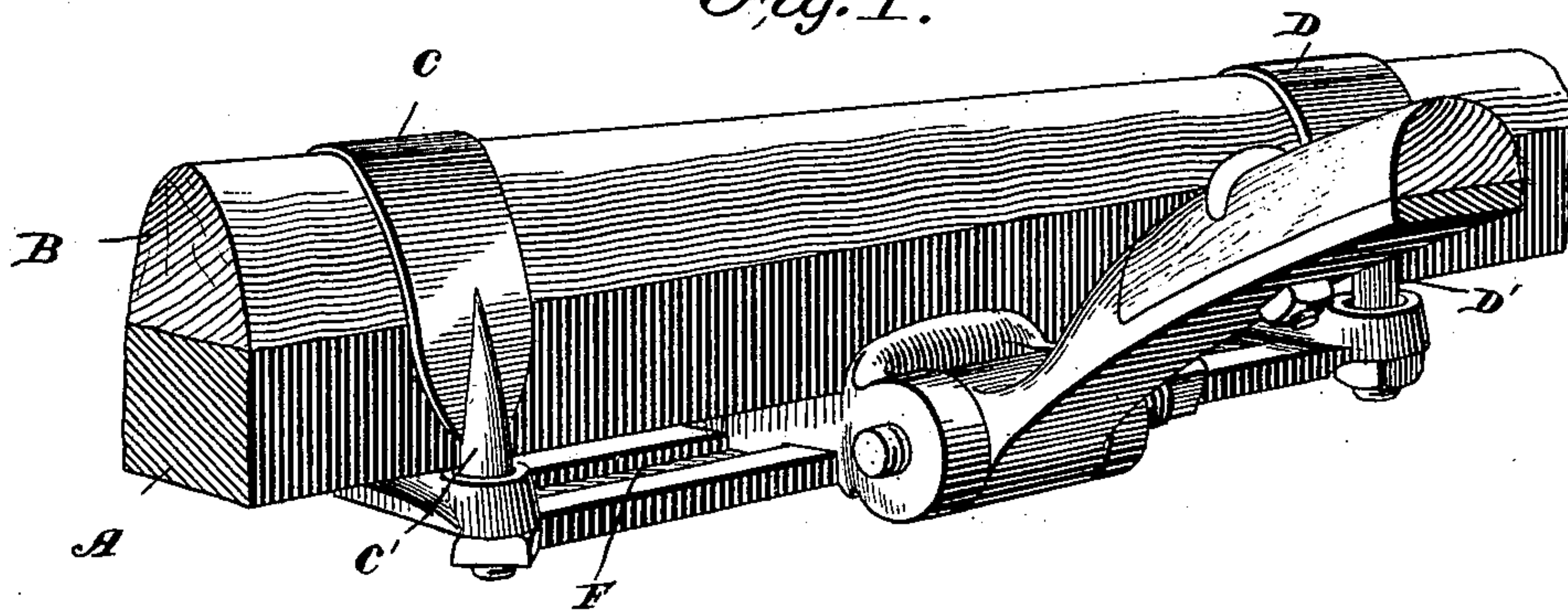


Fig. 3.

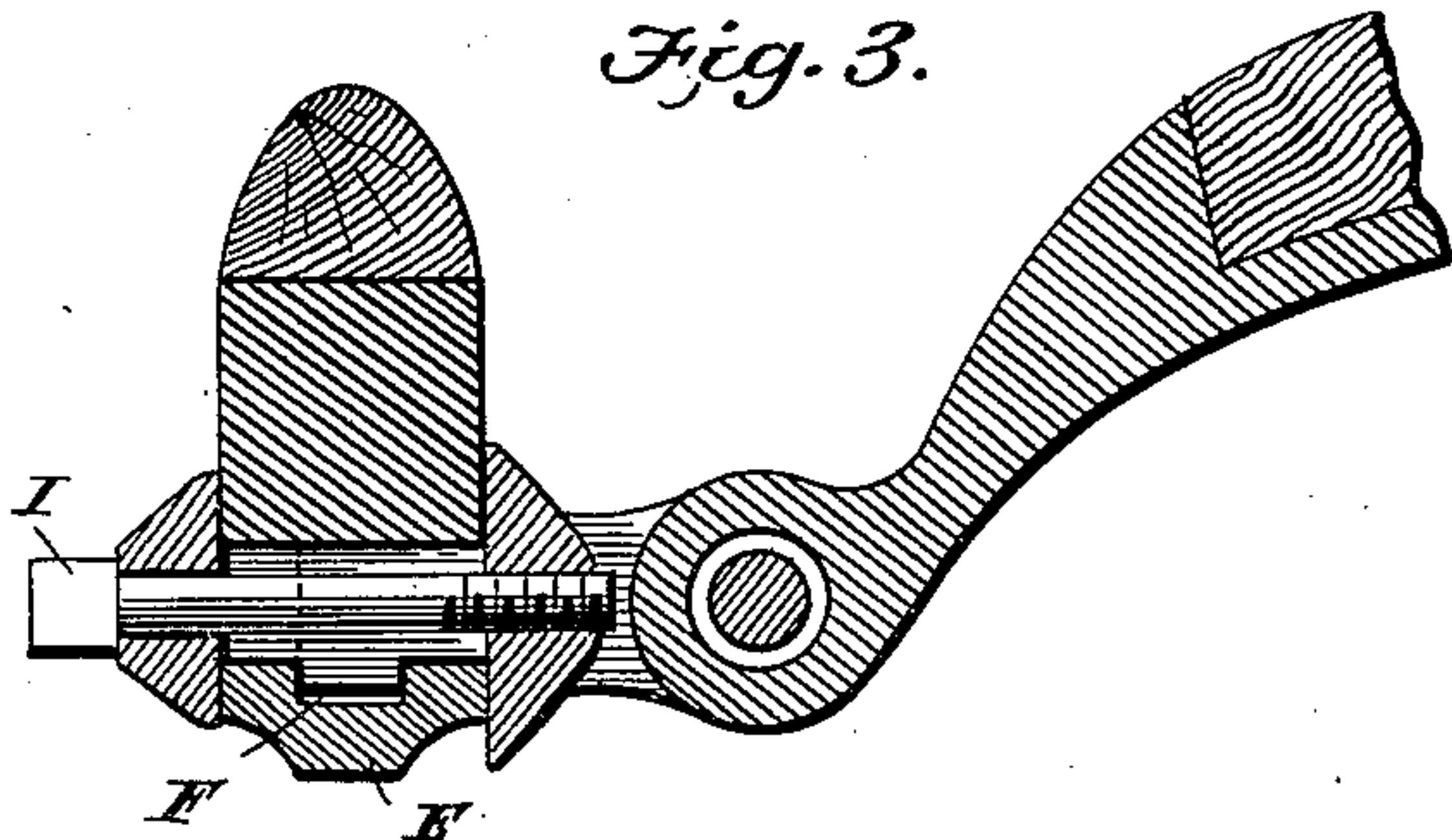


Fig. 2.

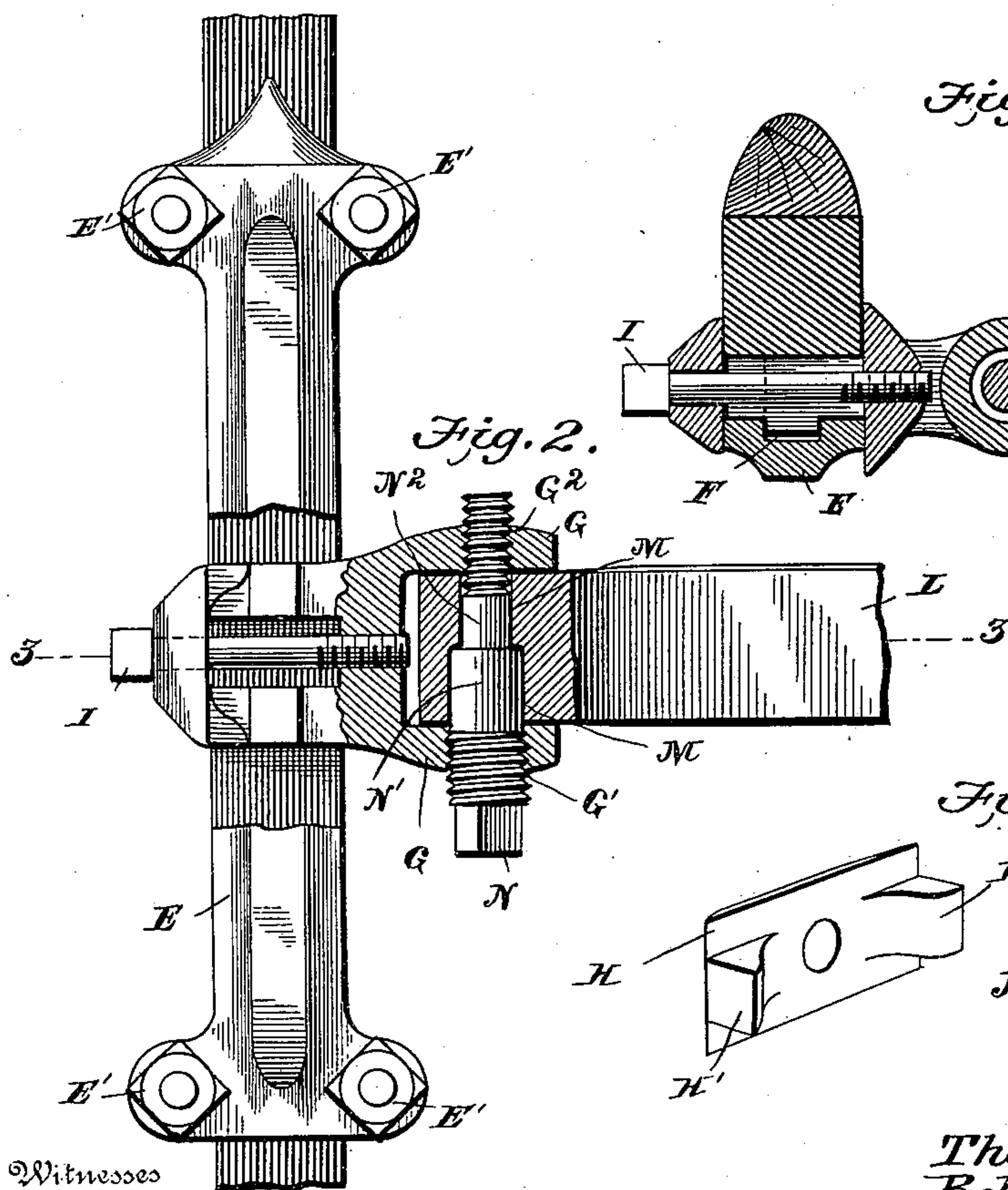
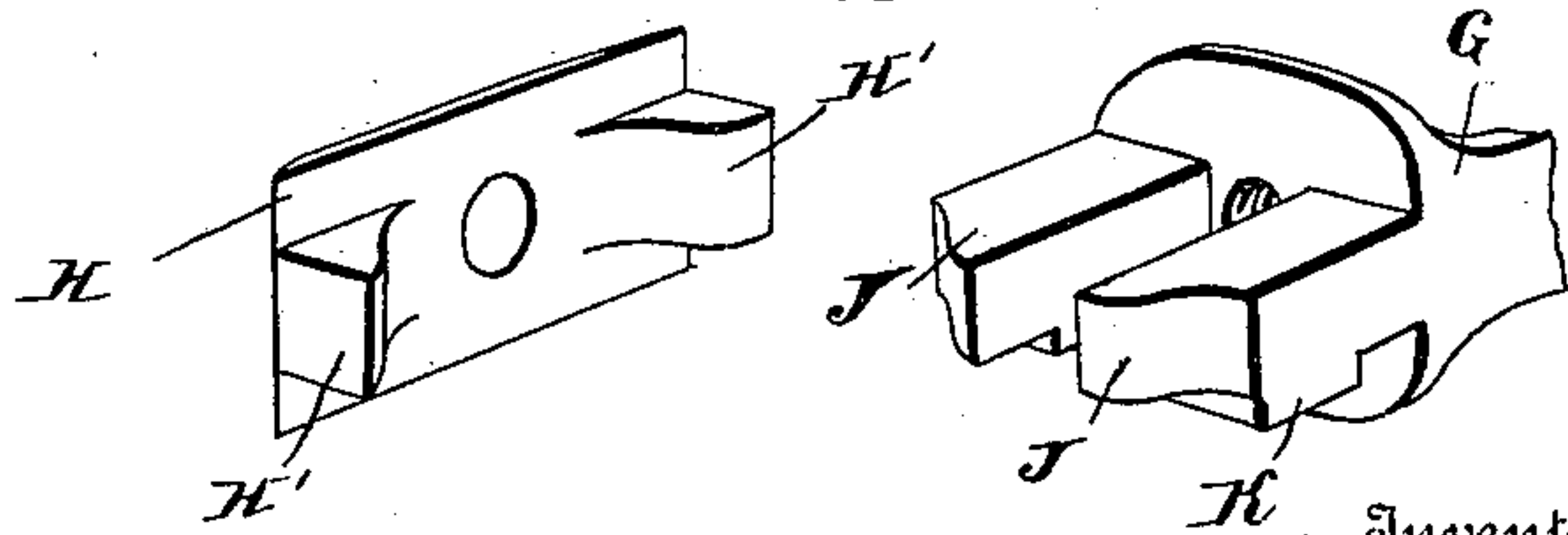


Fig. 4.



Witnesses

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# UNITED STATES PATENT OFFICE.

THEODORE HESTER AND ROBERT HAUPT, OF EASTON, PENNSYLVANIA.

## THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 618,461, dated January 31, 1899.

Application filed April 28, 1898. Serial No. 679,152. (No model.)

*To all whom it may concern:*

Be it known that we, THEODORE HESTER and ROBERT HAUPT, citizens of the United States, residing at Easton, in the county of Northampton and State of Pennsylvania, have invented a new and useful Thill-Coupling, of which the following is a specification.

Our invention relates to couplings for attaching thills or shafts and poles to the axles of buggies, wagons, and other vehicles.

The object of our invention is to provide a thill-coupling with improved means whereby shafts or poles, the attaching ends of which are wider or narrower, may be attached to the same vehicle, the mechanism being so constructed that a variation of a considerable distance in the width of the attaching ends of shafts or poles will have no effect upon the operation of the coupling.

With this object in view our invention consists in the improved construction, arrangement, and combination of parts hereinafter fully described and afterward specifically pointed out in the appended claim.

In order to enable others skilled in the art to which our invention most nearly appertains to make and use the same, we will now proceed to describe its construction and operation, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view illustrating a section of an axle with the rear end of a thill secured thereto by means of a laterally-adjustable coupling constructed in accordance with our invention. Fig. 2 is a bottom plan view, partly in section and with parts broken away, illustrating the same devices as are shown in Fig. 1. Fig. 3 is a detail view, being a section on the line 3 3 of Fig. 2. Fig. 4 is a detail perspective view illustrating the two separate parts of the thill-iron used in our improved coupling.

Like letters of reference indicate the same parts wherever they occur in the different figures of the drawings.

Referring to the drawings by letters, A indicates the metallic axle, such as is generally used, upon which is mounted the ordinary wooden bed B.

C and D indicate the ordinary clips, provided with legs C' and D', which project below

the metal bar A of the axle and in this instance receive the eyes in the corners of the casting E, which lie beneath and parallel with the metal axle A, the body portion of the casting E being dropped below the end portions, so that it lies at a short distance below and parallel with said metal axle A. In the upper face of the casting E is formed a longitudinal groove F, as shown in Figs. 1 and 3.

G indicates the stationary portion of the thill-coupling, being the portion usually attached to the axle. In this instance it is provided with the usual eyes G' and G<sup>2</sup> in its forward ends, the eye G' being larger than the eye G<sup>2</sup> and both being threaded.

H indicates a block provided with projecting lugs H', which enter the space between the metal axle A and the casting E, the main body of the block bearing against the rear of these parts. This block H and the stationary clip-casting G are each perforated in alignment with each other, the opening in the stationary clip-casting being threaded to receive the threaded end of the bolt I, which passes through the block H from the rear, whereby the distance apart of the block H and casting G may be accurately regulated and these two parts rigidly clamped against the metal axle A and casting E. The interior or rear portion of the clip-casting G is provided with arms J, on the bottom of which are transverse lugs K, which, when the parts are assembled, rest in the groove F in the casting E and fit snugly therein, preserving the proper relative position of the casting G with the axle.

L indicates the thill-iron, the eye in the rear of which is of two diameters, as shown at M and M', the latter being the smaller.

N indicates the clip-bolt, which is of two diameters, as indicated at N' and N<sup>2</sup>, to fit the different diameters of the eye in the thill-iron, and each diameter is threaded to engage in the larger and smaller threaded eyes in the clip-casting G, respectively.

The construction of our invention will be readily understood from the foregoing description, and its operation may be described as follows: The clip-casting, with its transverse lugs K fitted in the groove F of the casting E, is pressed upward against the bottom of the metallic axle A, when the nuts E' are turned up on the legs C' of the axle-clips suf-



ficiently to prevent the dropping of the casting E. The block H may now be slipped into place and the bolt I turned up, clamping the casting G and block H together. The nuts  
5 may be then turned up to clamp the block H and casting G against lateral sliding.

By this arrangement thills or poles may be secured to the same axle where their thill-irons are at variable distances apart within  
10 the limit of the length of the casting E, and the construction of the parts is such that thills and poles will be as securely fastened as though each were provided with separate axle-clips.

While we have illustrated and described  
15 what we now consider to be efficient means for carrying out our invention, we do not wish to be understood as restricting ourselves to the exact details of construction shown and described, but hold that such slight changes  
20 or variations as might suggest themselves to the ordinary mechanic would properly fall within the limit and scope of our invention.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent of the United States, is— 25

The combination with the axle, of a casting secured thereto below, at a short distance from and parallel therewith, and having a groove on its upper surface facing the lower surface of the axle, a thill-casting resting be- 30  
tween the axle and the parallel casting and provided with lugs fitting the groove in the parallel casting, a block located in the rear of the axle opposite the thill-casting and provided with legs projecting into the space be- 35  
tween the axle and the parallel casting, and a bolt passing through the block and into the thill-casting for clamping these two parts together, substantially as described.

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