

(No Model.)

J. A. FAIRBANKS.
Thill Coupling.

No. 229,310.

Patented June 29, 1880.

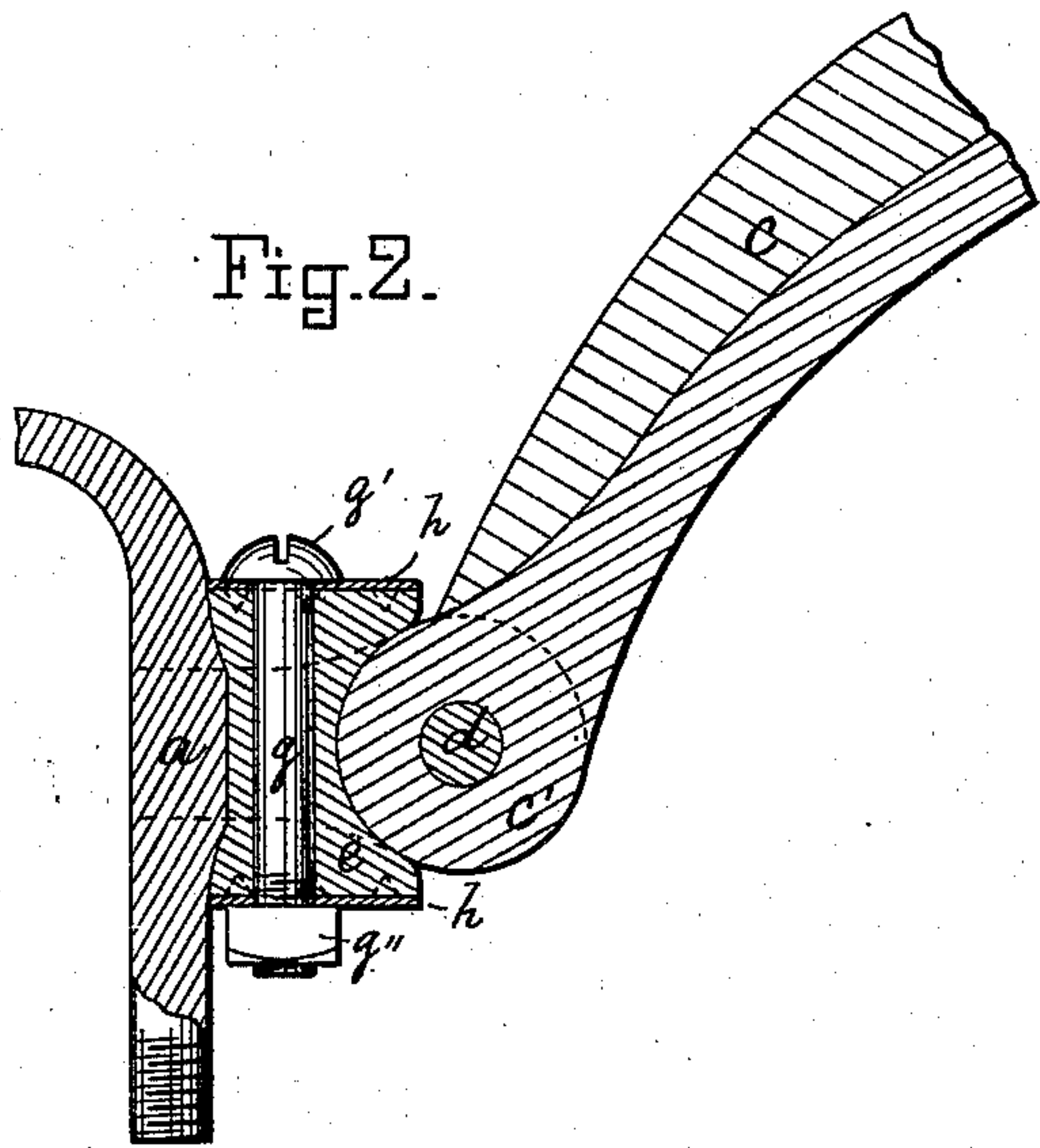
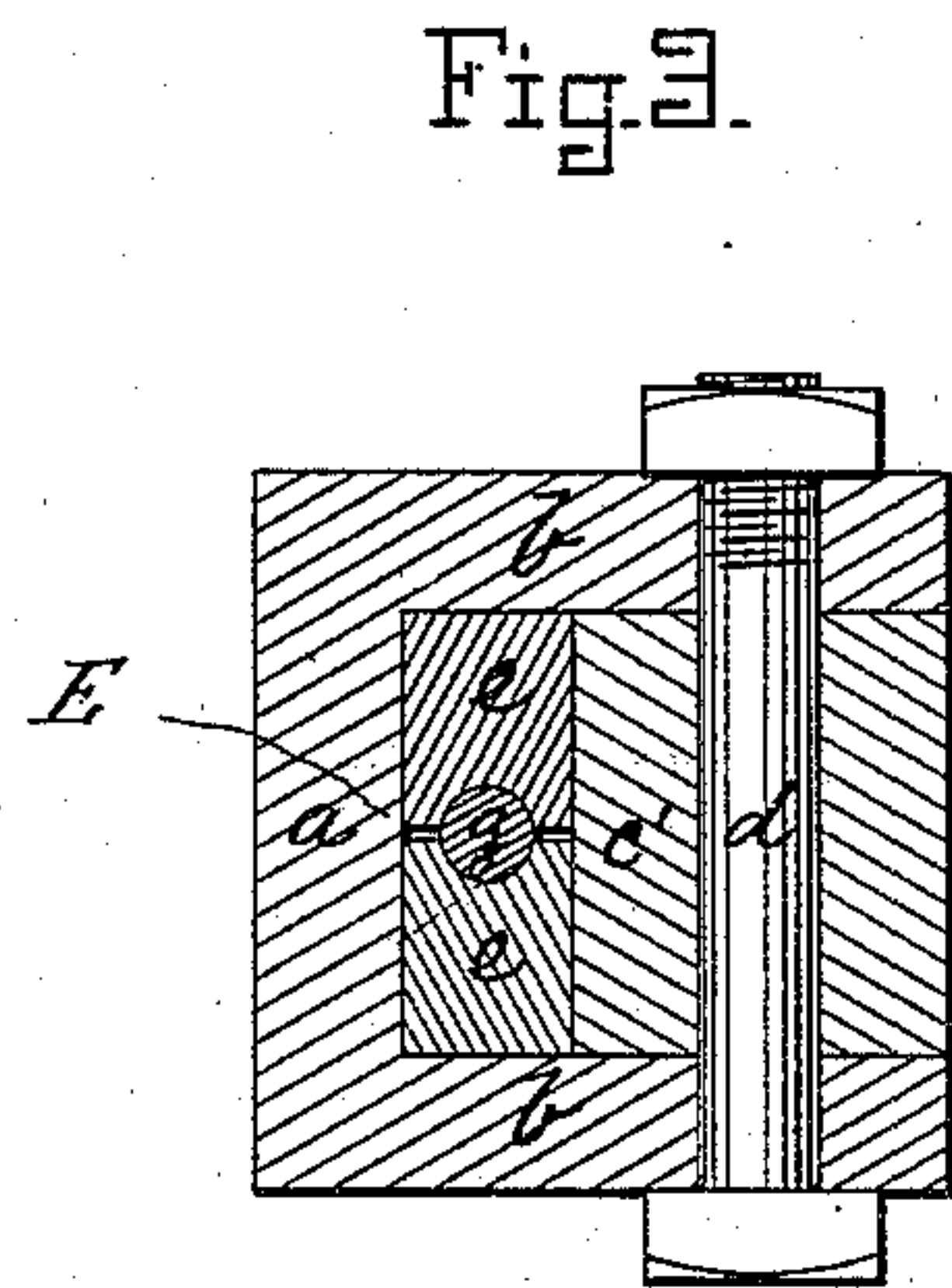
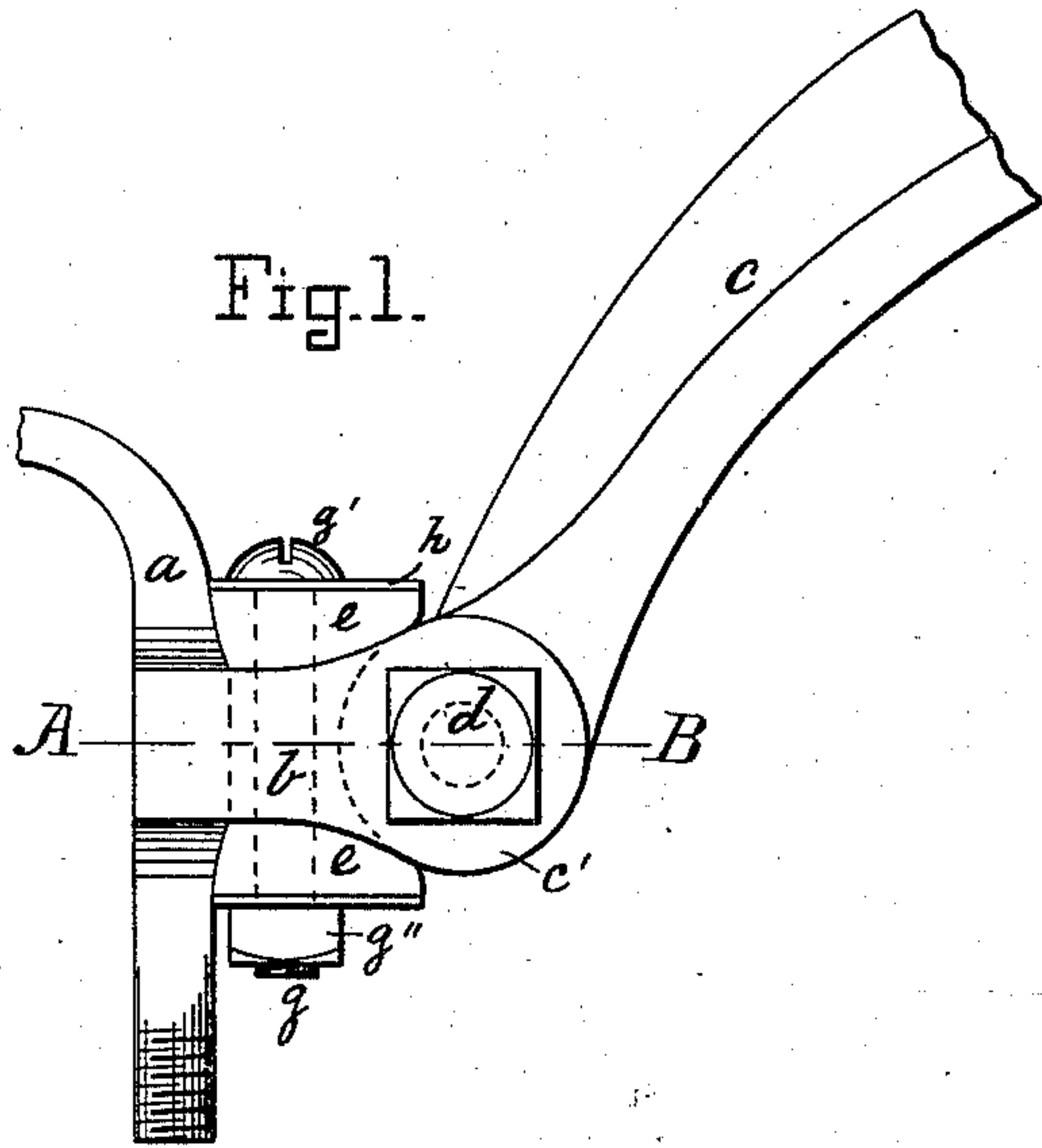


Fig.4.

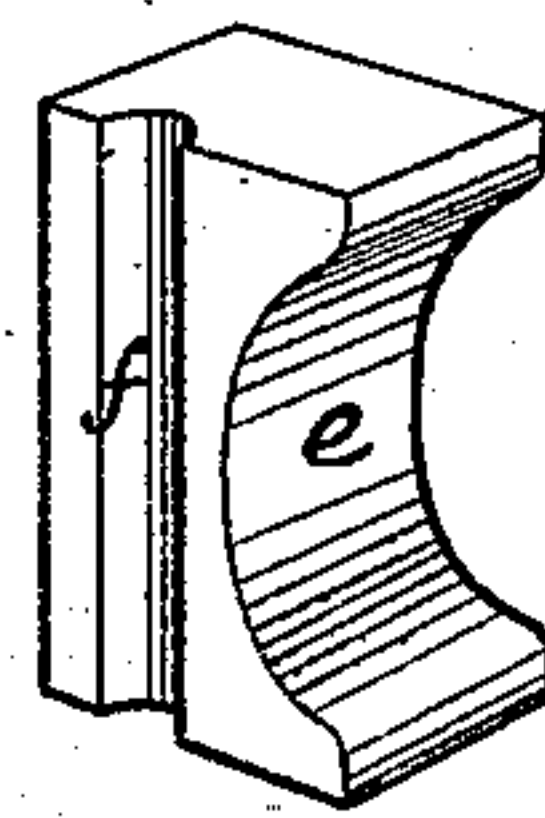
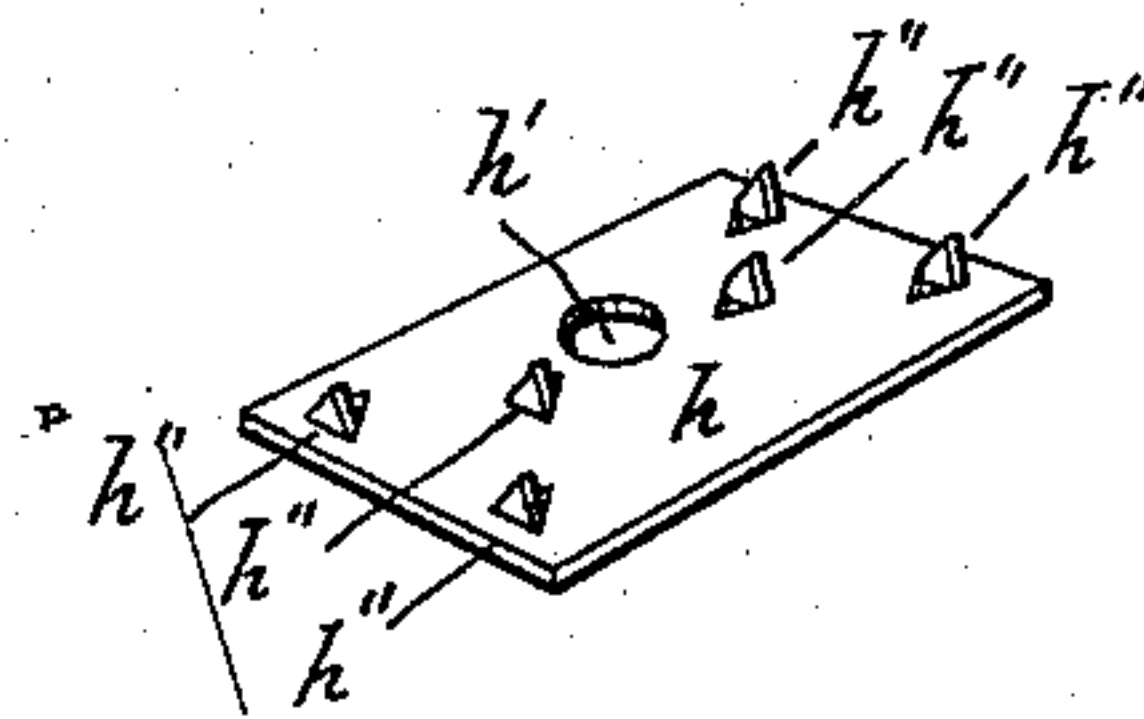


Fig.5.



Witnesses:
Walter H. Bales
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UNITED STATES PATENT OFFICE.

JOHN A. FAIRBANKS, OF CAMBRIDGEPORT, MASSACHUSETTS.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 229,310, dated June 29, 1880.

Application filed May 27, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. FAIRBANKS, a citizen of the United States, residing at Cambridgeport, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Thill-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to improvements in thill-couplings; and it consists in a device that may be applied to the ordinary thill-couplings now in use, for the purpose of preventing the rattling of the shafts therein, and obviating the wear of the thill and its connection to the axle-clip, as will hereinafter be more fully shown and described, reference being had to the accompanying drawings, on which—

Figure 1 represents a side elevation, Fig. 2 represents a longitudinal section, and Fig. 3 represents a cross-section on the line A B, (shown in Fig. 1,) of my improved device. Fig. 4 represents a perspective view of one of the molded rubber blocks, and Fig. 5 represents a perspective view of one of the washers.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

a represents one side of the axle-clip, as usual, and *b b* represent the lugs projecting forward therefrom.

c represents the thill or shaft, as usual, with its perforated shaft-eye *c'*, that is connected to the lugs *b b* by means of the bolt *d*, in the ordinary manner.

e e represent elastic blocks located between the lugs *b b*, clip *a*, and shaft-eye *c'*, as shown. Said elastic blocks *e e* are divided from each other on a vertical line, *E*, (shown in Fig. 3,) and each block is at that place provided with a semicircular groove, *f*, (shown in Fig. 4,) for the reception of the tightening-bolt *g*, that passes through the grooved parts of said blocks, and is provided in one end with a head, *g'*, and in its other end with a screw-thread, over which the nut *g''* is adjustable, so as to compress the rubber blocks, and to cause them to impinge against the clip and shaft-eye.

h h represent washers, one at the top and one at the bottom of the rubber blocks *e e*, as shown, which washers are provided with a central perforation, *h'*, for the passage of the tightening-bolt *g*, and also with a number of inward projections, *h'' h'' h''*, (shown in Fig. 5,) for the purpose of uniting the two separate rubber blocks *e e* together at top and bottom to the said washers *h h* by the projections *h'' h''* being forced into the rubbers by the holding-bolt *g*, as shown in Fig. 2.

The advantage of dividing the rubbers *e e* on a vertical line through the center of the tightening-bolt *g* is, that no core need to be used in making a perforation through the rubber, as heretofore has been required, and the blocks can be molded in ordinary open molds, without the need of cores or drilling the hole for the reception of the tightening-screw.

Another advantage is, that in case one side of the rubber wears out faster than the other a new half-block can easily be inserted without discarding the whole of the rubber blocks, and in case, on a carriage, it is found that one side of the rubber packing has a tendency to wear out quicker than the other, then a thicker half-block may be inserted on that particular side.

I am aware that solid rubber blocks have heretofore been used in thill-couplings and provided with a tightening screw-bolt passing through a perforation in the rubber; and I am also aware that rubber blocks have for this purpose been divided horizontally and provided with a bolt passing through perforations in the rubber; and I wish to state that I do not claim such a device as my invention, as thereby are not accomplished the objects set forth as above; but

What I wish to secure by Letters Patent, and claim, is—

In combination, the vertically divided and grooved elastic blocks *e e f f*, the washers *h h*, with inward projections *h'' h''*, and the tightening-bolt *g g' g''*, as applied to a thill-coupling, for the purpose set forth and described.

In testimony whereof I have affixed my signature in presence of two witnesses.

JOHN A. FAIRBANKS.

Witnesses:

ALBAN ANDRÉN,
HENRY CHADBOURN.