

S. S. PUTNAM.

Thill Coupling.

No. 96,349.

Patented Nov. 2, 1869.

Fig. 1

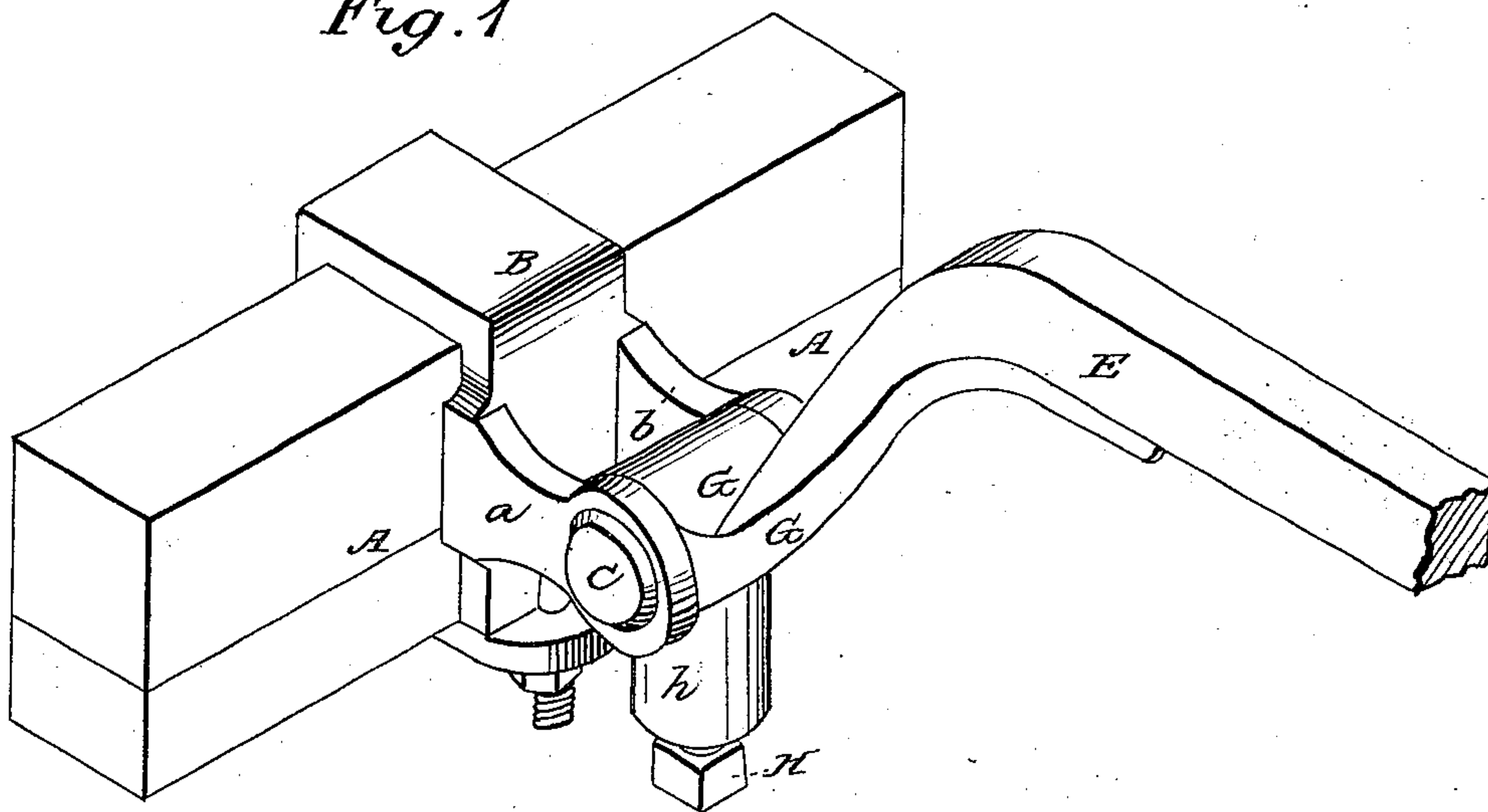


Fig. 2

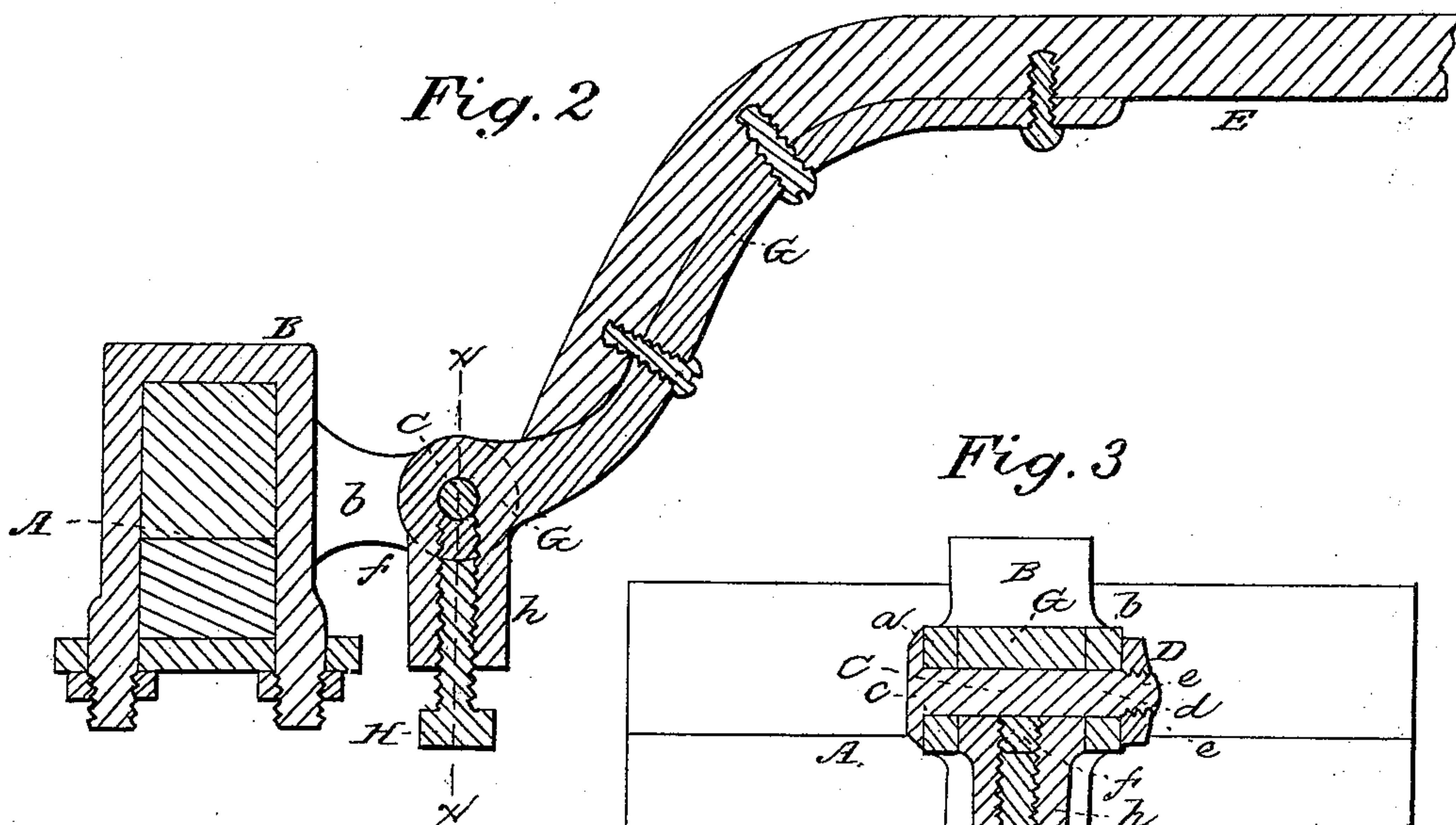
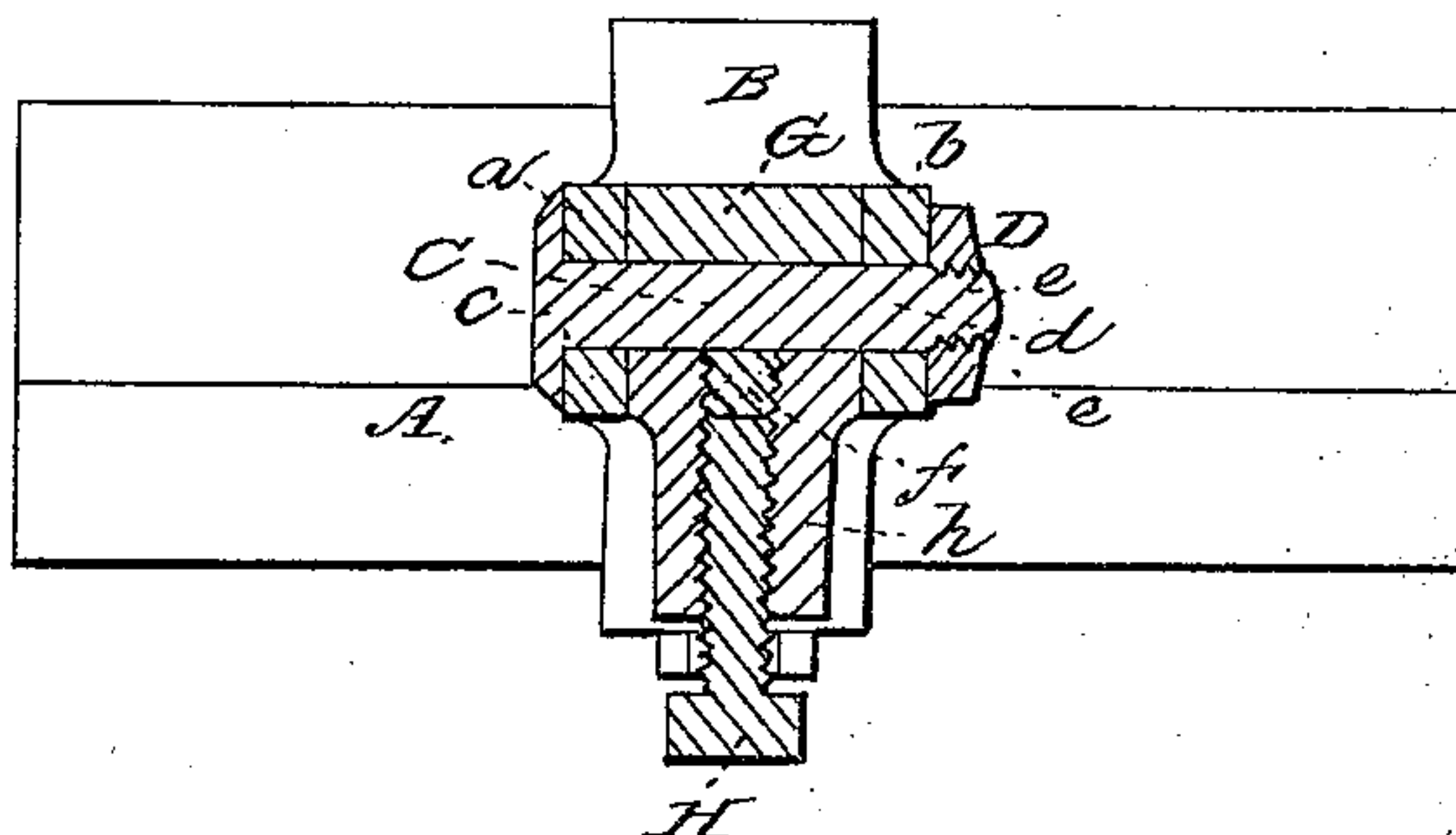


Fig. 3



Witnesses:
N W Stearns
W J Cambridge

Inventor:
S S Putnam

United States Patent Office.

SILAS S. PUTNAM, OF NEPONSET, MASSACHUSETTS.

Letters Patent No. 96,349, dated November 2, 1869.

IMPROVED THILL-COUPLING.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, SILAS S. PUTNAM, of Neponset, in the county of Norfolk, in the State of Massachusetts, have invented an Improvement in Thill-Couplings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of an axle and a thill, or carriage-shaft, connected together, with my improvement applied thereto.

Figure 2 is a central longitudinal section through the same.

Figure 3 is a transverse section on the line $x x$ of fig. 2.

My invention consists in a peculiar mechanical arrangement for tightening the thill-iron of a carriage on its connecting-bolt, whereby the rattling of the same is prevented.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings—

A represents a portion of the axle of a carriage, around which is secured a band or "clip," B, in the ordinary manner.

From the front of this clip, (and in one and the same piece therewith,) project two lugs or ears $a b$, the outer end of the lug a being provided with a square hole for the passage of the square portion c , of a bolt or pin C, while the lug b is provided with a circular hole, for the passage of the corresponding portion d , of the said bolt.

The outer end of this bolt is provided with a screw-thread, e , for the reception of a nut, D.

E is one of the thills or shafts of the carriage, to which is secured the thill-iron G, through the inner end of which passes the bolt C, in the ordinary manner.

On the under side of the thill-iron is a boss or pro-

jection, h , which is bored out for the reception of a set-screw, H, between the end of which and the bolt C (in a chamber formed for the purpose) is placed a packing, f , of leather, rubber, or other suitable yielding-material, which is forced by the set-screw against the bolt, a pressure being thus maintained, which serves to keep the bearing-surfaces of the thill-iron and bolt in close contact with each other, the set-screw being tightened, when necessary, as the parts become worn, and by means of this arrangement, the rattling incident to the ordinary coupling is avoided.

By thus interposing a packing of yielding-material between the set-screw H and the bolt C, the liability of a too rigid connection being produced, by setting up the screw is avoided, and the free play of the shafts of the vehicle thereby at all times secured.

The boss or projection on the under side of the thill-iron is made of sufficient length to afford an extended bearing for the set-screw H, and a chamber for the packing f .

It will be seen that in the event of the loss of the nut D, the pressure exerted by the set-screw H, upon the bolt C, will tend to prevent the latter from working out, and the liability of accident from this cause will thus be greatly diminished.

If desired, a check-nut may be employed on the set-screw H, to prevent the possibility of its becoming loose.

Claim.

What I claim as my invention, and desire to secure by Letters Patent, is—

The mechanical arrangement described, for tightening the thill-iron G on its connecting-bolt C, for the purpose set forth.

SILAS S. PUTNAM.

Witnesses:

N. W. STEARNS,
W. J. CAMBRIDGE.