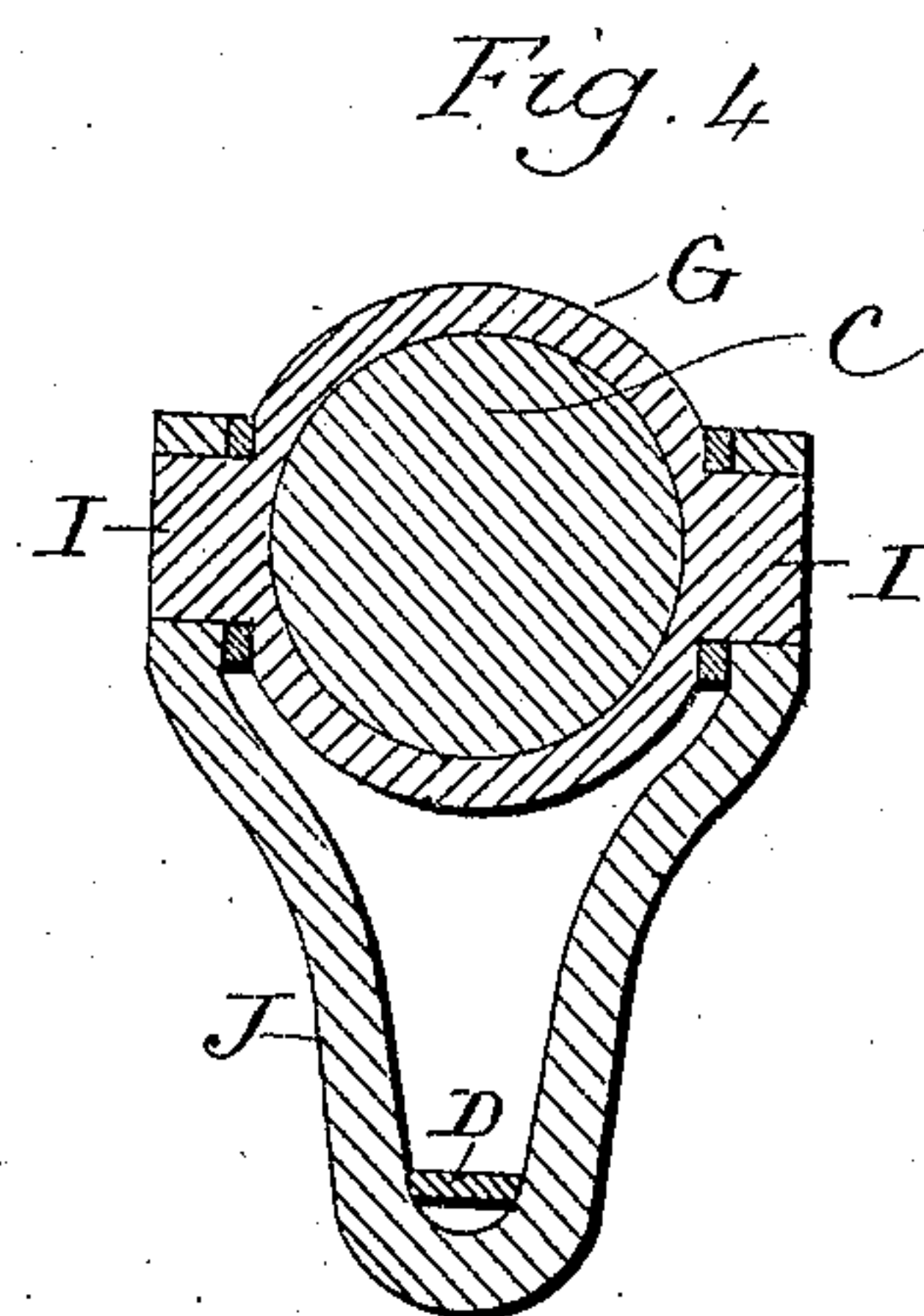
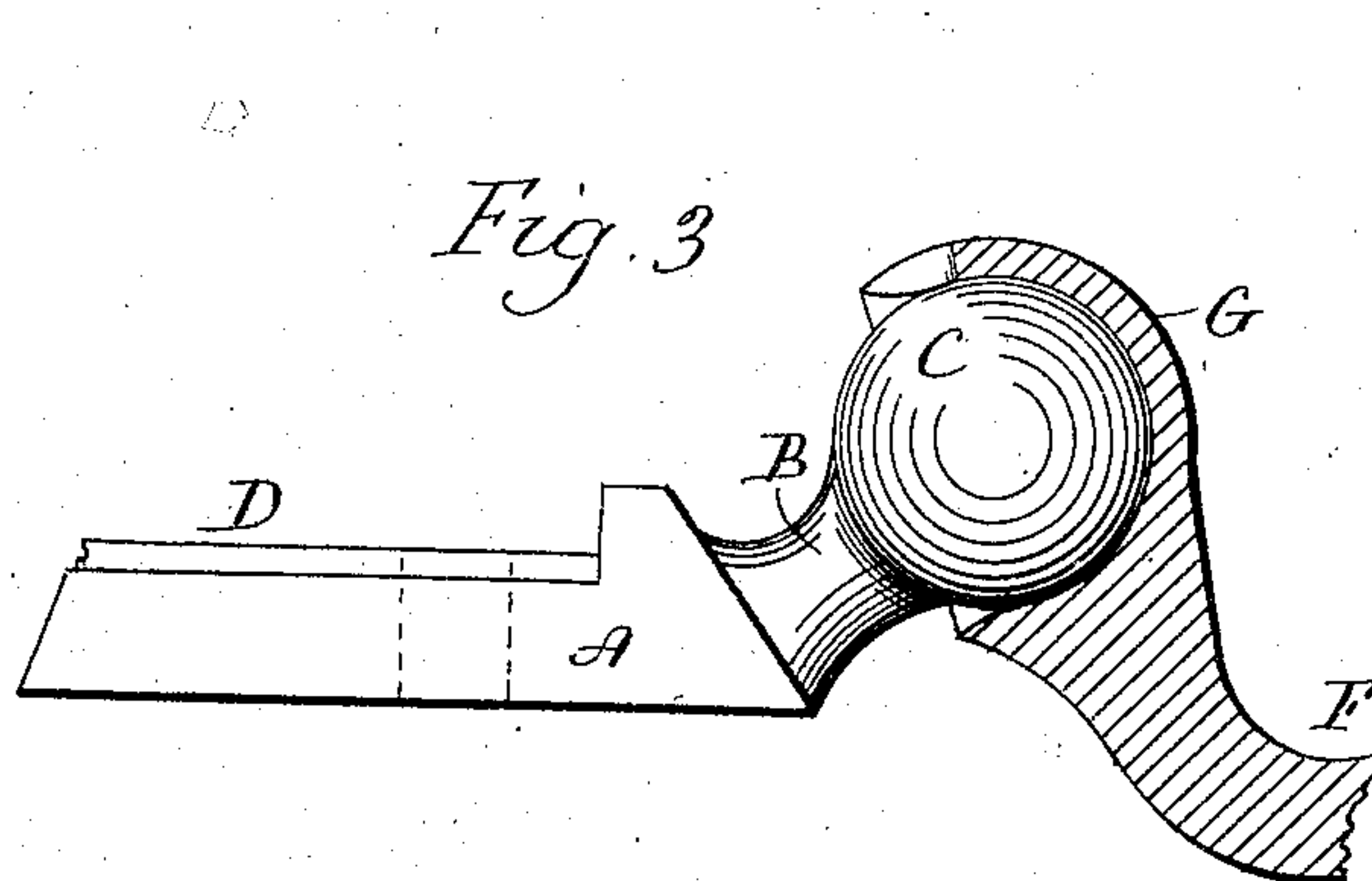
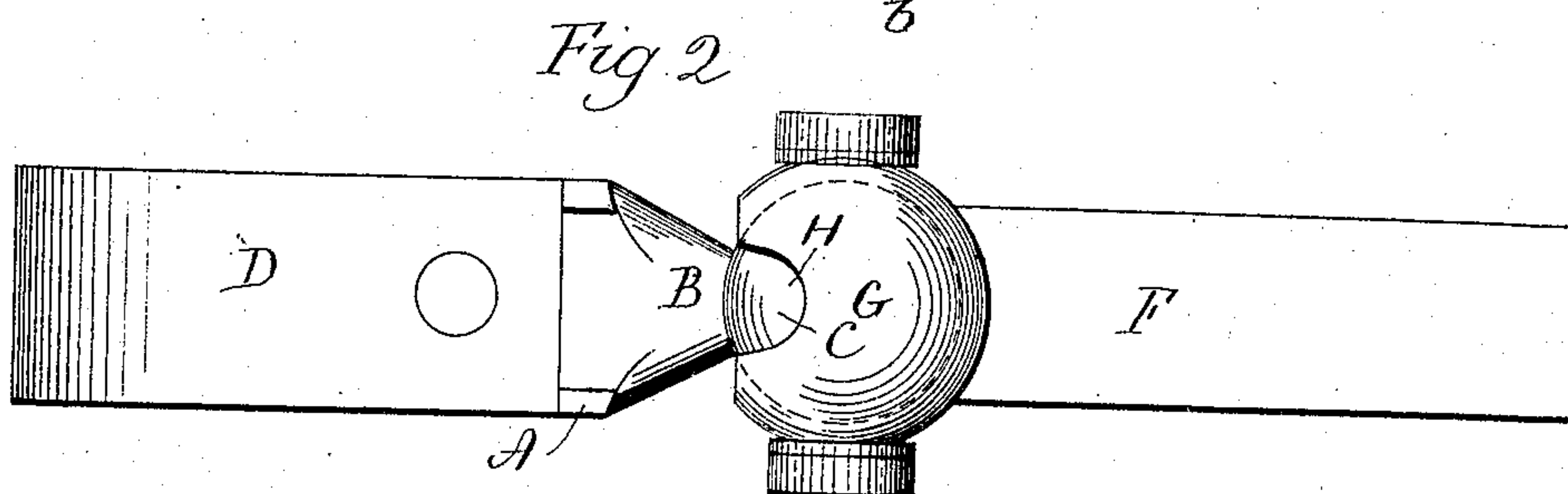
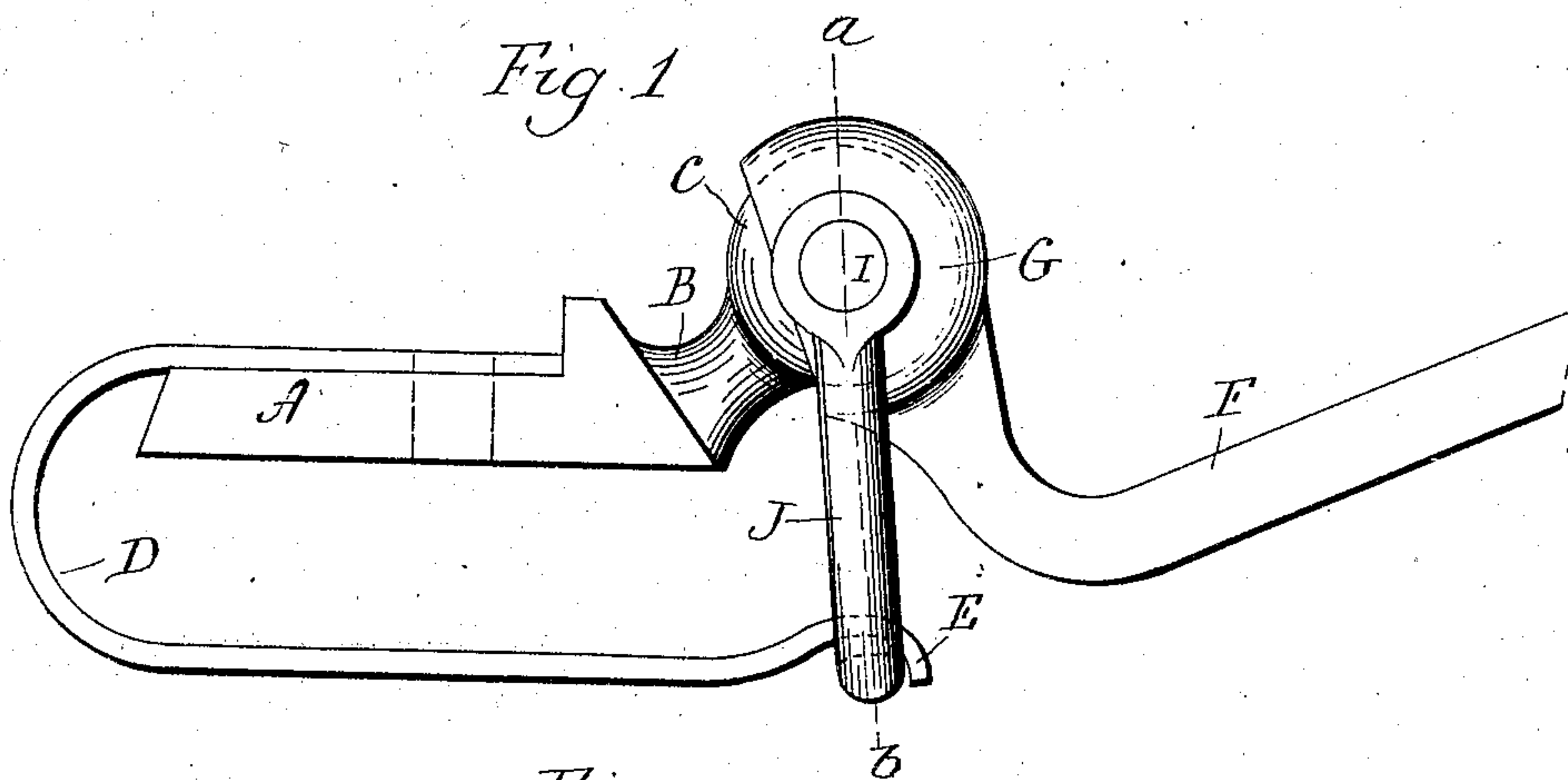


No. 791,229.

PATENTED MAY 30, 1905.

W. S. THOMSON.
THILL COUPLING.

APPLICATION FILED APR. 2, 1904.



Witness
J. R. Humphrey
Clara L. Weed

William S. Thomson.
By atty Seymour T. Carter

UNITED STATES PATENT OFFICE.

WILLIAM S. THOMSON, OF PLANTSVILLE, CONNECTICUT.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 791,229, dated May 30, 1905.

Application filed April 2, 1904. Serial No. 201,215.

To all whom it may concern:

Be it known that I, WILLIAM S. THOMSON, of Plantsville, in the county of Hartford and State of Connecticut, have invented a new and useful Improvement in Thill-Couplings; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view of a thill-coupling embodying my invention, showing the parts in the position they would assume when the ends of the thills rest upon the ground; Fig. 2, a top view of the same; Fig. 3, a side view, partially in section; Fig. 4, a sectional view on the line *a b* of Fig. 1.

This invention relates to an improvement in thill-couplings; and particularly to that class which include a ball-and-socket joint, a forwardly-extending spring, and a clevis connected with one of the members of the coupling and engaged by the spring, the object of the invention being a simple arrangement of parts whereby a coupling is produced which is not liable to become clogged with dirt and which will be substantially antirattling; and the invention consists in the construction as hereinafter described, and particularly recited in the claims.

In carrying out my invention I employ an axle member A, which may be of any approved construction and adapted to be secured to an axle in the usual manner. Projecting forward from this body A is a neck B, terminating in a ball C. Secured to the body A in any desired manner is a spring D. As herein shown, this spring is secured to the upper face of the body A, projecting rearwardly therefrom and then bowed beneath the same and projecting forward to a point below the ball C, where it terminates in a hook E. The thill member has the usual shank F and the socket G, corresponding internally to the ball C, over which it is adapt-

ed to set, this socket preferably having a notch H, so as to give clearance for the neck B when the thills are raised. Projecting outward from opposite sides of the socket and preferably formed integral therewith are trunnions I, and suspended therefrom is a clevis J, formed with eyes sitting over said trunnions. The lower end of this clevis is substantially V-shaped and extends downward and is adapted to engage with the hook end E of the spring, the tendency of the spring being to draw the socket into engagement with the ball. To disengage the members, the spring is raised so that the clevis may be turned out of engagement with it, when the socket members will be free to be lifted away from the ball members and the parts may be as readily assembled. When the thills are raised, as in use, the sides of the notch H extend down beyond the neck or around the neck, so that the socket will be securely held on the ball.

It will thus be seen that I have produced a thill-coupling in which the joint or connection is substantially covered, so that mud and dirt are not liable to reach the bearing-surface. At the same time the ball closely fitting the seat will not rattle and the wear incidental to use will be taken up, so that the coupling may be used almost indefinitely without requiring adjustment.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A thill-coupling comprising a body portion and a forwardly-projecting ball, a thill member comprising a socket adapted to sit over the upper surface of said ball, a clevis connected with the sides of said socket independent of said ball, and a spring secured to said body and engaging said clevis, substantially as described.

2. A thill-coupling comprising a body having a forwardly-extending neck and a ball, a thill member comprising a socket adapted to sit over the upper surface of said ball and

formed with a clearance-notch for said neck,
trunnions on opposite sides of said socket, a
clevis suspended from said trunnions without
connection with said ball, and a spring secured
5 to the body and engaging with said clevis, sub-
stantially as described.

In testimony whereof I have signed this

specification in the presence of two subscri-
ing witnesses.

WILLIAM S. THOMSON.

Witnesses:

ERNEST D. PRINDLE,
CLEMENT EUSTIS, Jr.