

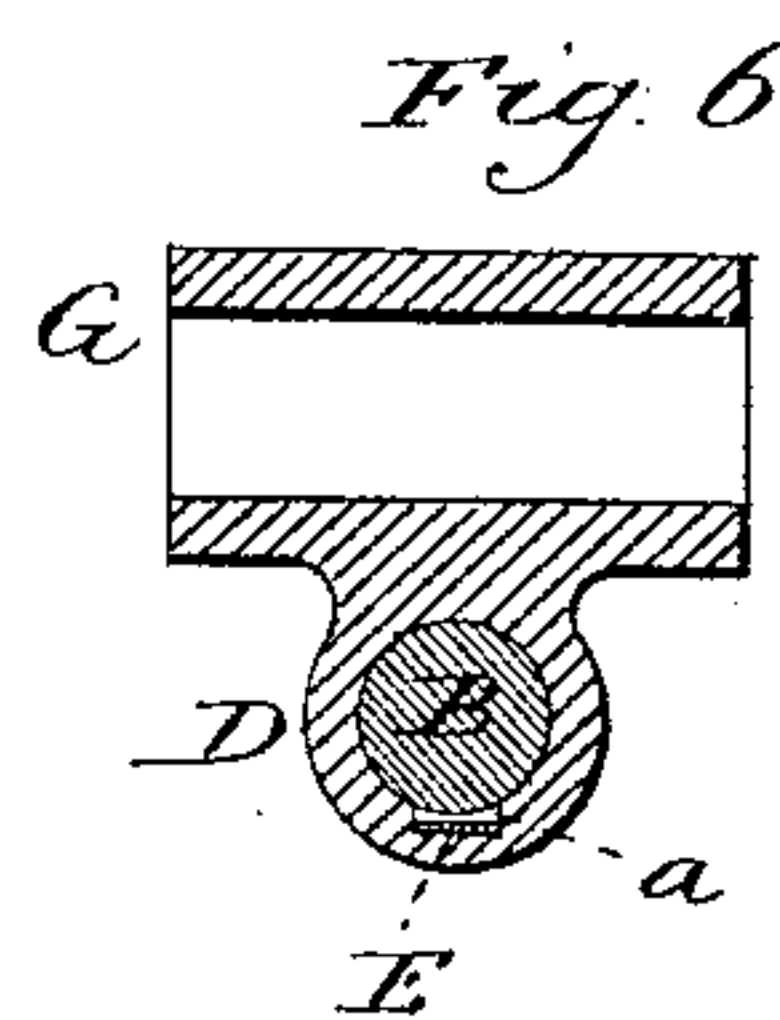
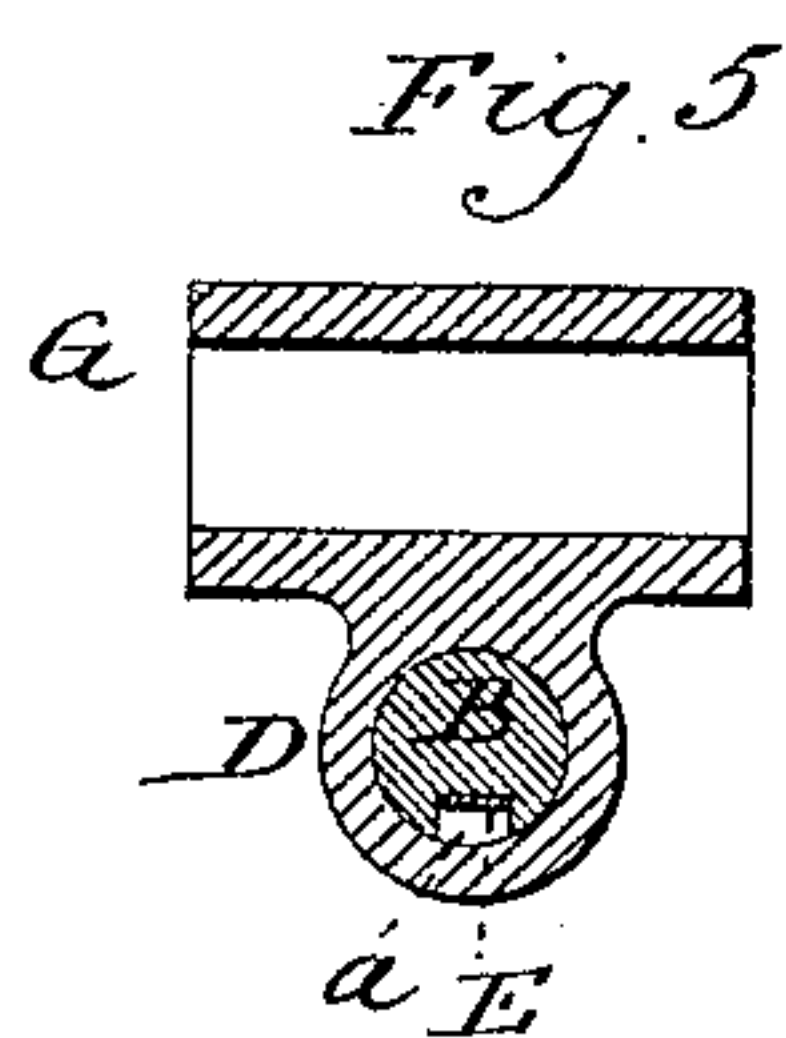
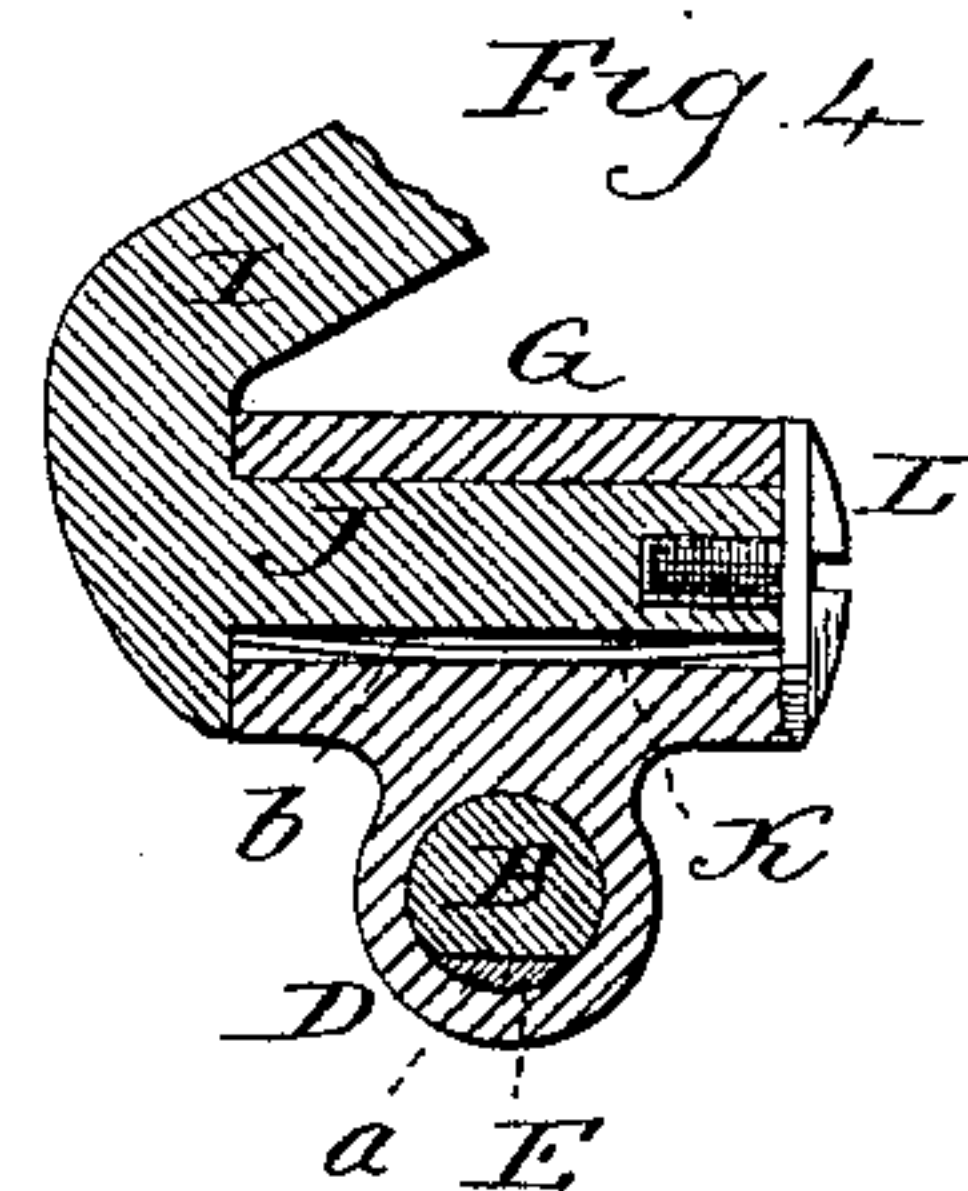
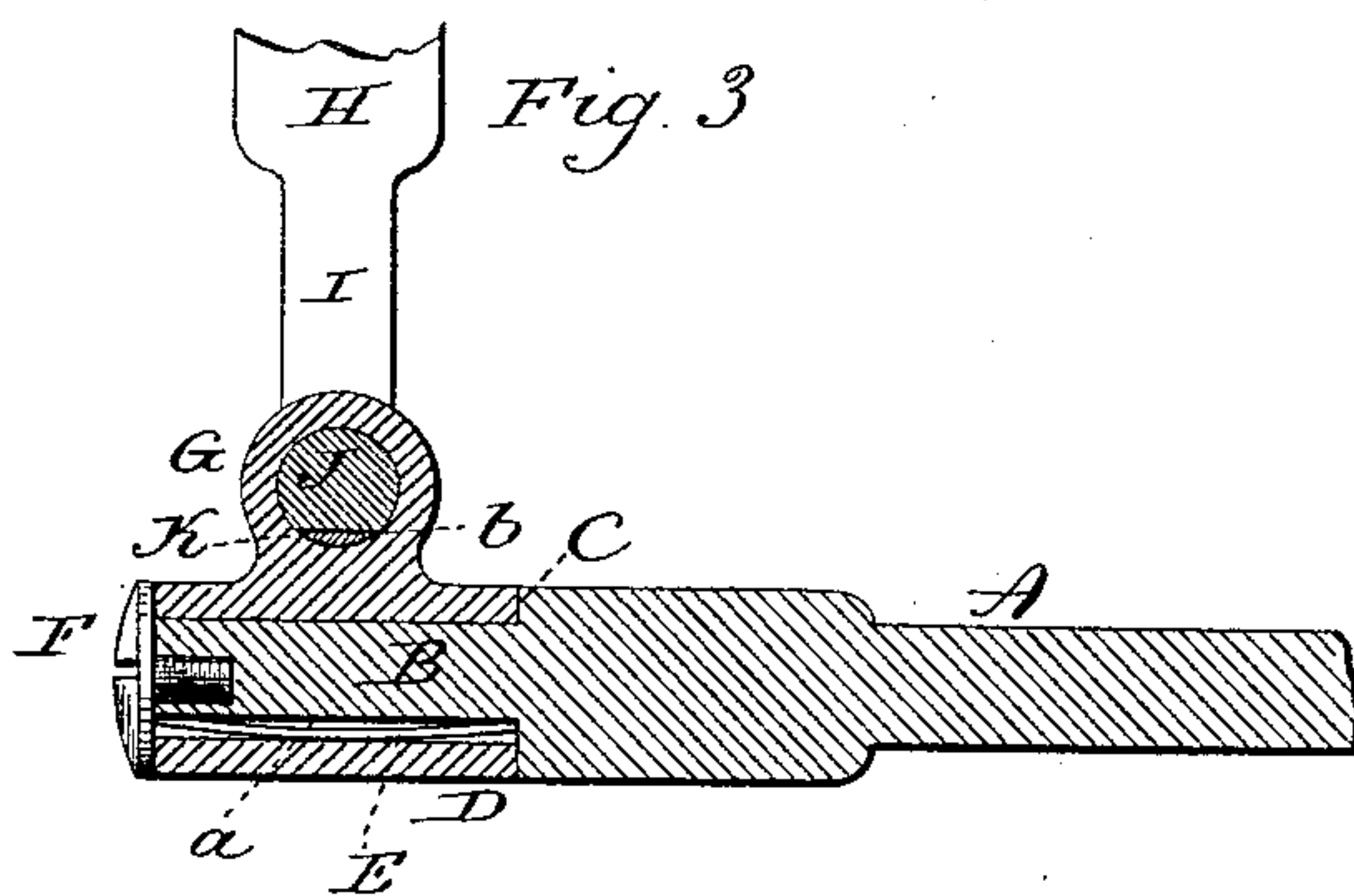
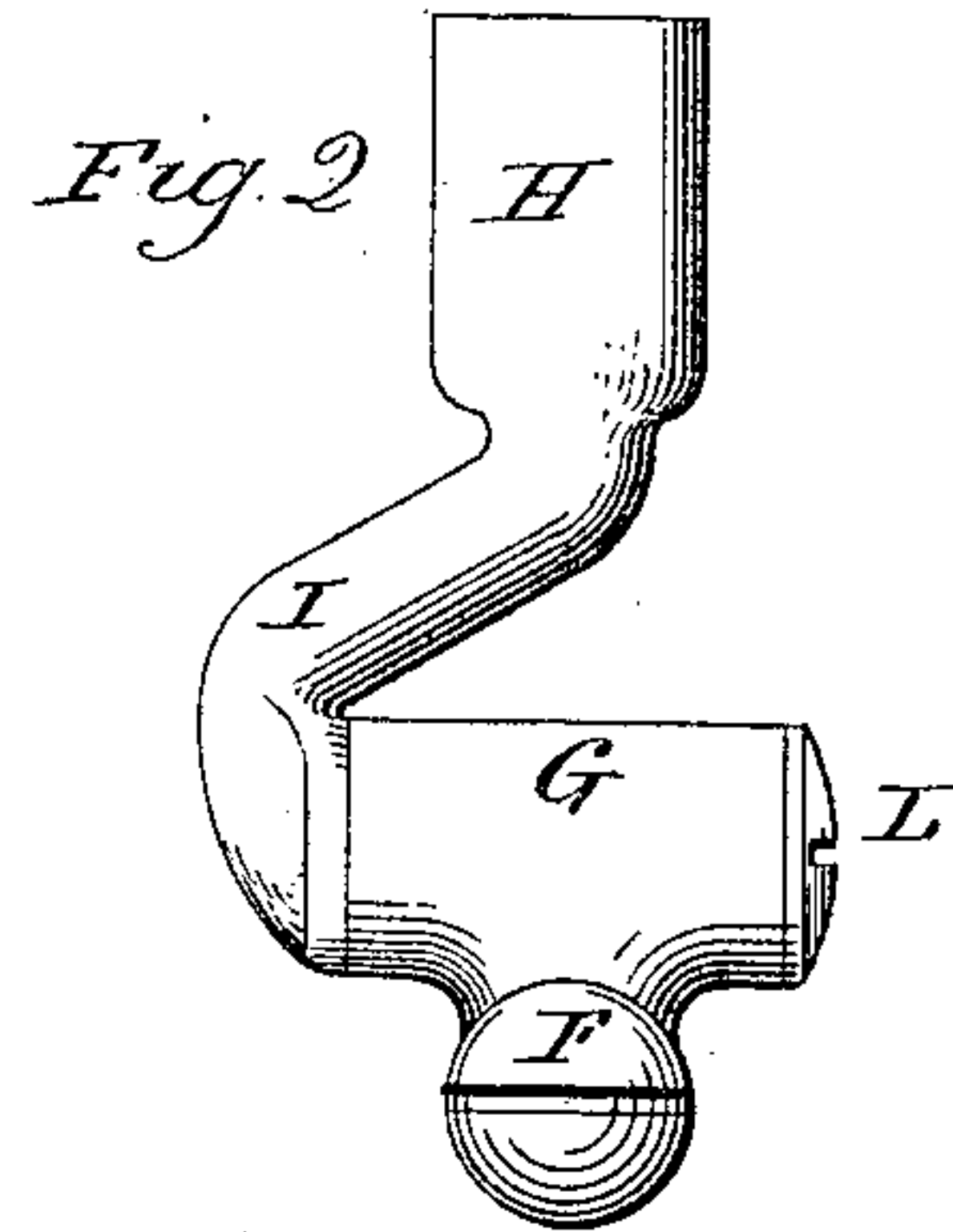
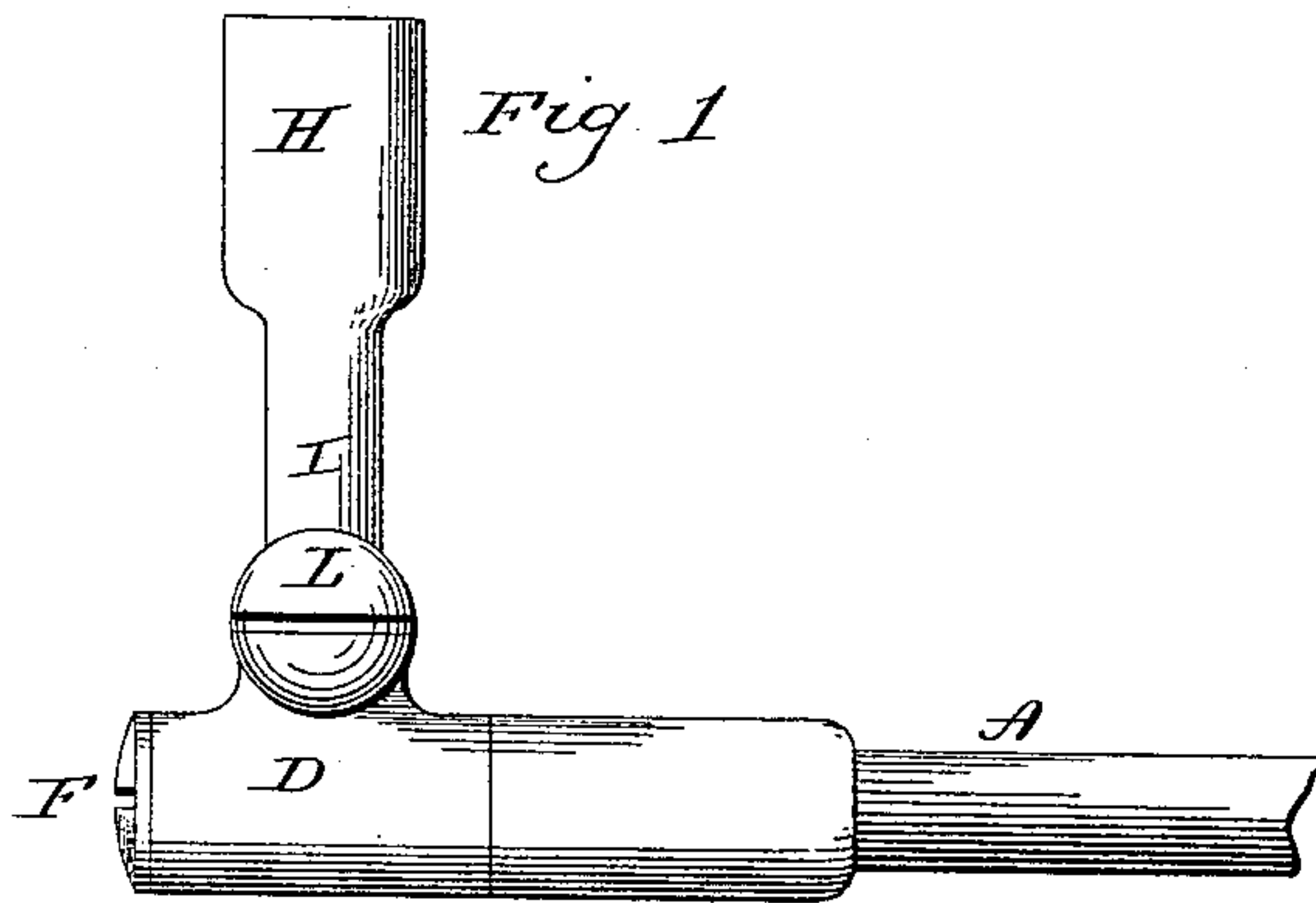
(No Model.)

W. GATES & A. G. SNELL.

CARRIAGE CANOPY JOINT.

No. 389,379.

Patented Sept. 11, 1888.



Witnesses,
J. H. Shumway,
Fred. C. C. C.

Wm. Gates,
and Adolphus G. Snell,
By atty. J. H. C. C.

UNITED STATES PATENT OFFICE.

WILLIAM GATES AND ADOLPHUS G. SNELL, OF NEW HAVEN, CONNECTICUT.

CARRIAGE CANOPY-JOINT.

SPECIFICATION forming part of Letters Patent No. 389,379, dated September 11, 1888.

Application filed June 18, 1888. Serial No. 277,479. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM GATES and ADOLPHUS G. SNELL, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Carriage Canopy-Joints; and we do hereby declare the following, when taken in connection with 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 portion of the canopy-supporting rod and the canopy-joint; Fig. 2, an end view of the same; Fig. 3, a longitudinal central section through the sleeve D, producing a transverse section through the sleeve G; Fig. 4, a transverse section through the sleeve D, producing a longitudinal section through the sleeve G; Figs. 5 and 6, modifications.

This invention relates to an improvement in canopies for children's carriages, and particularly to the joint by which the canopy is secured to the supporting-rod, the object of the invention being to construct a friction-joint whereby the canopy may be universally adjusted and held at any point to which it may be adjusted without other securing devices than that afforded by the friction of the joint itself; and it consists in the construction as hereinafter described, and particularly recited in the claims.

A represents the upper end portion of the rod by which the canopy is attached to the carriage-body. The construction of the rod and its attachment to the body may be any of the known contrivances for this purpose. The rod terminates in a pivot, B, which projects from a shoulder, C, on the rod. This pivot B is cylindrical in shape, except that it is flattened upon one side, as at *a*, (see Fig. 4,) and usually the axis of the pivot is horizontal. Onto the pivot B a sleeve, D, is placed, the interior of the sleeve being of a shape corresponding to the pivot, except as to the flat portion, and so that the sleeve may turn freely upon the pivot as its axis. To produce a friction between the pivot and its sleeve, a feather-spring, E, is introduced between the flat side of the spindle and the inner surface of the

sleeve. This spring is somewhat thinner than the depth of the said space and is curved, and so that as it is forced into the space between the sleeve and flat side of the spindle the spring will be compressed, and so that its reactive force will be applied between the pintle and sleeve to produce strong frictional contact between the spindle and sleeve, but yet so that the sleeve may be turned upon its pivot to the right or left by applying sufficient force thereto to overcome the said friction. The sleeve is held upon the pivot by means of a screw, F, introduced into the end of the spindle, its head extending over the end of the sleeve, as seen in Fig. 3; or any of the known equivalents may be substituted therefor.

Upon the sleeve D is a transverse sleeve, G, made as a part of the sleeve D. This sleeve G has an opening through it substantially the same as the opening through the sleeve D, except that the opening of the one sleeve is at right angles to the opening through the other sleeve. This second sleeve carries the vertical canopy-socket H. The socket itself is adapted to receive and hold the staff of the canopy, and is constructed with a shank, I, which terminates in a horizontal pivot, J—that is, at right angles to the socket. The pivot J corresponds to the opening through the sleeve G, except that upon one side it is flattened, as at *b*, the same as the pivot B, and into the sleeve a spring, K, is introduced to bear upon the flat side of the pivot J, the same as does the spring E on the pivot B, and the pivot is secured in the socket by a screw, L, like the screw F in the pivot B, or an equivalent therefor.

The springs in each sleeve produce the friction upon their respective pivots sufficient to support the sleeve D on the standard and the socket in its sleeve, but yet so as to allow the sleeve D to be rotated upon its pivot or the socket H to be rotated in its sleeve, so that the said parts will stand at any point to which they may be adjusted, and as the axis of the pivot J is at right angles to the axis B it follows that a universal adjustment of the socket H and the canopy it carries may be produced, and because of such frictional appliance any mechanically-operated device to secure the parts is avoided. The construction is simple

and cheap, and because of the avoidance of such mechanical appliances it is only necessary to tilt the canopy to the required position, where it will rest firmly supported.

5 While we prefer to make the recess in the sleeve by simply flattening one side of the pivots, the longitudinal recess may be made by a groove in the pivot, as represented in Fig. 5, the spring being introduced in that recess; 10 or the longitudinal recess may be formed in the sleeve, as seen in Fig. 6, and the spring introduced therein, it only being essential to the invention that there shall be a recess between the spring and sleeve, with a spring 15 therein to produce strong frictional bearing between the pivot and sleeve. We, however, prefer to make the longitudinal recess directly in the pivot.

It will be understood that the socket H is 20 to be constructed according to the staff or device provided on the canopy for its attachment.

We claim—

1. The combination of the canopy-rod A, 25 constructed with a pivot, B, upon its upper

end, the said pivot of cylindrical shape, except a longitudinal recess on one side, a sleeve, D, on said pivot, said sleeve D constructed with a transverse sleeve, G, the canopy-socket H, constructed with a pivot, J, corresponding 30 to the said sleeve G, except that said pivot is recessed upon one side, with a spring within each sleeve and in the recess in the pivots, substantially as and for the purpose described.

2. The combination of the canopy-rod constructed with a horizontal pivot at its upper 35 end, a sleeve, D, on said pivot, the said sleeve D constructed with a transverse sleeve, G, canopy-socket H, constructed with a pivot, J, corresponding to the said sleeve G, with a spring 40 arranged in each of said sleeves and in recesses between the said sleeves and their respective pivots, substantially as and for the purpose described.

WILLIAM GATES.
ADOLPHUS G. SNELL.

Witnesses:

JOHN E. EARLE,
FRED C. EARLE.