

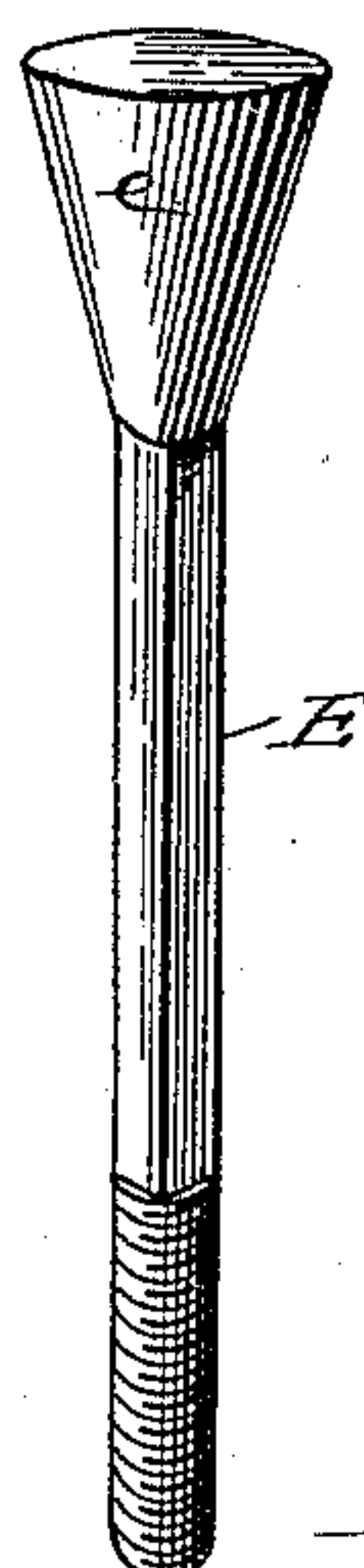
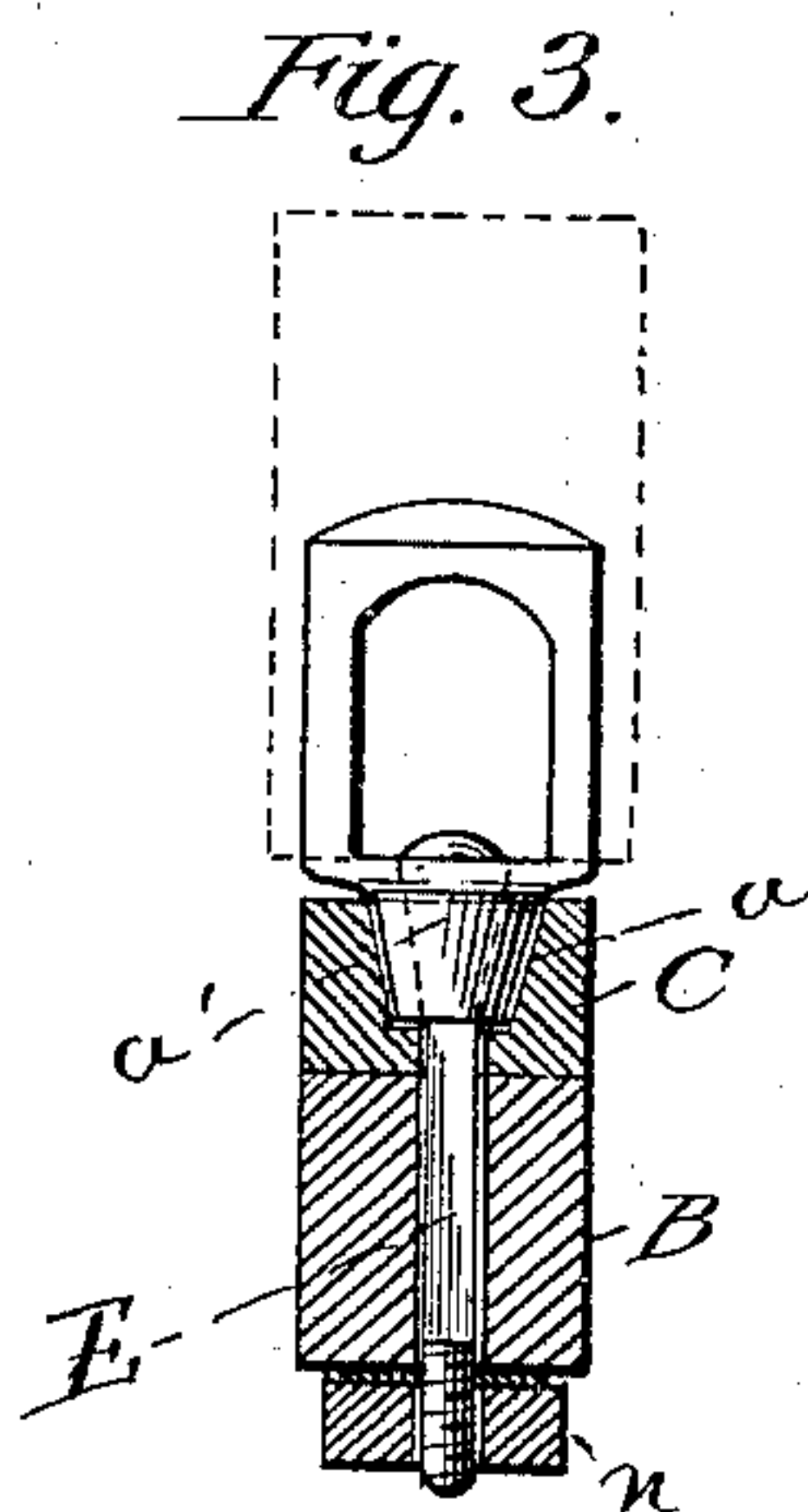
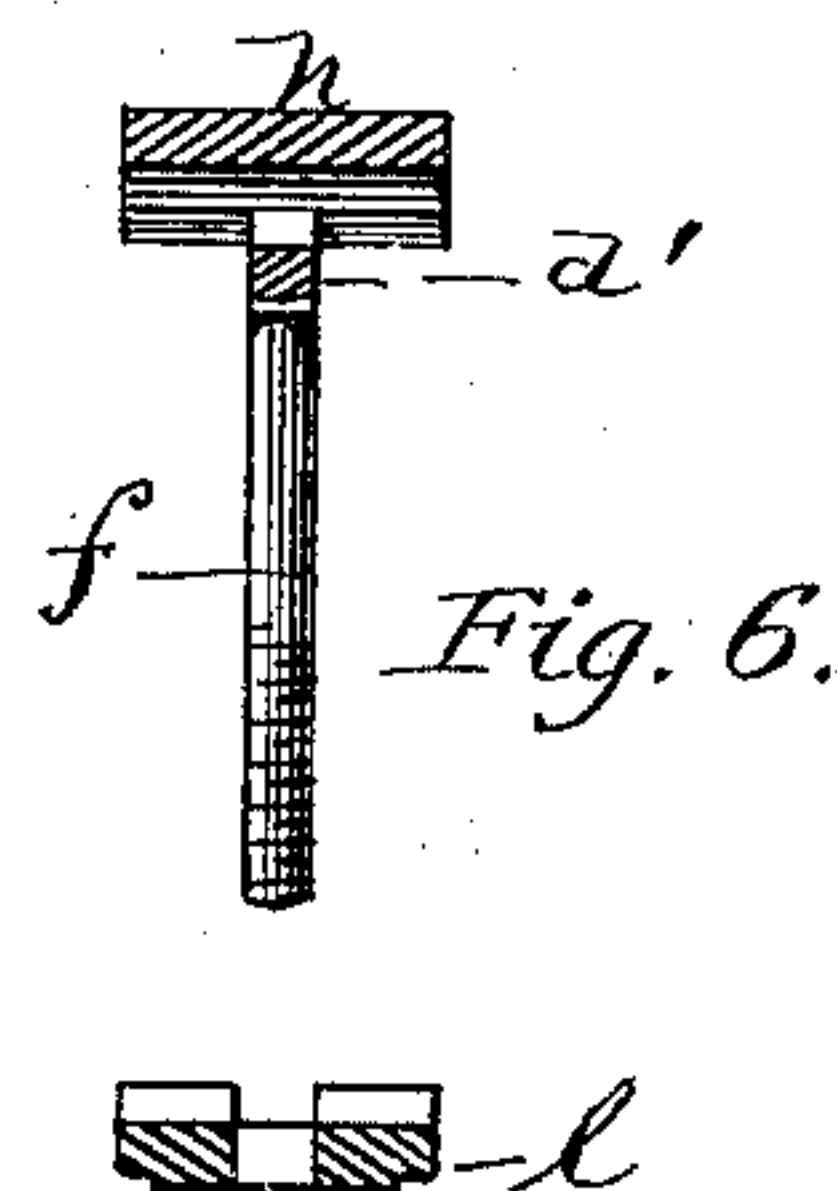
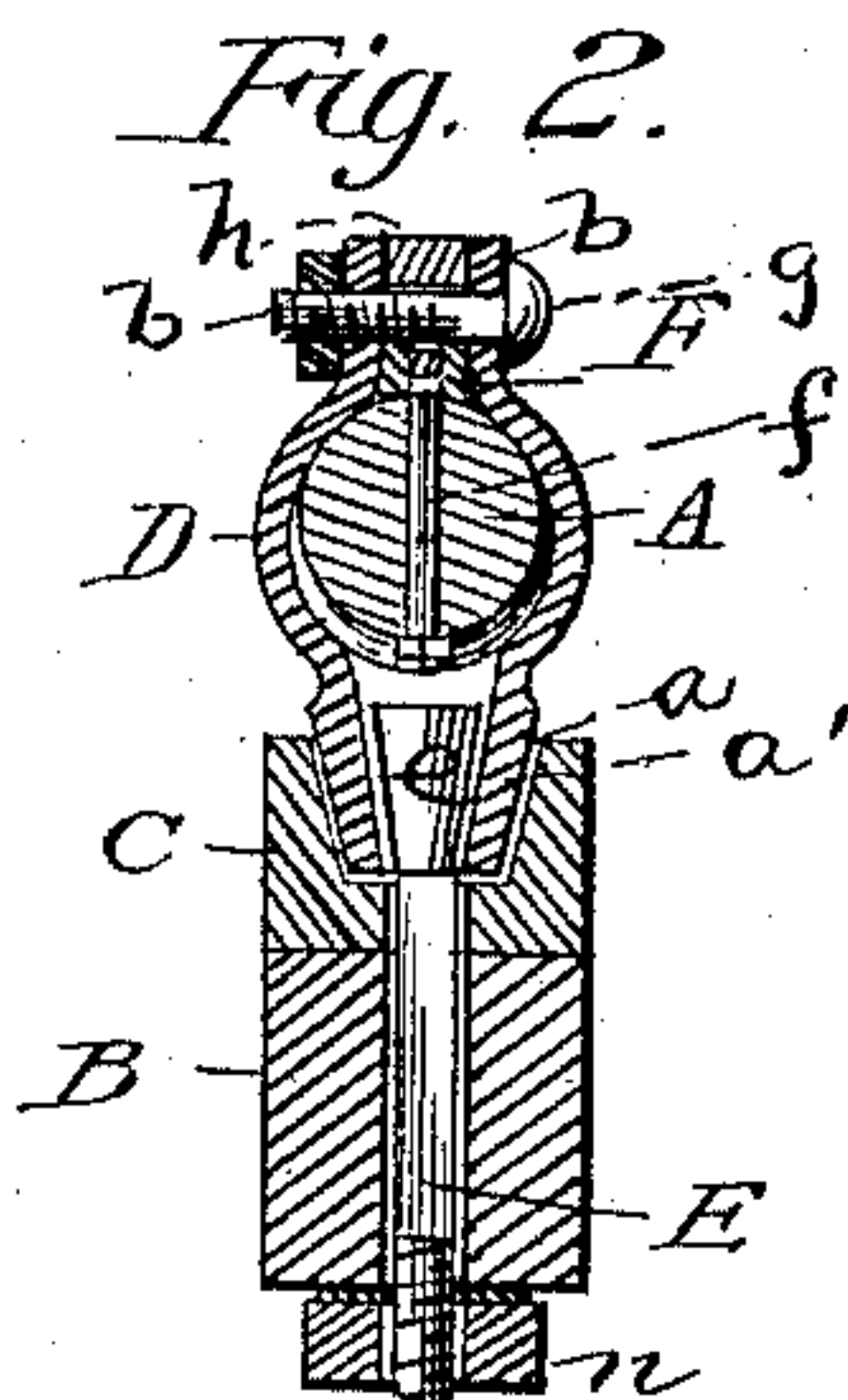
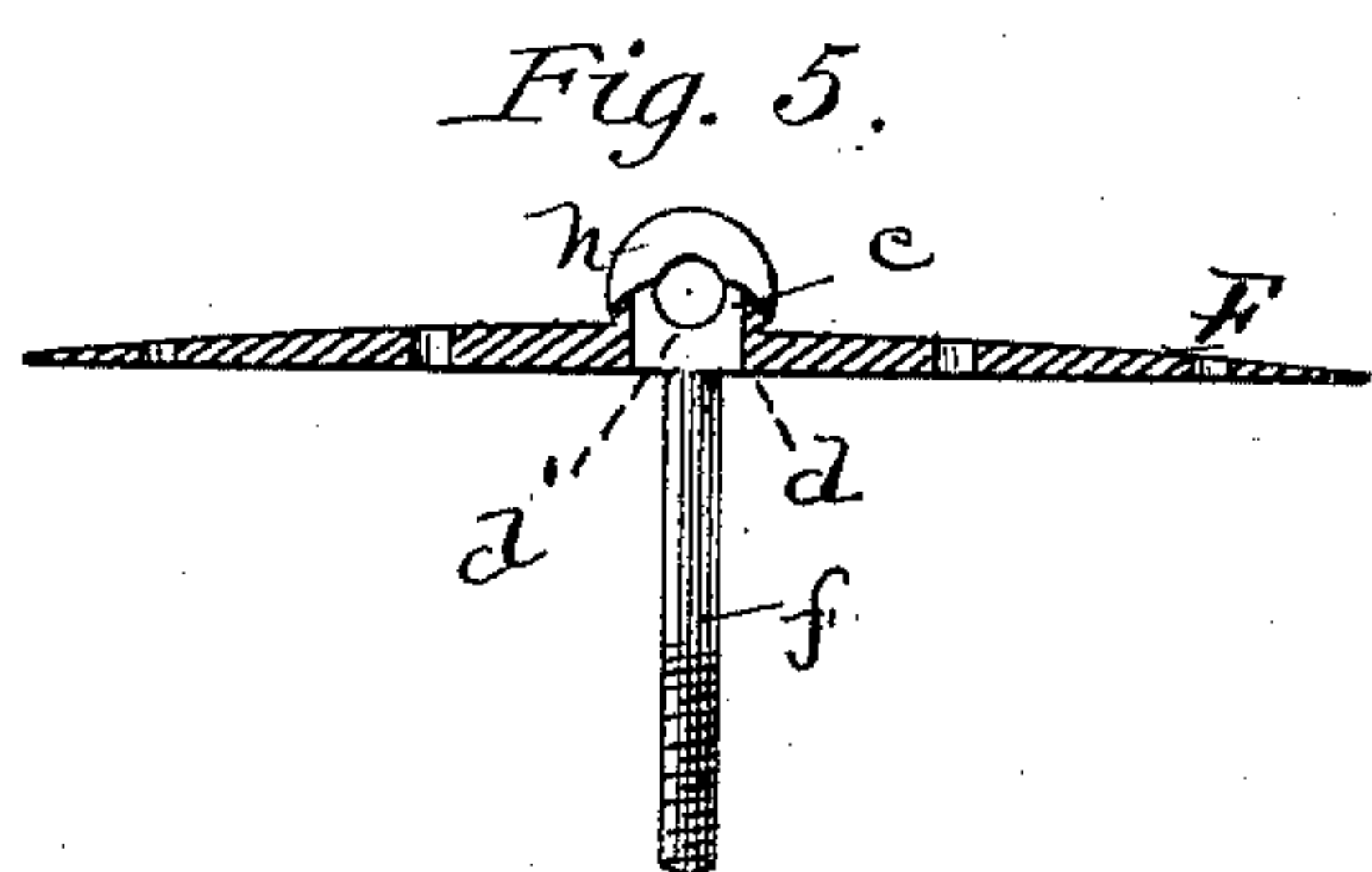
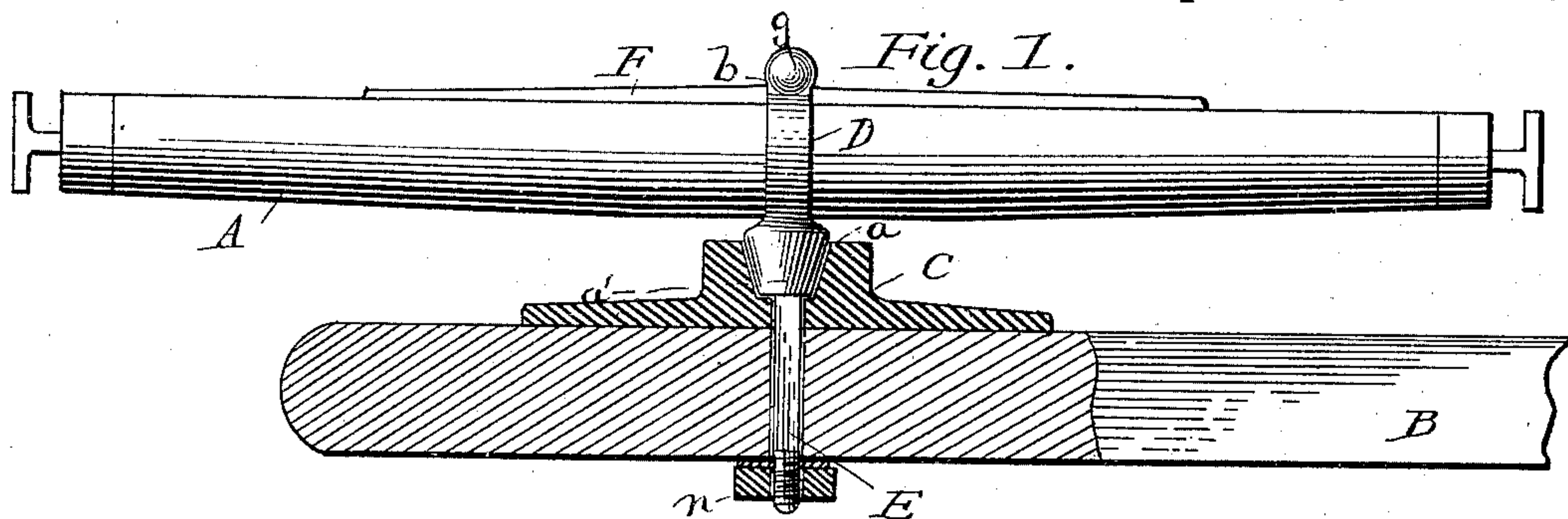
(No Model.)

W. F. ADAMS.

WHIFFLETREE COUPLING.

No. 370,590.

Patented Sept. 27, 1887.



Witnesses.

Corvus L. black.

Geo. A. Burnett

Inventor:

William F. Adams.

By

J. R. Drake.

Atty.

UNITED STATES PATENT OFFICE.

WILLIAM F. ADAMS, OF BUFFALO, NEW YORK.

WHIFFLETREE-COUPLING.

SPECIFICATION forming part of Letters Patent No. 370,590, dated September 27, 1887.

Application filed June 9, 1887. Serial No. 240,723. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. ADAMS, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Whiffletree-Couplings; and I do 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 the letters and figures of reference marked thereon, which form a part of this specification.

The object of this invention is to take off the wear on the connections of whiffletrees to the evener, and also to prevent rattling; and the invention as constructed and applied will be understood by reference to the following specification and claims.

In the drawings, Figure 1 is a side elevation of a whiffletree connected to an evener, the latter partly in section; Fig. 2, a vertical cross-section of the same through all the parts; Fig. 3, an elevation of a variation of a portion of the coupling, the evener in cross-section; Fig. 4, a full-size view of the bolt; Figs. 5 and 6, details of the fastening devices used in connection with the end of the coupling that holds the whiffletree.

A represents the whiffletree, and B the evener. C is a metal plate attached to the evener, in which a metal clamp or shackle, D, holding the whiffletree, sets in a conical socket, *a*, therein, its own base being conical. E is a bolt having a conical or beveled head, *e*, which sets in the corresponding socket, *a'*, of the clamp D, the plate C being beveled to receive the beveled base of the clamp D, and the inside of said base being beveled to receive the beveled head *e* of the bolt E. All this is to take up any wear in these parts and prevent rattling. (See Figs. 1, 2, 3.) The bolt from the point of the head down, or all that part that sets in the wooden evener, is made square, so as to prevent movement, the point being rounded to receive the nut *n*.

The plate F on the whiffletree is fastened to the outer face thereof and sets between the ends or lugs of the clamp D. (See Figs. 2 and 5.) It has the lower half of a socket, *c*, (for the nut-bolt *f*,) formed therein, and has an oblong slot, *d*, across as well as a hole for the pin or bolt *g* to hold all the parts together. The slot *d* is so constructed to admit a corre-

sponding oblong projection, *d'*, forming a part of the nut-bolt *f*, which goes through the middle of the whiffletree to set into this slot, and instead of having a flat head has an oblong semicircular head, *h*, (see Figs. 5 and 6,) to correspond with the lower half on the plate F, so that when the two come together they make a round hole for the bolt *g*, and which is held in place by a nut, as is also bolt *f*. (See Fig. 2.) The two parts of the socket *c h* where they meet are made beveling, (see Fig. 5,) the object also being to allow the taking up of any wear by merely screwing up the nut *l* on the end of the bolt *f*. This also prevents rattling.

In Fig. 3 the drawing shows a variation in the construction, where the shackle or clamp D, instead of being circular to inclose the whiffletree, is flattened so as to receive a leather (shown in dotted lines) for a loop around the whiffletree as now used in fine carriages. Besides preventing rattling and allowing the parts to be taken up in wear, this construction allows the whiffletree to be turned up in a vertical position and out of the way when in a barn or stable. My construction of the parts as described makes it absolutely noiseless.

I claim—

1. The plate F, having the semicircular half-socket *c* and an oblong slot, *d*, adapted to receive the bolt *f*, provided with the projecting part *d'*, and the upper half, *h*, of socket *c*, in combination with the whiffletree A and clamp D, all substantially as and for the purpose specified.

2. In combination with the whiffletree A and plate F, the clamp D, having the beveled or conical base *a'*, the metal plate and socket C *a*, an evener, B, adapted to receive the beveled base *a'* of said clamp D, and the square bolt E, having the conical head *e*, all substantially as and for the purpose specified.

3. The combination of the whiffletree A, having plate F thereon, provided with the bolt *f*, the clamp D, having the beveled base *a'* and provided with the bolt E *e*, the plate and socket C *a*, adapted to receive the base *a'* of clamp D, and the evener B, all substantially as and for the purpose specified.

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

WILLIAM F. ADAMS.

Witnesses:

J. R. DRAKE,
FRANCIS F. FARGO.