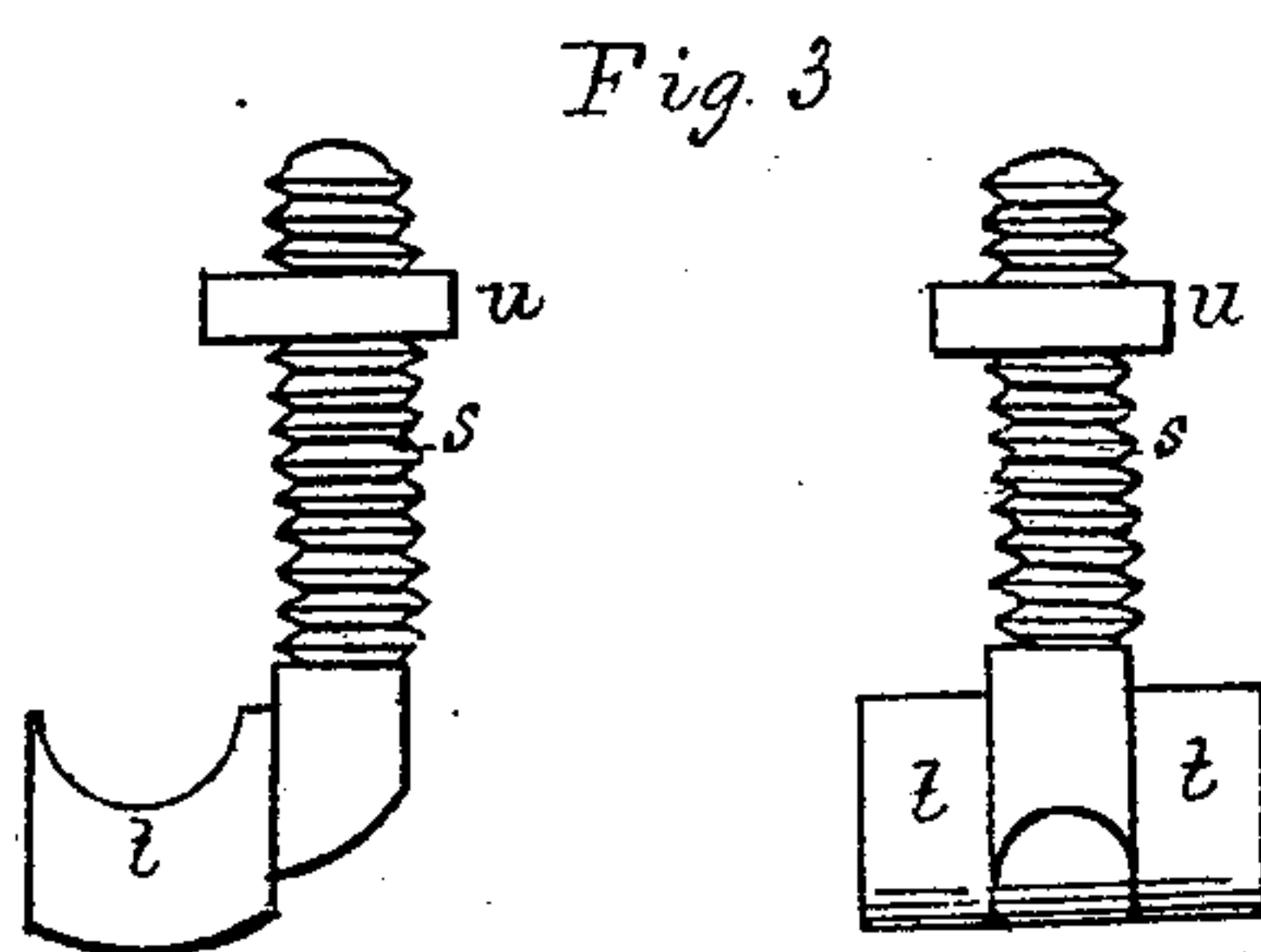
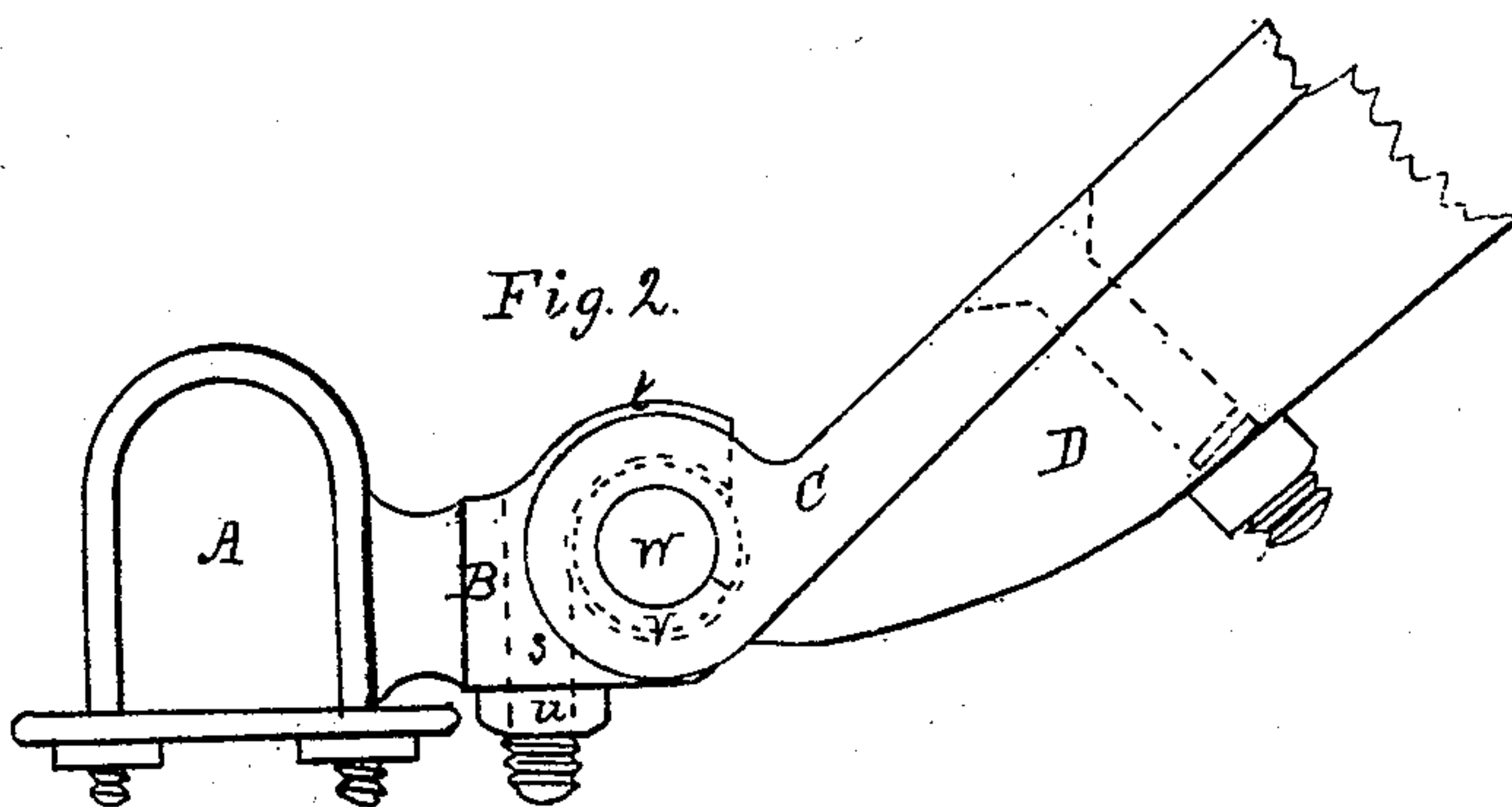
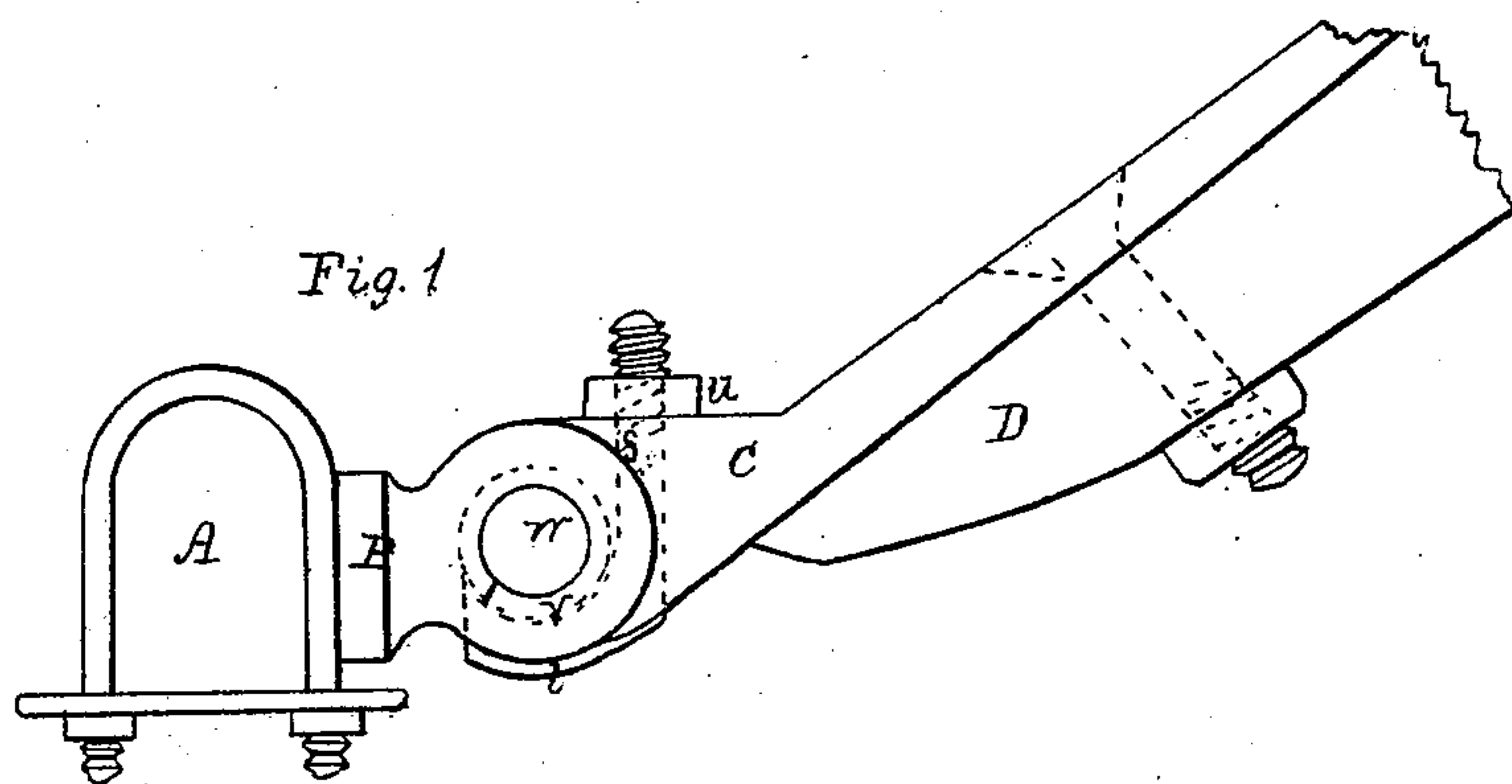


B. F. HARRISON.

Thill-Coupling.

No 92,821.

Patented July 20, 1869.



Witnesses.
W. M. Gouching
Edward Collier

Inventor
B. F. Harrison

United States Patent Office.

BENJAMIN F. HARRISON, OF NEWARK, NEW JERSEY.

Letters Patent No. 92,821, dated July 20, 1869; antedated July 15, 1869.

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, BENJAMIN F. HARRISON, of the city of Newark, in the county of Essex, and State of New Jersey, have invented certain Improvements in Couplings of Thills to Carriages; and I do hereby declare the following to be a full and exact description thereof, reference being herein had to the drawings that accompany this specification as part of the same.

The nature of my improvement consists in so combining a screw and cap-box that it shall allow of a practical adjustment of the pressure of the flexible collar upon the draught-bolt or pin in the clip, the collar or packing, when first inserted, made or forced into an oval form, the nut being tight, while yet a space is left between the cap and the box, allowing a tightening or following up of the cap on the collar or packing by the screw upon the draught-pin or bolt, as the collar or packing shrinks or wears away.

In the drawings—

Figure 1 represents the combined box and screw in a position in a coupling which brings the adjusting-nut on the upper side of the coupling.

Figure 2 represents the position of the combined screw-box reversed, so that the adjusting-nut is on the under side.

Figure 3 is an end and back view of the combined screw-box.

The same letters refer to the same parts in each figure.

A denotes the carriage-axle;

B, the part technically termed the clip;

C, the eye-piece, to which the thills are attached;

D shows the thill; and

V, the collar or packing.

In fig. 1, the box for the reception of the flexible encasing V, of the draught-pin W, is formed in the eye-piece C. In fig. 2, it is formed in the clip B. In the former, the clip embraces the eye-piece C. In the latter, the eye-piece embraces the clip. In both, the combined screw-box cap *s t* confines the encasing V to the draught-pin W, adjustable as to pressure by the nut *u*, the screw and the cap-box being formed of one piece of metal, and so made that they will not come together tight or solid while the collar or packing is between the metal and the pin or bolt W, but can be drawn tighter, at pleasure, by the screw.

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

The combination of the screw-cap *s t* with the collar-packing V, constructed and arranged in the manner and for the purpose shown.

Witnesses:

W. M. GOODING,
EDWARD COLLIER.

B. F. HARRISON.