

(No Model.)

O. W. SANBORN.
DRAFT EQUALIZER.

No. 435,457.

Patented Sept. 2, 1890.

Fig. 1.

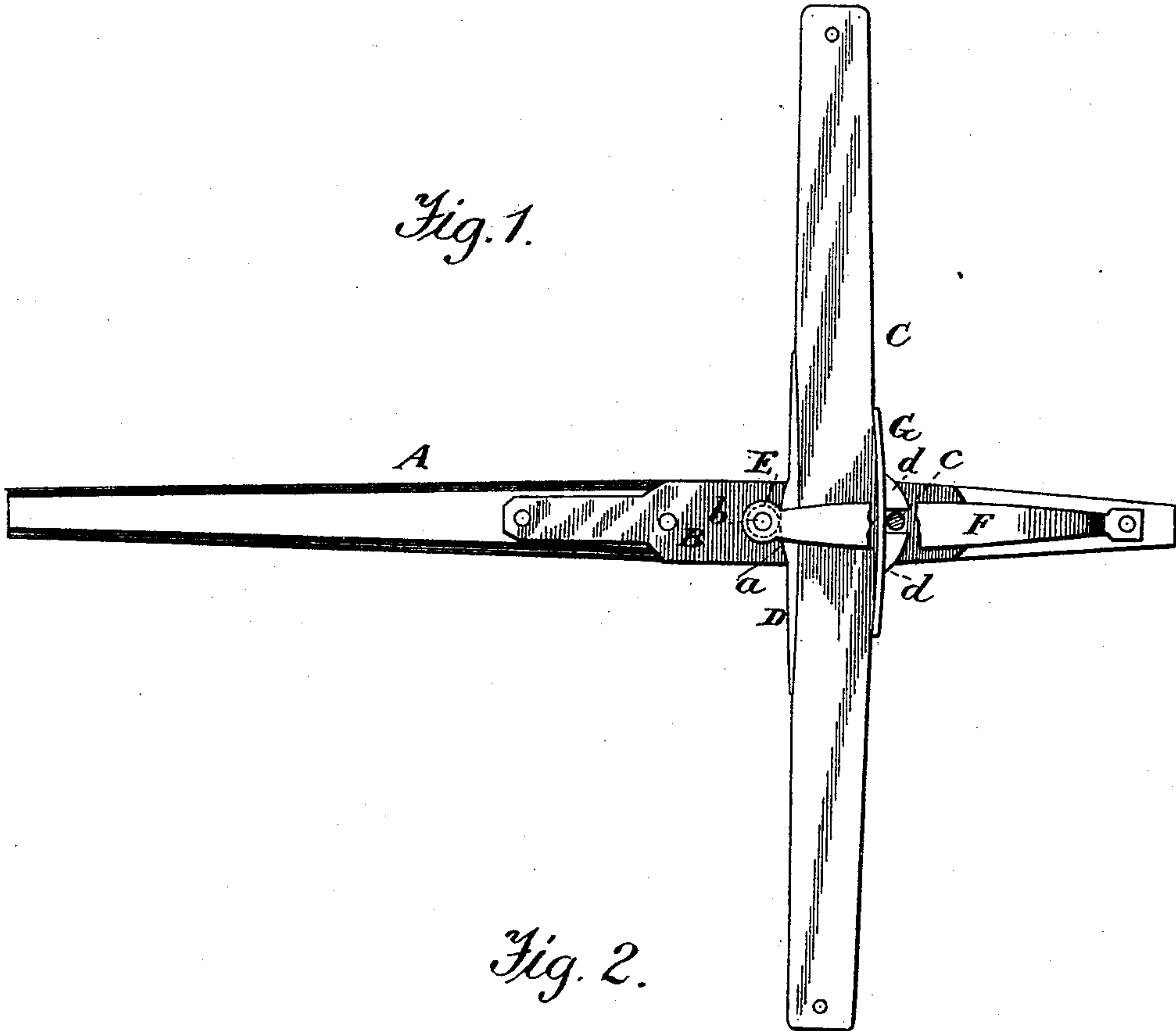


Fig. 2.

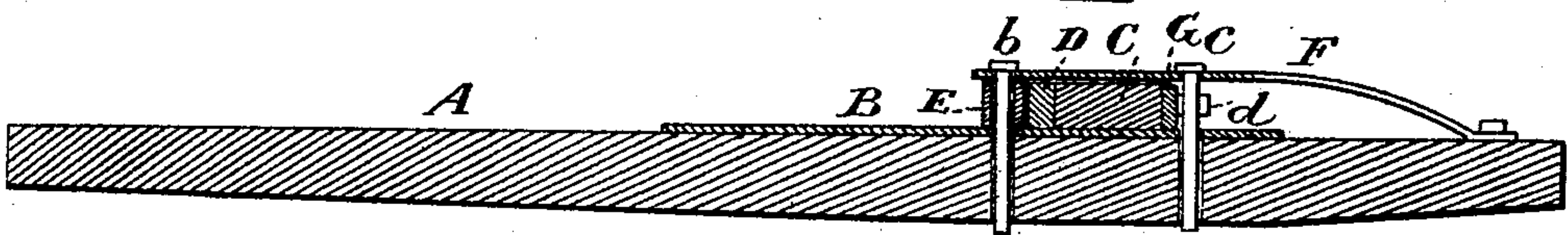
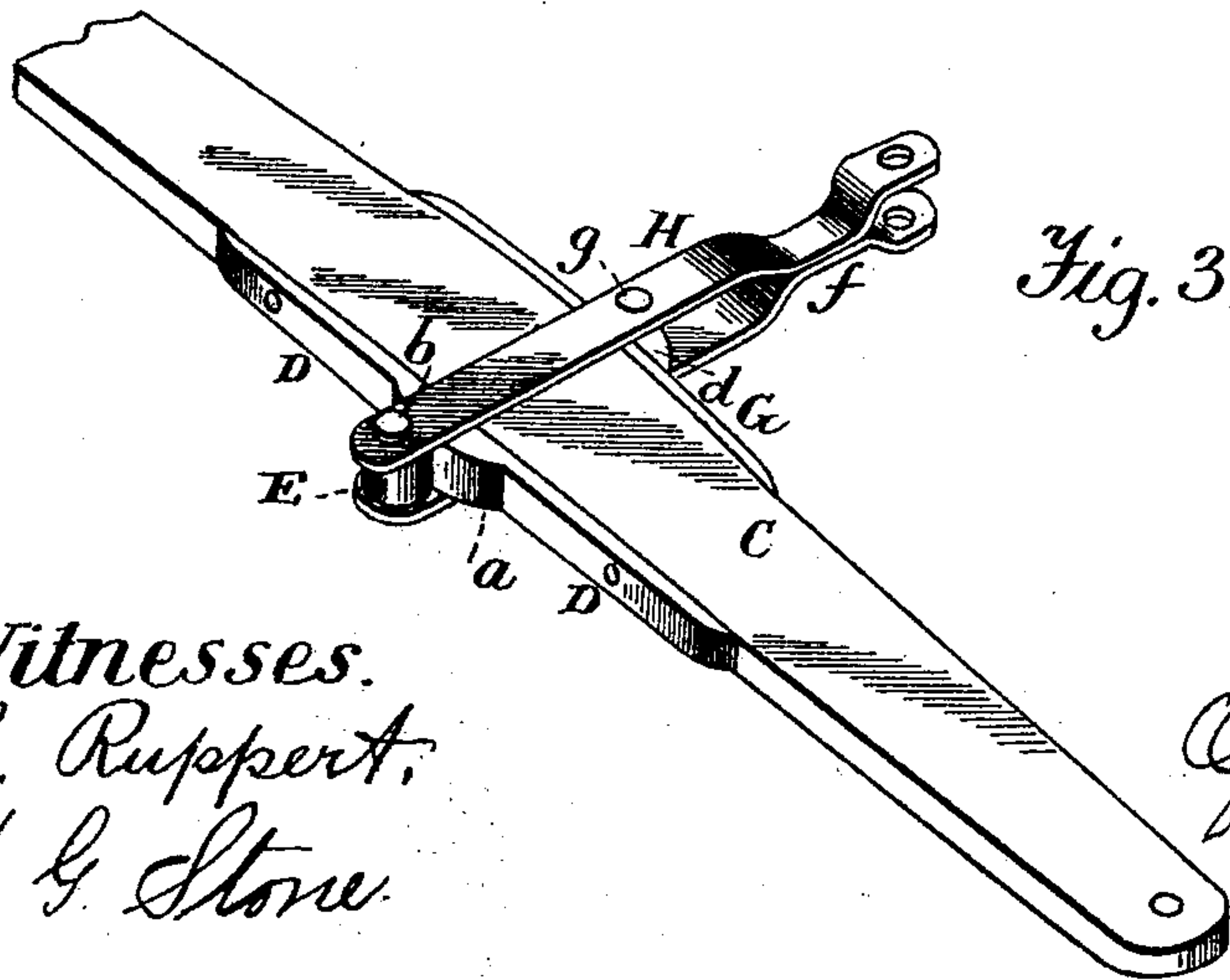


Fig. 3.



Witnesses.
A. Ruppert,
M. G. Stone.

Inventor.
Omer W. Sanborn
by Franklin A. Hough
his attorney

UNITED STATES PATENT OFFICE.

OSMER W. SANBORN, OF LOWE, KANSAS.

DRAFT-EQUALIZER.

SPECIFICATION forming part of Letters Patent No. 435,457, dated September 2, 1890.

Application filed April 11, 1890. Serial No. 347,483. (No model.)

To all whom it may concern:

Be it known that I, OSMER W. SANBORN, a citizen of the United States, residing at Lowe, in the county of Chautauqua and State of Kansas, have invented certain new and useful Improvements in Evener Attachments for Doubletrees; 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 of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in doubletree attachments or eveners; and it has for its object among others to provide a simple, cheap, durable, and efficient device of this character, wherein perforating the doubletree for the passage of a bolt is dispensed with, thus lessening the tendency to break, as has been found to be the case where a hole is made in the doubletree. I provide a wearing-plate to be attached to the doubletree, said plate being formed with a curved surface adapted to engage a roller on the pole. A plate is attached to the opposite side or edge of the doubletree to engage a vertical bolt or rod on the pole to prevent displacement of the doubletree and avoid the necessity of puncturing the doubletree.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claim.

The novelty resides in the peculiar combinations, and the construction, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the drawings, and then particularly pointed out in the claim.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a top plan of a pole with my improvements applied thereto. Fig. 2 is a longitudinal section through the same. Fig. 3 is a perspective view of the attachment adapted to be applied to a plow.

Like letters of reference indicate like parts in all the views where they occur.

Referring now to the details of the drawings by letter, A designates a pole, of known construction, to which is attached a wearing-plate B.

C is the doubletree, which is not weakened by a bolt-hole, but is provided upon its front edge with a plate D, secured thereto in any suitable manner and provided centrally with a curved portion *a*, as shown best in Fig. 1, adapted to engage a roller E on a vertical pivot *b*. This vertical pivot passes through the roller and through the pole and plate thereon, and through the end of a spring-plate F, which at its rear end is secured to the upper face of the pole and to the rear of the doubletree carries a vertical pin *c*, which enters a hole in the pole. The rear edge of the doubletree has affixed thereto a plate G, which is slightly on a curve and provided centrally with two lugs *d* with a space therebetween.

In practice the pivot *b* and roller are removed and the doubletree placed in position on the top of the pole and plate B thereon, and pushed rearward until the lugs *d* embrace the vertical pin *c* on the pole; then the roller and pivot *b* are placed in position and the draft applied. The heavy draft of the hind horse is overcome. On a heavy pull the stout horse will pull ahead, and when he does he has the most to pull, thus easing the weaker horse. All stay-chains are done away with. The curve of the plate on the front edge of the doubletree working on the roller renders the friction very slight, and renders the device easily operated.

In Fig. 3 I have shown a modified form of my invention applicable to plows. In this form, instead of the pole and the wearing-plate, I provide the double arm H, secured together at *f*, and at the rear end perforated for the reception of bolts or other securing means to fasten it to the plow-beam or other part to which it is to be affixed, and at the forward end perforated for the reception of a vertical pivot for the roller, the pin *g* being the equivalent of the pin *c*.

What I claim as new is—

The combination, with the doubletree hav-

ing upon its front face a plate D, with central curved portion, and at its rear face provided with a plate G, formed centrally with lugs *d d*, with a space between them, of the
5 double metallic arm embracing the double-tree upon the top and bottom, and united near the rear end and formed with perforated ends and secured together between said perforated ends and the doubletree, the vertical pin
10 passed through the double arm and between

the lugs *d d*, the vertical pin at the front end, and the roller on said pin engaging the curved portion of the plate D, substantially as shown and described.

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

OSMER W. SANBORN.

Witnesses:

G. W. CUNNINGHAM,
GEORGE HURST.