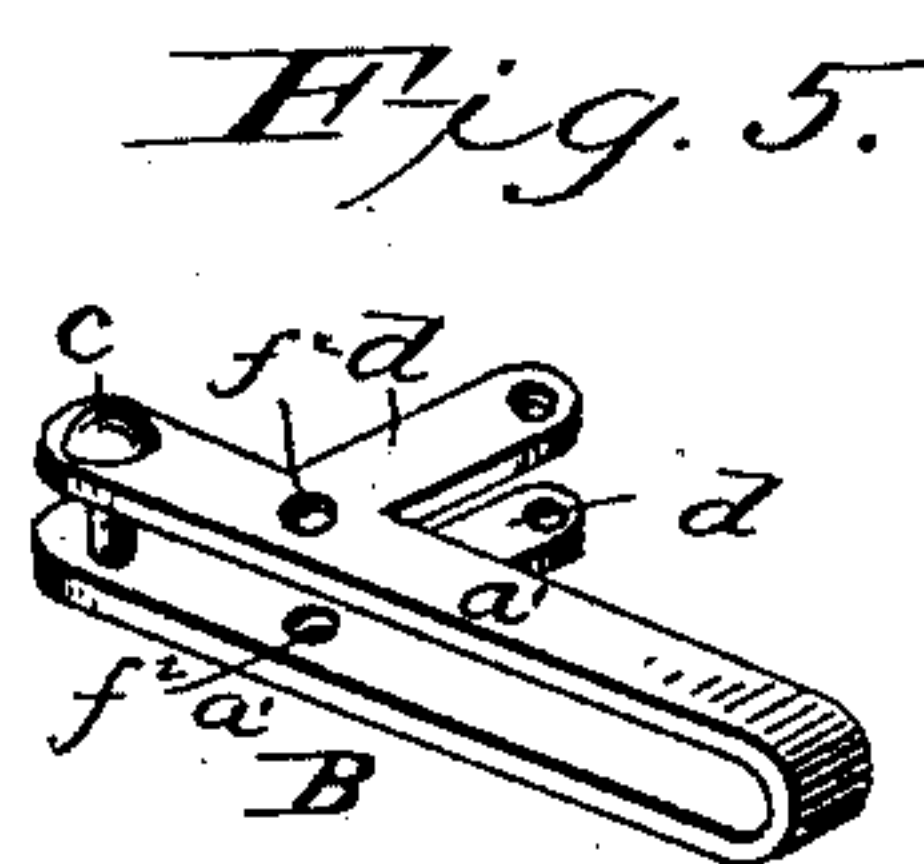
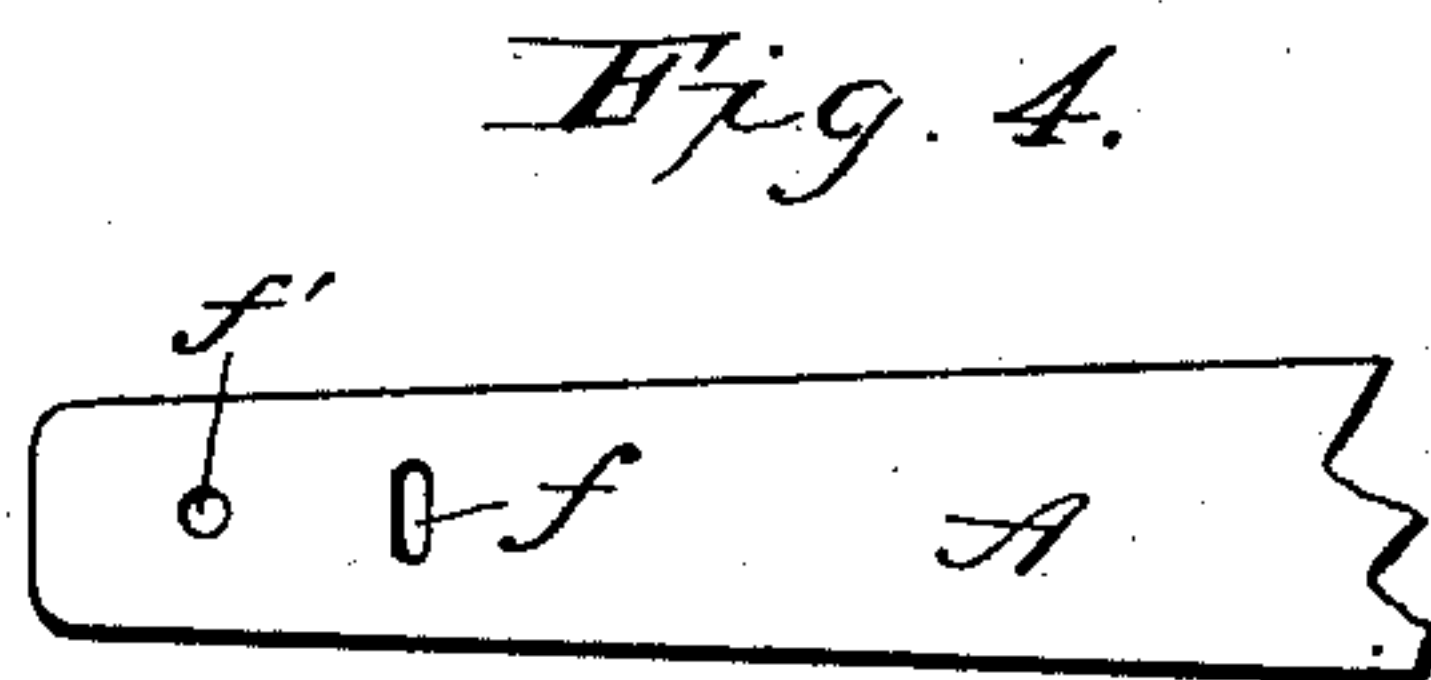
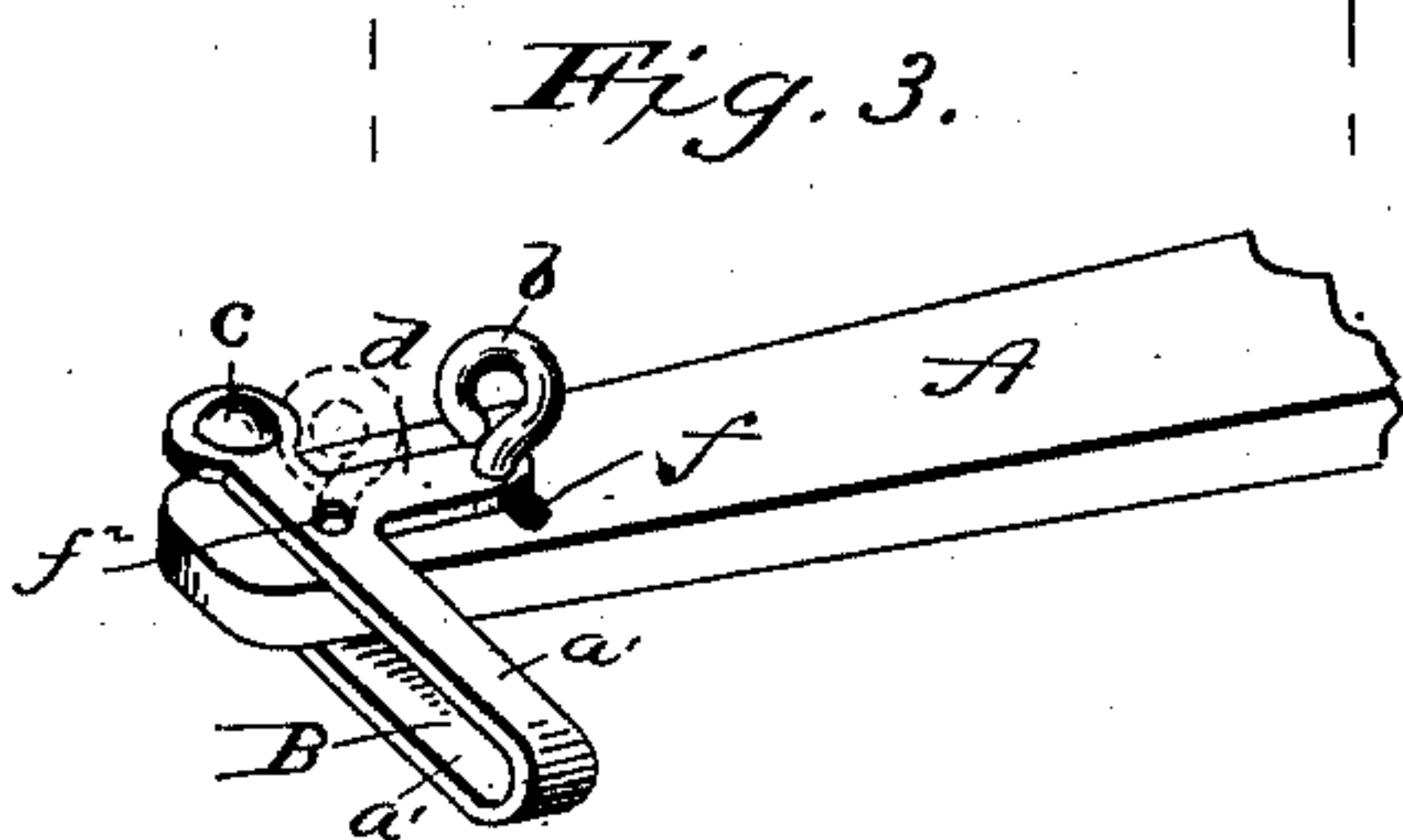
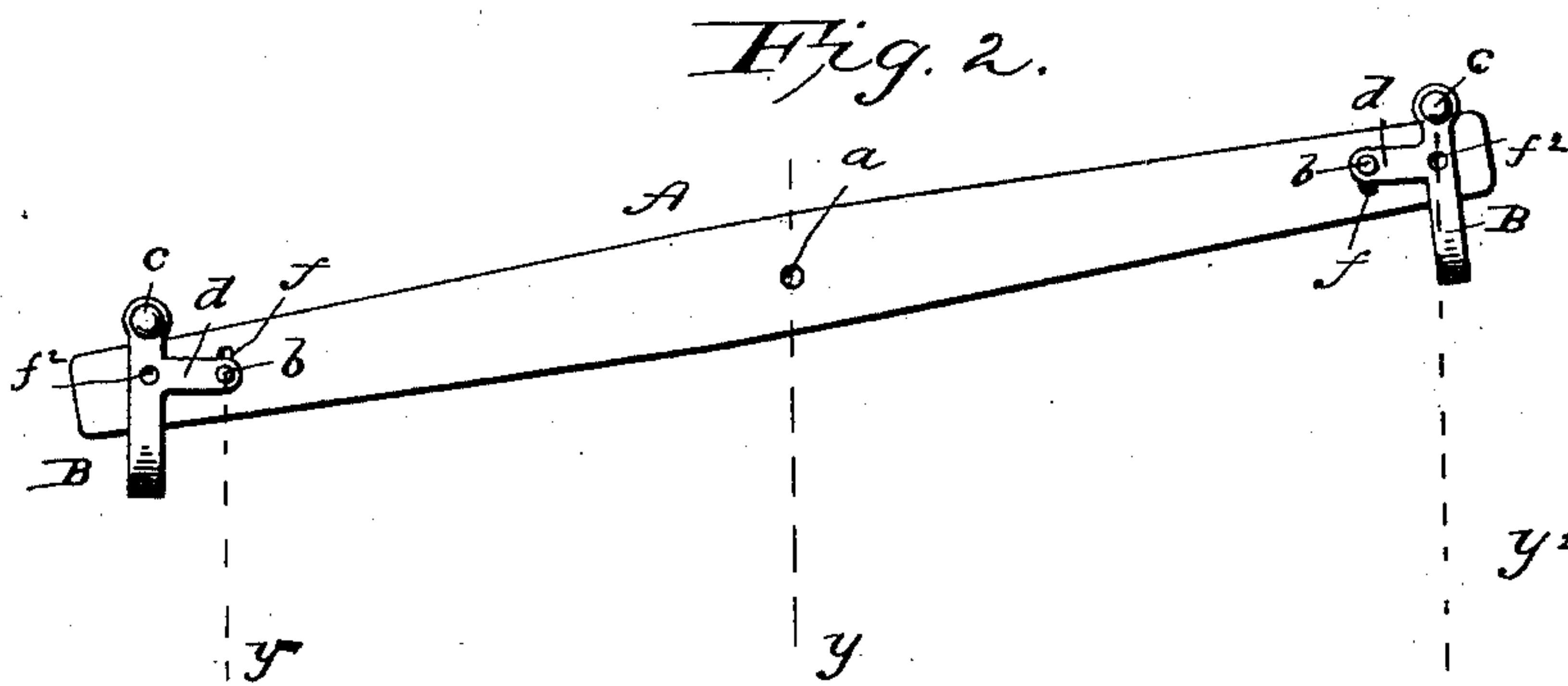
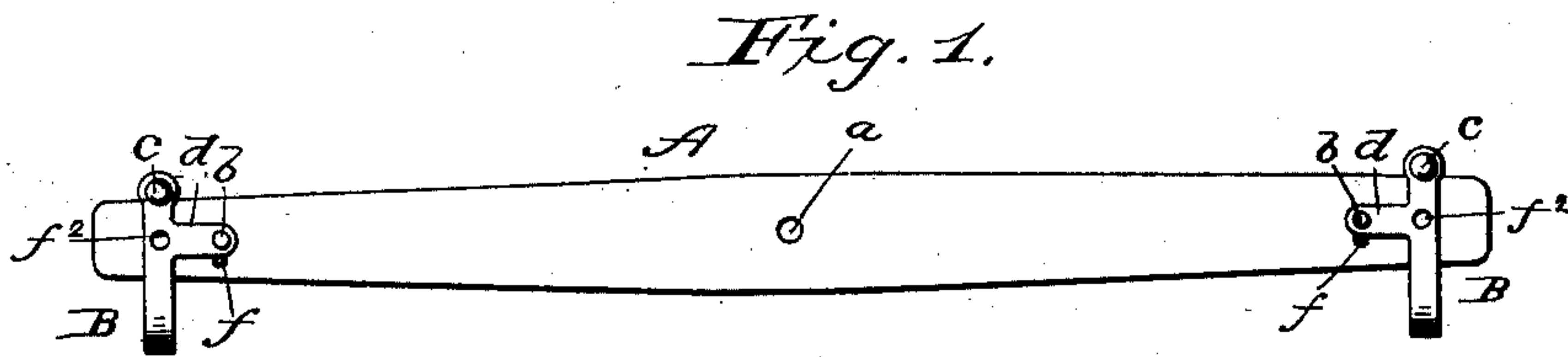


(No Model.)

W. H. BAKER.
DRAFT EQUALIZER.

No. 367,740.

Patented Aug. 2, 1887.



Witnesses

John S. Finch Jr.
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UNITED STATES PATENT OFFICE.

WILLIAM H. BAKER, OF OXFORD, ASSIGNOR OF ONE-HALF TO SAMUEL W. SMITH, OF PONTIAC, MICHIGAN.

DRAFT-EQUALIZER.

SPECIFICATION forming part of Letters Patent No. 367,740, dated August 2, 1887.

Application filed June 10, 1887. Serial No. 210,924. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. BAKER, a citizen of the United States, residing at Oxford, in the county of Oakland and State of Michigan, have invented certain new and useful Improvements in Draft-Equalizers; 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.

This invention relates to draft-equalizers wherein two horses are hitched to a double-tree abreast; and my object is to so contrive a device that the horses will pull alike.

The invention which I have made will be fully understood from the following description, taken in connection with the annexed drawings, in which—

Figure 1 is a top view of my improved device, showing the double-tree in a position at right angles to the line of draft. Fig. 2 is a similar view of the same parts, showing the double-tree oblique to the line of draft. Fig. 3 is a perspective view in detail, indicating the clevis-pin, by the aid of dotted lines, in two positions. Fig. 4 is an end view of one end of the double-tree, showing the slot and pin-hole. Fig. 5 is a perspective view of the improved clevis without the fulcrum-pin.

Referring to the annexed drawings by letter, A designates a double-tree or evener-bar; which is pivotally connected to a draft-pole or other object at *a* by the usual king-bolt. Equidistant from this point *a*, I form slots *f* vertically through the said double-tree near its ends, and beyond these slots I make vertical perforations *f'*. The slots on the perforations are equidistant from the central perforation, *a*.

I now employ clevises B, which are constructed as follows: Each clevis consists of a long loop having right-angular offsets *d*, which are perforated vertically and designed to receive through them a removable pin, *b*, which passes through the slots *f* in the double-tree. The holes *f'* through the ends of the double-

tree A are for a purpose which will be hereinafter described. The clevises have vertical fulcrum pins or bolts *c* at their rear extremities, which serve two purposes—to wit, they unite the rear ends of the longitudinal portions *a'* of the clevises, and they also afford bearings against the rear edge of the double-tree when this tree is moved out of line, as indicated in Fig. 2 on the right-hand side of this figure.

When the horses are abreast and drawing evenly, the double-tree will be at right angles to the line of draft and in the position indicated in Fig. 1. When the animals pull alike and it is desired to use the devices as ordinary clevises, the pins *b* are put through the holes *f*² and *f'*. When the animals do not pull evenly, the pins *b* are inserted through the lateral projections or arms *d* and through the slots *f*. The slots *f* are at right angles to the length of the double-tree, and when the pins *b* are passed through the arms *d* and through said slots they will move forward and backward and allow the vertical pins *c* to find a bearing on the posterior edge of the double-tree, according to the draft exerted by the different draft of the animals pulling. For example, reference being had to Fig. 2 of the annexed drawings, it will be observed that the dotted line *y* indicates the common line of draft; the dotted line *y'* indicates the line of draft for the horse which pulls the strongest, and the dotted line *y*² indicates the line of draft for the horse which is behind. This Fig. 2 is designed to represent the position of the double-tree with respect to the clevises when this double-tree is oblique to the line of draft, and it illustrates that the pin or bolt *c* on one end of the double-tree has been moved away from the rear edge of the double-tree, while the pin *c* of the opposite clevis has been moved toward and bears against the double-tree.

It will thus be seen that the leverage is compensating and automatically adjusting; that the rear pins or connecting-bolts, *c*, find a bearing against the rear edge of the double-tree when the pins *b* are adjusted in the position indicated in Fig. 3. It will also be seen from the above description that I am able to use

the clevises B by a simple adjustment of the pins *b* for two horses which pull alike, or for two horses which pull differently.

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

The combination, with a doubletree perforated at *f'* and transversely slotted at *f*, of perforated loop-shaped clevises provided with

vertical fulcrum-pins *e* and perforated offsets *d*, 10 and an interchangeable pin, *b*, adapted for the several perforations through the clevises.

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

WILLIAM H. BAKER.

Witnesses:

J. C. BIRD,

JAMES W. BERRIDGE.