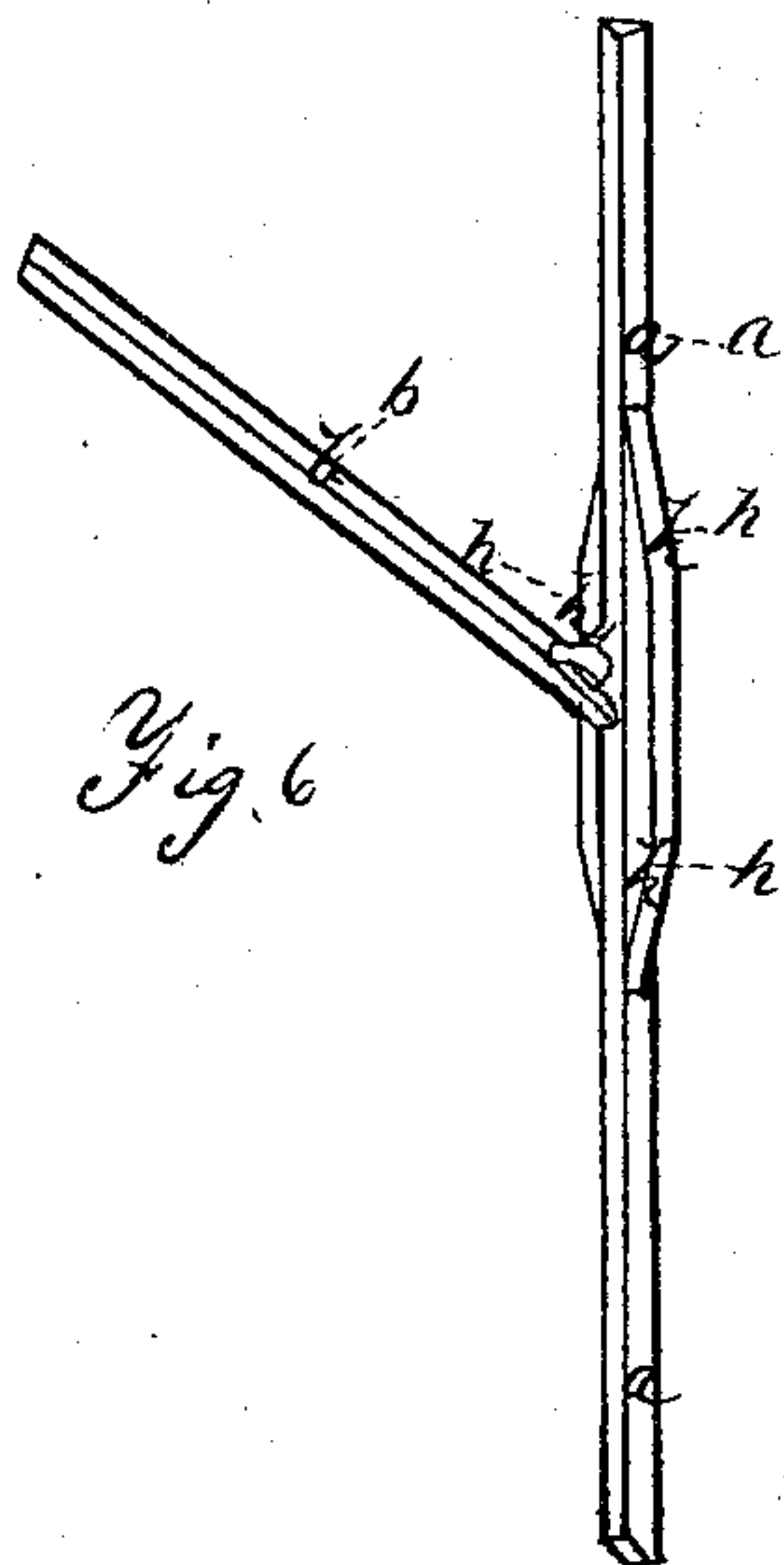
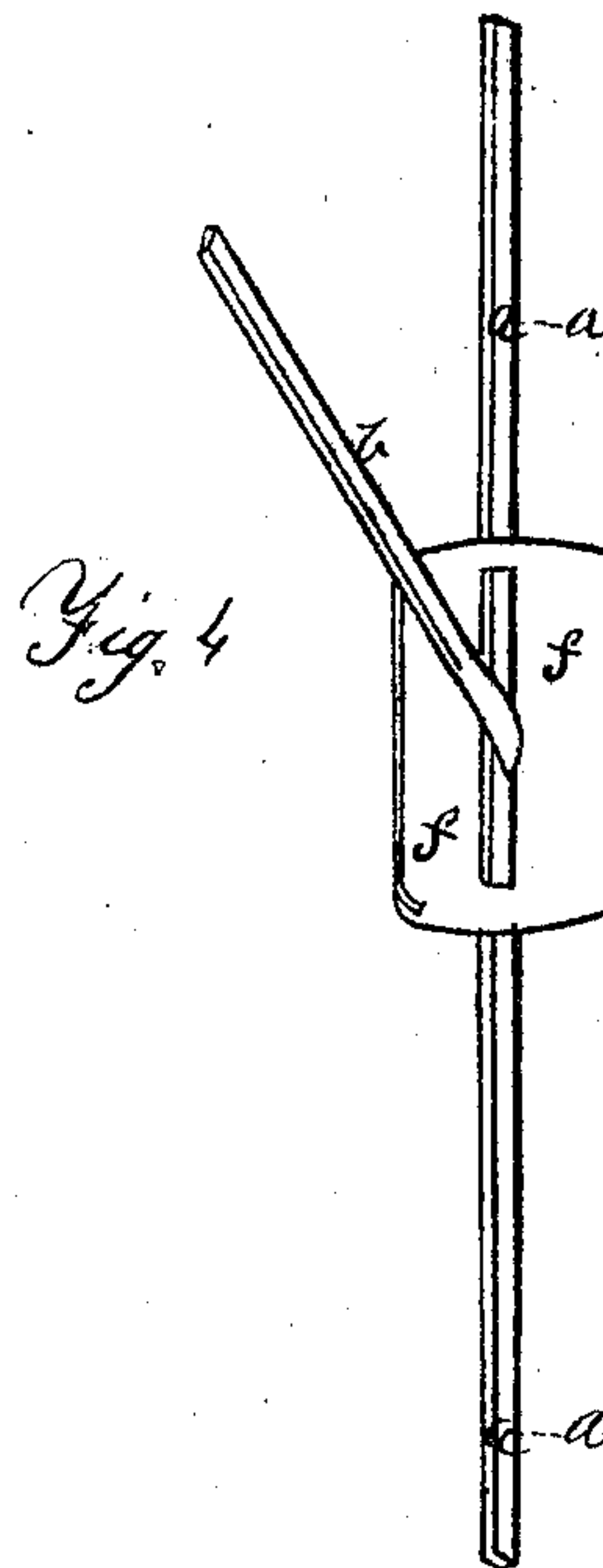
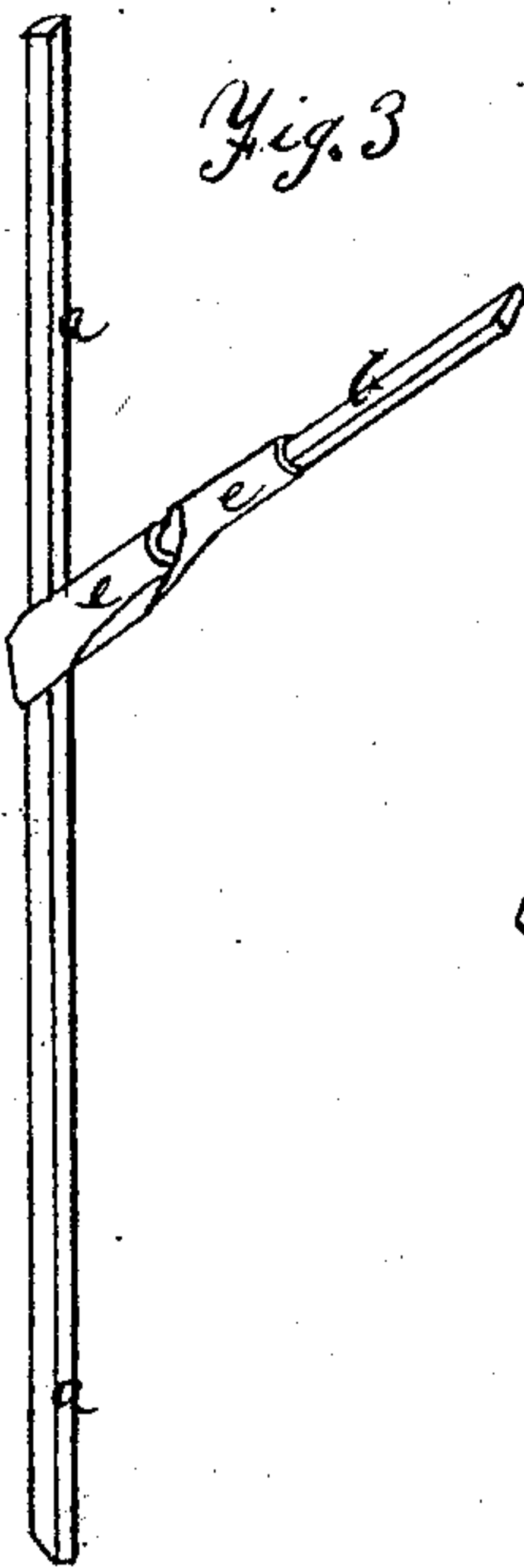
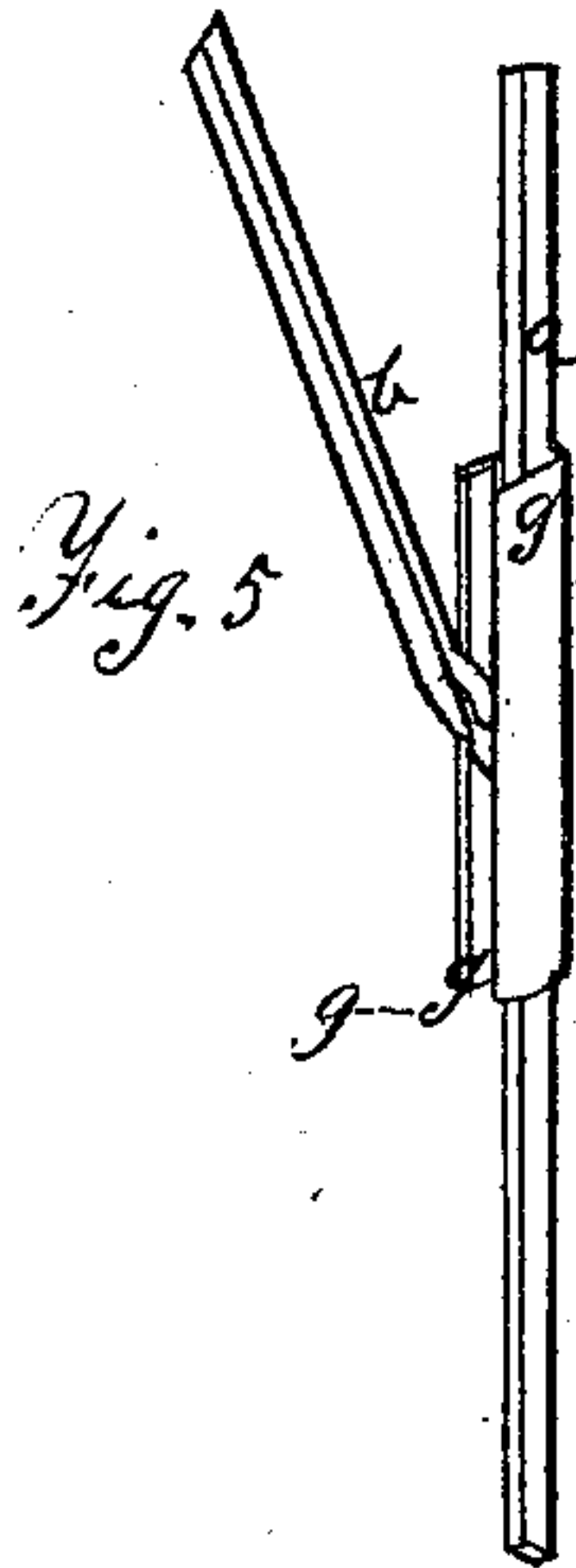
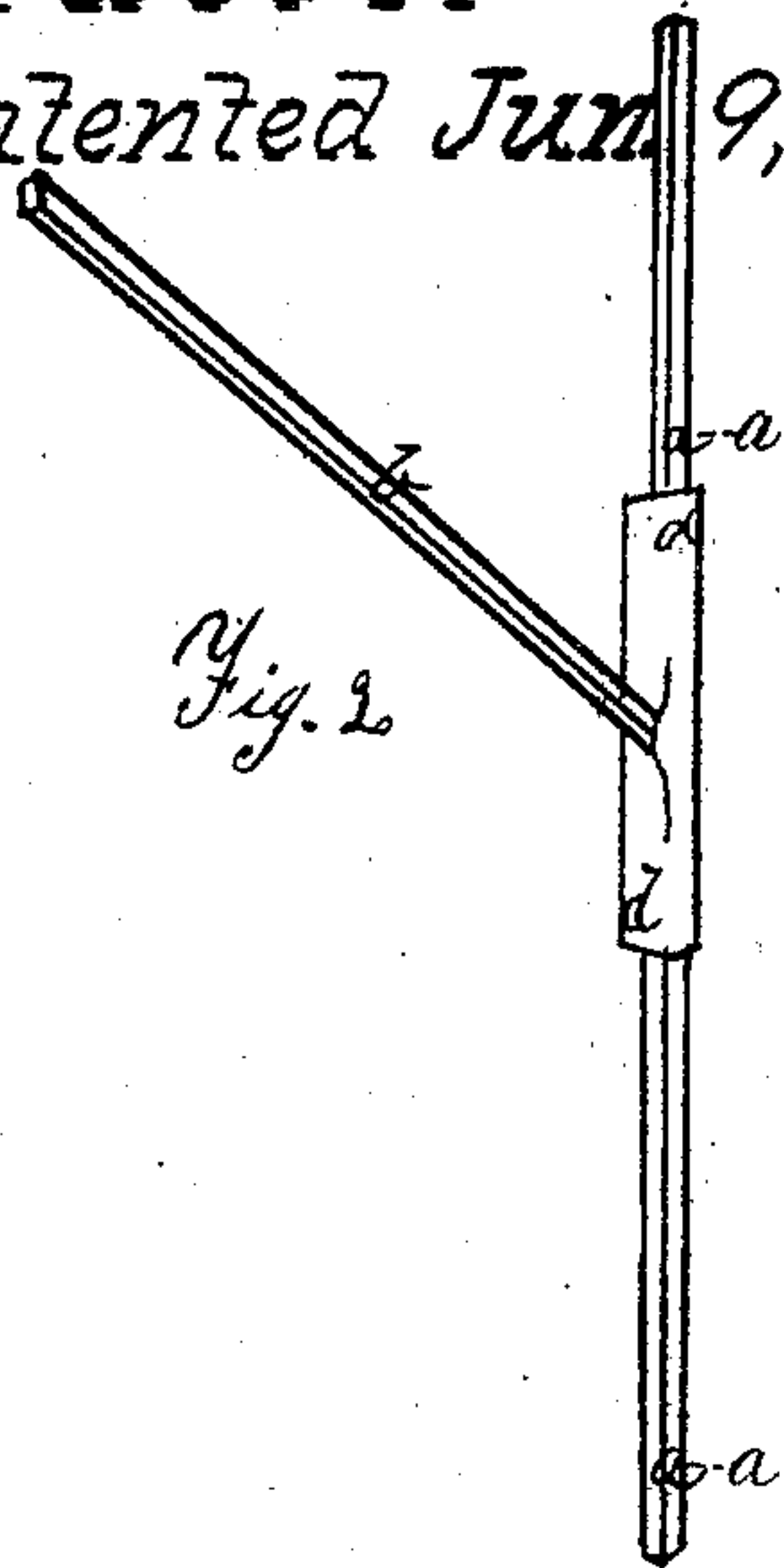
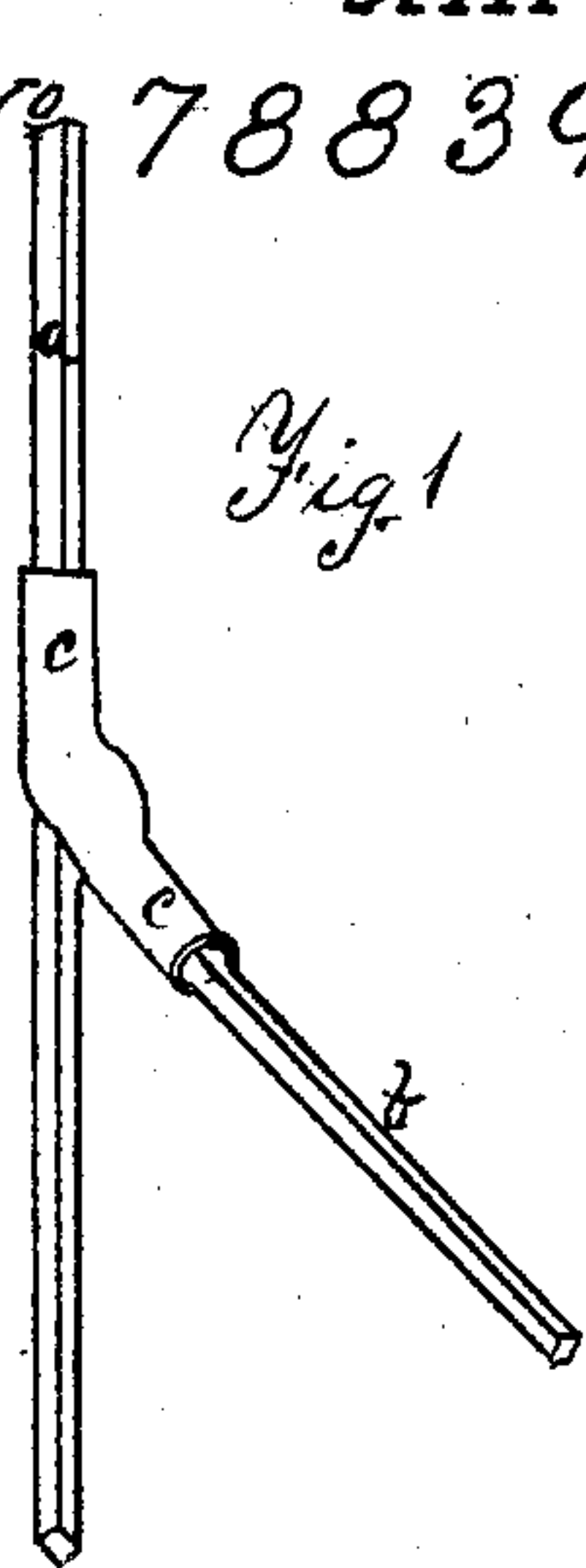


J. A. Simpson.
Umbrella & Parasol.

No 78839

Patented Jun 9, 1868.



ATTEST

Wm. King
J. M. Hancy

INVENTOR

John Anderson Simpson

United States Patent Office.

JOHN ANDERSON SIMPSON, OF LIVERPOOL, ENGLAND.

Letters Patent No. 78,839, dated June 9, 1868.

IMPROVEMENT IN UMBRELLAS AND PARASOLS.

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, JOHN ANDERSON SIMPSON, of Liverpool, in the county of Lancaster, hat-manufacturer, have invented a certain "Improvement in the Construction of Umbrellas and Parasols," of which the following is a full and exact description, reference being had to the accompanying sheet of drawings, forming part of this specification, and to the letters and figures thereon; that is to say—

In umbrellas and parasols, as at present constructed, it has been found and is well known that at and near the joints which connect the stretchers to the ribs, the silk or other woven fabric covers are rapidly worn into holes, and discolored, first, by the friction and chafing which takes place in opening and expanding umbrellas, and indeed in carrying them; and, second, by the rust or oxide which forms at the said joints in a short time. It has also been found, and is well known, that the ribs and stretchers twist around the stick and amongst each other when closed, and that they then catch on each other or on the silk, and render it difficult to expand the umbrella or parasol at the time it is required.

Now, the object of my invention is to protect the said joints connecting the stretchers to the ribs, so that the cover will not be damaged, and to make it certain that an umbrella, constructed according to my invention, can be freely expanded at all times.

To secure these advantages, I surround the said joints connecting the stretchers and ribs, or the ribs or stretchers near to the said joints, with protectors or fenders made of India rubber or other elastic gum, leather, India-rubber cloth, or other material, of sufficient thickness and closeness that it will not only resist the friction, but will also prevent any oxide formed at the joints from passing through it. The material which I prefer is India rubber about one-sixteenth of an inch in thickness.

On the accompanying sheet of illustrative drawings six different modes of carrying my invention into effect are represented in perspective, the fifth being, for some reasons, preferred.

In all these views the letters *a* and *b* denote respectively parts of ribs and stretchers, *a* being the rib, and *b* the stretcher. These parts are shown made of metal, as my invention is more particularly applicable to umbrellas with metal ribs and stretchers. It will be obvious, however, that wherever whalebone or other material is employed in the construction of the said joints of the ribs and stretchers, my invention is applicable, and of great utility.

In Figure 1 the protector or fender consists of a tubular piece, marked *c*. The rib passes through a portion thereof, and through an opening in the side, and the stretcher passes through the other portion. The joints are completely enclosed. *c* is preferably made of India rubber or other elastic gum, and has the ends tapered off, so that its elasticity will allow it to protect the joints at all times, fit closely to the ribs or stretchers without puckering, and be unseen on looking at the outside of the umbrella or parasol.

In Figure 2 the tubular piece *d* (also made in preference of India rubber, or other elastic gum,) is on the rib, and the stretcher passes outwards through a slot or opening at *e*.

In Figure 3 the ends of *e* are tubular, and pass over or on the stretcher, whilst the flat surface is led around the rib, so that the joint is protected. This arrangement can be effected in leather or India-rubber cloth. I prefer elastic rubber or gum.

In Figure 4 the rib passes through the flat protector or fender *f*. The joints of the ribs and stretchers are on the inside of *f*. The edges of *f* should be chamfered off. This form can be made of any convenient material. India-rubber cloth would answer.

In Figure 5 a semicircular piece, *g*, projects inwards at its sides beyond the rib, and in Figure 6 two pieces, *h h*, are connected to the sides of the rib itself. The modifications shown by these two figures are such that the said protectors or fenders can best be applied in the plastic or adhesive state. India rubber or other gum can be attached, and afterwards "baked" in the ordinary manner.

What I claim is—

As a new article of manufacture, an umbrella constructed as herein described, the joints or junction of the ribs and stretchers being covered, and protected from injuring the covering by rubber shields, as and for the purposes herein set forth.

In testimony whereof, I have hereunto set my name in presence of two subscribing witnesses.

JOHN ANDERSON SIMPSON.

Witnesses:

JOHN KING,

WM. H. HARVEY.