

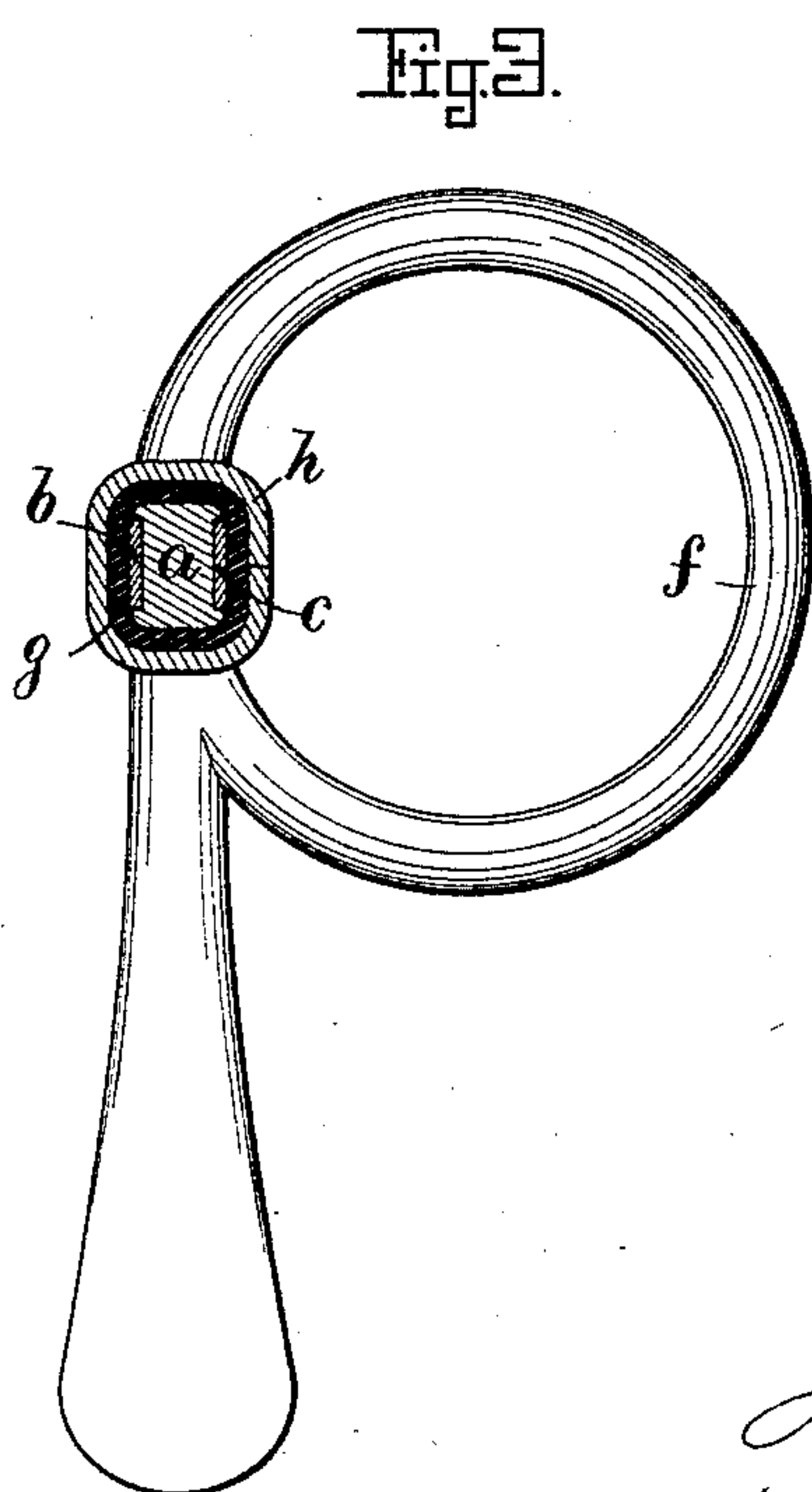
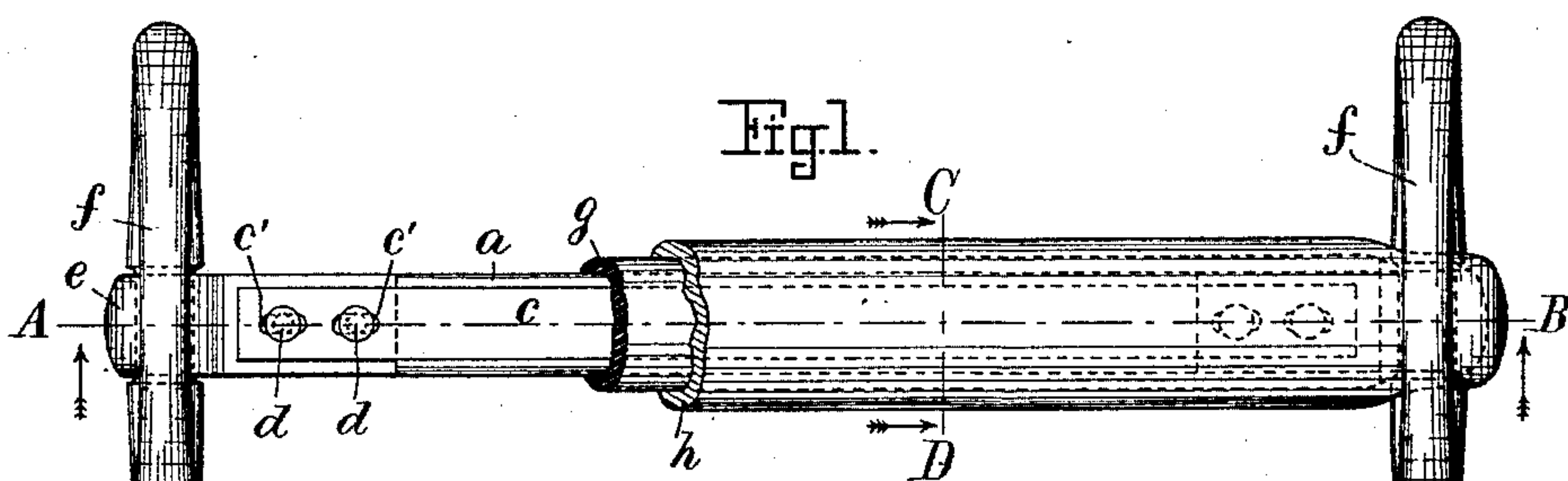
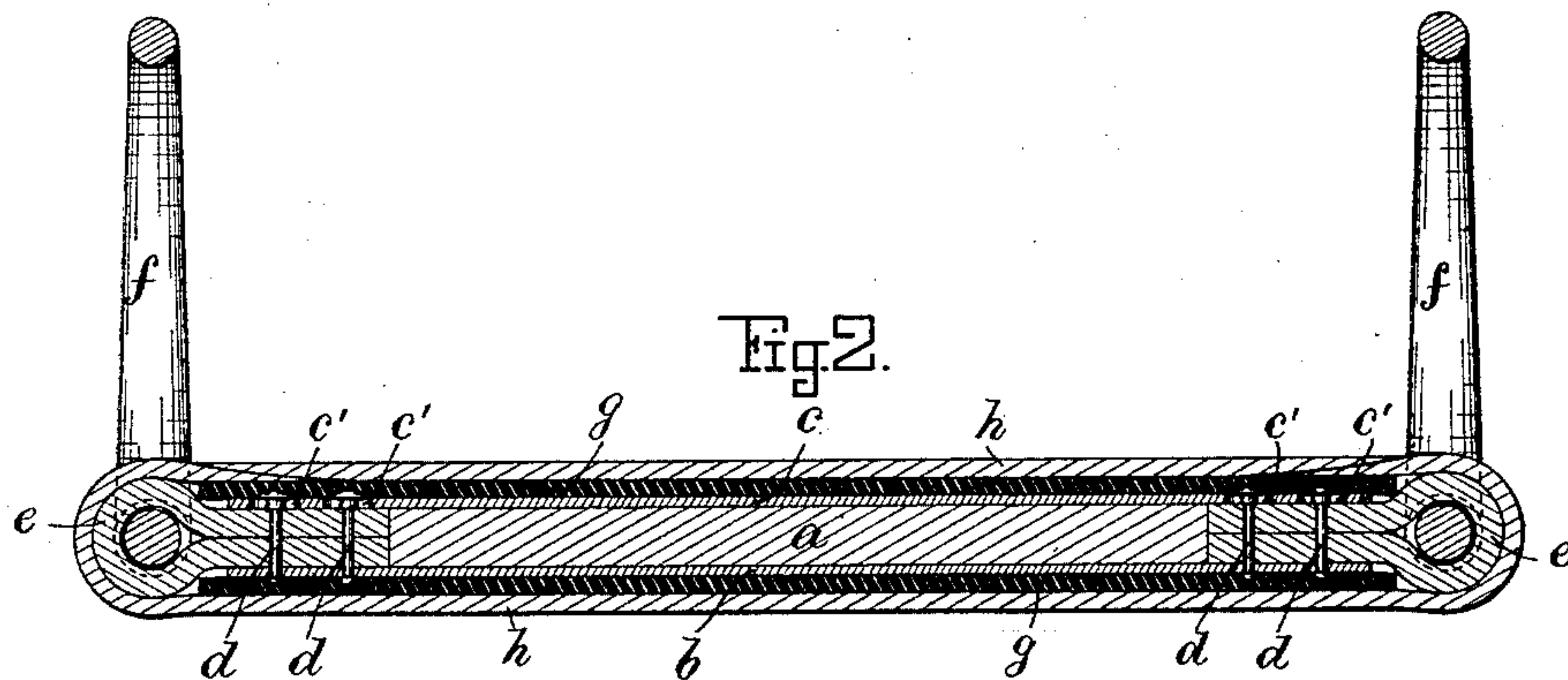
(No Model.)

J. A. FAIRBANKS.

BRIDLE BIT.

No. 348,834.

Patented Sept. 7, 1886.



Witnesses

Henry Chadbourne.
H. Allen

Inventor

John A. Fairbanks.
by Alban Andrieu.
his atty.

UNITED STATES PATENT OFFICE.

JOHN A. FAIRBANKS, OF CAMBRIDGEPORT, ASSIGNOR TO EUGENE C. UPTON, OF BOSTON, MASSACHUSETTS.

BRIDLE-BIT.

SPECIFICATION forming part of Letters Patent No. 349,834, dated September 7, 1886.

Application filed January 9, 1886. Serial No. 188,065. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. FAIRBANKS, a citizen of the United States, residing at Cambridgeport, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Bridle-Bits; and I do hereby declare that the same are fully described in the following specification and illustrated in the accompanying drawings.

This invention relates to improvements in bridle-bits, and it is carried out as follows, reference being had to the accompanying drawings, where—

Figure 1 represents a rear elevation with a portion of the covering shown as removed. Fig. 2 represents a longitudinal section on the line A B, (shown in Fig. 1;) and Fig. 3 represents a cross-section on the line C D, (shown in Fig. 1.)

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

In making a bridle-bit it is desirable that there should be in the center of it a soft or yielding cushion to make the bit easy in the horse's mouth. It is also desirable that such cushion should be protected by means of flexible steel plates or bands in front and rear to prevent it from injury and defacement, and it is furthermore of importance that, although elastic in relation to the pulling strain of the reins, its yielding motion should be limited, and for these purposes I construct my improved bridle-bit as follows:

a is the central yielding or elastic cushion, preferably made of rubber, rawhide, leather, or other suitable material, such cushion being inclosed between the front and rear plates or strips, *b* and *c*, as shown, such strips being preferably made of spring-steel properly tempered, although they may be made of other suitable metal or metals.

To the ends of the plate *b* are firmly secured, by means of rivets *d d*, the eyes *e e*, which are made in the form of what is known as "split pins," and to the outer portion of such split pins are pivoted the cheek-rings *f f*, as shown.

To permit the bit to yield in the horse's mouth when the reins are pulled, and at the same time to limit the yielding capacity of the bit, I provide the plate or metal strip *c* with slotted perforations *c' c'*, through which the

rivets *d d* pass, and above which the latter are headed, as shown.

It will be readily seen that by securing one of the metal plates to the split pins *e e* and providing the other metal plate with slotted perforations for the rivets to pass through I make the bit yielding to the pulling strain on the reins, and when the latter are pulled far enough and hard enough to cause the outer ends of the slot-holes *c' c'* to bear against the rivets *d d* the bit will be made rigid, or nearly so, forming as it were a compound truss composed of the metal plates *b c* and the intervening cushion *a*, thereby preventing the bit from pressing the cheeks of the animal inward over the teeth, a fault common to all flexible bits. It will also be noticed that the central cushion, *a*, is not clamped in any manner between the legs of the split pins *e e*, but abut against the inner ends of the same, by which arrangement I obtain a strong and durable connection between the metal plates *b c* and the eyes *e e*, as well as preventing the ends of cushion *a* from wearing out, which would be the case if clamped or extended between the legs of the split pins or eyes *e e*.

In practice I prefer to surround the bit between the eyes *e e* with a rubber tube, *g*, as shown, so as to make it easy in the horse's mouth, and to prevent such rubber tube from wearing out too quickly I protect it by means of the external leather covering, *h*, as shown. Such covering may be made to extend of equal length with the rubber tube *g*, or it may be made to cover the ends of the eyes *e e* if so desired.

I am aware that bridle-bits have been made with a central single yielding metal plate and leather cushions on either side and end clips inclosing the ends of such leather cushions, and I wish to state that I do not claim such construction and arrangement as my invention; but

What I wish to secure by Letters Patent and claim is—

1. In a bridle-bit, the central yielding cushion, *a*, inclosed between the spring-metal plates *b c*, one of which is firmly riveted to the split pins *e e* by means of rivets *d d*, and the other provided with slot-holes *c' c'*, as and for the purpose set forth.

2. In a bridle-bit, a metal strip, *b*, firmly

riveted to the split pins *e e* by means of rivets
d d, the yielding longitudinal cushion *a*, hav-
ing its ends abutting against the inner ends of
said split pins *e e*, and held in place by means
5 of a secondary metal plate or strip, *c*, pro-
vided with slotted perforations *c' c'* for the
rivets *d d* to pass loosely through, in a manner
and for the purpose as set forth.

3. In a bridle-bit, the central yielding cush-
10 ion, *a*, the metal strip *b*, and split pins *e e*, riv-

eted together, as described, the movable metal
strip *c*, the rubber inclosing-tube *g*, and leather
covering *h*, all arranged and combined as and
for the purpose set forth.

In testimony whereof I have affixed my sig- 15
nature in presence of two witnesses.

JOHN A. FAIRBANKS.

Witnesses:

ALBAN ANDRÉN,

HENRY CHADBURN.