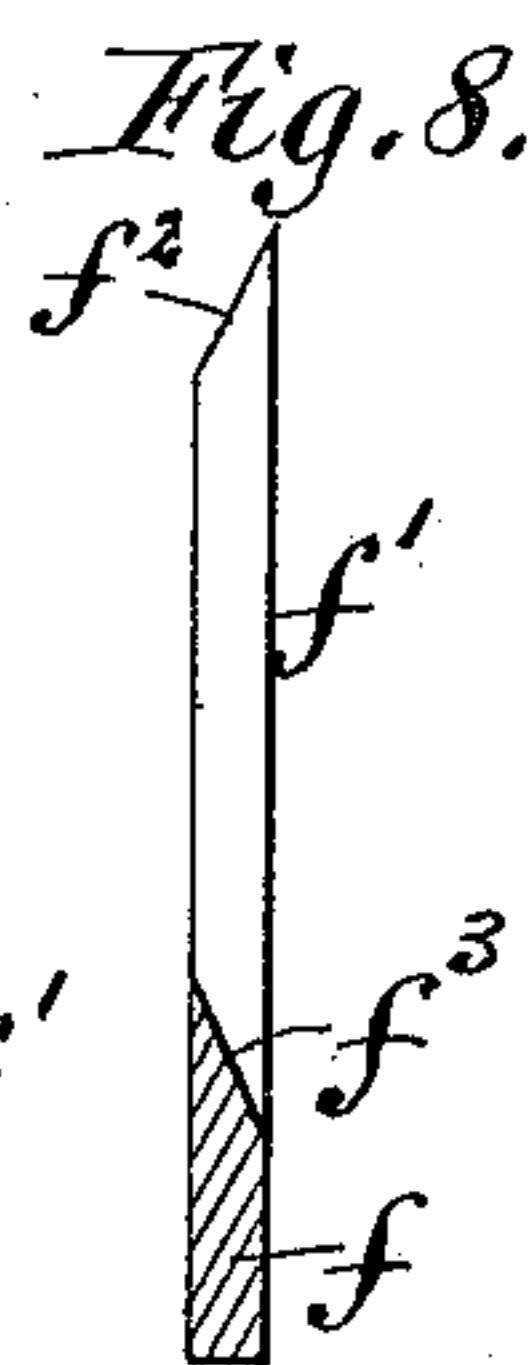
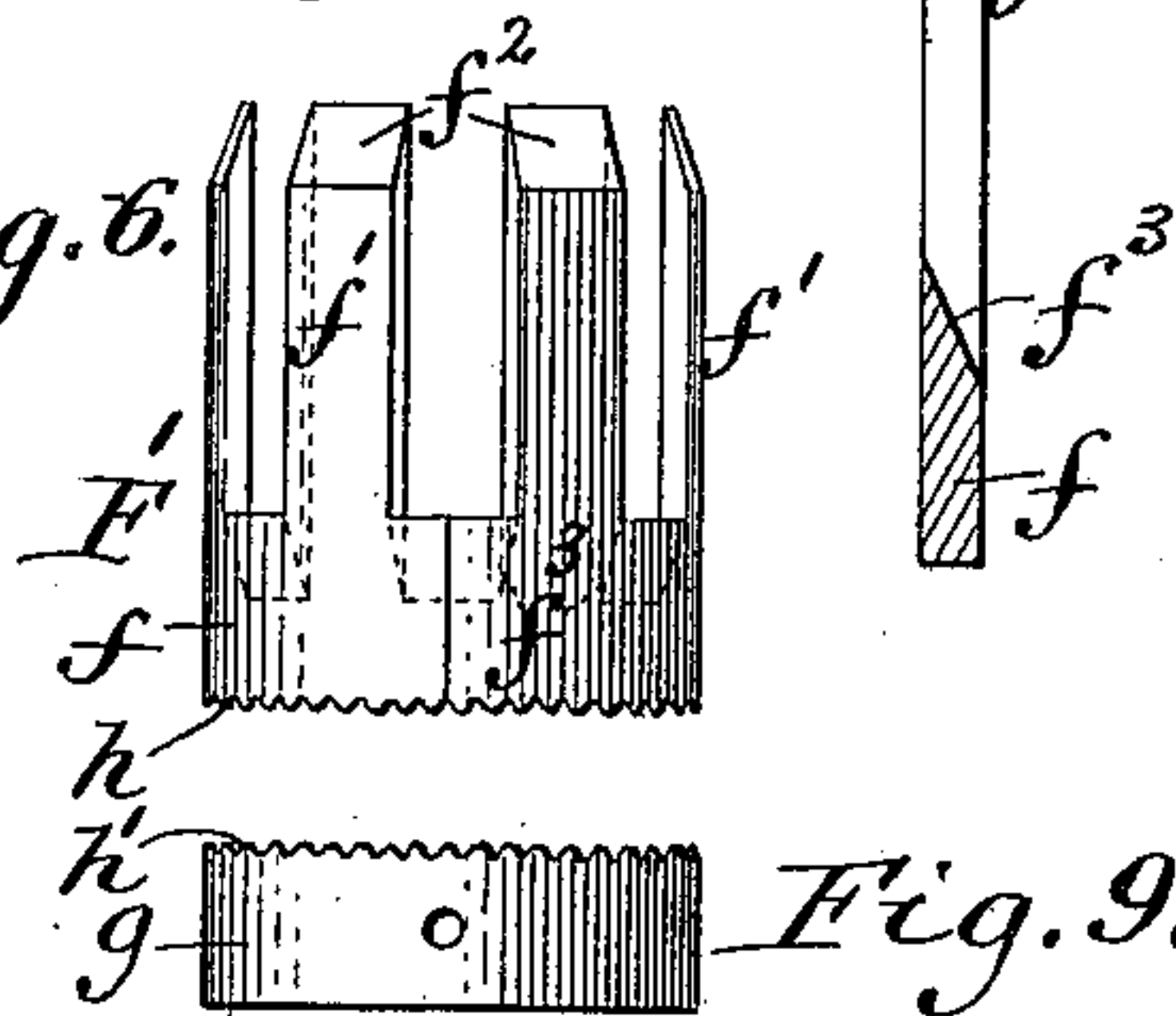
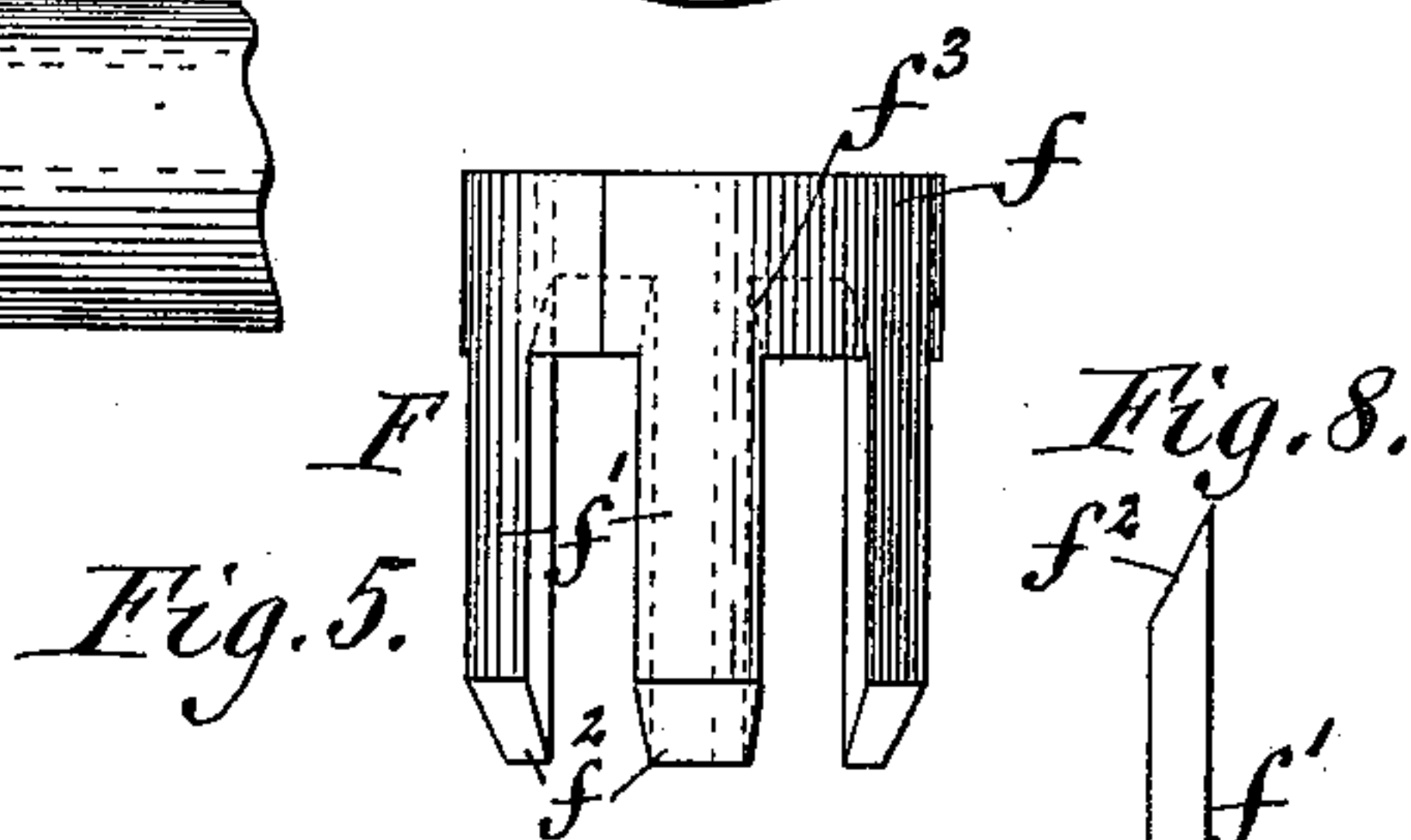
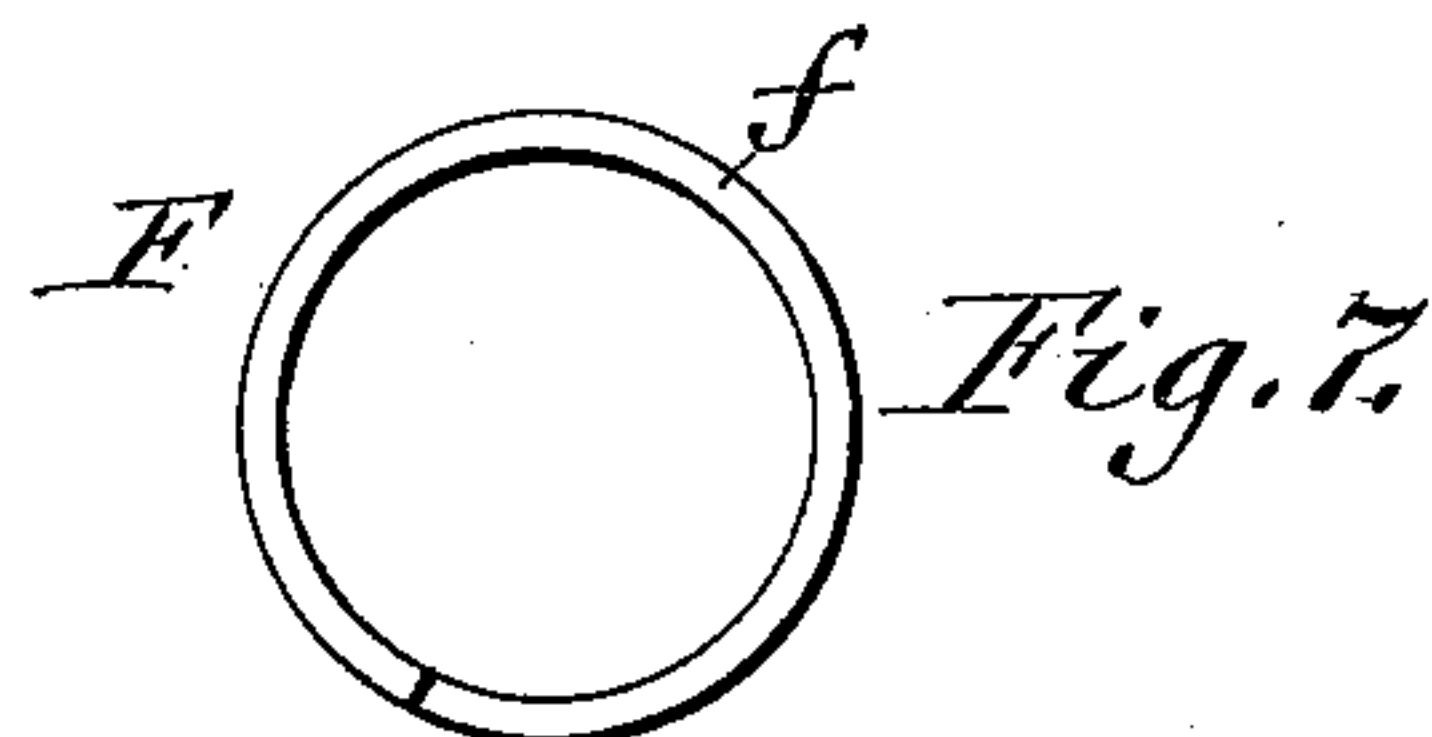
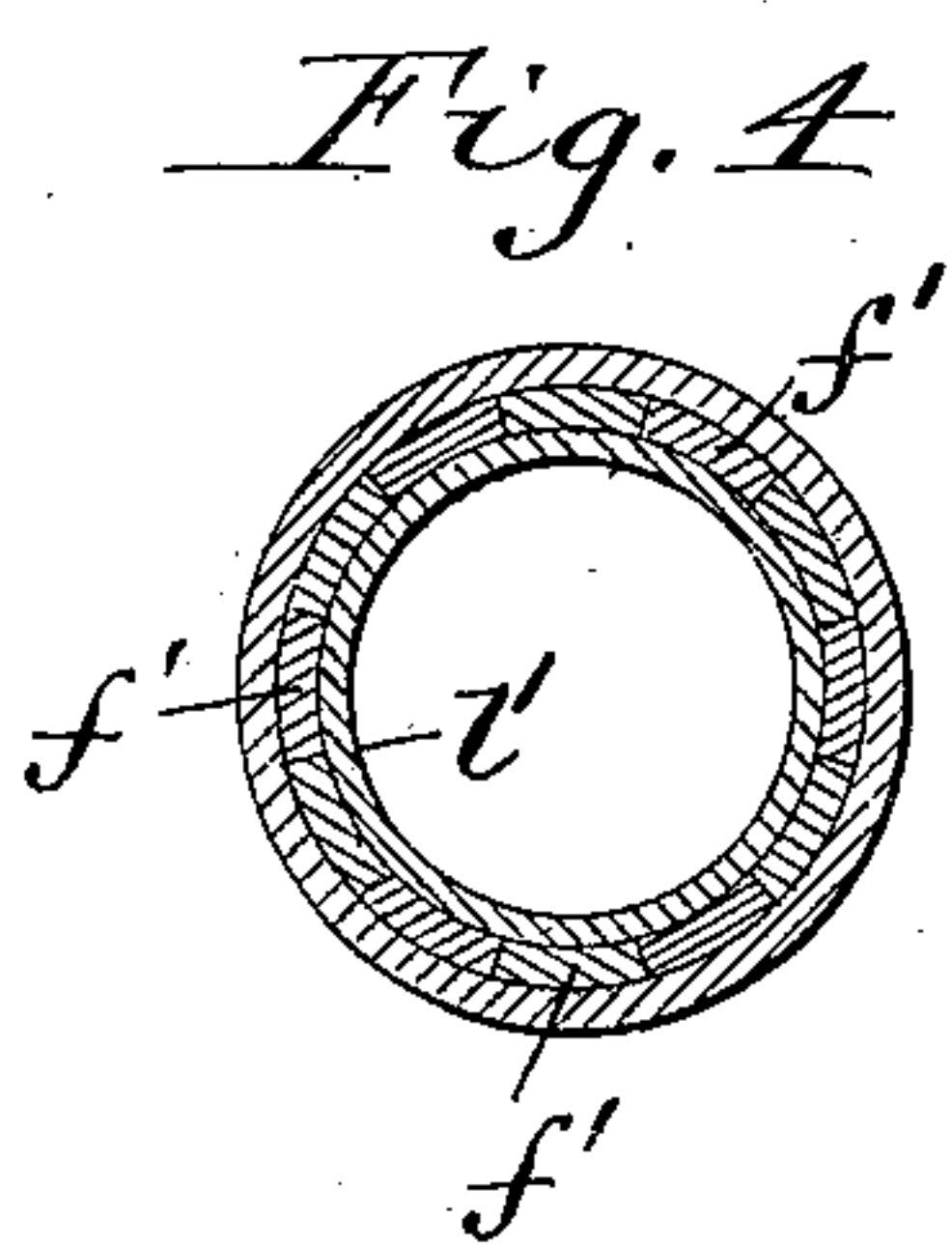
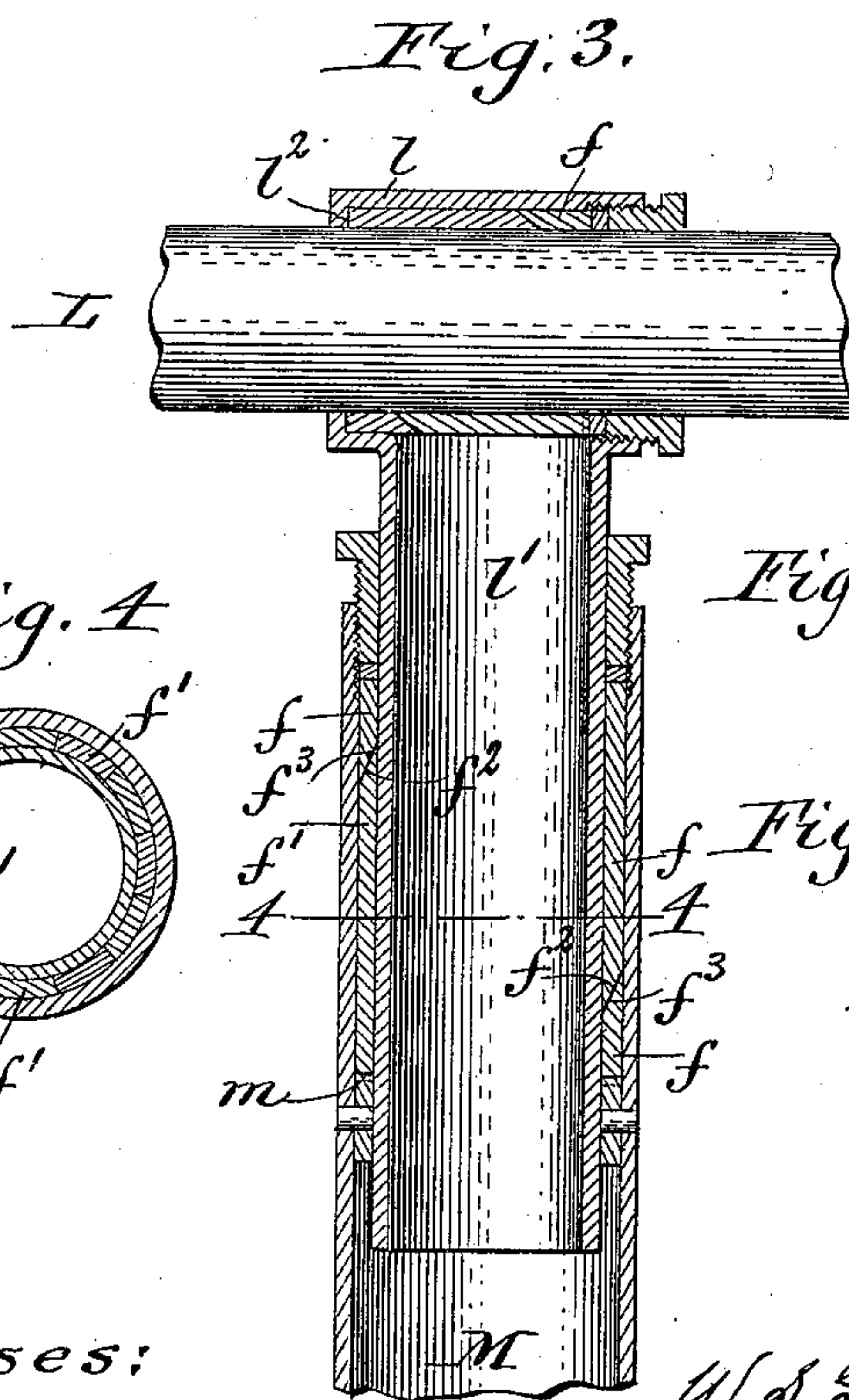
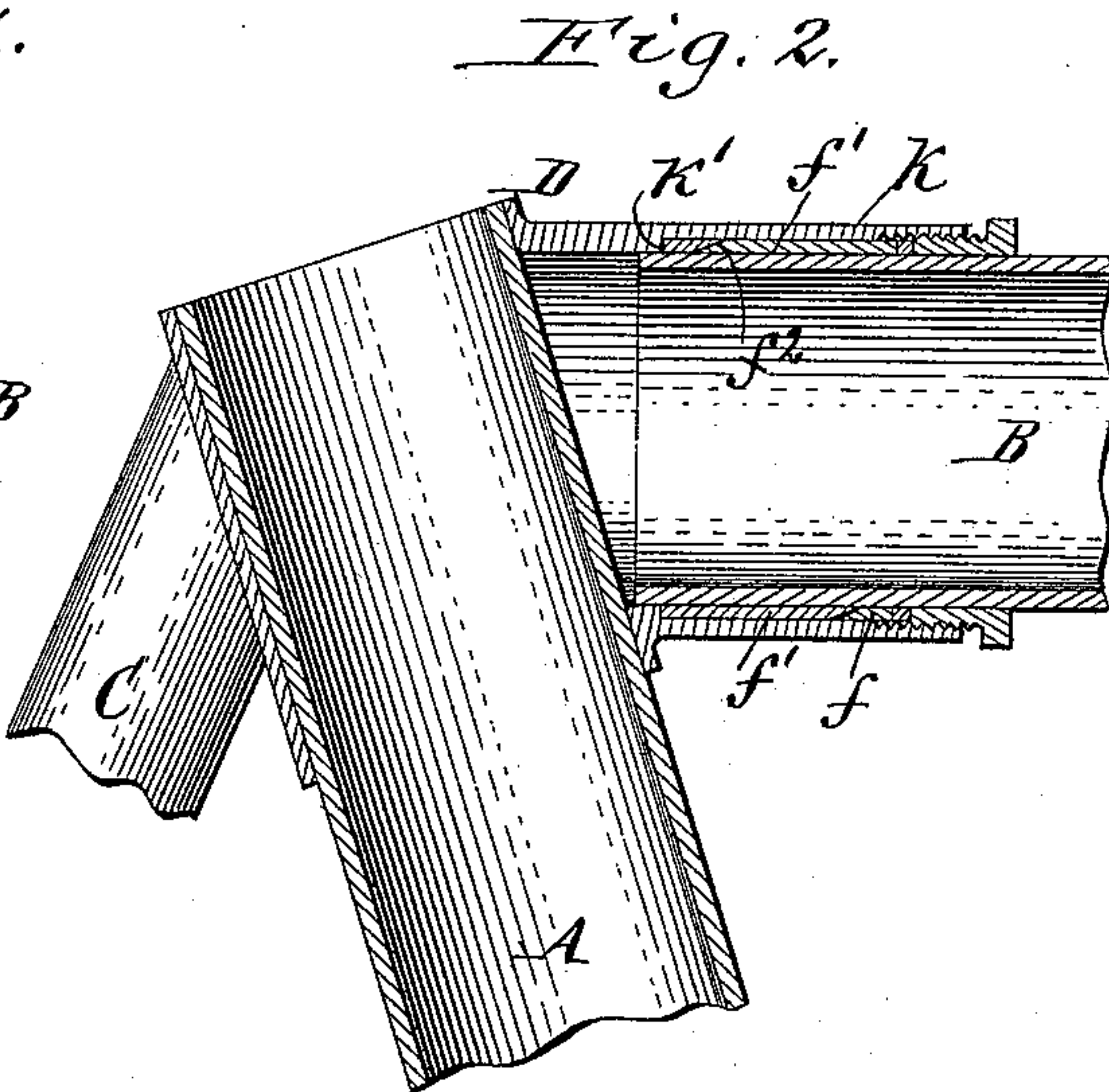
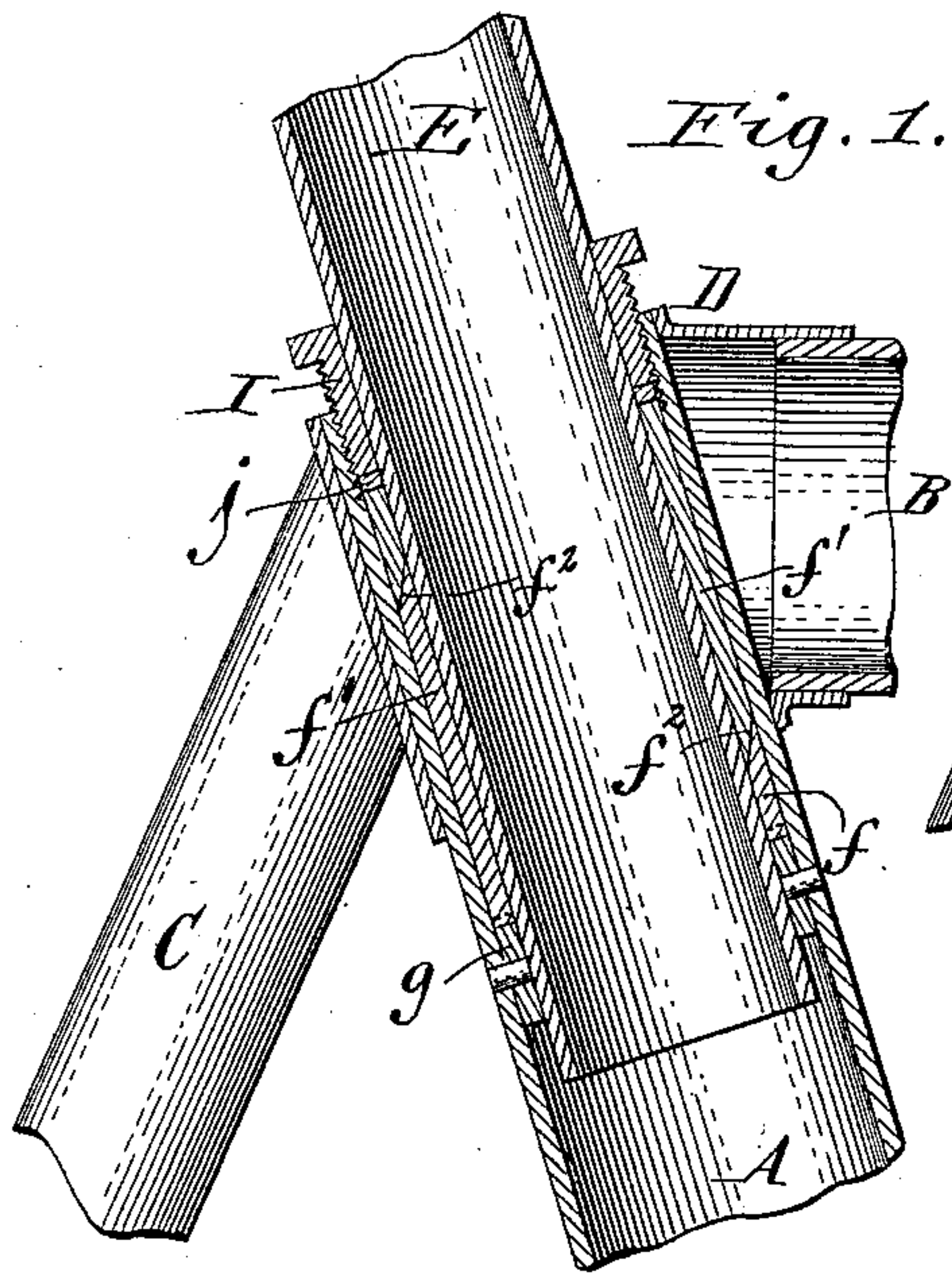


(No Model.)

W. S. GUBELMANN.
CLAMP.

No. 599,039.

Patented Feb. 15, 1898.



Witnesses:
Ernest Pulsford,
Chas. F. Burkhardt.

W. S. Gubelmann, Inventor.
By Wilhelm & Bonner,
Attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM S. GUBELMANN, OF BUFFALO, NEW YORK.

CLAMP.

SPECIFICATION forming part of Letters Patent No. 599,039, dated February 15, 1898.

Application filed February 19, 1897. Serial No. 624,091. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. GUBELMANN, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Clamps, of which the following is a specification.

This invention relates to a clamp which is more especially designed for connecting tubular bars—for instance, the tubular members of a velocipede.

The object of my invention is the production of a clamp for this purpose which is very simple and inexpensive in construction and which enables two members to be readily and reliably connected.

In the accompanying drawings, Figure 1 is a vertical section showing my improved clamp used for adjustably securing the saddle shank or stem in the saddle post or pillar of a velocipede-frame. Fig. 2 is a similar view showing this clamp used for detachably connecting the upper front bar with the saddle-post of a velocipede-frame. Fig. 3 is a vertical transverse section showing my invention applied for adjustably connecting a velocipede handle-bar with its shank and adjustably connecting the latter with the steering-head of a velocipede. Fig. 4 is a horizontal section in line 4-4, Fig. 3. Figs. 5 and 6 are detached side elevations of the two clamping members. Fig. 7 is an end view of one of the clamping members. Fig. 8 is a fragmentary longitudinal section, on an enlarged scale, of one of the clamping members. Fig. 9 is a side view of the stop or collar which forms an abutment for one of the clamping members.

Like letters of reference refer to like parts in the several figures.

Referring to Figs. 1 and 4 to 9, A represents the upright tubular saddle-post of a velocipede-frame; B, the upper front bar; C, one of the members of the upper rear fork; D, the fitting or coupling which connects these parts, and E the stem or shank of the saddle which is arranged in the upper end of the saddle-post.

F F' represent two tubular clamping members which surround the saddle-shank within the saddle-post and which are arranged one above the other. Each of these clamping members consists of a supporting collar or

body *f* and an annular row of longitudinal jaws *f'*, projecting from one side of the collar. Each jaw is provided with an incline *f''*, which extends outwardly from its end, and the inner edge of the collar is provided between the jaws with inclines *f'''*, extending inwardly from the edge of the collar. The jaws of one collar are arranged between the jaws of the other collar, and upon moving one collar lengthwise toward the other collar the inclined ends of the jaws on one collar engage with the inclines on the inner edge of the other collar, whereby the free ends of both sets of jaws are deflected inwardly and caused to bind against the inner side of the saddle-stem, thereby gripping the same at a number of points and holding the same rigidly in place in the saddle-post. The lower clamping member abuts with its lower or outer end against a shoulder on the inner side of the saddle-post, so as to hold it against downward movement. This shoulder may be formed in any suitable way—for instance, by a ring or collar *g*, which is secured to the inner side of the saddle-post by riveting, brazing, or otherwise. In order to hold the lower clamping member against turning in the saddle-post, the lower edge of its collar is provided with teeth or serrations *h*, which interlock with similar serrations *h'* on the stop-collar.

I represents a clamping sleeve or collar whereby the upper clamping member is moved lengthwise toward the lower clamping member. This clamping-sleeve surrounds the saddle-shank above the upper clamping member and is provided with an external screw-thread which engages with the internally-screw-threaded upper end of the saddle-post.

j is a washer interposed between the clamping-sleeve and the collar of the upper clamping member. Upon loosening the clamping-sleeve the grip of the clamping-jaws on the saddle-shank is removed and the latter is free to be adjusted, and upon tightening the clamping-sleeve the upper clamping member is moved toward the lower member and the saddle-shank is secured in place.

As shown in Fig. 2, my improved clamp is arranged between the upper front bar of the frame and the forwardly-projecting nipple *k* of the coupling for detachably connecting these parts, in which construction the outer

end of one of the clamping members bears against an internal shoulder k' in the nipple and the externally-screw-threaded clamping-sleeve engages with an internal screw-thread
5 on the nipple.

When utilizing my invention as a handle-bar adjustment, as shown in Fig. 3, the clamping devices are arranged between the handle-bar L and the eye l at the upper end of the
10 handle-bar shank l' , in which case the eye is provided at one end with a shoulder l'' , against which the stationary clamping member engages, and at its opposite end with an internal screw-thread which receives the clamping-
15 sleeve. In applying the clamping devices for adjustably securing the handle-bar shank in the steering-head M the latter is provided with a shoulder m for the lower clamping member to abut against and a screw-thread
20 for the reception of the clamping-sleeve.

I claim as my invention—

1. In a clamp, the combination of two clamping members, each of which consists of a supporting collar or body having an annular row
25 of jaws, the jaws of one body being arranged between the jaws of the other body and each jaw being provided with an incline which engages with an incline on the opposing body, substantially as set forth.

30 2. The combination with an outer tubular member and an inner tubular member arranged within the outer member, of two clamping members arranged between the tubular members and each consisting of a collar or

body having an annular row of longitudinal
35 jaws, the jaws of one body being arranged between the jaws of the other body and each jaw having an incline which engages with an incline on the opposing body, an internal shoulder formed on the outer tubular mem-
40 ber and supporting one of the clamping members, and a clamping-sleeve having a screw connection with the outer tubular member and bearing against the other clamping member, substantially as set forth.

3. The combination with an outer tubular member and an inner tubular member arranged within the outer member, of two clamping members arranged between the tubular
50 members and each consisting of a collar or body having an annular row of longitudinal jaws, the jaws of one body being arranged between the jaws of the other body and each jaw having an incline which engages with an
55 incline on the opposing body, an internal serrated shoulder formed on the outer tubular member and engaging with similar serrations on one of the clamping members, and a clamping-sleeve having a screw connection with the
60 outer tubular member and bearing against the other clamping member, substantially as set forth.

Witness my hand this 23d day of January, 1897.

WILLIAM S. GUBELMANN.

Witnesses:

THEO. L. POPP,
ELLA R. DEAN.