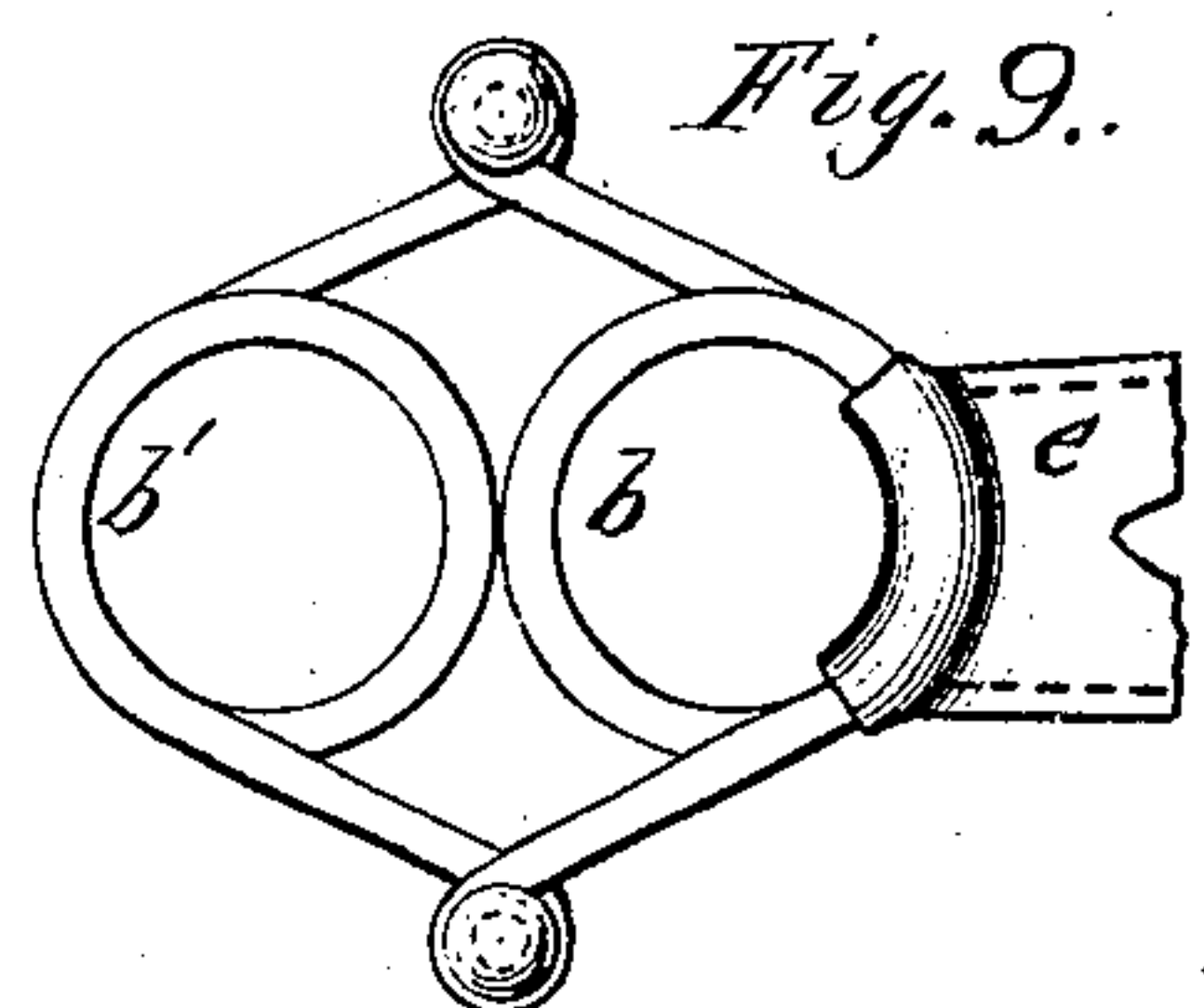
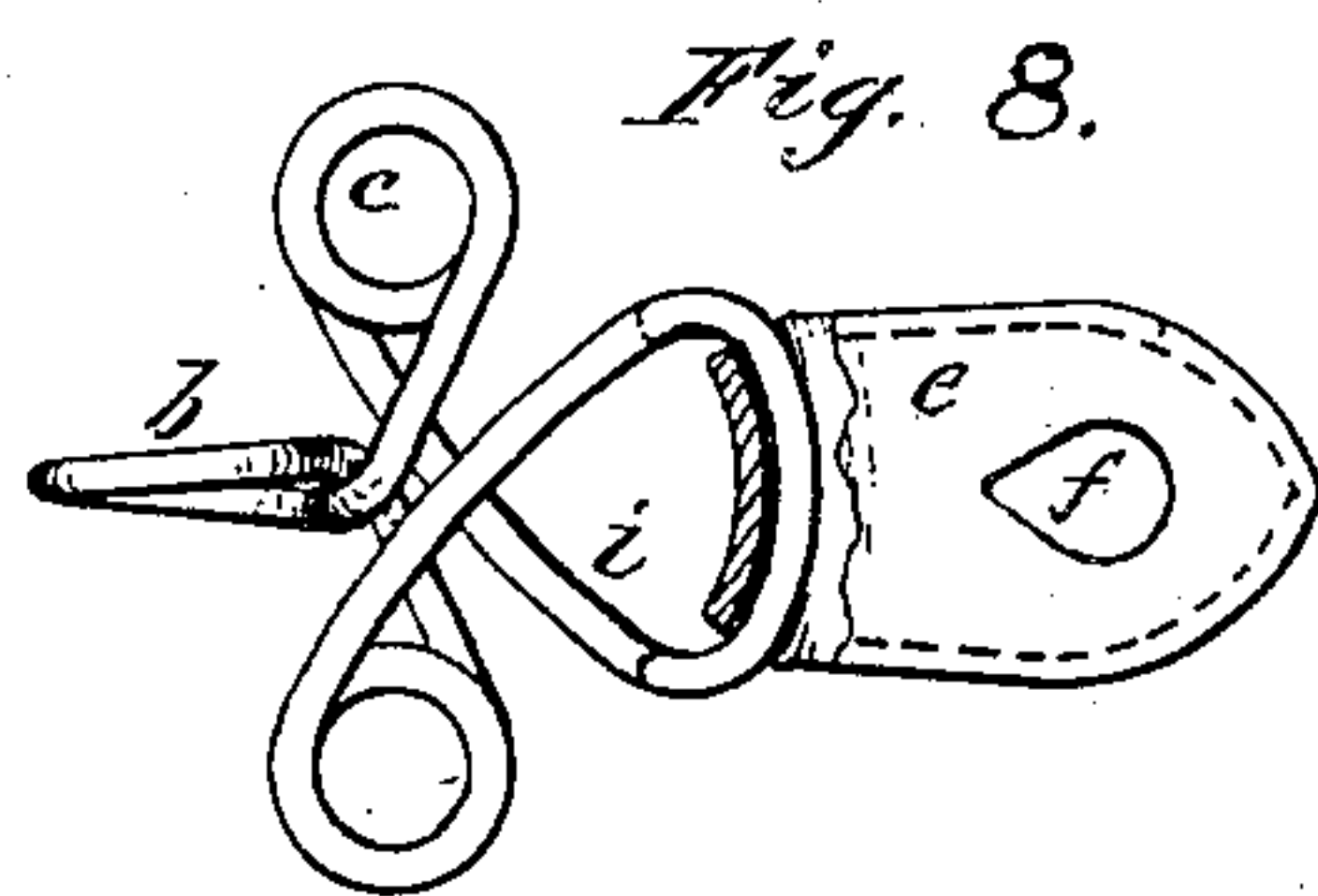
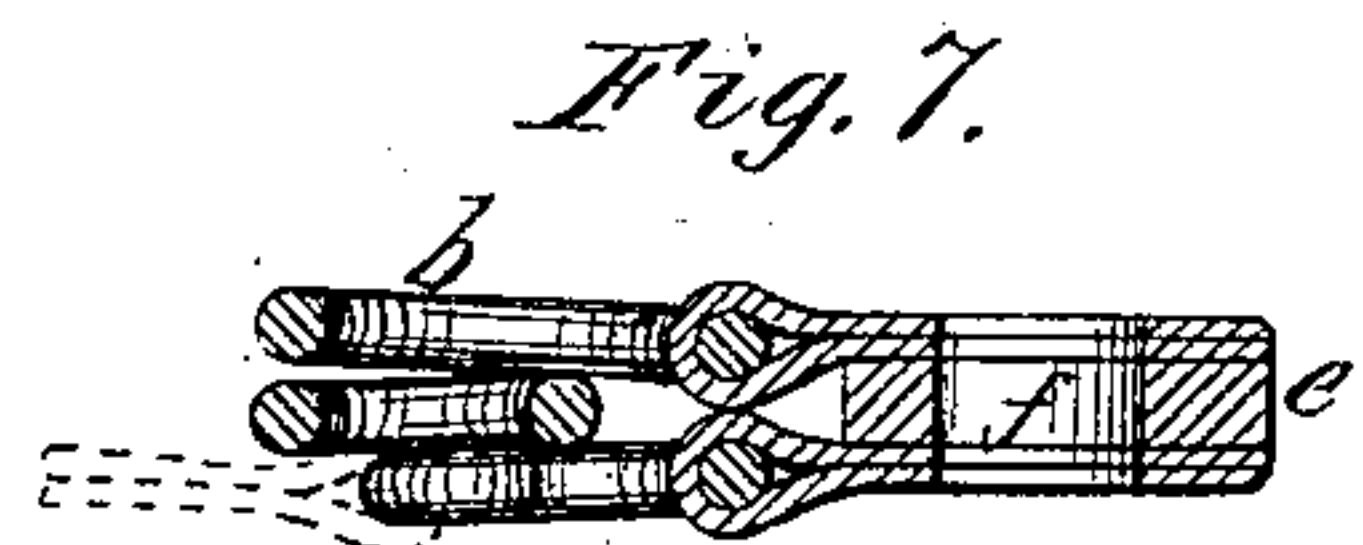
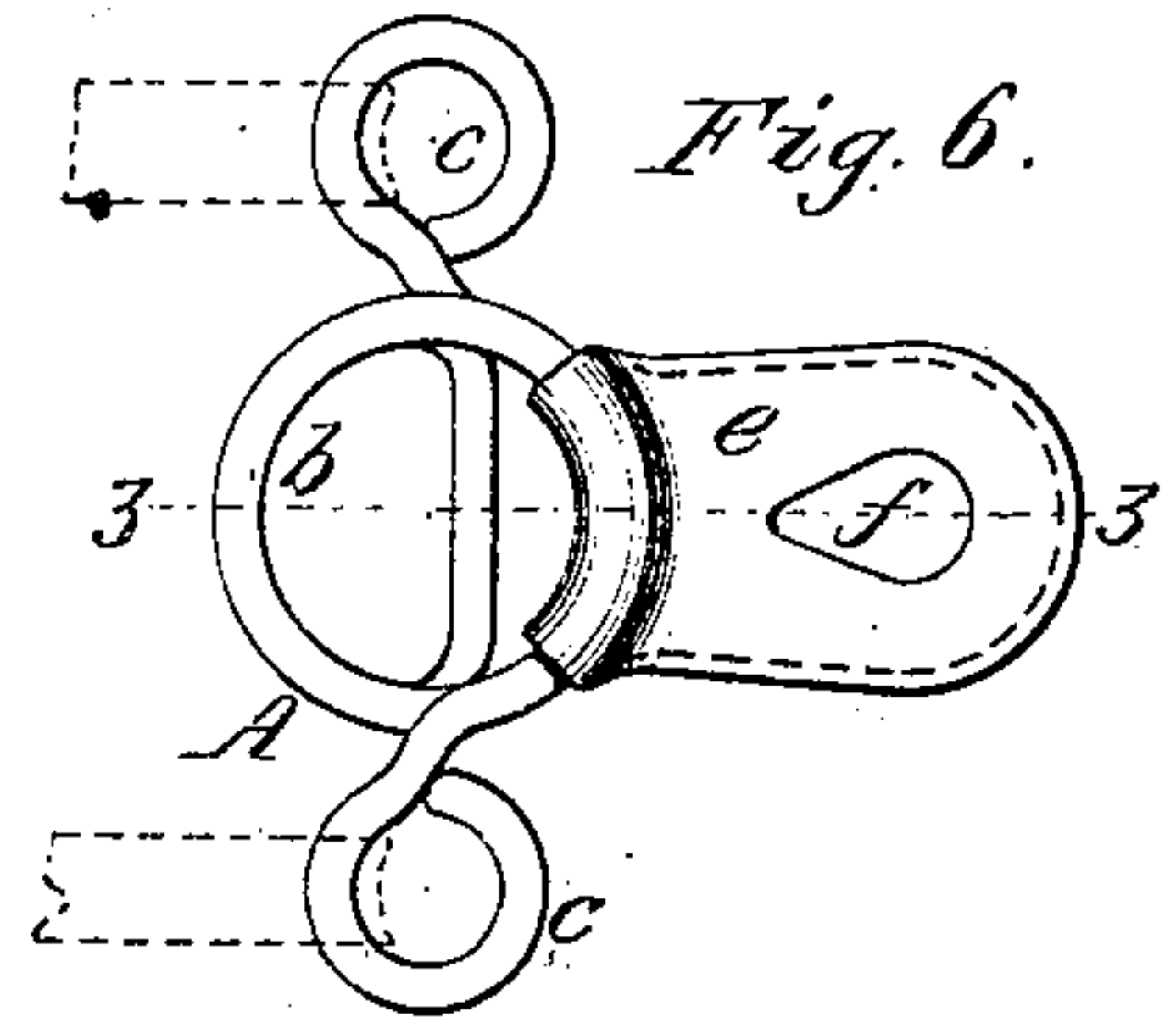
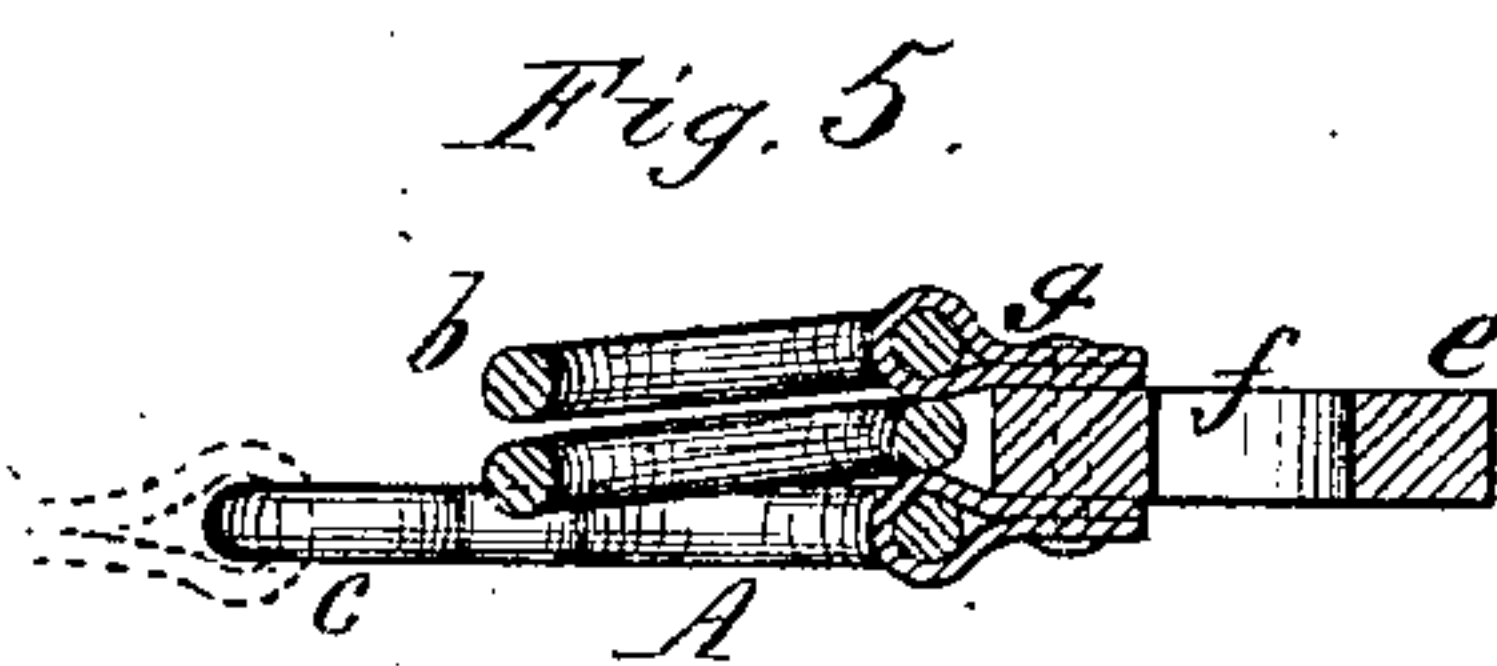
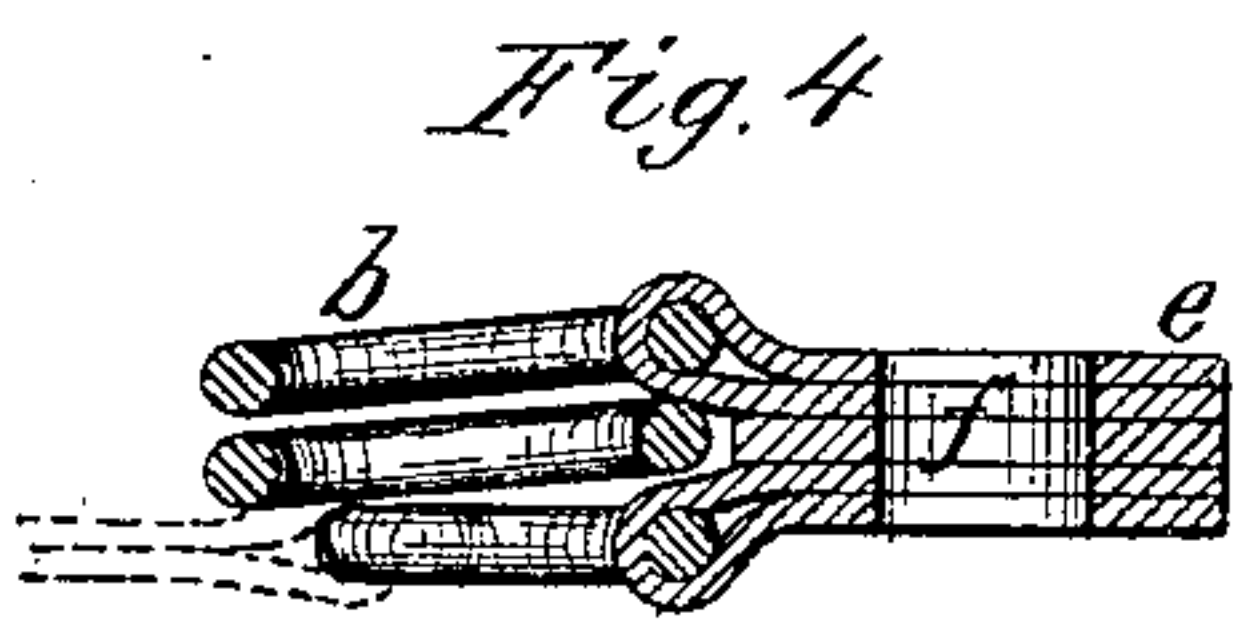
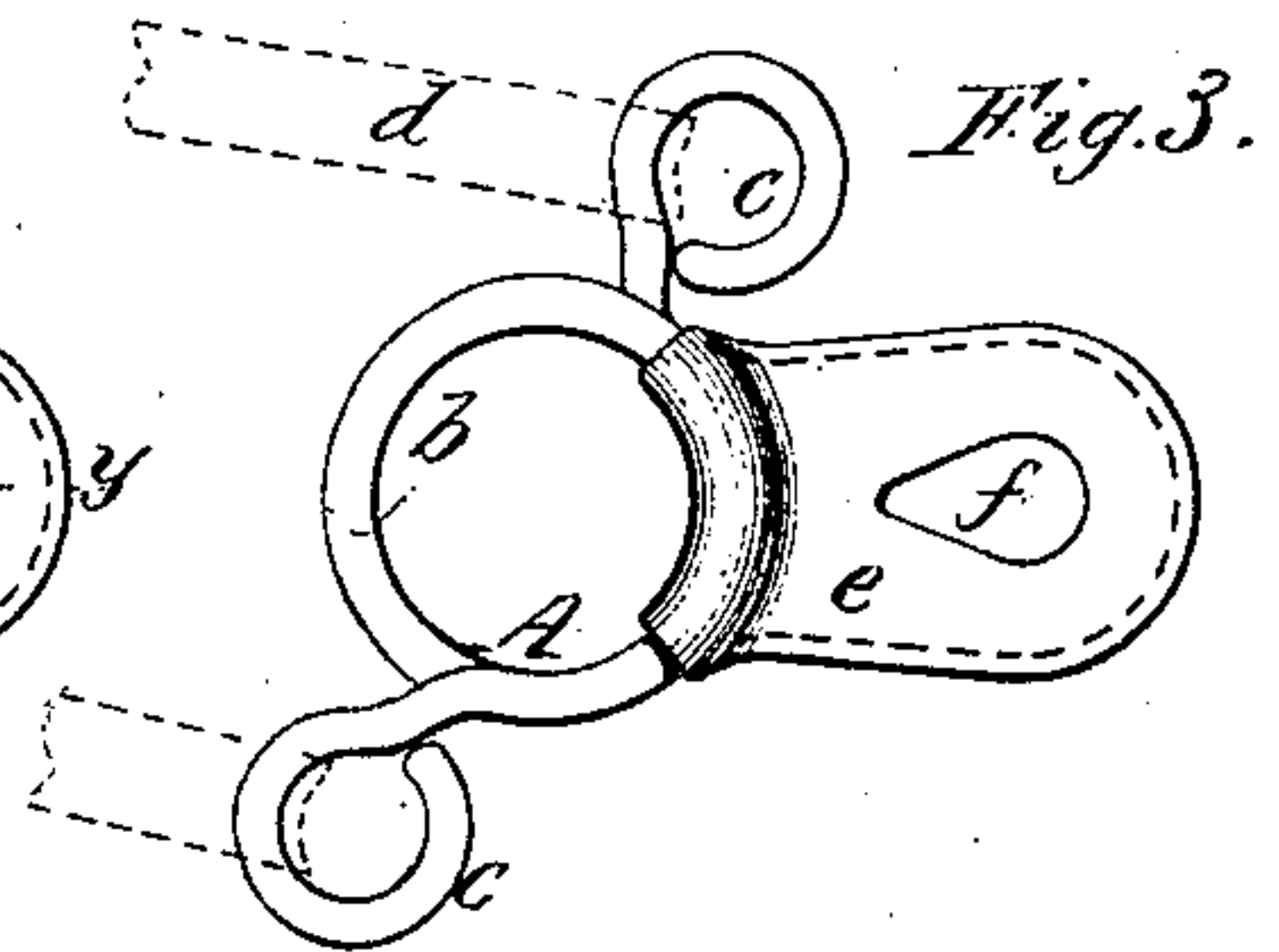
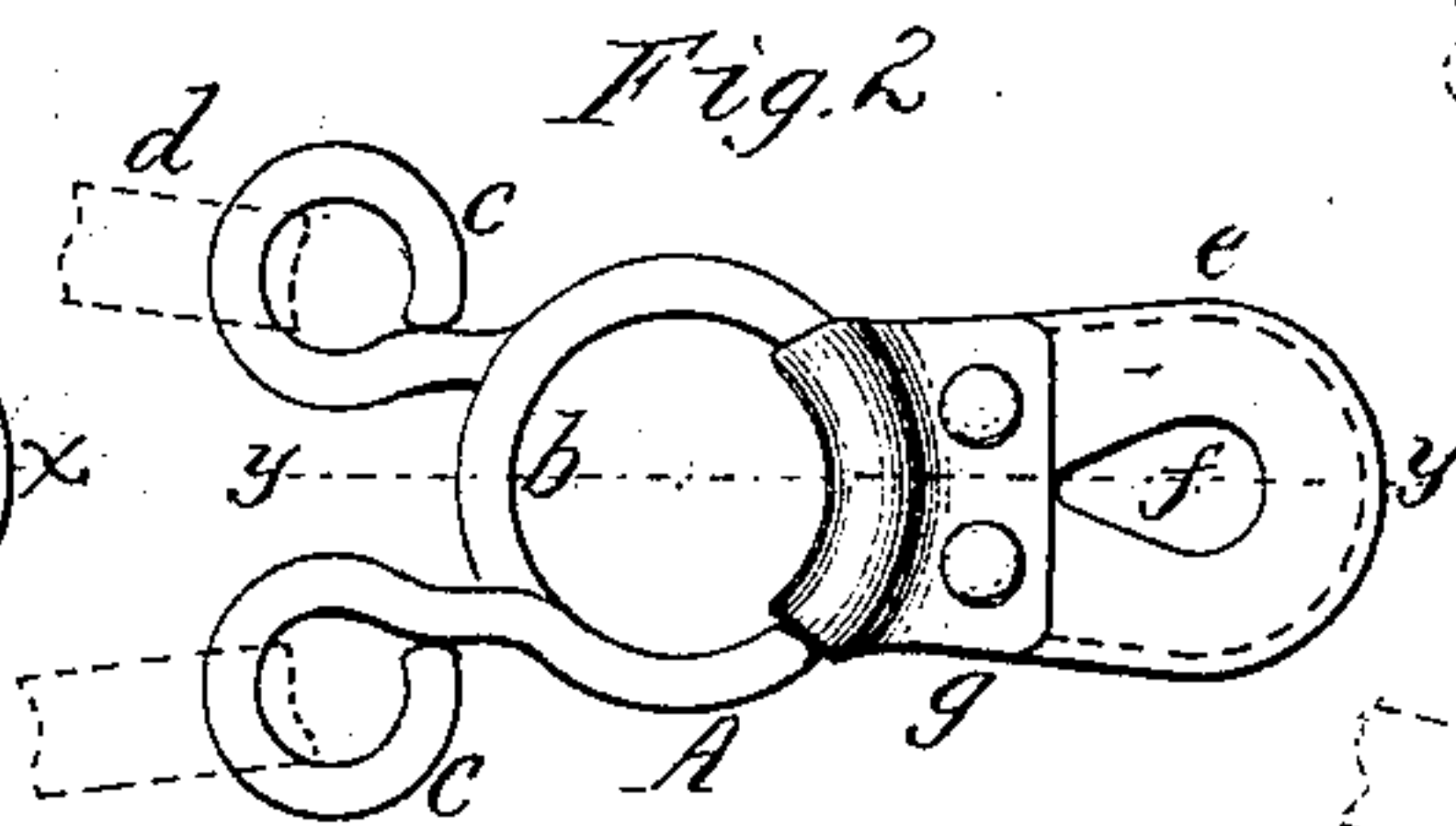
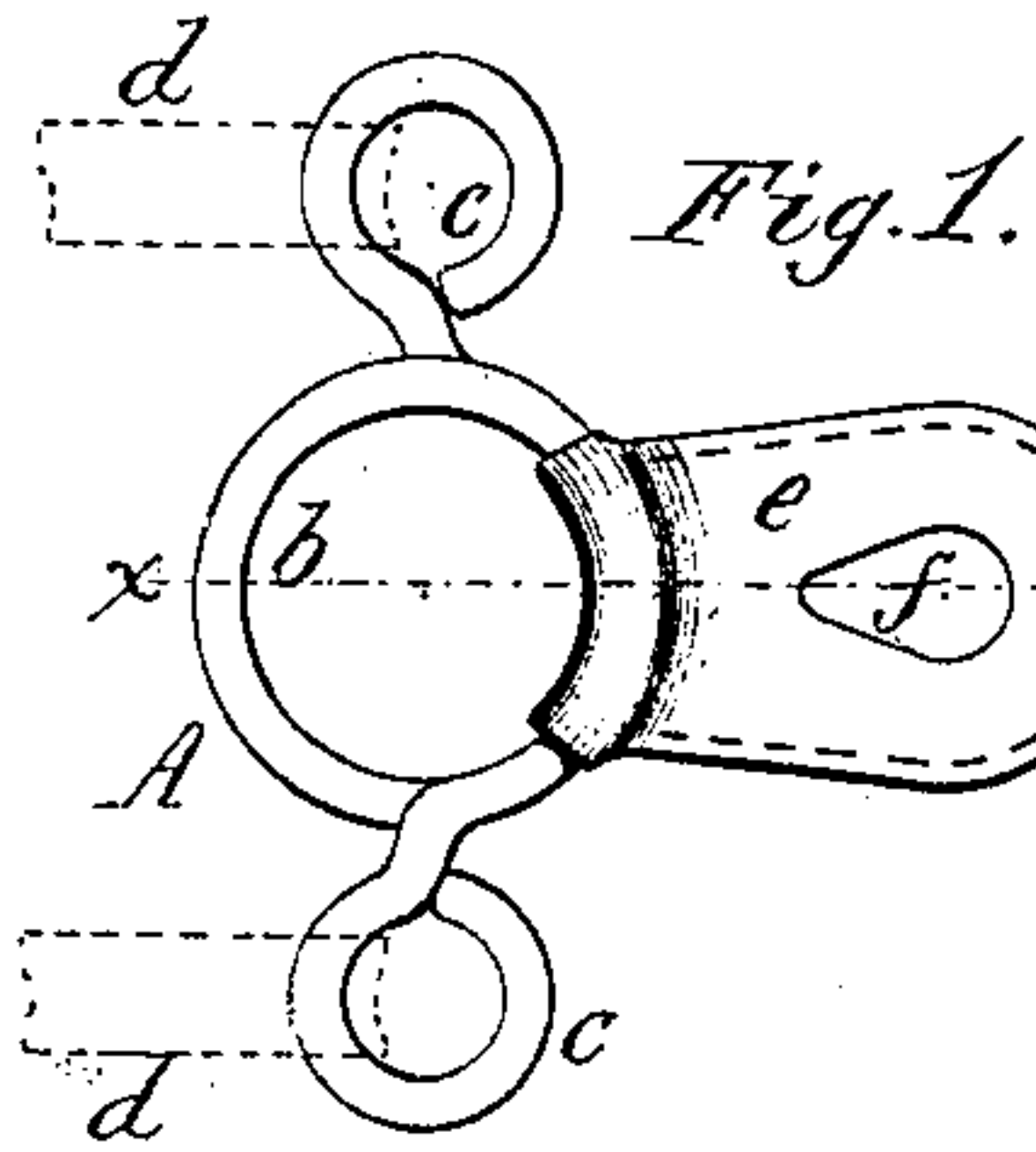


(No Model.)

E. G. LATTA.
CHECK REIN ATTACHMENT.

No. 245,517.

Patented Aug. 9, 1881.



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Edw. J. Brady.
Witnesses.

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UNITED STATES PATENT OFFICE.

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CHECK-REIN ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 245,517, dated August 9, 1881.

Application filed October 28, 1880. (No model.)

To all whom it may concern:

Be it known that I, EMMIT G. LATTA, of Friendship, in the county of Allegany and State of New York, have invented new and
5 useful Improvements in Check-Rein Attachments, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates more particularly to
10 a device for rendering the check-rein elastic or yielding, whereby, in case the horse stumbles or from any other cause there should be a sudden downward movement of the horse's head, the mouth of the animal will be relieved
15 by the elasticity of the check-rein.

Previous to my invention various forms of springs have been employed for this purpose, but have been found objectionable by reason of their weight or liability to break when a
20 sudden strain is brought to bear upon the check-rein.

The object of my invention is to obviate these difficulties, and to provide a cheap and effective device that will accomplish the purpose
25 desired; and it consists of a spring formed of one or more coils of spring-wire, and provided with loops to receive the ends of the check-reins and a leather tab or loop for the reception of the check-hook, as will be hereinafter
30 described.

In the accompanying drawings, Figure 1 represents a plan view of my improved check-spring. Fig. 2 is a similar view, with the ends of the spring compressed. Fig. 3 is a similar
35 view, showing the position of the spring when the horse turns his head to one side. Fig. 4 is a cross-section in line *x x*, Fig. 1. Fig. 5 is a cross-section in line *y y*, Fig. 2. Fig. 6 is a plan view, with the central coil made straight at one end. Fig. 7 is a cross-section in line
40 *z z*, Fig. 6. Figs. 8 and 9 show modifications of my improved check-spring.

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

45 A represents my improved check-spring. As shown in the drawings, it consists of a piece of spring-wire of the desired size twisted to form one or more center loops, *b*. The ends of the wire project on both sides of the loops

b, and are formed into side loops, *c*, which receive the rear ends of the check-rein *d*. 50

e is a short leather strap secured to the center loops, *b*, and provided with an opening, *f*, which receives the check-hook of the harness. The strap *e*, as shown in Figs. 1 and 4, is composed of thin strips of leather looped around
55 the outer central loops, *b*, of the spring, the ends of these leather strips being sewed or otherwise secured together, forming a strong strap. As shown in Figs. 2 and 5, the strap *e* may be made of a single piece of thick leather, which may be only partially tanned, to give it
60 additional strength, and which is secured to the loops *b* by means of metallic clips *g*, which encircle the two outer central loops, *b*, of the spring, and which are secured to the strap by
65 rivets.

The middle coil of the center loops, *b*, may be made straight at its rear end, so as to form a space between the two outer coils where they are secured to the clips, thus enabling the clips
70 to be brought closer together and present a neater appearance. The coils or loops *b* are made free to slide or move sidewise in the clips, so that when the horse turns its head to one side the pull on the check-rein will cause the spring to turn in the clips without changing the position of the strap *e* or distending the spring. 75

In the modification shown in Fig. 8 the ends of the wire extend from the side loops, *c*, to the center, where they cross each other and are formed into a central loop, *i*, to which the strap is secured, and the central coil is twisted at right angles to the plane of the side loops. 80

In Fig. 9 I have shown my improved spring composed of two separate springs, similar in form to the spring shown in Fig. 1, with the exception of the side loops, *c*, the ends of the springs extending outward on each side of the loops, where they unite and are secured together by rivets, thus forming a single spring. This last form of spring is designed more especially to be used with a single overdraw-check, the check-rein being secured to the central coils, *b'*, and the strap *e* to the coils *b*. 85

With my improved check-spring, if the horse should stumble, or from any cause there should

be a sudden downward movement of the head, the mouth of the animal is relieved from the sudden jar which it otherwise would be subjected to were there no yielding movement
5 given to the check-reins.

My improved check-spring can be readily formed of spring-wire over a suitable mandrel, or it may be made of soft metal and tempered after it has received the desired form.
10 It is simple in construction and durable, and can be made at a small expense.

I claim as my invention—

1. The check-rein attachment A, composed of spring-wire formed into coils *b* and side
15 loops, *c*, and provided with the straps *e*, substantially as and for the purpose set forth.

2. A check-rein attachment composed of a

coiled spring-wire and attaching-loops, and a strap adapted to be engaged with the check-hook and looped over the coil of the spring-
20 wire, whereby the latter is enabled to turn on the strap without the strap turning on the hook when the horse moves its head sidewise, substantially as set forth.

3. A check-rein attachment composed of a
25 strap adapted to be engaged with the check-hook, and a coiled spring-wire attached to the strap and provided with loops for the attachment of the check-rein, substantially as set forth.

EMMIT G. LATTA.

Witnesses:

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C. E. BOLINGER.