

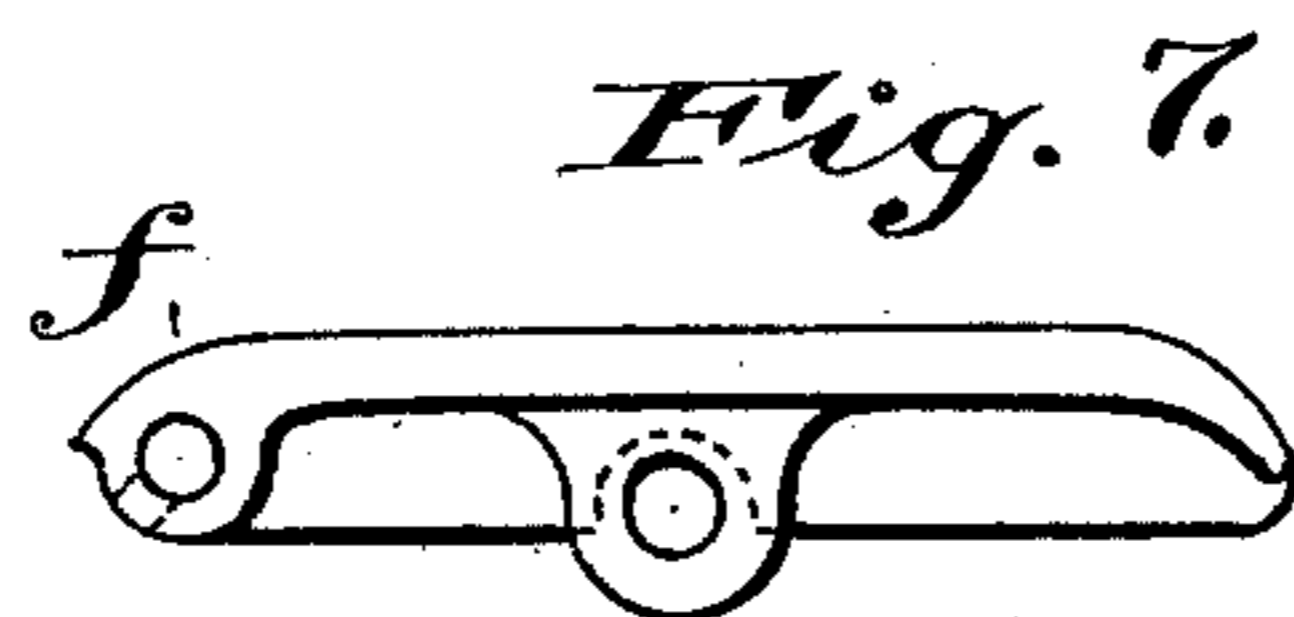
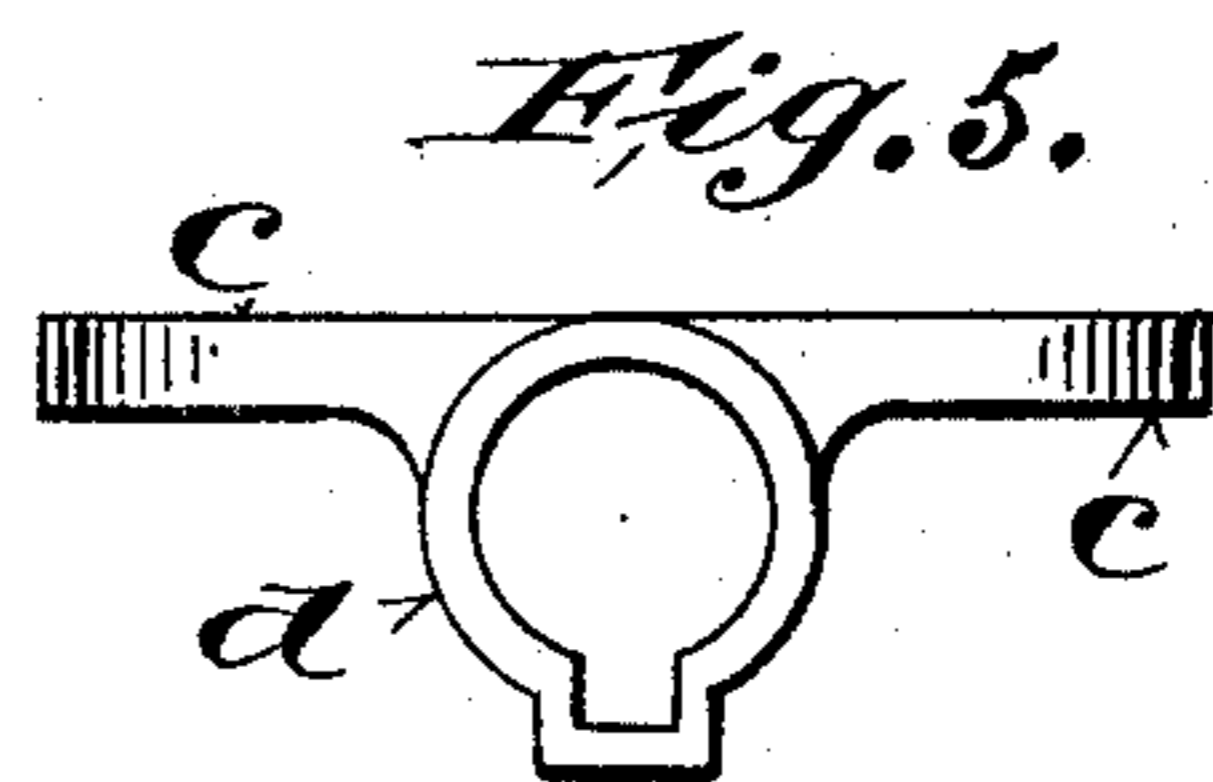
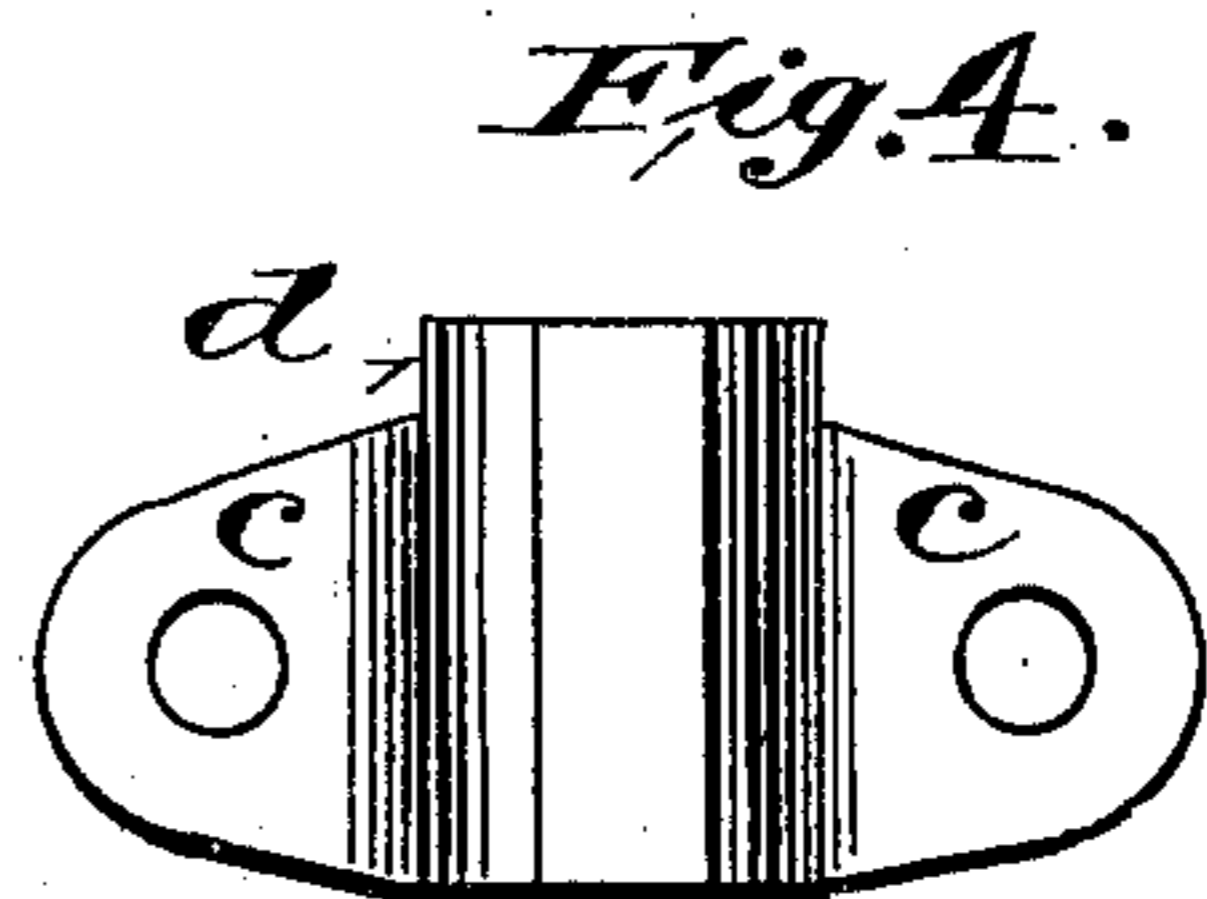
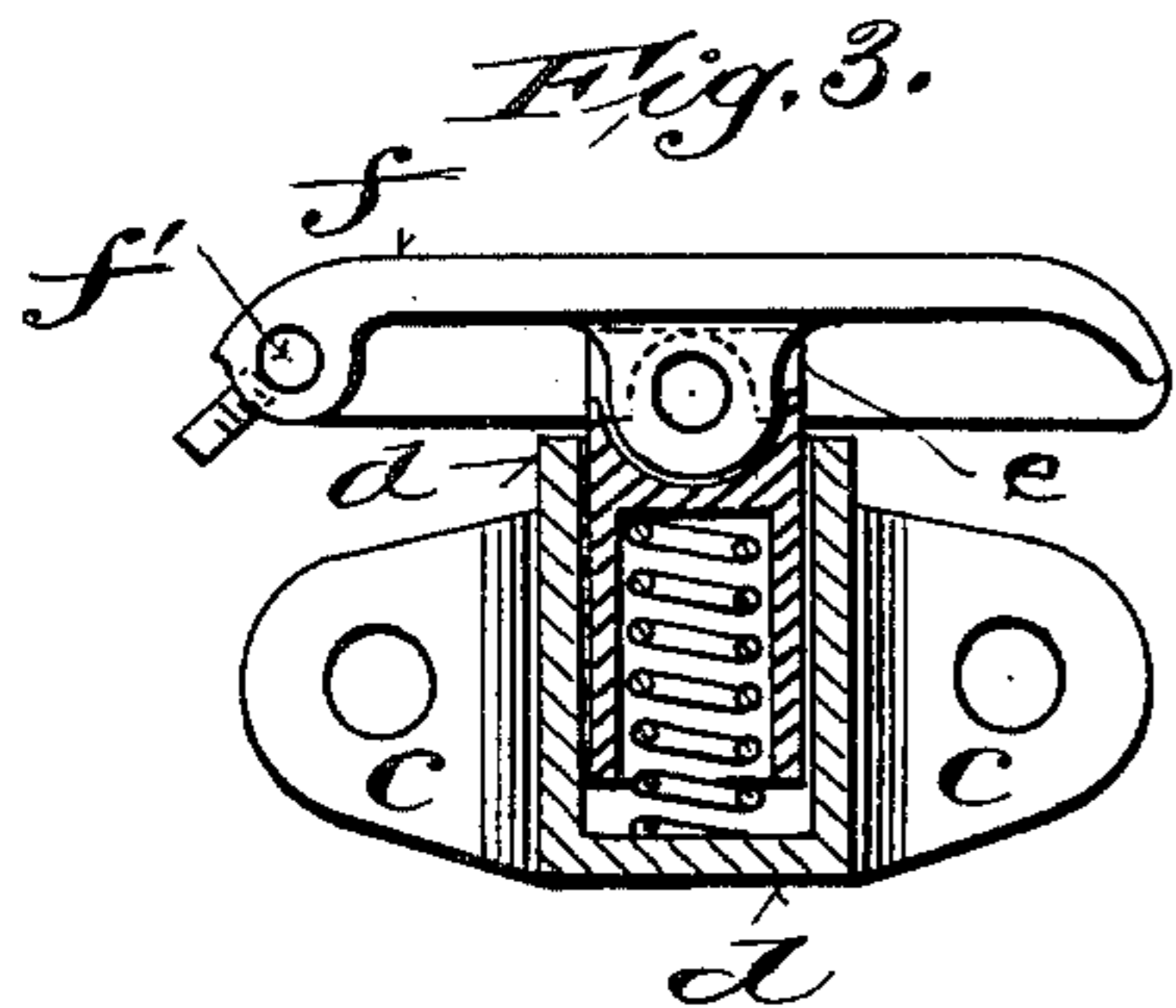
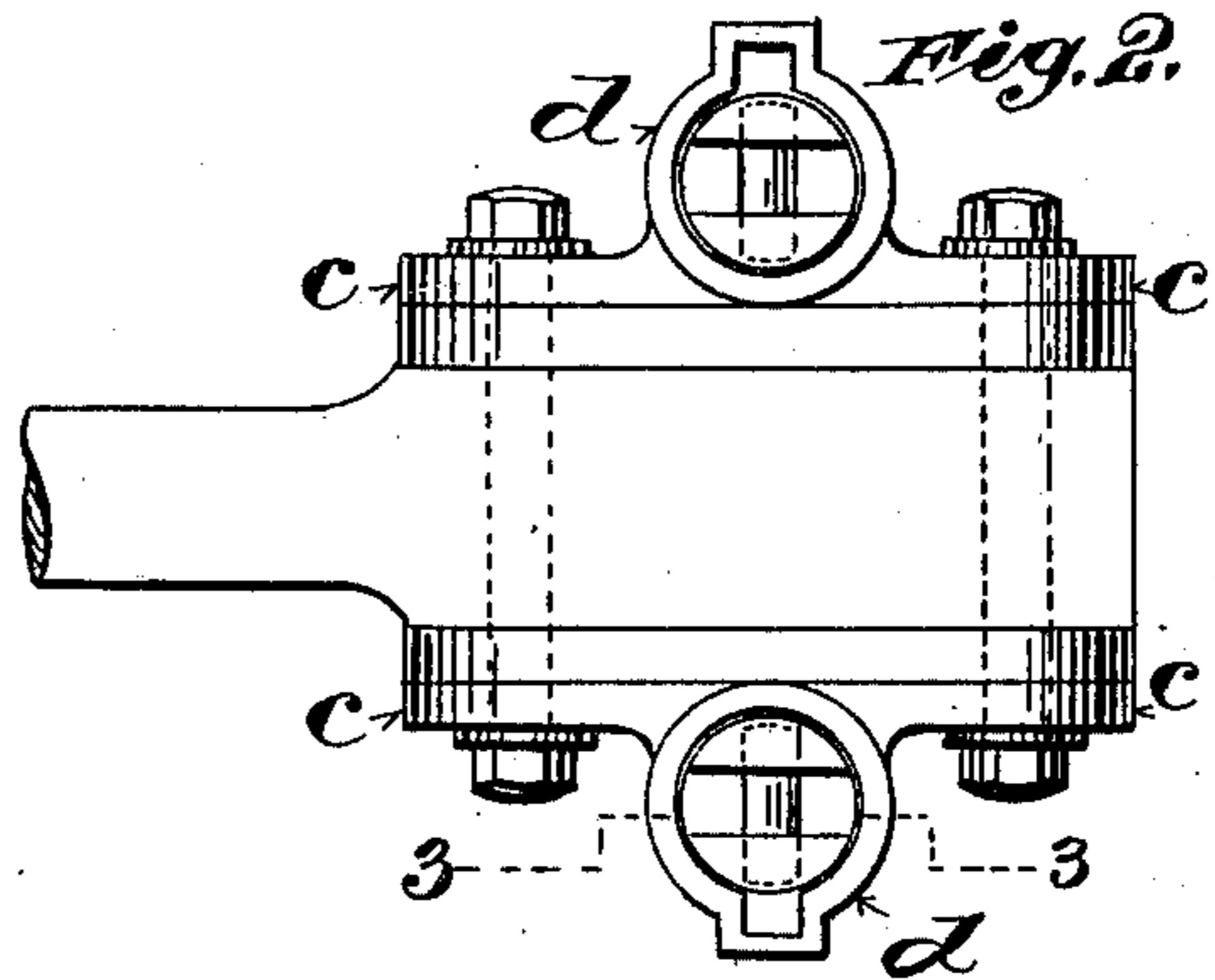
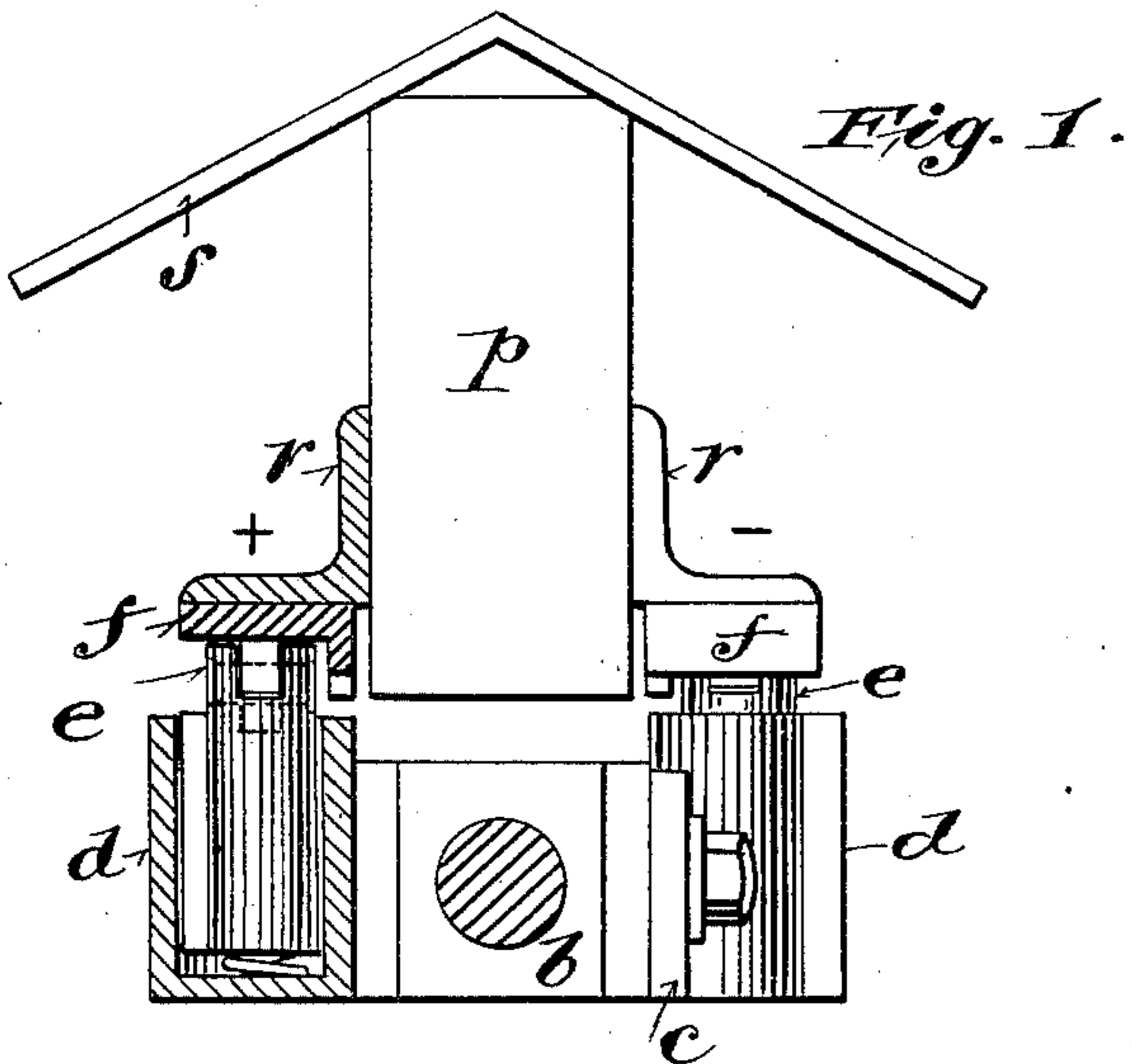
No. 686,739.

Patented Nov. 19, 1901.

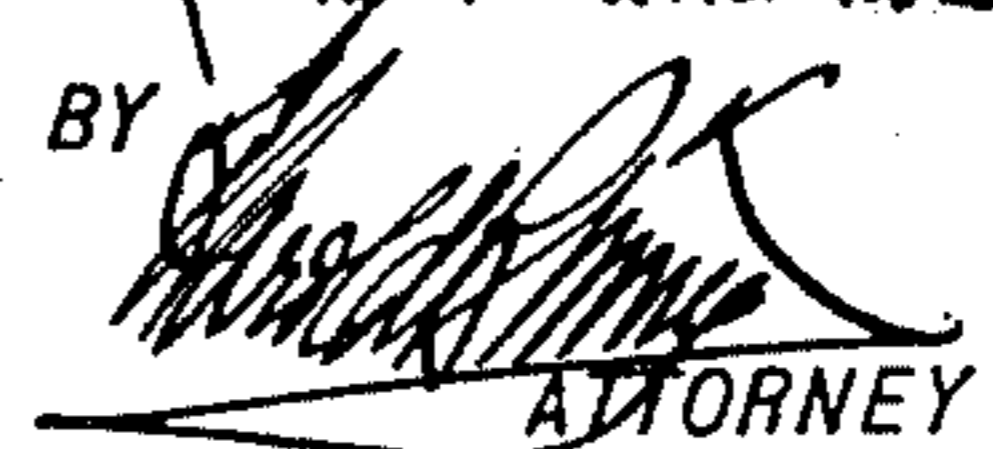
F. KLEPETKO & G. K. FISCHER.  
ELECTRIC RAILWAY.

(Application filed July 19, 1899.)

(No Model.)



WITNESSES:  
C. W. Benjamin  
H. S. Morton.

INVENTORS:  
Frank Klepetko & Geo. K. Fischer  
BY   
ATTORNEY

# UNITED STATES PATENT OFFICE.

FRANK KLEPETKO, OF GREATFALLS, MONTANA, AND GEORGE K. FISCHER,  
OF SALT LAKE CITY, UTAH.

## ELECTRIC RAILWAY.

SPECIFICATION forming part of Letters Patent No. 686,739, dated November 19, 1901.

Application filed July 19, 1899. Serial No. 724,369. (No model.)

*To all whom it may concern:*

Be it known that we, FRANK KLEPETKO, of Greatfalls, Montana, and GEORGE K. FISCHER, of Salt Lake City, Utah, have invented certain new and useful Improvements in Electric Railways, of which the following is a description, referring to the accompanying drawings, which form part of this specification.

The invention is designed, primarily, for electrically-actuated tram-cars for use on industrial railways, though obviously the use of the invention is not limited to such railways.

The invention is of such a simple nature that it will be best understood by a description of the preferred embodiment of it as shown in the accompanying drawings, wherein—

Figure 1 is a view, partly in section, showing the positive and negative conducting-rails, the support therefor, and the positive and negative trolley-contacts. Fig. 2 shows in plan view the trolley-head for carrying the two contact-shoes. Fig. 3 shows one of the contact-shoes with details of its mounting. Figs. 4 and 5 are an elevation and a plan view of one of the sockets for the spring-pressed plunger which carries the contact-shoe. Figs. 6 and 7 are a bottom view and a side view of one of the contact-shoes.

Throughout the drawings like letters of reference indicate like parts.

The construction of the positive and negative conducting-rails and the support will be clearly understood from Fig. 1, which shows these details in end view and also partly in section. Angle-irons *r* are secured on opposite sides of planking *p*, which when in place stands on edge. These planks, with the angle-irons, are strung together above the track similarly to the usual trolley-wire. Where a switch occurs the flexibility of the wooden beam or plank *p* permits it to be sprung readily one way or the other into line with either of the two diverging lines of similar plank and conductors. The conducting-rails are placed not at the extreme lower edge of the plank, but some distance above it, as seen in Fig. 1, so that the trolley-shoes *f* are guided laterally by the plank *p*. Above the plank *p* are water-sheds *s*, preferably arranged in roof-shaped manner, as seen in Fig.

1. The trolley-shoes *f*, as seen in Figs. 1, 3, 6, and 7, are adapted to be guided laterally by the plank *p* and to bear vertically against the rails *r*, being pressed upward by the spring-plungers *e*, to which the shoes are pivotally secured. The spring-plungers *e* slide each within a sleeve or socket *d*, which is secured by ears *c* to the trolley-arm *b*, but is insulated therefrom. Each plunger *e* is hollow to receive the spring, as shown in Fig. 3, and is provided with a fin *g*, extending longitudinally, as seen in Figs. 1 and 2. This fin fits the corresponding channel *h* in the socket *d* and prevents accidental turning of the trolley-shoe beyond a very limited angle when the trolley is off its rails. Each of the shoes is mounted to rock lengthwise, but not laterally, upon its supporting-plunger *e* and each is provided with a perforation or socket *f'* and binding-screw for securing the conductor that leads to the motor and other electric equipment of the tram-car or other vehicle with which the invention is employed.

As a result of the simple construction set forth an extremely cheap and at the same time durable trolley system is produced wherein there is little or no danger of the trolley getting off the rails *r* and at the same time the necessity of employing grooved wheels or grooved trolley-shoes is obviated, since the plank *p* forms, in conjunction with the two shoes that run on each side of it, a very perfect guide.

What we claim as new, and desire to secure as the characteristic features of our invention, is the following:

The combination of a substantially insulating plank or support, having rails secured at each side at a distance above its lower edge, and a trolley adapted to make contact with the said rails and provided with spring-pressed shoes, insulated from each other, and bearing against the respective rails to make contact therewith, and bearing laterally against the projecting edge of the said plank or support to be guided thereby, substantially as set forth.

Signed this 11th day of July, 1899, at Salt Lake City, Utah.

FRANK KLEPETKO.  
GEO. K. FISCHER.

Witnesses:

M. L. STANSFIELD,  
IRVIN HUNSICKER.