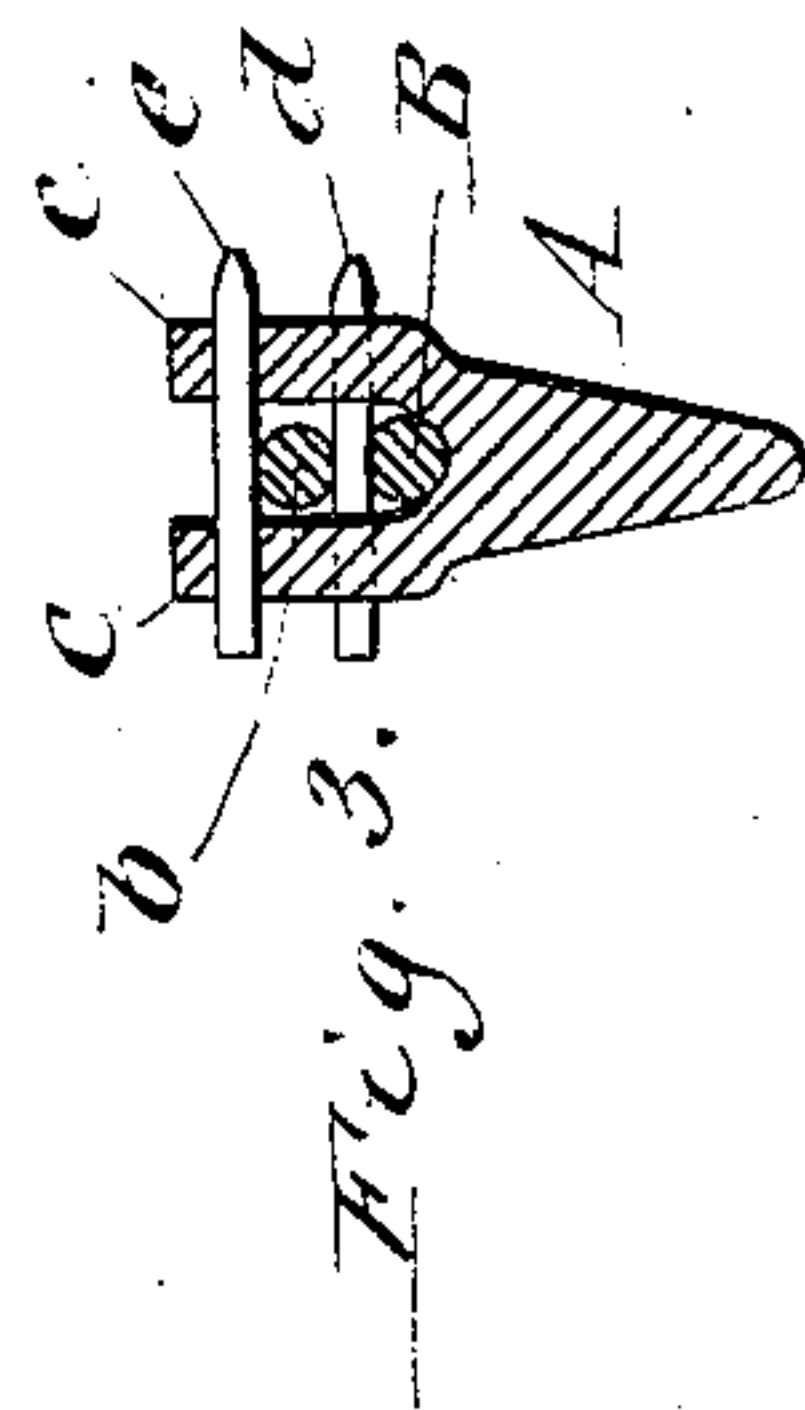
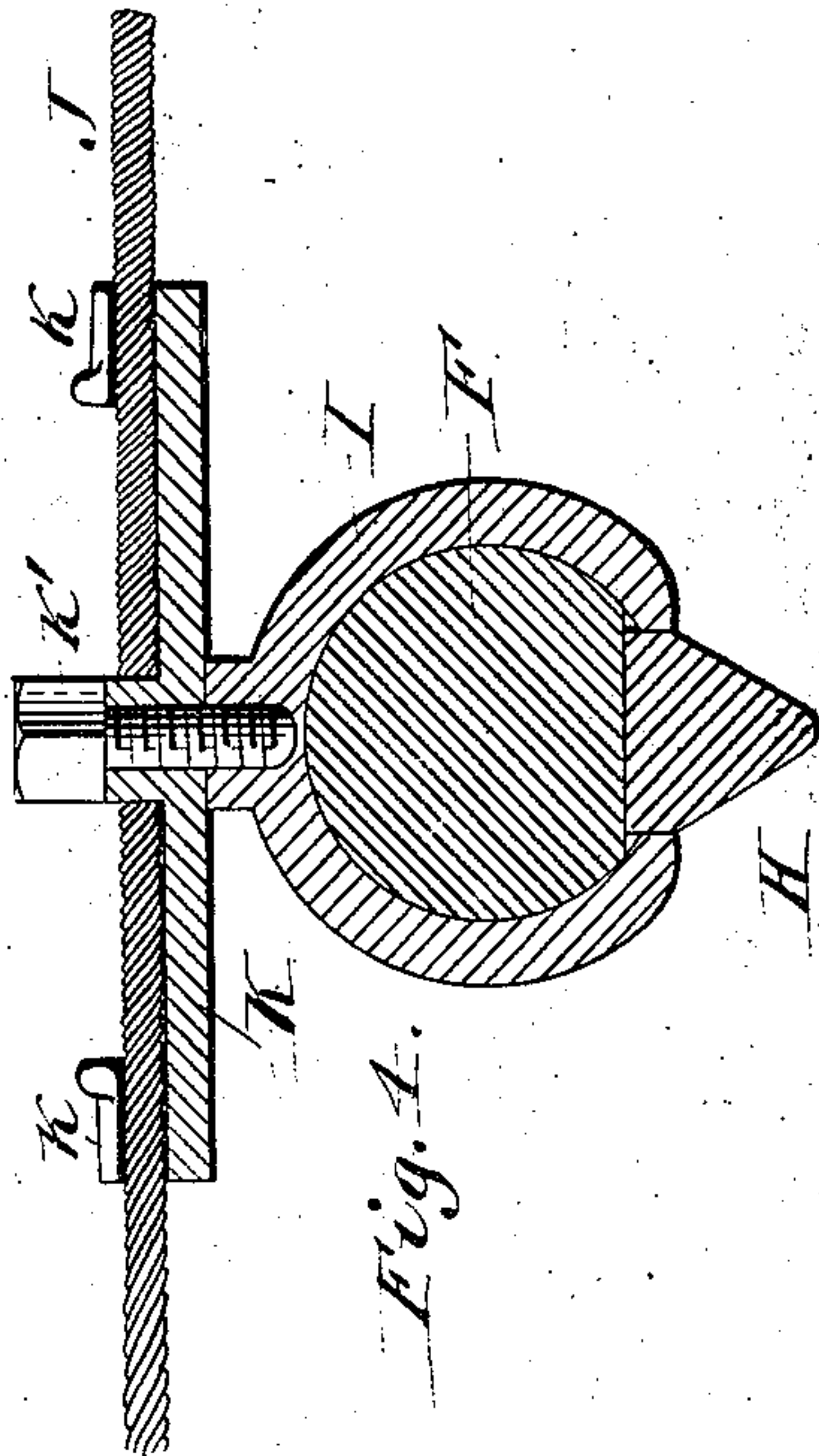
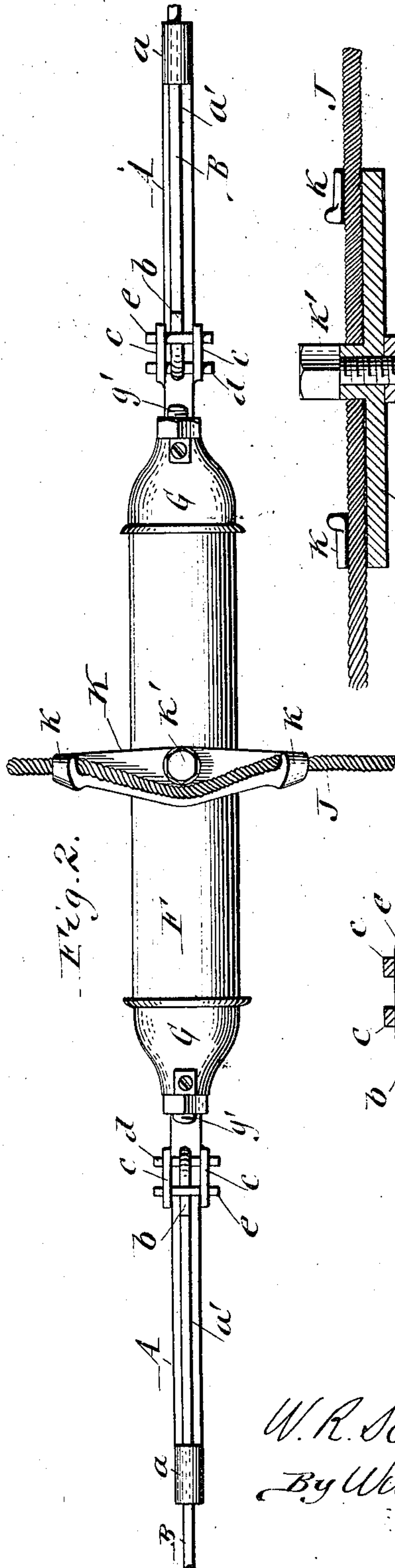
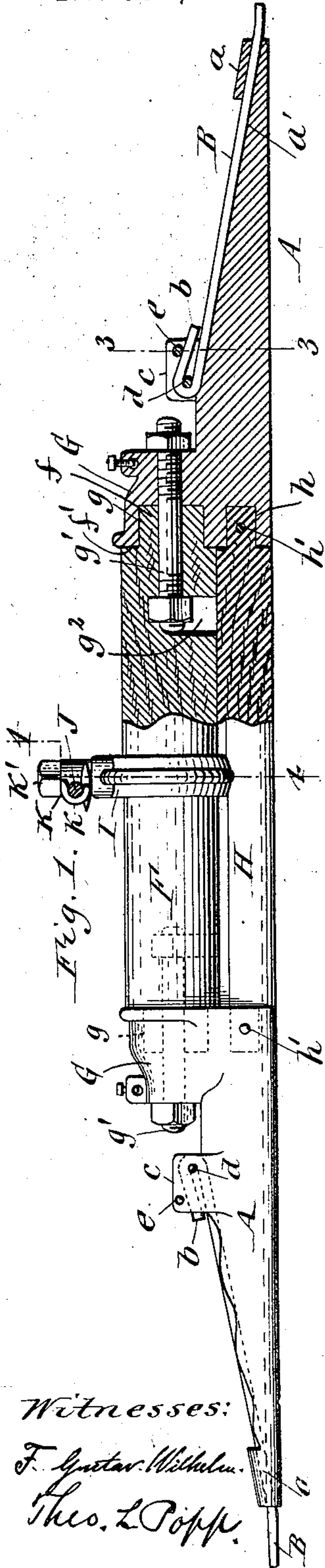


(No Model.)

W. R. SCOTT.  
TROLLEY BREAKER.

No. 538,390.

Patented Apr. 30, 1895.



Witnesses:  
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Thos. L. Popp.

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Attorneys.



# UNITED STATES PATENT OFFICE.

WALTER R. SCOTT, OF BUFFALO, NEW YORK.

## TROLLEY-BREAKER.

SPECIFICATION forming part of Letters Patent No. 538,390, dated April 30, 1895.

Application filed December 19, 1894. Serial No. 532,310. (No model.)

*To all whom it may concern:*

Be it known that I, WALTER R. SCOTT, 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 Trolley-Wire Connections, of which the following is a specification.

This invention relates to the hangers for supporting trolley wires and particularly to coupling hangers employed for uniting adjoining trolley wire sections.

My invention has for its object to provide the hanger with simple means for facilitating the attachment of the wires to the same.

In the accompanying drawings, Figure 1 is a side elevation, partly in section, showing my improvements applied to an insulating-hanger whereby the ends of two trolley-wire sections are connected. Fig. 2 is a top plan view of the same. Figs. 3 and 4 are cross-sections thereof, on an enlarged scale, in lines 3-3 and 4-4, Fig. 1, respectively.

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

Referring to Figs. 1 to 4, A A represent the end pieces of the insulating hanger to which the adjacent ends of the trolley wire sections B B are respectively attached. Each of these end pieces is provided at its outer end with a longitudinal eye or sleeve *a* through which the end portion of the adjacent wire passes.

*c* represents a pair of upright lugs or ears projecting from the upper side of the end piece a short distance in rear of the longitudinal eye *a* and separated by a space in which the wire is arranged.

*d* is a removable transverse pin which passes through openings formed in said ears and around which the end portion of the wire is bent or doubled. *e* is a similar pin passing through the ears *c* in front of the pin *d* and bearing upon the doubled portion *b* of the wire, so as to hold the same down in place and prevent the bight of the wire from straightening out and becoming detached from the rear pin. Each end piece is preferably formed in its upper side with a longitudinal groove *a'* in which the adjacent straight portion of the wire is seated and in which the wire is confined by solder.

In attaching the wire to the end pieces the

pins *d* and *e* are withdrawn from the openings of the parallel ears and the wire is passed through the longitudinal eye *a* and placed with its end portion between the parallel ears. The rear pin is then inserted in its openings in the ears and the wire is bent or doubled forwardly over said pin in the form of a hook as shown, after which the front pin is put in place. The closed longitudinal eye at the outer end of the end piece firmly and securely holds the wire in place at this point while the pair of lugs and the transverse pins enable the end of the wire to be readily and conveniently attached to the end piece.

F is a bar or block of wood or other insulating material which connects the end pieces of the hanger. This bar is provided at each end with a contracted portion *f* forming a shoulder *f'*. The contracted portion *f* is seated in a socket *g* formed in an enlargement G on the inner side of the adjacent end piece and the shoulder *f'* bears against the inner end of the end piece around the socket. The insulating bar is secured in the sockets of the end pieces preferably by longitudinal bolts *g'* which pass through the enlargements G and through longitudinal openings formed lengthwise in the end portion of the bar, as shown in the right hand portion of Fig. 1. In fastening the end pieces of the insulating bar the screw nut at the inner end of each bolt *g'* is dropped into a lateral opening *g''* of the bar which communicates with the inner end of the longitudinal opening and the bolt is then screwed into said nut, after which the outer nut of the bolt is tightened against the end of the enlargement. This means of fastening the insulating bar to the end pieces forms a very strong and reliable connection between these parts and prevents the end pieces from becoming displaced on the insulating bar. The lower edges of the end pieces are substantially flush with the trolley wire.

H is a bar or rail of wood or other insulating material arranged between the inner ends of the end pieces below the insulating bar F and having its lower edge arranged flush with that of the end pieces of the connection so as to form practically an unbroken continuation thereof. The ends of this rail are seated in sockets *h* formed at the inner ends of the end



pieces below the sockets *g*, the rail being preferably further secured in its sockets by transverse pins *h'*.

I represents a supporting yoke whereby the hanger is suspended from the usual cross wire *J* and which embraces the upper insulating bar *F*. The yoke is provided at its top with a cross head *K* which terminates in hooks *k* under which the cross wire engages, the wire being held in engagement with said hooks by deflecting its intermediate portion around the central boss of the yoke through which the fastening bolt *k'* of the cross head passes.

My improved means for connecting the ends of the wires to the end pieces may also be used for connecting the sections of a trolley wire which do not require to be insulated, in which case the two end pieces may be cast integrally.

I claim as my invention—

1. A hanger or coupling having at its end a closed longitudinal eye formed integrally with the end piece of the hanger or coupling and adapted to receive a wire, and provided in rear of said integral eye with a fastening

device for the end of the wire, substantially as set forth.

2. A hanger provided with a pair of upright ears separated by a space which receives the end portion of the wire, a rear pin connecting said ears, around which the wire is bent and a front pin also connecting said ears, and bearing upon the bent end of the wire, substantially as set forth.

3. A hanger or coupling having an end piece provided with a longitudinal eye formed integrally therewith and adapted to receive a wire and having in rear of said eye a pair of upright ears separated by a space which receives the end portion of the wire, and front and rear pins connecting said ears, the wire being bent around the rear pin, and the front pin bearing upon the doubled end of the wire, substantially as set forth.

Witness my hand this 10th day of December, 1894.

WALTER R. SCOTT.

Witnesses:

JNO. J. BONNER,  
ELLA R. DEAN.