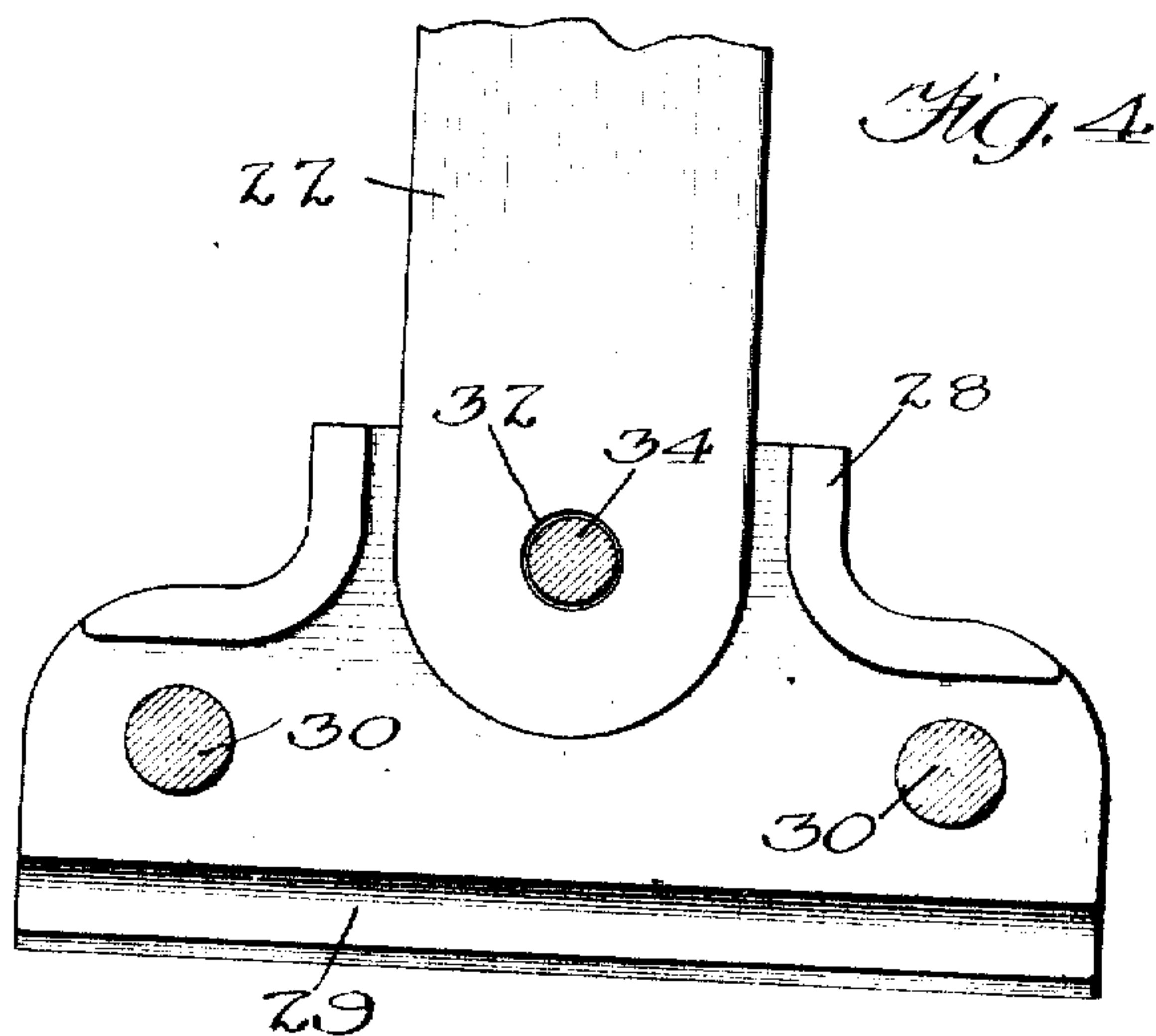
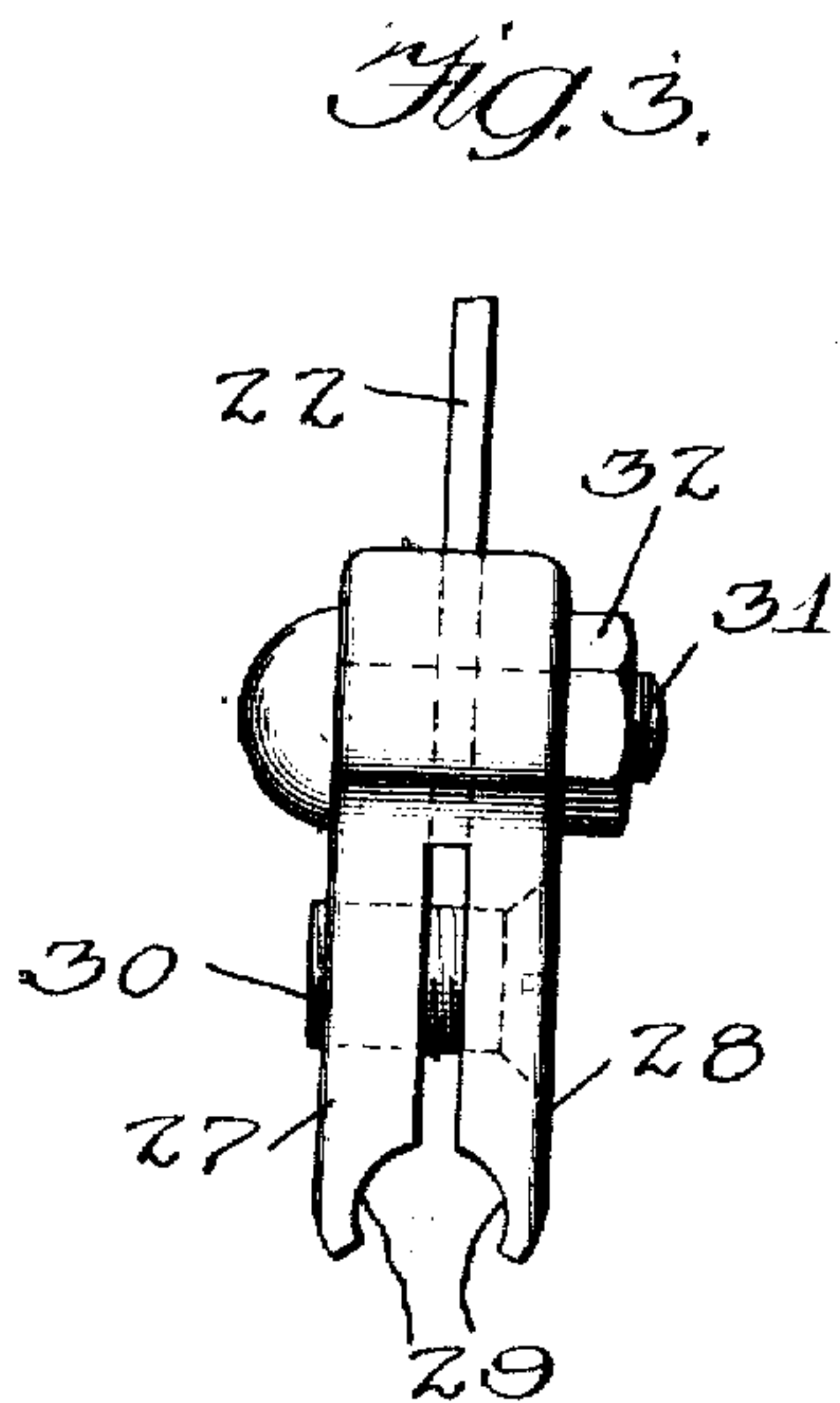
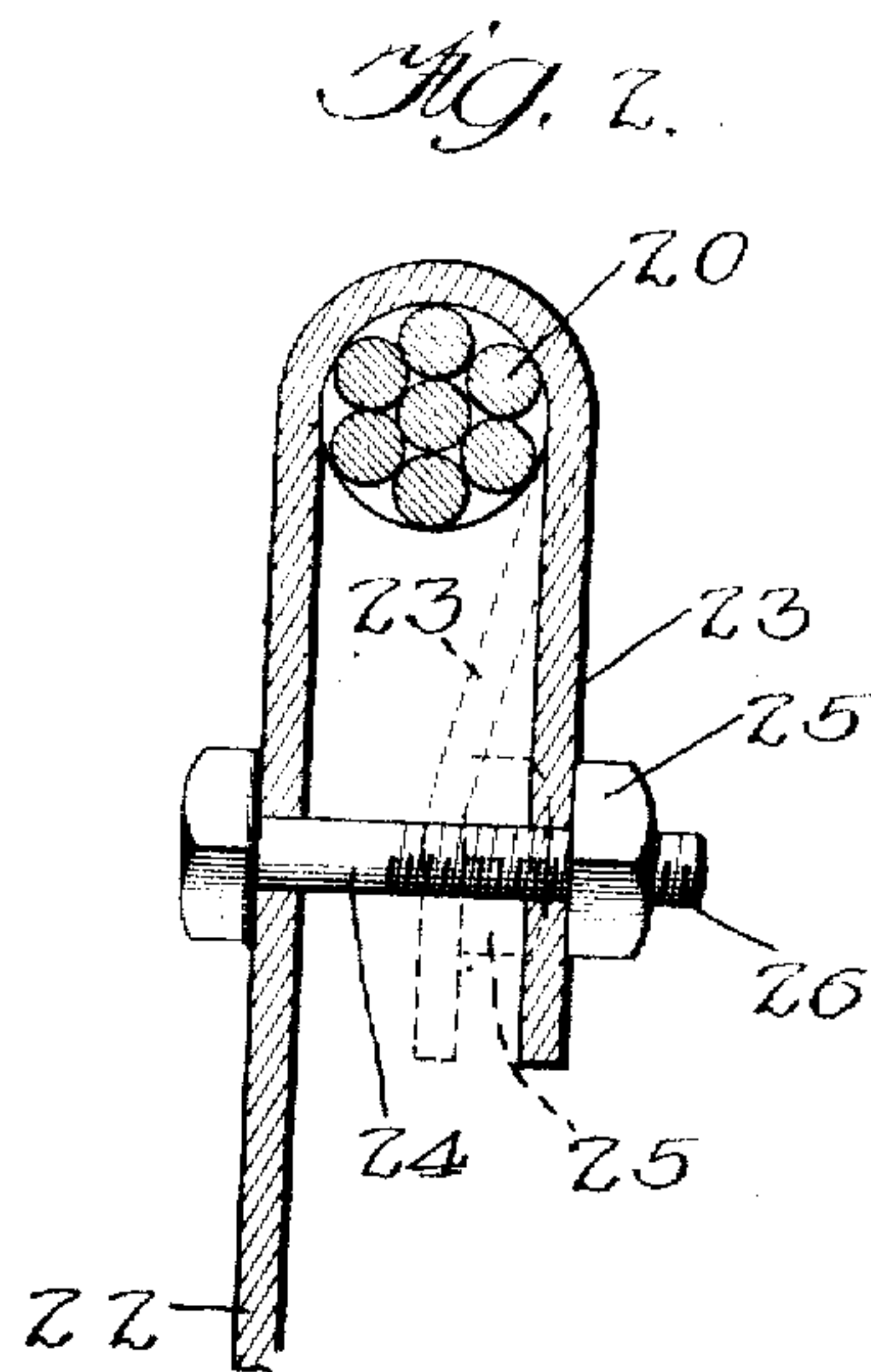
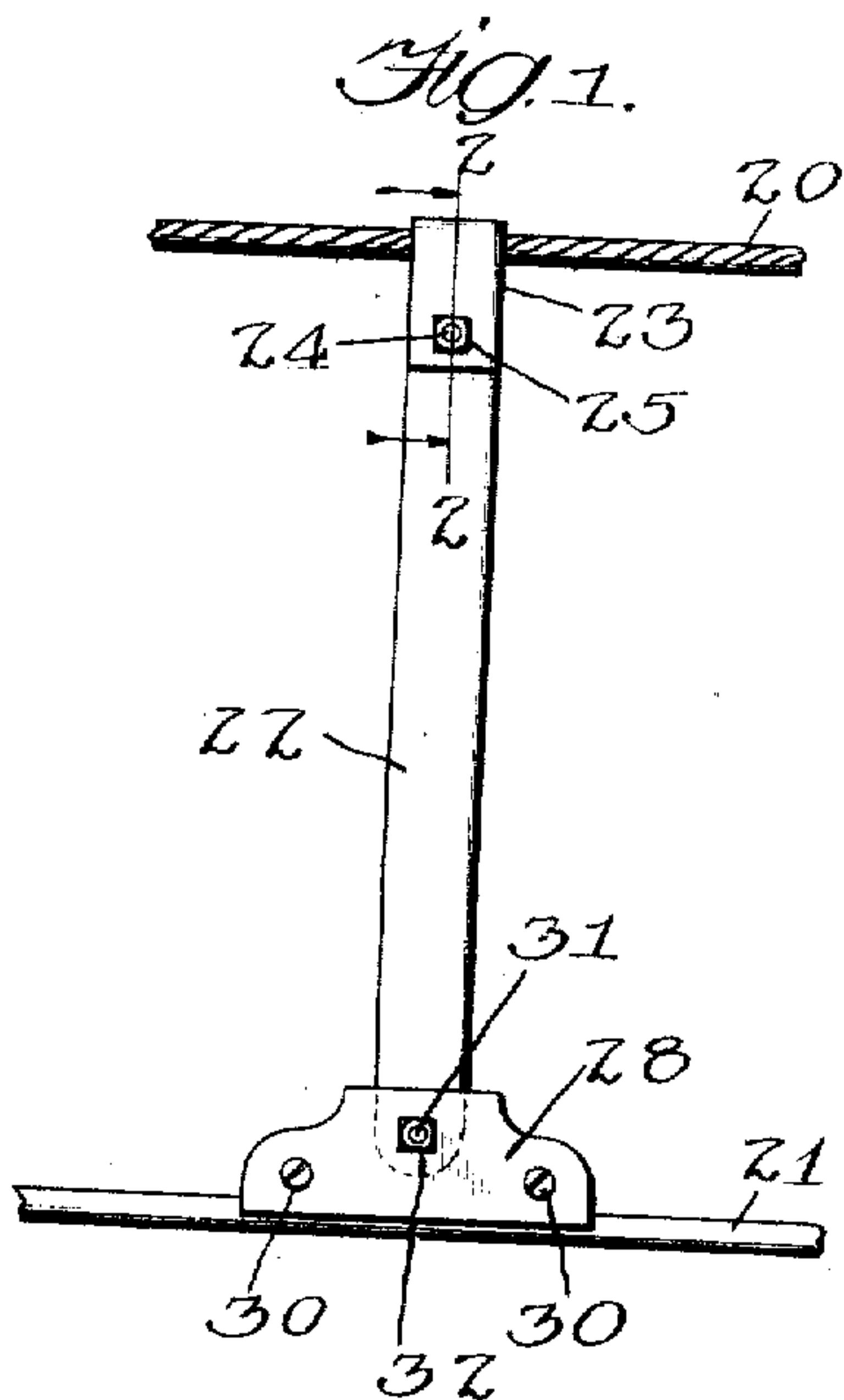


G. A. MEAD.  
 SUSPENSION DEVICE FOR TROLLEY WIRES AND THE LIKE.  
 APPLICATION FILED OCT. 7, 1907.

948,789.

Patented Feb. 8, 1910



Witnesses:  
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Inventor:  
 George A. Mead  
 by Brown & Hopkins  
 Attys

# UNITED STATES PATENT OFFICE.

GEORGE A. MEAD, OF MANSFIELD, OHIO.

## SUSPENSION DEVICE FOR TROLLEY-WIRES AND THE LIKE.

948,789.

Specification of Letters Patent.

Patented Feb. 8, 1910.

Original application filed November 12, 1906, Serial No. 343,061. Divided and this application filed October 7, 1907. Serial No. 396,208.

*To all whom it may concern:*

Be it known that I, GEORGE A. MEAD, a citizen of the United States, residing at Mansfield, in the county of Richland and State of Ohio, have invented certain new and useful Improvements in Suspension Devices for Trolley-Wires and the Like, of which the following is a specification.

This invention relates to improvements in suspension devices for trolley wires and the like of the type shown and described in my co-pending application filed in the United States Patent Office on November 12, 1906, Serial No. 343,061, and of which the present application is a division; and the object of the invention is to provide an improved device of this character for flexibly suspending the trolley or conductor wire from a messenger wire.

A further object is to provide an improved device of this character which will be simple and cheap in construction, easily applied and effective and efficient in operation.

To the attainment of these ends and the accomplishment of other new and useful objects as will appear, the invention consists of the features of novelty in the construction, combination, and arrangement of the several parts hereinafter more fully described and claimed, and shown in the accompanying drawing illustrating an exemplification of the invention, and in which—

Figure 1 is an elevation of an improved device of this character constructed in accordance with the principles of this invention, Fig. 2 is an enlarged detail sectional view on line 2-2 of Fig. 1, Fig. 3 is an end view of the lower portion of the body member of the suspension device and the trolley wire or conductor clamp, and Fig. 4 is a view partly in section of the lower portion of the body member of the suspension device and one member of the modified form of clamp.

In the present exemplification of the invention, the numeral 20 designates a messenger wire from which the trolley or conductor wire 21 is suspended by a suitable suspension device or hangers arranged at suitable intervals along the messenger wire. The body portion 22 of the suspension device is preferably in the form of a single member, constructed of a suitable flat piece of flexible material such as metal or the like, the upper extremity 23 of which is bent into a hook shape as shown more clearly in Fig.

2 of the drawing so as to pass over and rest upon the messenger wire 20 and stand in a plane parallel with the vertical plane in which the wire lies so that the force of the trolley will be resisted without bending the suspension member. A suitable bolt or screw 24 may be passed through the body portion 22 and the extremity 23 below the messenger wire 20 and transversely thereof, to prevent the hanger or suspension device from being accidentally displaced from the wire when in position.

If desired, and in order to prevent the hanger or suspension device from sliding longitudinally along the messenger wire 20, the extremity 23 may be bent or deflected around the messenger wire 20, as shown in dotted lines in Fig. 2 of the drawing, and may be held in its deflected position by means of a suitable nut 25 adapted to engage the threaded extremity of the bolt 24.

Any suitable form of a wire or conductor clamp may be employed which preferably comprises two jaws 27, 28, having suitable recesses or grooves 29 for the reception of the conductor or wire 21, and these two jaws or members 27, 28, may be held in operative position in any desired or suitable manner, preferably by means of screws or bolts 30, which pass transversely through the members intermediate the edges thereof and above the grooves 29.

The free extremity of the body portion 22 is preferably adapted to stand between the two jaws or members 27, 28, of the wire or conductor clamp and may be pivotally secured thereto in any desired or suitable manner, preferably by means of a screw or bolt 31 which passes transversely through the jaws or members 27, 28, and a suitable aperture 32 in the extremity of the body portion 22 and the bolt is preferably held from displacement by means of a suitable nut 32 engaging a threaded extremity thereof, as shown more clearly in Figs. 1 and 3 of the drawing. This bolt 31 also serves to prevent the clamp members from dropping off when the screws or bolts 30 are removed.

If desired one of the jaws or members, such for instance as the jaw 28, may be provided with a projecting lug 34, extending laterally from one face thereof, and is adapted to extend into the aperture 32 of the body portion 22, as shown more clearly in Fig. 4 of the drawing, so that when the



other jaw 27 is placed in operative position against the jaw or member 28, the end of the lug or projection 34 will stand adjacent and in close proximity to the inner face of the jaw 27 to prevent disengagement of the body portion 22. These jaws or members may be held in operative position in a similar manner by means of the screws or bolts 30 as shown in Figs. 1 and 3 of the drawings. It will thus be seen that with this improved construction of hanger, the trolley or conductor wire will be flexibly suspended from the messenger wire and owing to the elasticity of its construction, the trolley or conductor wire will be permitted to assume a position to be engaged by the trolley wheel on the car, and being constructed of separable members, that is, constructed so that the body portion 22 may be separated or detached from the wire or conductor clamp, the parts of a hanger of suitable length may be used to support the trolley or conductor wire at the proper height. This construction will materially reduce the cost of manufacture and dispense with the necessity of many expensive patterns and other tools required for each individual length of hanger as would be required if all of the parts were in one.

Having thus fully described my invention what I claim as new and desire to secure by Letters Patent is—

1. In a device of the class described, the combination of a supporting wire, a suspension member, one end of said member being bent back upon the body portion to form a downwardly opening hook adapted to engage over the wire, means forming a closure for the hook below the supporting wire for preventing the displacement of the member, a conductor, and means pivotally connected to the suspension member and engaging the conductor for holding the latter in position.

2. In a device of the class described, the combination of a supporting wire, a suspension member, one end of said member being bent back upon the body portion to form a downwardly opening hook adapted to engage over the wire, means engaging the bent end of the body portion of the member below the wire for preventing displacement of the member, a conductor, a clamp removably engaging the conductor, and means for removably and pivotally connecting the clamp to the suspension member.

3. In a device of the class described, the combination of a supporting wire, a suspension member, one end of said member being bent back upon the body and parallel therewith to form a downwardly opening hook adapted to engage over the wire, means

engaging the said end of the body portion of the member below the wire and adapted to deflect said end around the wire to prevent displacement of the member, a conductor, a clamp engaging the conductor, and means for pivotally connecting the clamp to the suspension member.

4. In a device of the class described, the combination of a supporting wire, a suspension member, one end of said member being bent back upon itself to form a downwardly opening hook adapted to engage over the wire, means engaging said end and the body portion of the member below and extending transversely to the supporting wire and adapted to deflect said end around the wire for preventing displacement of the member, a conductor, a clamp engaging the conductor, and means for pivotally connecting the clamp to the suspension member.

5. In a device of the class described, the combination of a supporting wire and a suspension member, one extremity of the member being bent back upon itself to form a downwardly opening hook engaging over the supporting wire, said member being formed of a flat piece of material of substantially uniform width throughout its length and with its plane parallel with the vertical plane in which the supporting wire lies, whereby the force of the trolley will be resisted without bending the suspension member, a conductor, and means for connecting the conductor to the suspension member.

6. In a device of the class described, the combination of a supporting wire, and a suspension member, one extremity thereof being bent back upon itself to form a downwardly opening hook engaging over the supporting wire, said member being formed of a flat piece of material of substantially uniform width throughout its length and with its plane parallel with the vertical plane in which the supporting wire lies whereby the force of the trolley will be resisted without bending the suspension member, a bolt passing through the body of the member and through said end below the supporting wire for drawing said end around the wire to prevent displacement of the member, a conductor, and means for connecting the conductor to the suspension member.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 2d day of October A. D. 1907.

GEORGE A. MEAD.

Witnesses:

F. W. MILLER,  
C. V. MARKS.