

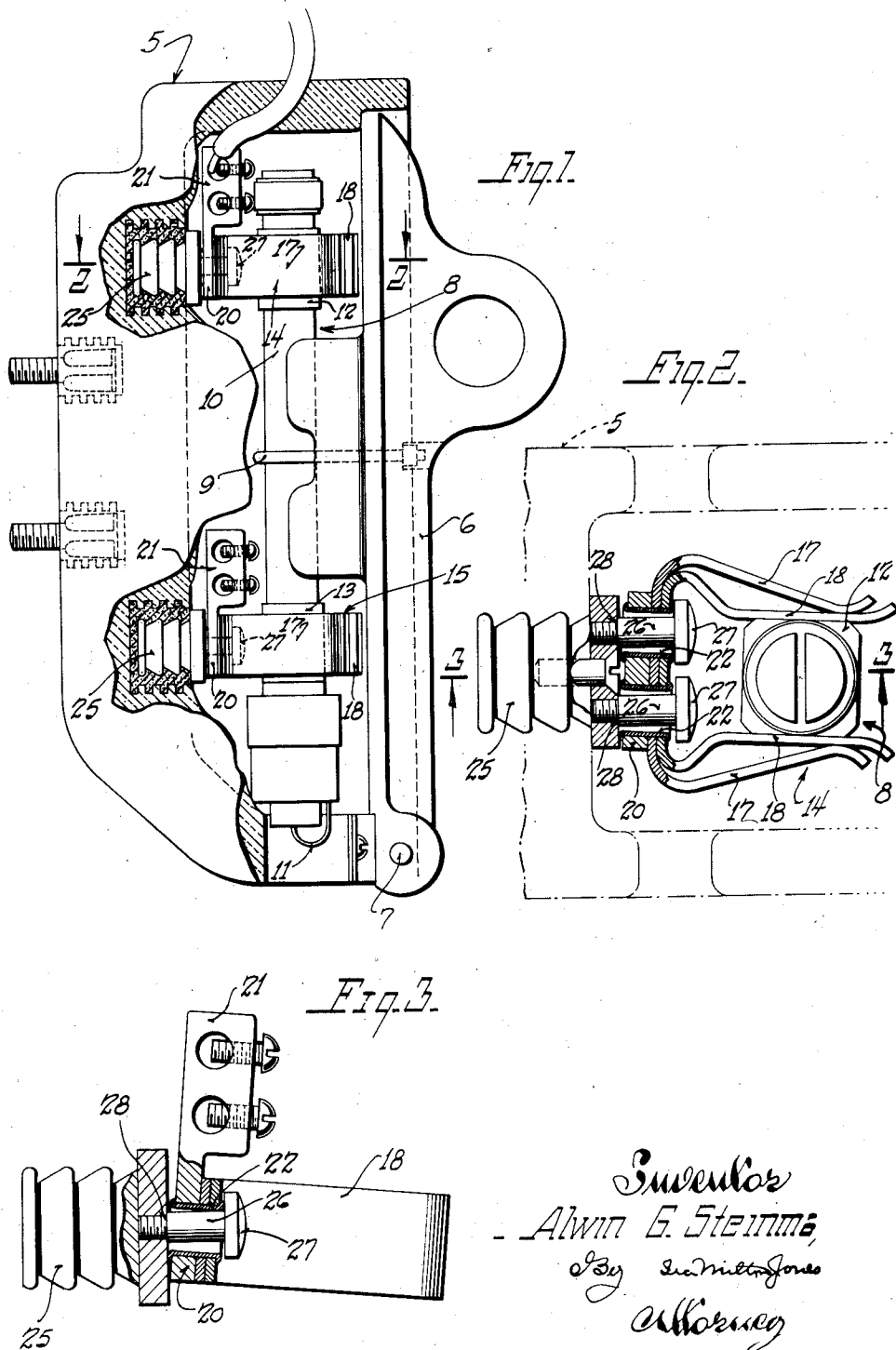
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CONTACT CLIP

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CONTACT CLIP

Original application filed March 12, 1929, Serial No. 346,341. Divided and this application filed June 22, 1931. Serial No. 545,887.

This invention relates to certain new and useful improvements in contact clips which are particularly adapted for use with expulsion fuses or the like, and is a division of co-
5 pending application, Serial No. 346,341, filed March 12, 1929.

After fuses of this type have been in service a short while, the tube becomes warped, impairing the contact between its terminals and the contact clips. Likewise, in case of
10 any slight disalignment of the fuse terminals, a full contact is not available.

It is, therefore, an object of the present invention to provide a contact clip for ex-
15 pulsion fuses which will automatically compensate for warping of the fuse tube, and maintain a full contact regardless of the warping.

Another object of the invention resides in the novel construction of a contact clip for
20 expulsion fuses and the like in which the two U-shaped members constituting the clip are connected in such a manner as to permit substantially universal movement between the
25 members to permit the inner member of the clip to adjust itself with respect to the fuse terminal.

With the above and other objects in view, the nature of which will become apparent as the description proceeds, the invention re-
30 sides in the novel construction, combination and arrangement of parts, substantially as hereinafter described, and as more particularly defined by the appended claims. It is
35 to be understood, however, that such changes in the precise embodiment of the hereindisclosed invention may be made as come within the scope of the appended claims.

In the accompanying drawing, there is il-
40 lustrated a preferred form of the invention constructed according to the best modes so far devised for the practical application of the principles thereof and in which:

Figure 1 is a side elevational view of a
45 conventional expulsion fuse and its mounting with parts broken away and in section to illustrate structural details;

Figure 2 is a cross section taken on the
50 plane of the line 2—2 of Figure 1;

Figure 3 is a cross section on the line of 3—3 of Figure 2.

Referring to the drawing in which like numerals indicate like parts throughout the several views, the numeral 5 represents a hous-
ing of a conventional expulsion fuse which is preferably formed of porcelain or like ma-
terial and has its open front closed by a cover
6 hingedly connected with the housing as
at 7. A fuse 8 is strapped to the cover 6 as
shown at 9.

The fuse 8 is of conventional design and consists of a tube 10 of insulating material in which a fuse element 11 is positioned. The ends of the fuse element 11 are connected to contact terminals 12 and 13 which are se-
cured to the tube 10 in spaced relation.

When the door 6 is closed, the contact members 12 and 13 engage with contact clips 14 and 15, respectively, which are formed to
70 accommodate any disalignment which may exist between the terminals 12 and 13, the clips 14 and 15 forming the subject matter of the present invention.

Referring more particularly to Figures 2
75 and 3 which illustrate the details of the improved clips 14 and 15, each clip comprises a pair of U-shaped spring tension members 17 and 18 secured to a web 20 of the terminal member 21 by means of tubular rivets 22
80 which extend through aligned apertures in the members 17 and 18 and the web 20.

The spring member 17 exerts inward pressure on the member 18 which adds to the pressure of the spring member 18 to firmly
85 grasp the terminals 12 and 13 of the fuse 8.

The assembled clip comprising the members 17 and 18, the web 20 and the terminal member 21 is movably secured to an anchor member 25 by screws 26 which fit loosely in the tubular rivets.

The screws 26 are provided with an en-
larged head 27 of greater diameter than the inside diameter of the tubular rivet 22 and with a shoulder 28 which abuts the face of
95 the anchor member 25 to limit the movement of the screw 26 into the anchor member.

The provision of the shoulder 28 insures sufficient clearance between the head 27 and the anchor member 25, so that the clips 14

and 15 have substantially universal movement through a limited distance.

From the foregoing description taken in connection with the accompanying drawing, it will be readily apparent to those skilled in the art to which the invention appertains, that there has been provided an improved construction in mounting for contact clips of expulsion fuses and the like which permits free movement of the clips to accommodate any disalignment existing between the contact terminals of the fuse to insure good electrical connection between the terminals and the clips.

Having thus described the invention, what is claimed as new and desired to secure by Letters Patent, is:

1. A contact clip comprising a member having spaced arms adapted to receive a terminal, a second member having spring arms which exert pressure on the arms of said first member to insure intimate contact with the terminal, a line conductor engaging member, tubular means fixedly connecting the three members and supporting means for the clip passed loosely through the tubular means, whereby the assembled contact clip is free to adjust itself to the terminal.

2. A contact clip comprising a member having spaced arms to receive a terminal, a second member having spring arms which exert a pressure on said first named arms to insure intimate contact with the terminal, a line conductor engaging member, rigidly connected with said spaced arms to form a unit, means mounting said unit on said terminal for universal movement through a limited distance.

3. A contact clip comprising a member having spaced spring arms to receive a terminal member, a second member having spring arms which exert a pressure on said first named spring arms to insure intimate contact with the terminal, a line conductor engaging member rigidly connected with said spaced arms and said spring arms to form a unit, means mounting said unit on said terminal for universal movement through a limited distance.

4. A contact clip comprising a member having spaced arms adapted to receive a terminal, a line conductor engaging member, tubular means fixedly connecting said members, and supporting means for the clip passed loosely through the tubular means, whereby the assembled contact clip is free to adjust itself to the terminal.

5. A contact clip having spaced arms to receive a terminal, a line conductor engaging member rigidly connected with said first named member to form a unit, means mounting said unit on said terminal for universal movement through a limited distance.

6. A contact clip comprising a member having spaced spring arms adapted to re-

ceive a terminal member, a line conductor engaging member rigidly connected with said first named member to form a unit, means mounting said unit on said terminal for universal movement through a limited distance.

In testimony whereof, I hereunto affix my signature.

ALWIN G. STEINMAYER.

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