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M. B. HERBRICK

FUSE HOLDER FOR ELECTRICAL CIRCUITS

Filed April 3, 1926

Fig. 1.

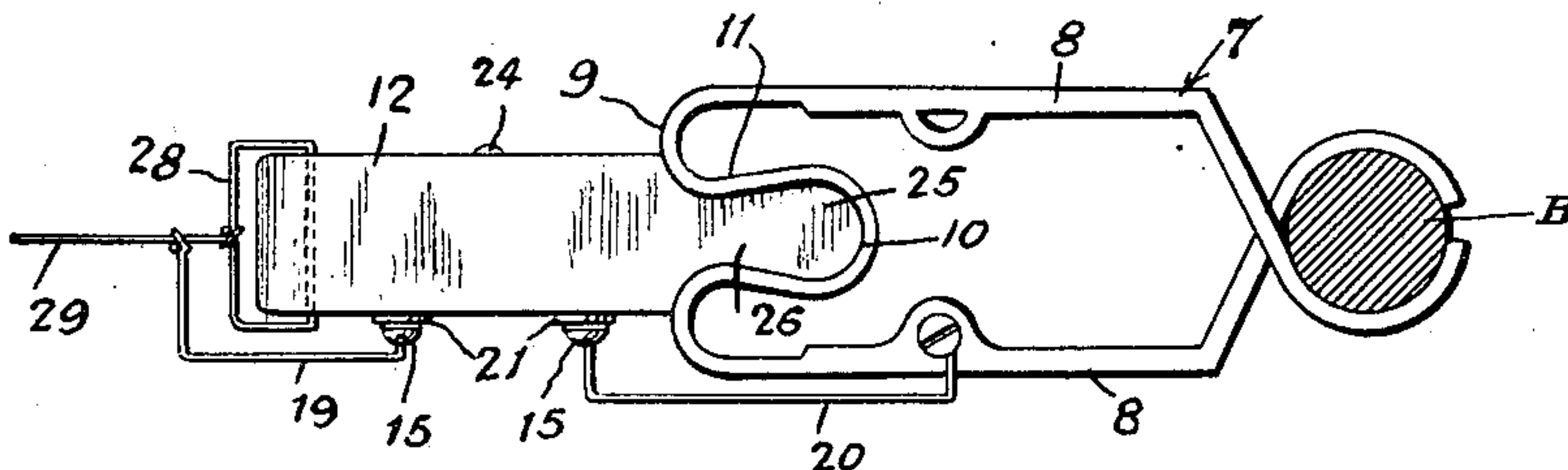


Fig. 2.

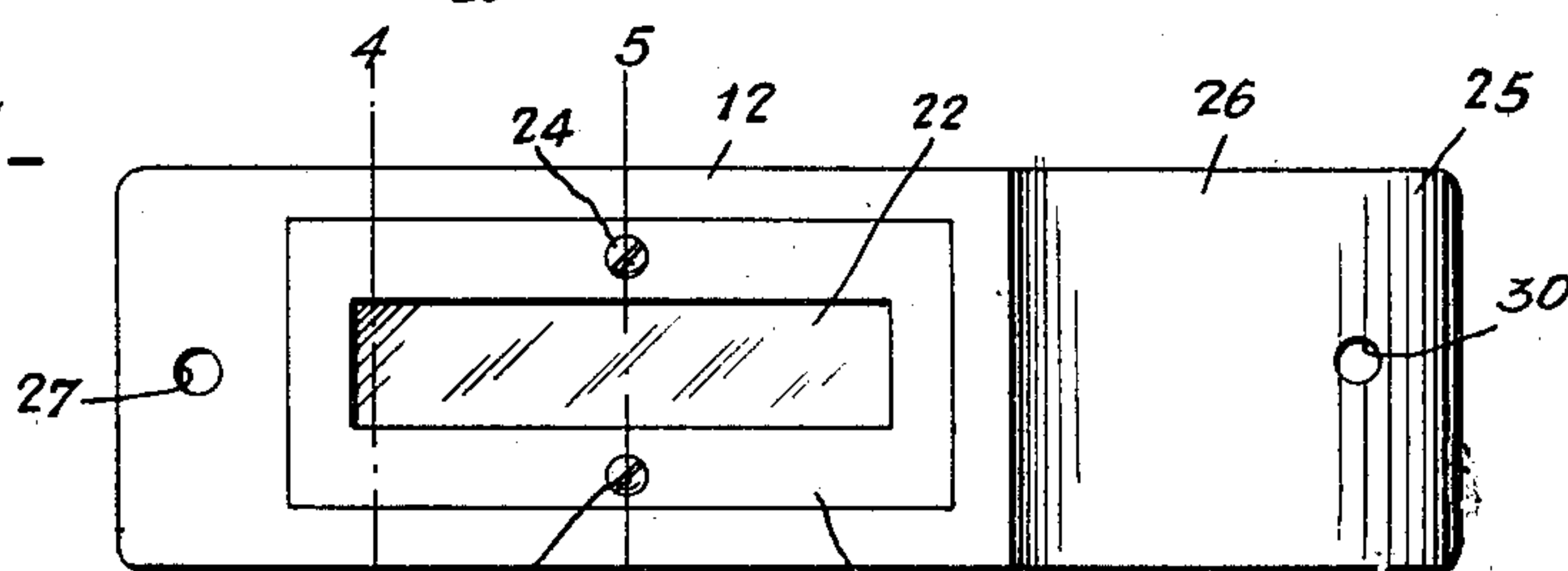


Fig. 3.

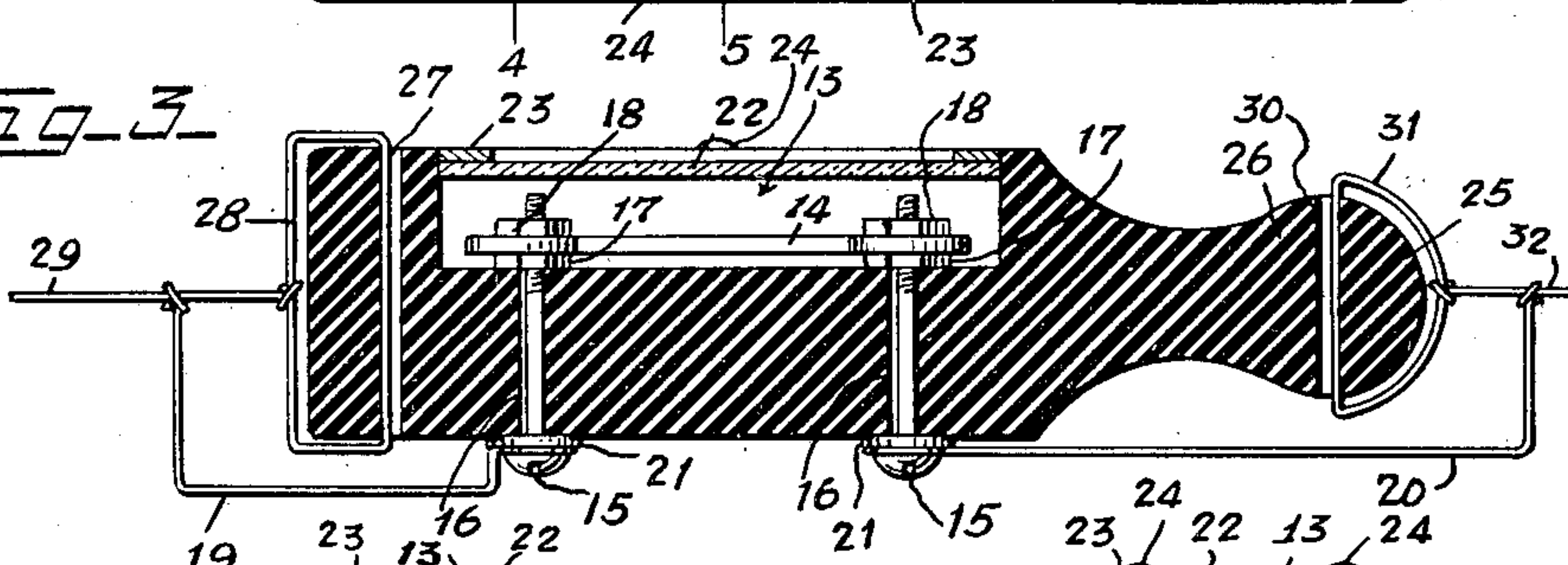


Fig. 4.

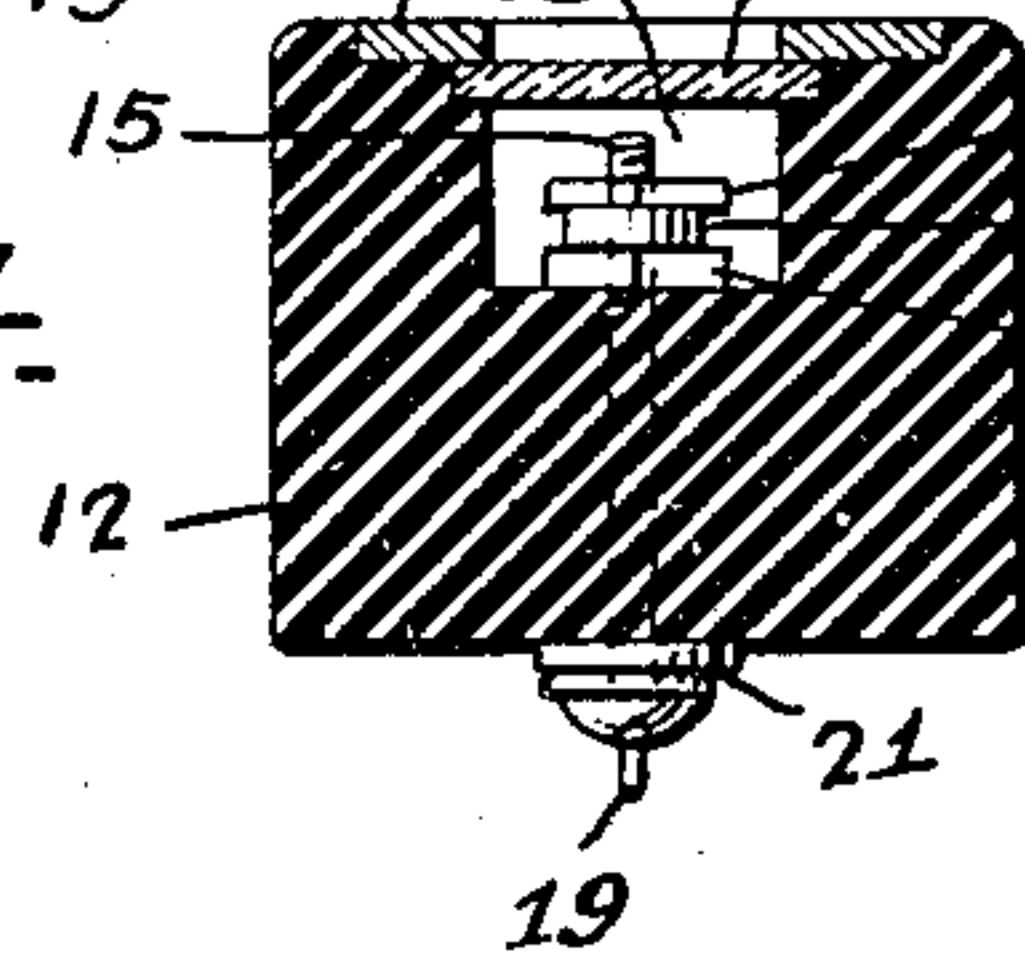


Fig. 5.

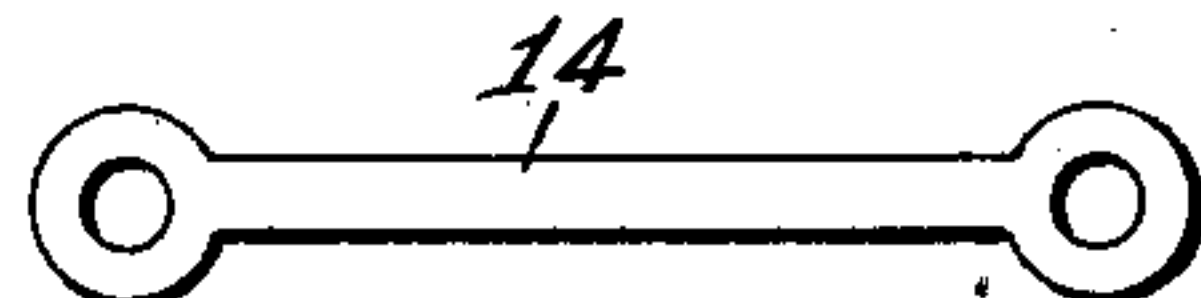
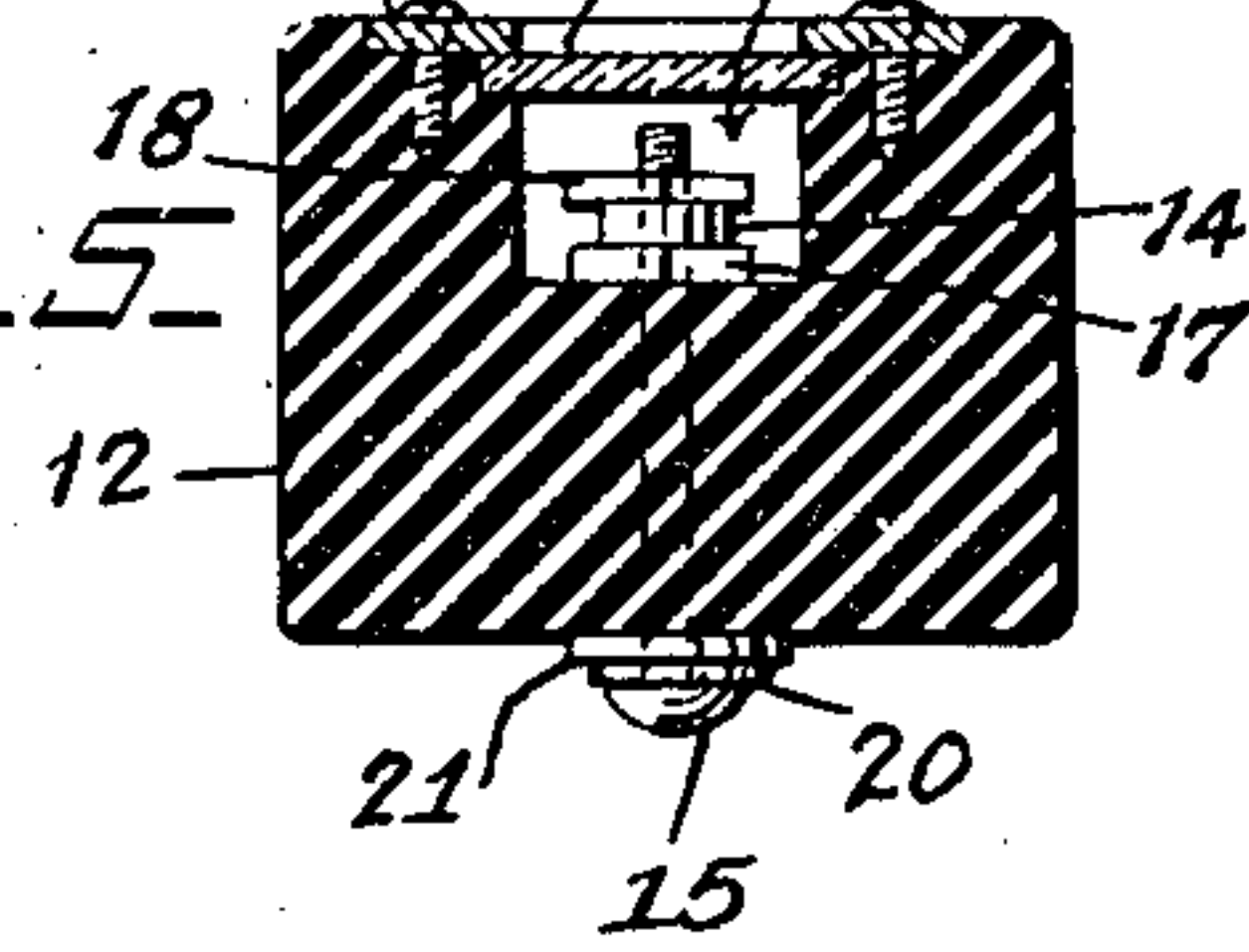


Fig. 6.

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## UNITED STATES PATENT OFFICE.

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FUSE HOLDER FOR ELECTRICAL CIRCUITS.

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This invention relates to an improvement in fuse holders adapted to be used in electric circuits generally, for preventing ignition resulting from defective wiring and short circuits. While useful generally, it is particularly adapted for use in connection with radio apparatuses.

One of the objects of the invention is to provide a fuse holder of few and simple parts so that it may be manufactured practically and at a limited expense. Another object is to provide a fuse holder of such construction that the fuse may be visible without changing or disarranging any of the parts of the holder, and that the fuse may be conveniently removed or replaced. Still another object is to provide a fuse holder which may be used in connection with a specific kind of battery clip.

With the foregoing objects in view the invention presents a novel and useful construction, combination and arrangement of parts as described herein and claimed, and as illustrated in the accompanying drawing,—wherein

Fig. 1 is a view in side elevation showing the fuse held by or mounted on a battery clip. Fig. 2 is a plan view, on an enlarged scale, of the fuse holder. Fig. 3 is a view of the fuse holder in longitudinal section. Fig. 4 is a transverse section through the holder on line 4—4 of Fig. 2. Fig. 5 is a transverse section through the fuse holder on line 5—5 of Fig. 2. Fig. 6 is a plan view of the fuse.

Referring now to the drawing, the device is shown and described in connection with a battery clip 7 consisting of a pair of arms 8 adapted to be swung toward each other against the force of a spring 9 which connects the arms at one of their ends, said arms at their opposite ends being provided with hooks for gripping a binding post B, and bent to cross each other.

The clip thus mentioned is in general use, and on account of its spring 9 which is bent to provide a recess 10 opening outwardly from the end of the clip and having a constricted part 11 it is of great advantage for use as a support for the fuse holder to be described.

The fuse holder consists, in part, of an insulating block 12 having a chamber 13 opening on its top. Numeral 14 indicates the fuse which may consist of any fusible, metallic strand, bar or strip adapted nor-

mally to operate as an electrical conductor, and which will melt if the electrical current increases beyond a certain safe strength, to thereby interrupt the circuit and prevent possibility of damage.

In order that the fuse may be adequately supported it is traversed near its ends by a pair of keepers or screws 15 which are disposed in apertures 16 formed in the block, and is held at or near its respective ends between metallic contact-pieces 17 and 18, each piece 17 preferably being a ring or washer, and each piece 18 being a threaded screw-nut.

Numerals 19 and 20 indicate electrical conductors, these being parts of an electrical circuit, one of the ends of each conductor being secured to a screw 15 between the head thereof and a washer 21, and as will be seen, the fuse may be firmly held between the nuts and washers 17 by rotating the screws in one direction; and also the fuse may be removed without removing or disturbing the screws by rotating the nuts, this being a matter of convenience if it is required to substitute a new fuse for one which has been damaged.

Numeral 22 indicates a transparent plate which covers the chamber in such a manner that the fuse may be readily seen, and at 23 is indicated an apertured plate which is disposed on said plate 22 and is secured to the block by suitable keepers 24.

The block 12 is provided with a head 25 and with a neck 26 adapted, approximately, to fill the recess 10 and constricted part 11 of the clip, and is provided with an aperture 27 near one of its ends in which may be mounted a loop 28 having an extension 29 providing an electrical conductor forming a part of an electrical circuit, the electrical conductor 19 being attached to said conductor 29, and the electrical conductor 20 being in engagement with the metallic clip.

Numeral 30 indicates an aperture formed in the head of the block adapted to receive a metallic loop 31 having an extension 32 similar to and operating the same as the conductor 29 and to which the conductor 20 may be attached, and therefore, in operation, the clip may be dispensed with if desired, the electrical conductors 29 and 32 being parts of an electrical circuit.

The device is of great advantage for use in connection with a radio apparatus for

preventing injury. It will be appreciated that the fuse holder, on account of the construction described, may be readily attached to the clip, and this is its preferred support. 5 However, as described, the holder may be installed in any part of an electrical circuit without the use of the clip.

While I have shown and described details of construction in a specific manner, I do 10 not wish to be understood as limiting myself to exactness in this respect, and changes in form, size, proportion and minor details may be made, said changes being determined by the scope of the invention as claimed.

15 I claim as my invention,—

1. In a fuse holder for a clip in an electrical circuit, said clip being provided with a recess having a constricted part, an insulating block having a head and neck adapted 20 to approximately fill the recess and con-

stricted part and having a chamber opening on its side, a pair of keepers entering said chamber in communication with the electrical circuit, a fuse in the chamber engaging said keepers and a transparent plate cover- 25 ing said chamber.

2. A fuse holder for a clip in an electrical circuit, said clip being provided with a recess having a constricted part, an insulating block having a chamber opening on its side, 30 electrical contact-pieces in said chamber, a fuse in the chamber engaging the electrical contact-pieces, a pair of keepers communicating with the electrical circuit and fuse, said block having a head and neck adapted 35 to approximately fill the recess of the clip and constricted part thereof.

In testimony whereof I have affixed my signature.

MILTON B. HERBRICK