A. P. REED.

CONTACT.

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1,278,013. Patented Sept. 3, 1918.

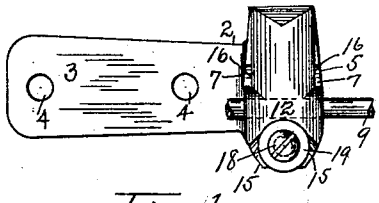


Fig. 1.

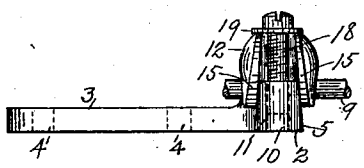


Fig. 2.

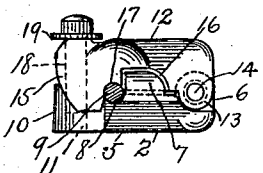


Fig. 3.

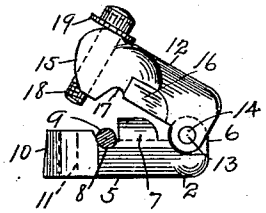


Fig. 4.

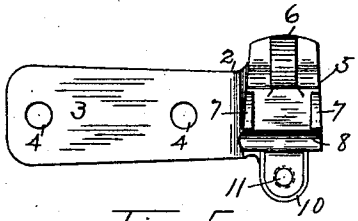


Fig. 5.

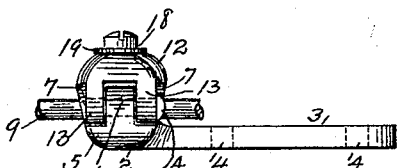


Fig. 6.

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To all whom it may concern:

Be it known that I, ADDISON P. REED, a citizen of the United States, residing at Syracuse, in the county of Onondaga and State of New York, have invented certain new and useful Improvements in Contacts, of which the following is a specification.

This invention relates to improvements in electric contacts, designed particularly for use in connection with arc-lamps, of the type usually employed with moving picture machines, as well as for rheostats and other high power electric devices.

The object of my invention is to provide a novel, simple and convenient contact of the class, which will effectually overcome the great inconvenience and danger heretofore occasioned by reason of the frequent arcing and fusing of the conductor wires due to imperfect contacts at the points where the strong electric current flows from the lead wires to the carbon-holders of motion picture, and to similar parts of other machines. A further object is to provide a contact of the class, which is extremely simple in construction and inexpensive, and which firmly and positively grips the terminals of the lead wires, and is not liable to shake or jar loose so as to permit arcing or wasting of the current due to the vibrations of a motion picture machine, or other device. And a further object is to provide a contact which may be readily and quickly operated for applying or removing the terminals, and which may be conveniently, adjustably and rigidly applied to the machines.

I attain these objects by the means set forth in the detailed description which follows, and as illustrated by the accompanying drawing, in which—

Figure 1 is a top side view of the complete device in the closed position.

Fig. 2 is a front edge view of the same.

Fig. 3 is an end view of the same.

Fig. 4 is a similar end view; showing the clamping member swung upwardly to permit the applying and removal of the lead wire.

Fig. 5 is a top-face view of the body of the device.

Fig. 6 is a rear edge view of the contact in the closed position.

In the drawing, 2 represents the body or base of the contact which is substantially T-shaped, having a relatively long flat stem 3, which is perforated at 4 to provide for adjustably and securely fastening the contact to a machine or other part. The cross-arm 5 of the body has at one end an upwardly projecting perforated hinge-lug 6, a pair of upwardly projecting ears or guards 7 near said hinge-lug, a transverse semi-circular groove 8 to partially receive the terminal of a lead or other conductor wire 9, and its opposite end 10 is reduced and tapering and slightly elevated above the top-plane of the arm. The portion 10 is provided with a threaded hole 11 substantially in line with the lug 6. 12 represents a movable clamping member having at its rear end spaced downwardly projecting hinge-lugs 13 which are perforated and straddle the lug 6, and a pin or bolt 14 passes through lugs 6—13 for pivotally connecting the member 12 to the body 2. The opposite end of member 12 is slotted vertically to provide ears or lugs 15 which are flared correspondingly to the taper of the part 10, and which overlap and snugly engage the opposite sides of the reduced portion 10 when the contact is closed, as best seen in Fig. 2. The opposite sides of the member 12 are flattened, as at 16, to receive and closely engage the guards 7, as shown in Figs. 1 and 3. The guards 7 coöperate with the ears 15 for effecting a more perfect and rigid connection between the base 2 and the member 12, and for preventing any tendency of said member to wabble or chatter under the vibrations of a motion picture machine, which would be liable to disturb the rigidity of the contact. The value of the latter feature will be more apparent when it is understood that where the gage of one lead wire is larger than normal, member 12, when closed is held farther away from the arm 5, which prevents the ears 15 from firmly engaging the reduced portion 10. The nearness of the lugs or guards 7 to the groove 8 of the arm 5, and to a corresponding groove 17 in the underside of the member 12, which grip and support the wire 9, tends to prevent any of the numerous strands which usually comprise the lead wires from spreading or straying and producing arcs. The clamping member 12 is held rigidly in the closed position by a bolt or screw 18, which is disposed loosely in the slot or space between the ears 15 and is screwed into the hole 11 of the part 10. The bolt 18 has a slotted head which preferably rests upon a washer 19, the latter being sup-

ported by the top edge of the ears 15, as shown.

The operation of my improved contact is extremely simple. To apply, or remove and replace the wire 9, the operator unscrews the bolt 18 to allow the free end of member 12 to be lifted as shown in Fig. 4, and inserts a new wire 9 in the groove 8 of the base 2. The member 12 is next lowered to the closed position until the groove 17 receives the wire 9. The member 12 should then be pressed down firmly upon the wire 9, and while being so held, the bolt 18 is screwed down for tightly drawing and holding the parts together and securely clamping the wire 9. If the conductor wire is of the normal gage, the ears 15 of the member 12, will snugly engage the sides of the reduced portion 10. If however, the wire is larger than normal gage, the joint 10—15 will be loose, but the lugs or guards 7, which firmly engage the flattened sides 16 of the member 12, will still rigidly hold the member from lateral play.

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

1. A contact, comprising a body having a reduced tapering end portion, a transverse groove adjacent said tapering end, a pair of spaced guards adjacent said groove and a perforated hinge-lug adjacent said guards, a clamping member pivoted at one end to said hinge-lug and having a corresponding transverse groove, and having flattened portions adjacent said groove to engage said guards, the opposite end of said member being slotted for providing flaring ears which overlap and snugly engage the opposite sides of said reduced portion, and screw-pressure means for tightly clamping a wire disposed in said grooves.

2. A contact including a T-shaped body having a perforated stem for attachment to a machine, and having a cross-arm provided at one end with a hinge-lug, the opposite end being reduced and tapering, said cross-arm provided intermediate its ends with a transverse groove for receiving a wire and having upwardly projecting spaced guard-lugs adjacent said groove, a clamping member pivoted at one end to said hinge-lug, the opposite end being slotted to provide flaring ears which overlap and engage the opposite sides of the reduced portion of the body when the contact is closed, and a bolt loosely disposed between the said ears and adapted to be screwed into said reduced portion for holding said member in closed position.

3. A contact, including a T-shaped body, the cross-arm of said body provided at one end with a perforated hinge-lug, its opposite end being reduced and having a screw-threaded hole, said arm having a groove to receive and grip a wire terminal, spaced guards disposed between said groove and said hinge-lug, a clamping member having spaced hinge-lugs straddling the hinge-lug of the body and pivoted thereto and having in its underside a corresponding groove adapted to register with the first groove when said member is in closed position, said member having flattened sides adapted to frictionally engage said guards, said member having at one end spaced ears which overlap and frictionally engage the reduced portion of the arm, and a bolt adapted to be screwed into said hole for tightly clamping a wire between said member and said arm.

In testimony whereof I affix my signature.

ADDISON P. REED.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."