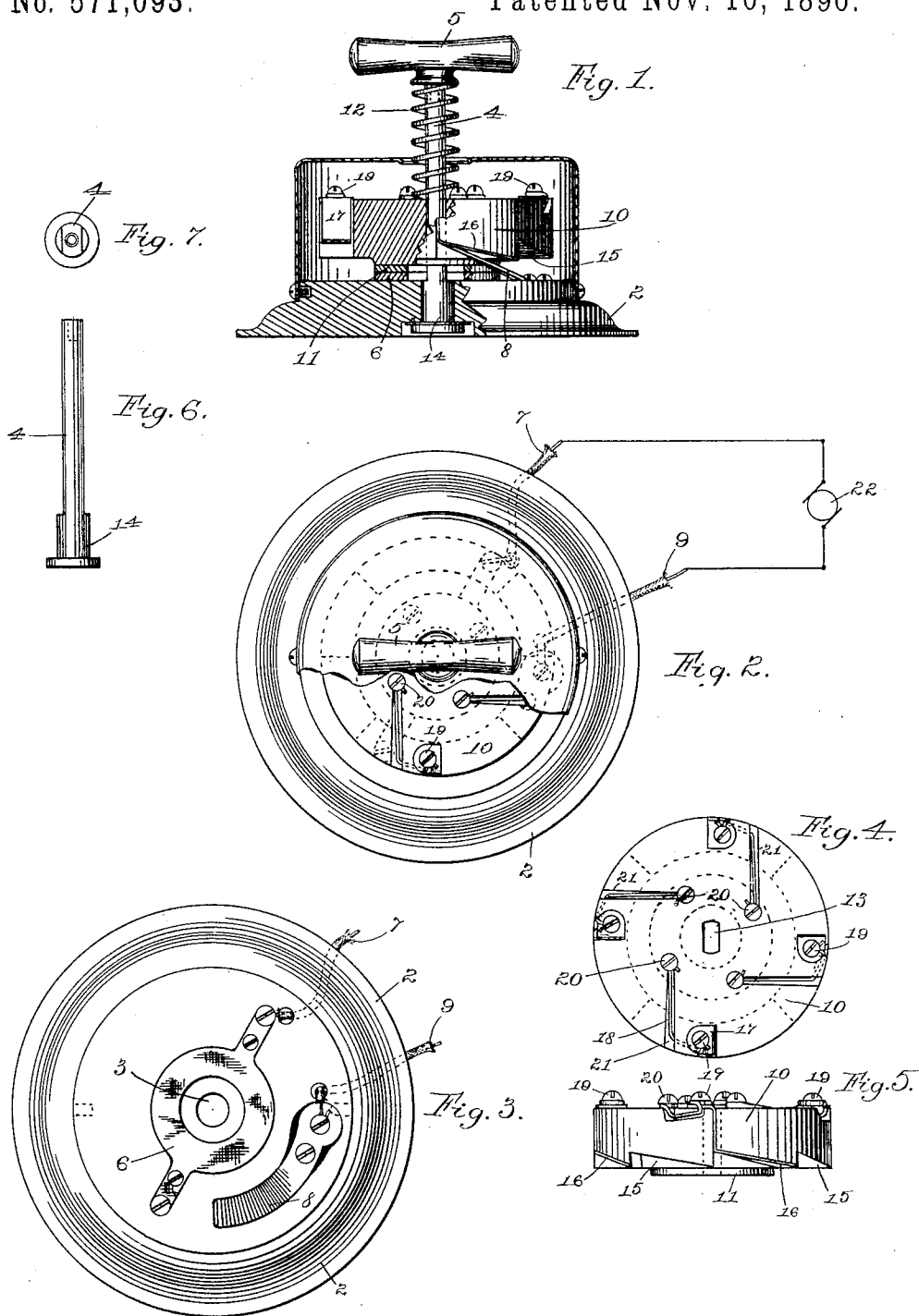


(No Model.)

E. H. MONTGOMERY.
MULTIPLE FUSE BLOCK.

No. 571,093.

Patented Nov. 10, 1896.



Witnesses:

V. D. Bradbury.
A. C. Johnson.

Inventor:

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per: V. D. Merwin
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UNITED STATES PATENT OFFICE.

EDWIN H. MONTGOMERY, OF ST. PAUL, MINNESOTA, ASSIGNOR OF ONE-THIRD TO MATHIAS THOMMES, OF SAME PLACE.

MULTIPLE FUSE-BLOCK.

SPECIFICATION forming part of Letters Patent No. 571,093, dated November 10, 1896.

Application filed August 10, 1895. Serial No. 558,860. (No model.)

To all whom it may concern:

Be it known that I, EDWIN H. MONTGOMERY, of St. Paul, Ramsey county, Minnesota, have invented certain Improvements in Multiple Fuse-Blocks, of which the following is a specification.

My invention relates to improvements in fuse-blocks and switches, its object being to provide a combined multiple fuse-block and switch adapted to be placed one in each loop or local circuit, so as to dispense with the necessity of other fuse-blocks in the system and at the same time furnish an efficient switch.

To this end my invention consists in the improved features of construction hereinafter particularly described and claimed.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation of my improved fuse-block and switch, partly broken away to show the interior construction. Fig. 2 is a plan view of the same, the rotatable plug being partially broken away. Fig. 3 is a plan view of the base, showing the annular contact-ring and spring-contact. Fig. 4 is a plan view of the rotatable plug, showing the series of fuses. Fig. 5 is a side elevation of the same; and Figs. 6 and 7 are details of the handle-spindle.

In the drawings, 2 represents the base, preferably circular in form, having a central opening 3 to receive the spindle 4, which carries the handle 5. Arranged in the center of the base and surrounding the hole 3 is the annular contact-ring 6, to which the line-wire 7 is connected. Near the outer edge of the base is arranged the upwardly-inclined curved flat spring 8, connected similarly to the line-wire 9.

10 is the fuse-block, having on its under face the annular ring 11, adapted to bear upon the ring 6 when in normal position. This is secured upon the base, as shown in Fig. 1, by means of the spindle 4 and the spring 12, a centrally-slotted opening 13 being adapted to receive the flattened portion 14 of the spindle, so as to turn with the same.

The under side of the plug near the outer edge is cut away into a series of ratchet steps or teeth 15. Upon the face of each alternate incline is arranged the contact strip or plate 16, the inner end of which is carried up

through a slit in the block, the end 17 being bent over upon the top of the block. Each strip 16 is connected with the annular ring 11 by means of the fuse 18, secured to it by means of a screw 19, the other end being bound under the head of the screw 20, which extends downward through the block into the ring 11, the body of the fuse lying in a groove 21 upon the face of the block.

In operation the wires 7 and 9, running to the source of supply 22 and properly attached to the contact-ring 6 and the spring-contact 8, with the block 10 in the position shown in Fig. 1, in which the spring 8 bears upon one of the strips or plates 16, the circuit is closed through the switch. If now it is desired to break the circuit, the handle is turned to carry the block forward one step, breaking the contact between the spring 8 and the contact-strip 16, the spring engaging the next step or notch in the block, which is insulated by the material of the block from the contact-ring 11, and by turning the block one step farther the circuit is again closed, but through another contact and fuse. It will thus be seen that in the operation of the switch the circuit is broken at one point only; that is, at the spring 8, the annular rings being constantly in contact. If a fuse is blown out, in order to close the circuit again it is necessary simply to turn the block two steps forward and bring a second fuse into connection, thereby closing the circuit, it being thus possible to close the circuit as many times as there are fuses without supplying the place of those burned out.

One of the advantages in the use of my improved device is that there is but one break made in the local circuit or branch line where ordinarily there are two, one for the switch and the other for the fuse-block. Another advantage is that in case a fuse is blown out so as to extinguish the lights in a loop or local circuit it is not necessary to have the fuse replaced by an electrician, but simply to turn the switch and cut in another fuse.

I claim—

1. In a multiple fuse-block and switch, the combination of the base, the annular ring at the center thereof connected to one terminal, the spring-contact at one edge connected to the other terminal, the rotary block fitted to

said base, its annular ring bearing upon the first-named annular ring, the ratchet steps or teeth adapted to be engaged by the spring-contact, the series of contact-strips upon the inclines of alternate teeth, and the fuses severally connecting said strips with the annular ring upon said block.

2. In a multiple fuse-block and switch, the combination with the fixed and rotary parts, of their constantly-bearing contacts, the contact upon the fixed part being connected to one of the line-terminals, the contact-spring also upon the fixed part connected to the other line-terminal, the circumferentially-arranged notches or sockets upon said rotary part, the series of contacts arranged in the alternate notches or sockets, and adapted to be engaged by said contact-spring, and the fuses severally connecting said circumferentially-arranged contacts with the constantly-bearing contacts.

3. In a multiple fuse-block and switch, the combination with the base and the rotary block fitted thereto, of the constantly-bearing contacts arranged respectively upon said base and block, the contact upon said base being connected to one of the line-terminals, the teeth arranged upon said rotary block, the series of contact-strips upon alternate teeth, the fuses connecting said strips with said constantly-bearing contact upon said block, and the contact arranged upon said base and connected to the other line-terminal, and adapted to successively engage said contact-strips in the rotation of the block.

In testimony whereof I affix my signature in presence of two witnesses.

EDWIN H. MONTGOMERY.

Witnesses:

T. D. MERWIN,
H. S. JOHNSON.