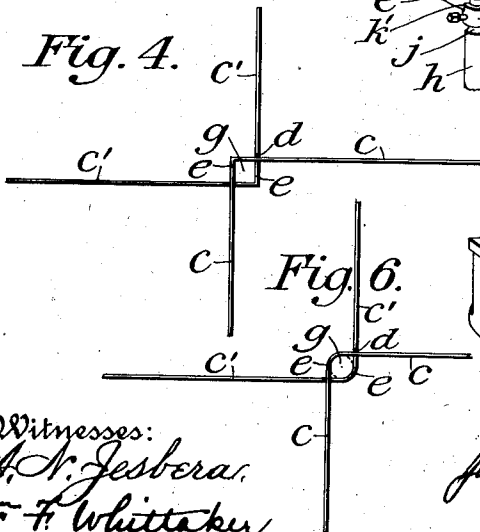
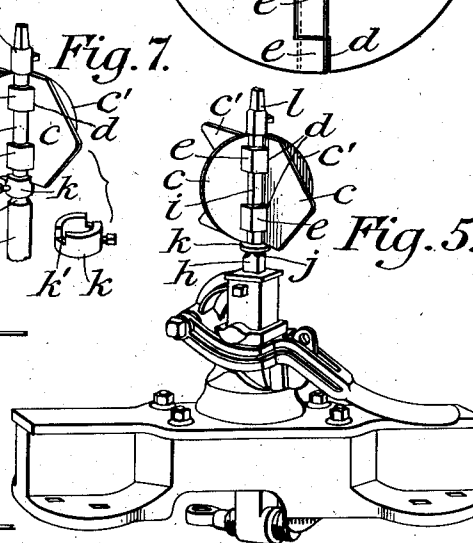
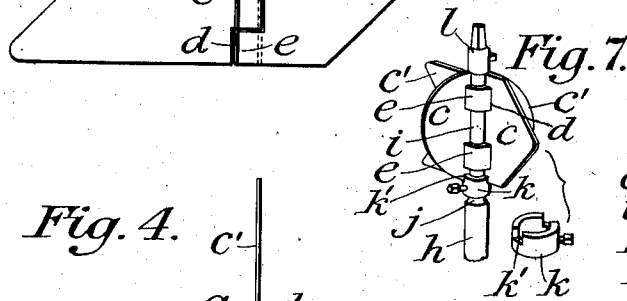
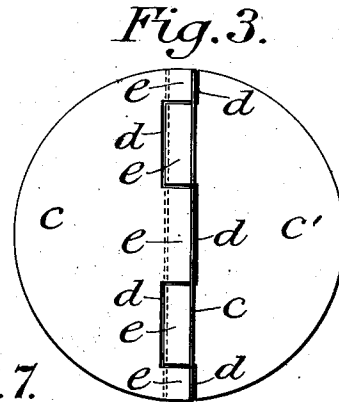
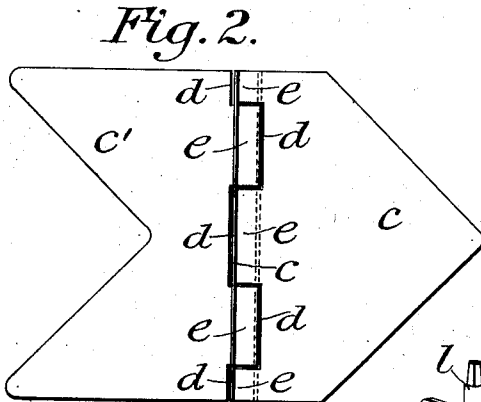
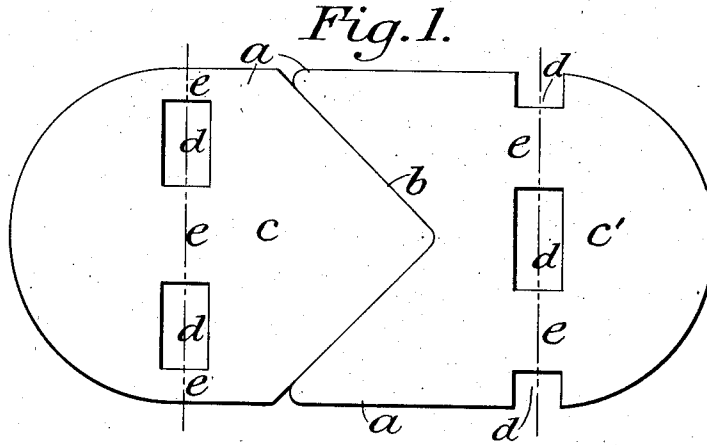


W. C. KIDD & J. B. STRONG.
 TARGET FOR SWITCH STANDS.
 APPLICATION FILED MAY 8, 1911.

1,062,014.

Patented May 20, 1913.



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UNITED STATES PATENT OFFICE.

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TARGET FOR SWITCH-STANDS.

1,062,014.

Specification of Letters Patent.

Patented May 20, 1913.

Application filed May 8, 1911. Serial No. 625,860.

To all whom it may concern:

Be it known that we, WILLIAM C. KIDD and JAMES BOORMAN STRONG, citizens of the United States, residing at Hillburn, county of Rockland, and State of New York, have invented certain new and useful Improvements in Targets for Switch-Stands, of which the following is a specification.

This invention relates particularly to targets used in connection with switch stands to indicate the position of a switch rail.

Heretofore it has been customary to fix the targets to the operating spindle of the switch stand by clips, bolts or rivets. A common method of attaching the target was to bolt the target members directly to the spindle. Another method was to secure the target members to the spindle by means of clips which were usually provided with slots adapted to engage with the edges of the target members and which were secured to the spindle in any suitable manner, as by a bolt or bolts. Another method was to rivet or bolt the target members directly to clips, which clips were then fitted to the spindle. By these several methods of attachment a plurality of parts were required and the bolts or rivets were liable to work loose or rust and break, thus permitting the target members to become loose and rattle or become entirely disengaged from the spindle.

The object of this invention is to provide a target in which the use of bolts and nuts and similar detachable securing means may be avoided.

A further object of the invention is to provide means for securing the target directly to the spindle of the switch stand so that the target members will interlock therewith.

Still another object of the invention is to provide a construction and arrangement of parts whereby the target will be supported in its desired position upon the spindle.

The various other objects of the invention will be more fully set forth in the following description of one form of construction embodying the invention, which consists in the new and novel features of construction and combinations of parts hereinafter set forth and claimed.

In the accompanying drawings—Figure 1 is a plan view of a blank which has been stamped preparatory to being bent to form

the target members. Fig. 2 is a side elevation of the target showing the same assembled and viewed from one position of the signals. Fig. 3 shows the target members assembled and viewed from their other position. Fig. 4 is a plan view of the target members assembled to engage a square spindle. Fig. 5 is a view of the target as applied to the square spindle of a switch stand shown conventionally. Fig. 6 is a detail view showing assembled target members which have been bent to engage with a round spindle. Fig. 7 is a detail view showing the target members applied to a round spindle.

The target members may, if desired, be formed from a single blank of metal *a* and may be of any desired shape, the particular blank shown in the drawings being approximately oblong in shape and having curved ends, so that one face of the target when assembled will be circular. The blank may be divided by a V-shaped cut *b*, thus forming the two target members *c* and *c'* respectively.

Each target member is provided with one or more slots *d* and with strips or tongues of metal *e* so arranged that the tongues or strips of metal in one member will register with the slots in the other member. Each member is bent preferably on a line passing through the slots so that its edges will lie in approximately perpendicular planes. The target members are then interlocked with each other by inserting the tongues or strips on the one member in the corresponding slots in the other member, thus forming a central passage or socket *g*.

The spindle *h* of the switch stand preferably has its upper portion *i* reduced in size so as to provide a shoulder *j* at a suitable distance from its top. This reduced portion of the spindle engages in the socket formed by the assembled target members which preferably rest upon and are supported by the shoulder *j*. Instead of resting directly upon the shoulder, however, the target members may seat upon a washer *k* placed on the spindle and supported by the shoulder *j*. If desired, the washer may be provided with a plurality of slots *k'* which engage with the bottom edges of the target members and hold the same against rotation with respect to the spindle. It is obvious,

of course, that instead of resting directly upon the shoulder the washer *k* may be secured to the spindle in any desired manner.

A lamp tip *l* is preferably secured to the top of the spindle and not only provides a bearing for a lamp in the usual manner, but also serves the purpose of preventing the target member from being removed from the spindle maliciously.

By means of this construction the target members are interlocked with the switch spindle and with each other in such a way that it is absolutely impossible for the same to become accidentally displaced. No bolts or similar detachable securing means are necessary, and not only are such parts dispensed with at a saving in the cost of manufacture, but the dangers attendant upon the use of any securing devices which work loose are eliminated. Furthermore, the target members are solid throughout, there being no bolt holes to permit moisture to come in contact with the metal where it is impossible to protect the same by paint with the resultant oxidation and ultimate destruction of the target members. The cost of upkeep is also materially reduced, as the enameling or painting upon the target members remains fresh and in good condition much longer than when bolts are used, because the wear on the bolts inevitably breaks the enamel or paint and permits rust to form and drain upon the surface of the target members.

We claim as our invention:—

1. In a switch stand target, a plurality of sections of signaling members united in pairs each pair consisting of two angularly disposed integrally formed sections, said pairs being formed with openings at the junction of the sections positioned to permit each opening in each pair to receive a correspondingly positioned portion of another pair, the engagement of the said openings with the said corresponding portions forming a socket, and a spindle disposed in said socket cooperating with the socket for holding the pairs together.

2. In a switch stand target, a plurality of sections of signaling members united in pairs each pair consisting of two angularly disposed integrally formed sections, said pairs being formed with openings at the junction of the sections positioned to permit each opening in each pair to receive a correspondingly positioned portion of another pair, the engagement of the said openings with the said corresponding portions forming a socket, a spindle disposed in said socket for locking the pairs together, and means for holding the signaling members against independent rotation relative to the spindle.

3. In a switch stand target, a plurality of sections of signaling members united in

pairs each pair consisting of two angularly disposed integrally formed sections, said pairs being formed with openings at the junction of the sections positioned to permit each opening in each pair to receive a correspondingly positioned portion of another pair, the engagement of the said openings with the said corresponding portions forming a socket, a spindle disposed in said socket for locking the pairs together, and means on said spindle for holding said signaling members against downward displacement with respect to the spindle.

4. In a switch stand target, a plurality of sections of signaling members united in pairs each pair consisting of two angularly disposed integrally formed sections, said pairs being formed with openings at the junction of the sections positioned to permit each opening in each pair to receive a correspondingly positioned portion of another pair, the engagement of the said openings with the said corresponding portions forming a socket, a spindle disposed in said socket for locking the pairs together, and means on the spindle for holding the signaling members against downward displacement and against rotation with respect to the spindle.

5. In a switch stand target, a plurality of sections of signaling members united in pairs, spaced bent necks integrally formed on the pairs for uniting them, the said necks of the respective pairs interlocking, a spindle, and a reduced portion at the top of said spindle disposed in said interlocking necks.

6. In a switch stand target, a plurality of sections of signaling members united in pairs each pair consisting of two angularly disposed integrally formed sections, said pairs being formed with openings at the junction of the sections positioned to permit each opening in each pair to receive a correspondingly positioned portion of another pair, the engagement of the said openings with the said corresponding portions forming a socket, a spindle disposed in said socket cooperating with the socket for holding the pairs together, said spindle having an enlarged part below the socket for supporting the signaling members, and means secured to the spindle to prevent upward displacement of said signaling members.

7. A target for switch stands comprising a section of a signal member, a section of a second signal member disposed at an angle to the first member, spaced bent necks integrally formed with the sections for uniting them, a second section of the first signal member oppositely disposed to the first section of said member, a second section of the second signal member oppositely disposed to the first section of said member, spaced bent necks integrally formed with the sec-

ond sections of the two signal members for uniting them, said necks interlocking with the necks of the first sections.

5 8. In a switch stand target the combination with a spindle, of a plurality of target members each provided with alternate necks and slots and bent on a line passing through said necks and slots so that its edges will lie in approximately perpendicular planes, the
10 necks on one member being adapted to engage in the slots in the other member and

interlocking therewith to form a socket seating over said spindle and means for supporting the target members on the spindle.

This specification signed and witnessed 15
this 3d day of May, A. D., 1911.

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JAMES BOORMAN STRONG.

Witnesses:

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FRED W. SNOW.
