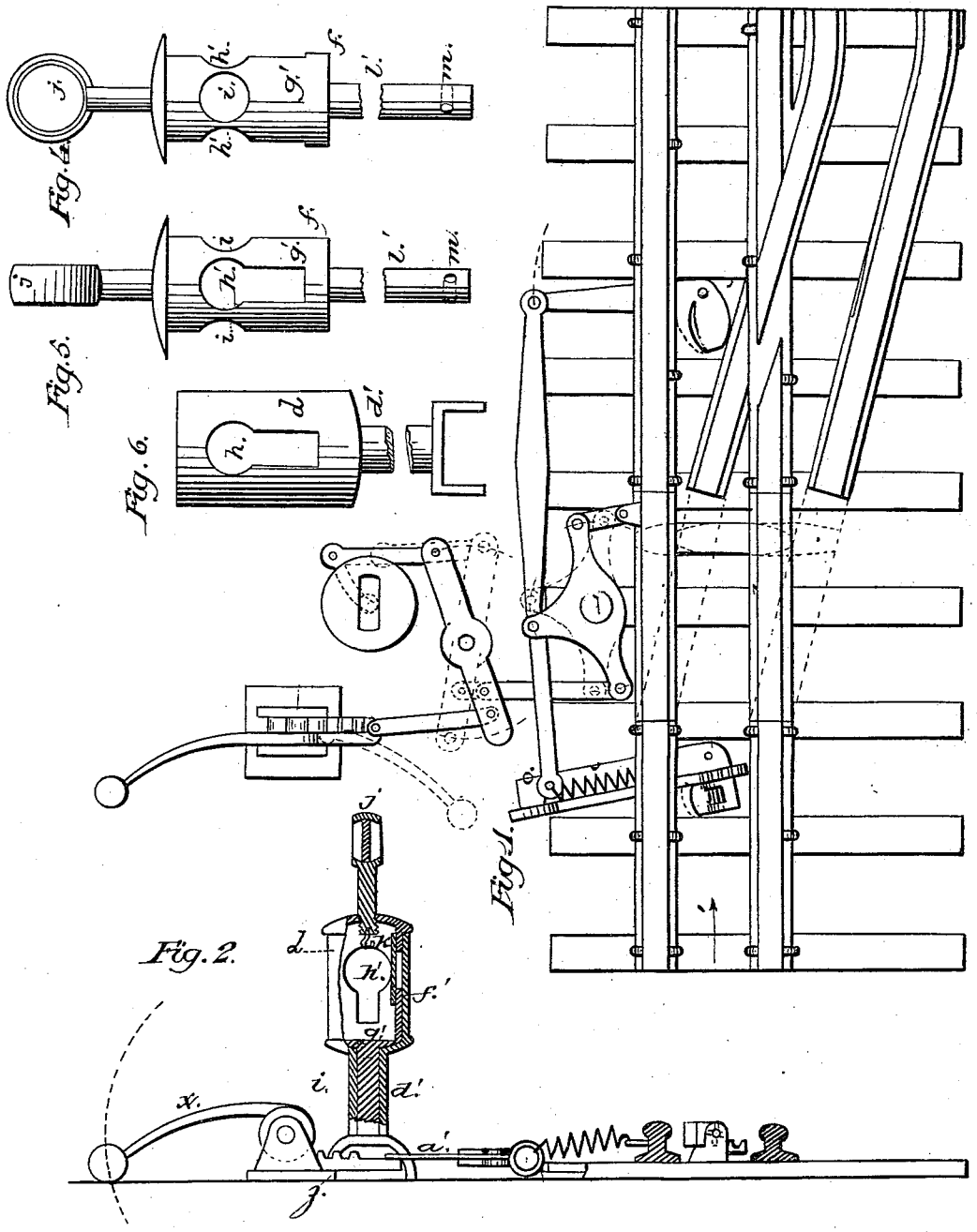
W. W. COLLEY.

Railroad Switch-Signal.

No. 165,795. Patented July 20, 1875.



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UNITED STATES PATENT OFFICE.

WILLIAM W. COLLEY, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN RAILROAD-SWITCH SIGNALS.

Specification forming part of Letters Patent No. **165,795**, dated July 20, 1875; application filed May 14, 1875.

To all whom it may concern:

Be it known that I, WM. W. COLLEY, of Philadelphia, Pennsylvania, have invented an Improvement in Signal-Boxes for Railroads, of which the following is a specification:

Figure 1 of the drawing shows the manner in which my signal-box may be attached to an automatic switch. Fig. 2 represents an elevation of the fixed cylinder *d*, forming the casing of the signal-box. Figs. 4 and 5 are front and side elevations, respectively, of the lantern-chamber or revolving cylinder *g'* of the signal-box. Fig. 6 is an elevation of the signal-box.

In the several figures, *d* is the casing of the signal-box. It is a hollow case, preferably cylindrical in form, open at the top, constructed with or attached to a hollow post, *d'*. It is fastened firmly to its foundation, and provided with two similar side apertures, *h*, as shown in Figs. 2 and 6. The apertures are shown to be oblong; but their form is not material. They are to be sufficiently large to admit an ordinary hand-lantern. These apertures are not covered with glass or closed, but always remain open. *f*, Figs. 2, 4, and 5, is a night-signal, consisting of the hollow lantern-chamber *g'*, which is provided with four side apertures, two of which are represented by *h'*, Figs. 2 and 5, respectively, which correspond in form with apertures *h*, Fig. 6, in the casing *d*, and remain open always, and two others indicated at *i*, Figs. 4 and 5, which are closed with glass, plain or colored. *j*, Figs. 2, 4, and 5, is the day-signal. It is detachable, being screwed in the top of the lantern-chamber *g'*, and provided with a lantern-hook, *k*, Fig. 2. The lantern-chamber *g'* is also provided with a stem, *l'*, Figs. 4 and 5, which passes down through the hollow post *d'*, and is provided with a small hole, *m*, at its lower end, to receive the lever employed for attaching to it a link or arm, by which it is connected with a railroad-switch.

The signal-box described is designed to be used in connection with switches, without regard to the character of the lever or arm employed for operating such switches. Thus a single lever, flexibly attached to one end of the stem *l'* through the opening *m*, and at the other end to a switch, may be employed, if desired. This signal-box is also designed to be used whenever signals are employed, and may be operated automatically or by hand.

When the signal-box is to be used, a hand-lantern is introduced through one of the apertures *h* of the case *d*, Fig. 6, and corresponding aperture *h'* in the lantern-chamber; and if left in this way may be taken to indicate a signal of safety, or if the lantern-chamber be turned one-fourth around, so as to cause the glass-closed apertures *i*, Fig. 4, to correspond with the apertures in the case, the signal of danger is shown.

It will thus be seen that the lantern or light is locked in, and cannot be removed without first turning the lantern-chamber into a position indicating safety.

No claim is made to the switch as shown in Fig. 1 of the drawing, that being the subject of a separate application.

I claim—

A signal-box consisting of a case having side apertures and a hollow post, in combination with a movable lantern-chamber constructed with side apertures and glass-covered openings, the whole so arranged that when the side apertures of the lantern-chamber coincide with those in the case *h'* a signal of safety is indicated, and when the glass-covered openings *i* of the lantern-chamber are exposed a signal of danger is shown, substantially as set forth.

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Witnesses:

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