

No. 704,363.

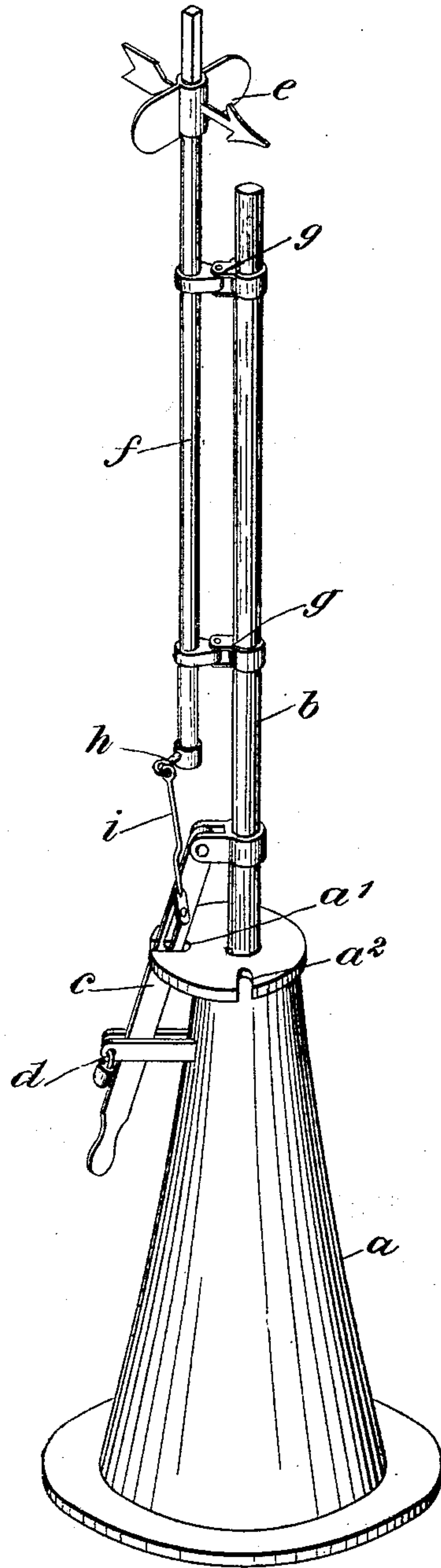
Patented July 8, 1902.

H. F. ONG.

SWITCH STAND ATTACHMENT.

(Application filed Feb. 1, 1902.)

(No Model.)



WITNESSES:

J. V. Prophy

J. B. Owens.

INVENTOR

Harlon F. Ong

BY

Mum

ATTORNEYS

UNITED STATES PATENT OFFICE.

HARLON FINLEY ONG, OF WENDLING, OREGON.

SWITCH-STAND ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 704,363, dated July 8, 1902.

Application filed February 1, 1902. Serial No. 92,190. (No model.)

To all whom it may concern:

Be it known that I, HARLON FINLEY ONG, a citizen of the United States, and a resident of Wendling, in the county of Lane and State

5 of Oregon, have invented a new and Improved Switch-Stand Attachment, of which the following is a full, clear, and exact description.

This invention relates to a means whereby warning may be instantly given when the

10 hand-lever of a switch-stand or other switch-operating mechanism is unlocked, thus informing trackmen and trainmen that the switch is, if not open, in a dangerous position. This end I attain by providing a "tar-

15 get" or signal, which may be either the usual target of the switch-stand or a supplementary device, and connecting this target with the hand-lever of the switch-stand in such a way that the instant the hand-lever is released

20 from the socket in which it should be locked the target will be thrown to an extent sufficient to give the warning.

This specification is an exact description of one example of my invention, while the

25 claims define the actual scope thereof.

Reference is to be had to the accompanying drawing, forming a part of this specification, in which the figure represents a perspective view of the invention.

30 *a* indicates the base of the switch-stand.

b indicates the rod, and *c* indicates the hand-lever, which is adapted to enter notches *a'* and *a''* in the head of the stand *a* and when the switch is closed to be locked in the notch

35 *a'* by means of the devices *d*.

e indicates the target, which may be of any suitable form and which according to the construction here shown is carried on a separate shaft *f*, as contradistinguished from the rod *b*.

40 This shaft *f* is connected by hinge devices *g* with the shaft or rod *b*, so that it may swing around the rod *b*.

h indicates an arm fastened to the lower end of the shaft *f*, and this arm is connected

45 by a link *i* with the lever *c* through the medium of a pin and slot, as illustrated.

The arm *h* normally stands diagonally with respect to the lever *c*, so that when the lever is moved up from the position shown in the

50 drawing movement is imparted to the shaft

f through the medium of the arm *h* and link *i*, and the target is thus thrown from its normal position. Now it will be observed that when the lever *c* is thrown in the ordinary manner to open or close the switch the target

55 will be turned as before; but should the switchman fail properly to lock the lever *c* or should this lever subsequently become unlocked and partly removed from the notch *a'* the target *e* will be slightly turned, and thus

60 any person may see from a distance that the switch-stand is not in proper adjustment.

The construction shown in the drawing represents one of the many ways of carrying out

65 the principles of my invention.

I desire it distinctly understood that I am not limited to the precise arrangement here shown, but that various other devices may be employed so long as they embrace the underlying principle of my invention as set

70 forth in the claims.

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

1. The combination with a switch-stand, 75 comprising a turning post and a hand-lever attached thereto, of a shaft carried movable on the post parallel thereto, a signal carried by the shaft, and a connection between the shaft and hand-lever.

2. The combination with a switch-stand, 80 comprising a turning post and a hand-lever attached thereto, of a shaft hingedly carried on the post alongside of the same, a signal carried by the shaft and a connection between 85 the shaft and hand-lever, said connection including a transverse arm on the shaft, and a link attached to the arm and to the hand-lever.

3. The combination with a switch-stand, 90 comprising a turning post and a hand-lever attached thereto, of a shaft carried to move on the post, a signal carried by the shaft, and a connection between the shaft and hand-lever, the said shaft being connected to the post 95 by means of hinges so as to swing around the same.

4. The combination with the switch-stand and with the post or shaft mounted therein and connected with the switch, of a hand-le- 100

ver attached to said shaft, a second shaft, means movably mounting said shaft, a crank-arm on the second shaft, a link connecting the crank-arm and hand-lever, and a signal
5 connected with the second shaft.

5. The combination with the switch-stand, of a hand-lever connected with the switch, a movably-mounted shaft, a signal connected therewith, a crank-arm on the shaft and a

link connecting the crank-arm and hand-lever.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HARLON FINLEY ONG.

Witnesses:

R. H. GROGER,

E. E. ELLSWORTH.