S. H. FINCH.

Apparatus for Operating and Locking Switch Signals.

No. 161,940. Patented April 13, 1875.

Fig: 1.

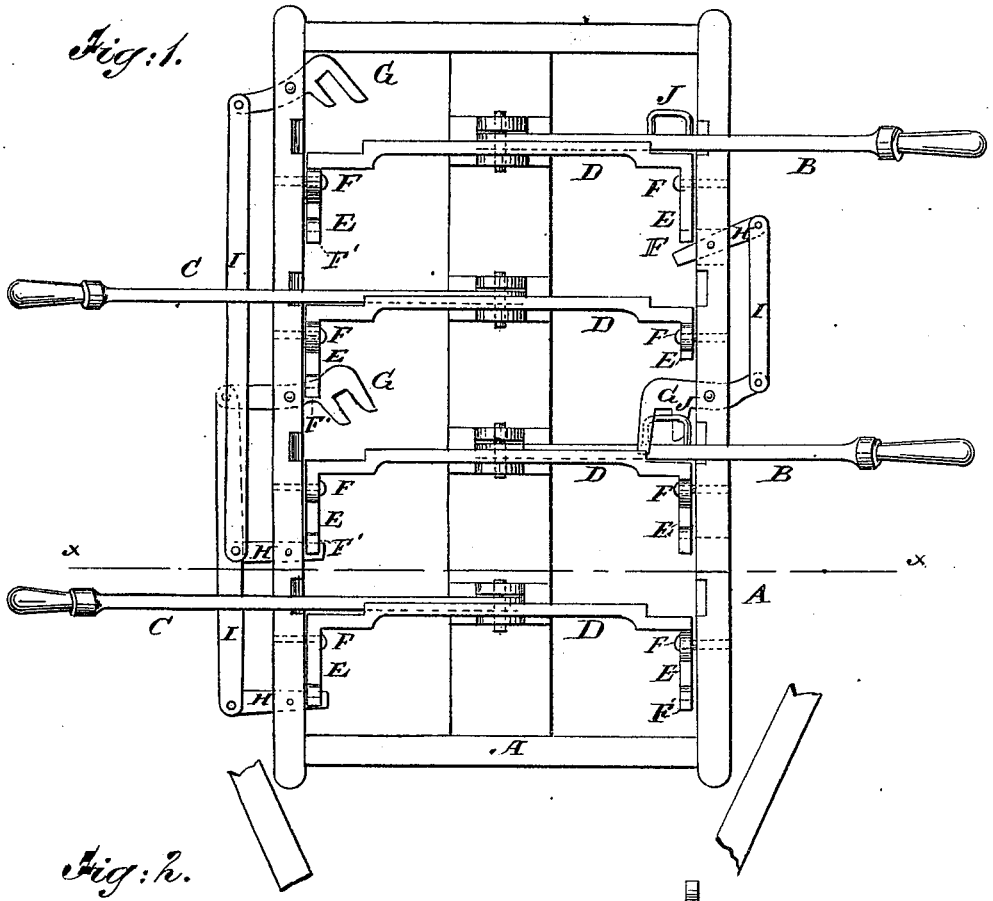
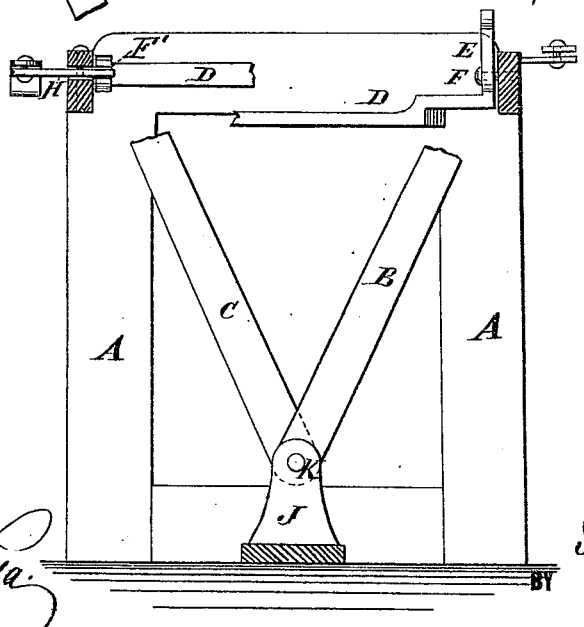


Fig: 2.



WITNESSES:

Chas. Nida.

A. F. Seney

INVENTOR:

S. H. Finch

BY

Munn & Co

ATTORNEYS.

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

UNITED STATES PATENT OFFICE.

SMITH H. FINCH, OF NEW YORK, N. Y.

IMPROVEMENT IN APPARATUS FOR OPERATING AND LOCKING SWITCH-SIGNALS.

Specification forming part of Letters Patent No. **161,940**, dated April 13, 1875; application filed March 1, 1875.

To all whom it may concern:

Be it known that I, SMITH H. FINCH, of the city, county, and State of New York, have invented a new and useful Improvement in Apparatus for Moving and Locking Switches and Signals, of which the following is a specification:

This invention relates to new and useful improvements in apparatus for the management of railroad-switches and signals, whereby many advantages are secured and much danger avoided; and it consists in a system of levers and locking devices, arranged substantially as hereinafter described.

In the accompanying drawing, Figure 1 is a plan view, and Fig. 2 a vertical section of Fig. 1 taken on the line *x x*.

Similar letters of reference indicate corresponding parts.

A represents a frame for the support of the levers and locking devices. This frame may be of any size, and constructed to accommodate any desired number of levers. B B are the levers for locking, and C C are levers for moving, the switches or signals. These levers are made to work from one side to the other side of the frame, and lock and unlock the switches and signals thereby. D are locking-bars provided with two shoulders each, which catch and hold the levers, as seen in the drawing. These locking-bars have at each end a portion turned at a right angle, which portion is designated by the letter E, and through which portions are pivot-bolts F, upon which the bars turn. These angular portions have each a slot, F′, in their extreme ends, which engage with latches G H, which work in slots or mortises through the frame confined by joint-pins. The latches G and H, are connected together by the bars I on the outside of the frame which are parallel therewith. They are attached to the latches by pivots so that the latter turn freely. The inner ends of the latches G are curved and slotted much like the end of an **S**-wrench, and receive a staple or plate, J, on the levers B B, and thereby hold the lever in a locked position, while the bars D are locked by the latches H, which are thrown into the slots F′, in the angular portions E. When the other lever B is unlocked the switch or signal levers C are locked.

The switches and signals (or either) are connected with the levers by means of wires, rods, or in any suitable manner. The levers are connected with the frame by means of slotted stands J, and joint-pins K, as seen in Fig. 2, and are locked and unlocked when thrown to either side of the frame, as the case may require.

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

The locking-bars D, latches G and H, bars I, and levers B C, in combination with a suitably-constructed frame for the purposes described.

SMITH H. FINCH.

Witnesses:
T. B. MOSHER,
ALEX. F. ROBERTS.