(No Model.)

P. W. SAWYER & C. J. PERLEY.

RAILROAD SIGNAL.

No. 588,358. Patented Aug. 17, 1897.

Fig. 1.

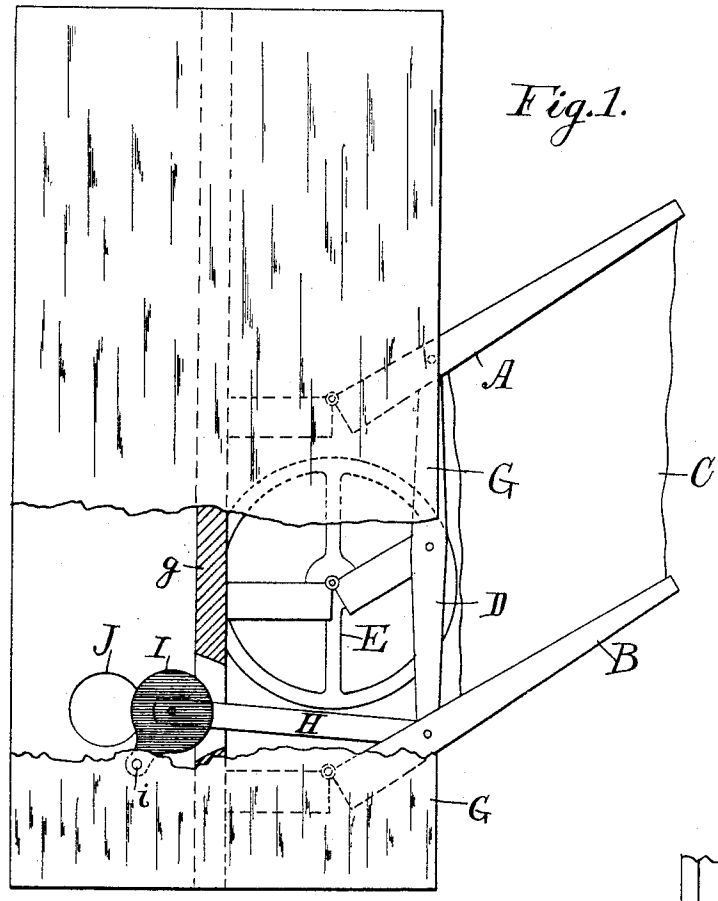
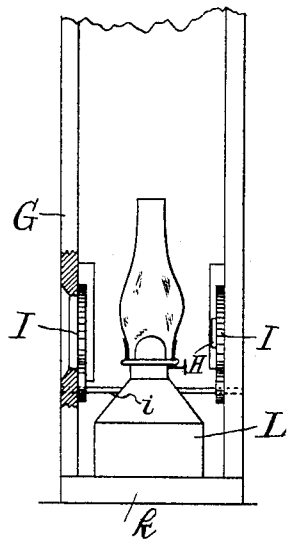


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

PARKER W. SAWYER AND CYRUS J. PERLEY, OF GRAY, MAINE.

RAILROAD-SIGNAL.

SPECIFICATION forming part of Letters Patent No. 588,358, dated August 17, 1897.

Application filed June 1, 1897. Serial No. 638,970. (No model.)

To all whom it may concern:

Be it known that we, PARKER W. SAWYER and CYRUS J. PERLEY, citizens of the United States, residing at Gray, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Railroad-Signals; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to an improvement which we have made in a device for manipulating railroad flag-signals patented to us March 30, 1897, and numbered 579,685.

In the above-mentioned device a pair of arms, to which the signal-flag was attached, were pivoted one above the other on the end of a stud which projected out from the rear of the casing which inclosed the parts. The signal-light was placed on the lower stud, openings being formed in the casing through which the light could be seen, and shutters were arranged on the lower arm, so that as the arm was raised they would obscure the light. We have found from experience that signal-lights so placed interfered with the operation of the device and were not easily accessible, as they necessarily should be.

According to our present invention we divide the casing into two parts by a vertical partition forming a flag-chamber in front and a light-chamber in the rear and separated from the flag-chamber by the partition. The lamp is placed in the rear chamber with suitable openings in the casing to display it properly, and a shutter is provided for each opening, connected to the arms by means of a link in such a manner that when the arms are raised the shutters will close and when the arms are lowered the shutters will open. With the lights arranged in this manner they are out of the way of the operating mechanism of the flag-signal, they are in a compartment by themselves, and are automatically shown and concealed by the operation of the arms which carry the flags.

We illustrate our invention by means of the accompanying drawings, in which—

Figure 1 is a side elevation of the device with a portion cut away, and Fig. 2 is a rear elevation showing a portion cut away.

A and B represent the arms, to which the signal-flag C is secured, and D is the cross-bar, connecting these arms for preserving their parallelism, and E is the wheel-lever, by which the arms are raised and lowered. These parts are all common to our original device referred to and consequently need no further description.

The casing G is extended rearward and is divided into two chambers by a vertical partition *g* in rear of the flag-operating mechanism. The chamber in front of the partition *g* contains the flag-signals and the mechanism by which they are operated, and that in the rear of said partition forms the light-chamber, having a base or floor *k* on which the light sets.

Openings J are formed in the sides of the casing for the display of the lights, and shutters I are pivoted to the casing by means of a rod *i*, which extends through the casing horizontally, each shutter being secured to one end of said rod, connecting the two so that when one shutter is operated the other will be operated also. The shutters are so mounted with relation to the opening that as they swing back and forth they cover and uncover the openings J, which are preferably provided with glass "bull's-eyes" of the same color as the signal-flag in front. These shutters are operated by means of the arms A B, one of said shutters being connected, as herein shown, with the lower arm by means of a link H in such a manner that when the arms are up the shutters will close the openings and when the arms are down the shutters will uncover the openings.

In ordinary cases two sets of signals are used on railroads, one red and the other blue, and in such case one is placed above the other, each being independently operated.

The means for operating the wheel-lever are fully set forth in our former patent, already referred to, and need no description here.

Our improved signal apparatus thus constructed constitutes a practical and efficient day and night signal which can be readily operated and kept in repair.

We claim—

The herein-described railroad-signal consisting of a casing divided by a vertical partition into a front or flag chamber and a rear or light chamber, a pair of arms pivoted one above the other in said flag-chamber for holding the signal-flag, a cross-bar pivoted to said arms for preserving their parallelism, means for raising and lowering said arms, said rear chamber being provided with one or more openings for the display of a signal-light, a shutter for each of said openings and a link connecting said shutters with one of said arms.

In testimony whereof we affix our signatures in presence of two witnesses.

PARKER W. SAWYER.
CYRUS J. PERLEY.

Witnesses:
ROSCOE PERLEY,
LEWIS VUIDER.