(No Model.)

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

RAILROAD FLAG SIGNAL.

No. 579,685. Patented Mar. 30, 1897.

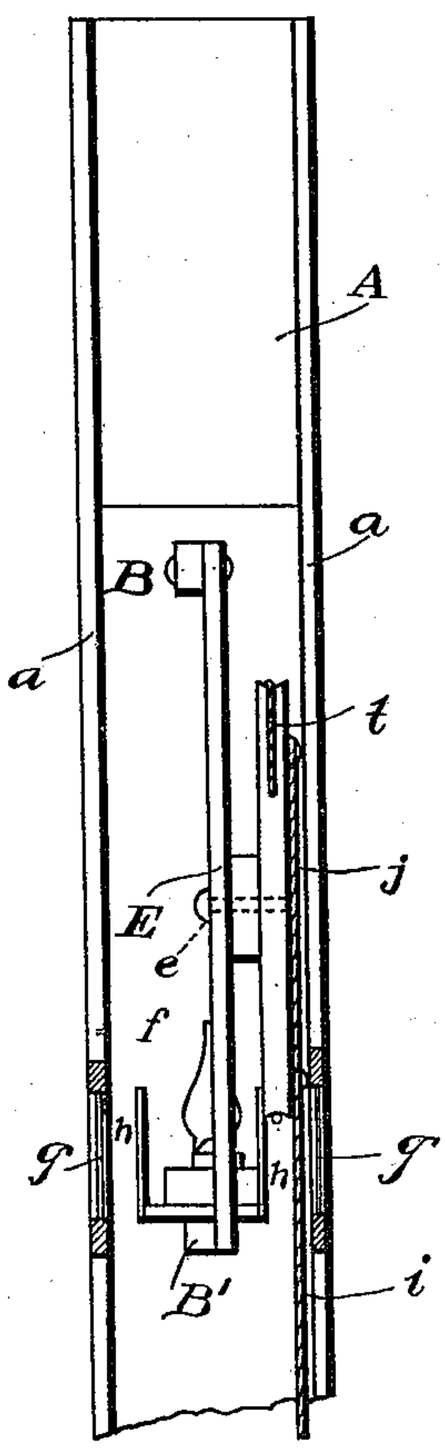

Fig. 2.

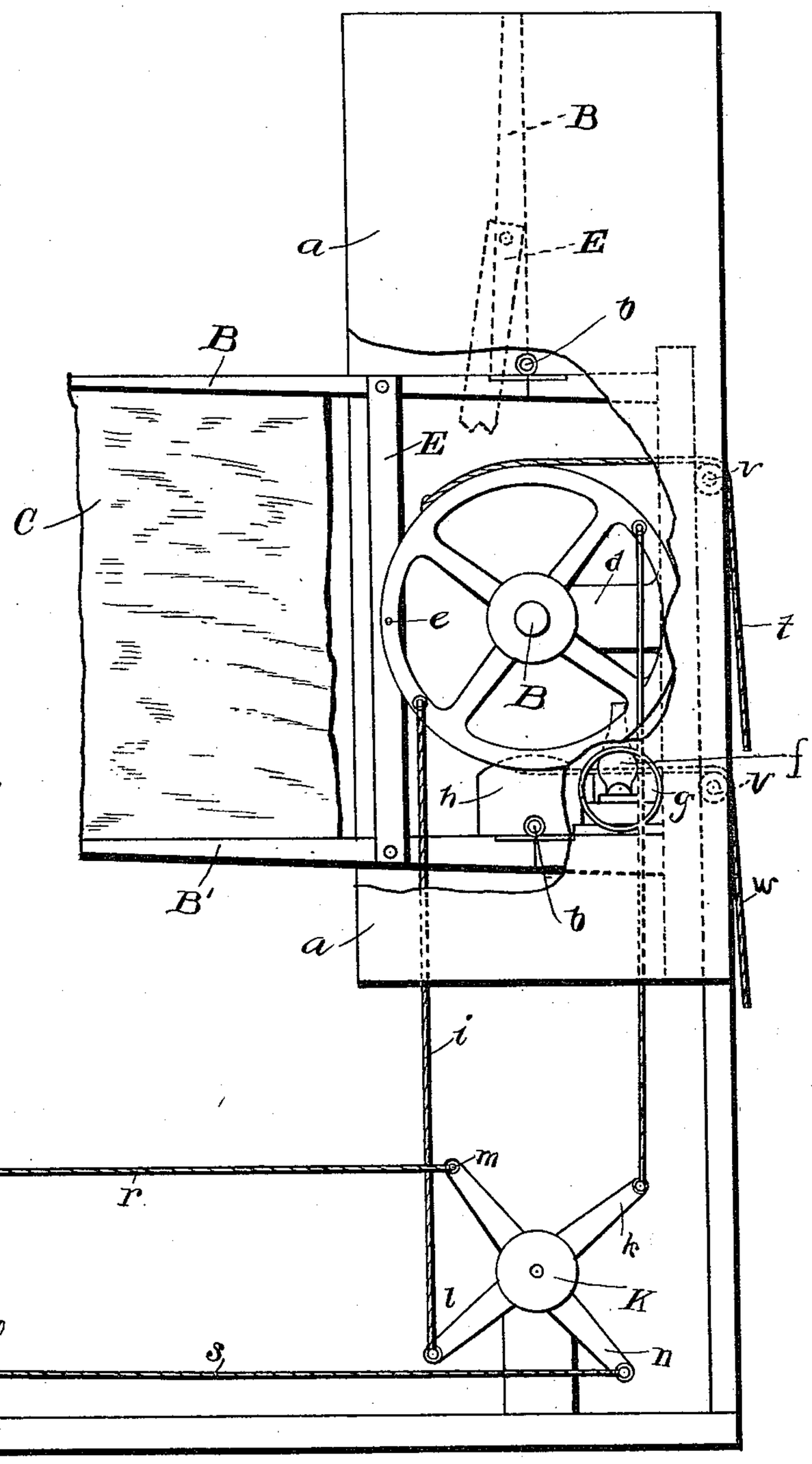

Fig. 1.

Witnesses
F. S. Belt.
C. M. Hasluck

Parker W. Sawyer & Cyrus J. Perley. Inventors.
by S. N. Bates, their Attorney

UNITED STATES PATENT OFFICE.

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

RAILROAD FLAG-SIGNAL.

SPECIFICATION forming part of Letters Patent No. 579,685, dated March 30, 1897.

Application filed October 1, 1896. Serial No. 607,546. (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, and residents of Gray, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Railroad Flag-Signals; and we hereby declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which said invention belongs to make and use the same.

Our invention relates to a device for setting signal-flags on railroads; and the object of the invention is to construct an apparatus by which signal-flags can be easily and quickly set from any desired point in a railroad station.

The device consists, essentially, of a pair of pivoted arms located one over the other and horizontal when in operative position, the flag being secured by one end to each of the arms, which thus hold it in a vertical position. The arms are capable of being raised to a vertical position where the flag will be out of sight, or they can be dropped into their operative horizontal position to display the flag. Means are provided by which the signal can be operated from a distance.

One of the features of our invention is a signal-light which can be seen when the flag is down, but which is screened when the flag is raised.

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

Figure 1 is a side elevation with a portion of the casing cut away, so as to show the arrangement of parts; and Fig. 2 is a front elevation.

A is an upright or standard to which the signal is connected, the operative parts of the signal being cased in by the side pieces *a*, so that the flag will be concealed when it is raised.

The flag C is supported by two arms B and B′, pivoted by hinges *b* and *b′*, one vertically above the other. When the arms are in their operative or horizontal position, the flag projects out beyond the casing *a*, so as to be plainly visible. Means are here shown for raising the arms to a vertical position when the flag is not in use. We accomplish this by connecting the arms by a connecting-link E, one end of which is pivoted to each of the two arms. To the link E is pivoted a wheel-lever D by a pivot *e*, the lever D being so journaled that when it is rotated on its center the link E and the arms will be raised, the latter assuming a vertical position. The lever D is pivoted to a stud *d*.

Means are provided for operating the lever D at a distance from the signal, as, for instance, inside of the station or at a distant point on the platform. For the purpose of operating the signal from the platform we make use of a pivoted four-arm lever K, mounted directly beneath the signal and having two arms *k* and *l*, connected by cords or lines *i* and *j* with points on the wheel-lever D, so that when the lever K revolves the wheel-lever D will revolve to the same extent. The other two arms *m* and *n* of the lever K are connected by lines or cords *r* and *s* with two arms *p* and *o* of another similar pivoted lever having operating-arms *q q*, to which cords, lines, or wires can be attached for operating the device from yet more distant points. By these two systems of arms connecting by cords or lines with the wheel-lever D the signal can be readily moved in either direction. The advantage of these arm-levers over pulleys for operating signals at a distance is that they wear less, are less liable to get warped and twisted, and are not thrown off the track as cords or ropes often are where they run over pulleys. It is evident that by a movement of the arms *q q* in either direction the flag can be raised or lowered.

The position of the arms on the lever K can, if desired, be made adjustable to any desired angle, so that it can be operated from any direction.

Another feature of our invention is a signal-light to be used, if desired, in connection with the flag-signals. The light *f* is placed inside of the casing, which is provided with openings or bull's-eyes *g g*, through which the light may be seen when the flag is down from either direction. The light is placed on top of one of the arms B or B′ and in rear of the pivoting-point. Shutters *h h* are secured to the arms in such a position that when the arms are down the shutters leave the light free to shine through the openings *g*, but

when the arms are raised the shutters are thrown back and interpose between the openings *g* and the light, shutting it off from sight. The openings *g* are preferably glazed with red glass, so that when the light shows it will show red.

We thus have a combination of a flag-signal for day use and a light-signal for night use, so that when one is not seen the other will be.

Operating-lines *t* and *u* are shown as leading over pulleys *v* back through the rear portion of the apparatus, and these, if desired, may lead into the station.

It is evident that the apparatus can be duplicated, using flags of different colors, such as are ordinarily used on railroads for signal-flags.

We claim—

1. The herein-described railroad flag-signal consisting of a pair of normally horizontal arms pivoted, one over the other, a flag secured by one end to each of said arms and means for raising said arms to a vertical position.

2. The herein-described railroad flag-signal consisting of a pair of normally horizontal arms pivoted, one over the other, a flag secured by one end to each of said arms, a link pivoted by one end to each of said arms and a lever pivoted to said link for raising and lowering the same.

3. The herein-described railroad flag-signal consisting of a pair of normally horizontal arms pivoted, one over the other, a flag secured by one end to each of said arms, a link pivoted by one end to each of said arms, a wheel-lever pivoted to said link for raising and lowering the same and operating-lines attached to said wheel-lever for rotating it to raise and lower said signal.

4. The herein-described railroad flag-signal consisting of a pair of normally horizontal arms pivoted, one over the other, a flag secured by one end to each of said arms, means for raising and lowering said arms, a signal-light located over one of said arms and in rear of its pivoting-point and shutters secured to said arm in such a position that when the arm is raised the shutter will intercept said light.

5. The herein-described railroad flag-signal consisting of a pair of normally horizontal arms pivoted one over the other a flag secured by one end to each of said arms, a pivoted operating-lever for raising and lowering said arms, a pivoted lever having four radiating arms two of which are connected by lines with said operating-lever, the other two arms being connected by lines to two arms of a similar lever, thereby the signal can be operated from a distance.

PARKER W. SAWYER.
CYRUS J. PERLEY.

Witnesses to P. W. S.:
S. W. BATES,
O. J. JAMES.
Witnesses to C. J. P.:
W. H. VINTON,
ROSCOE PERLEY.