

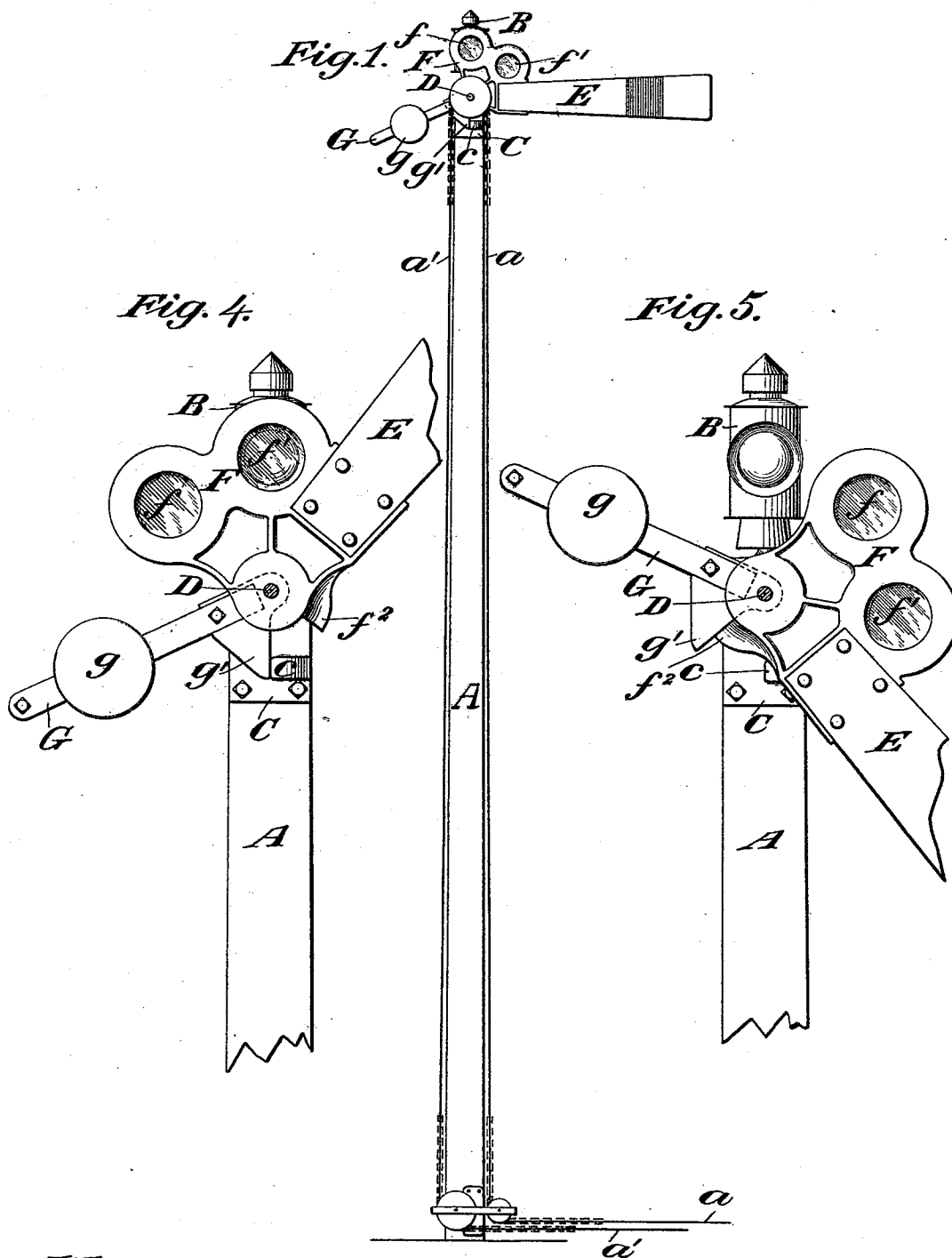
(No Model.)

2 Sheets—Sheet 1.

H. JOHNSON.
THREE POSITION SIGNAL.

No. 514,191.

Patented Feb. 6, 1894.



Witnesses:
O. H. Hayward
J. B. Decker

Inventor:
Henry Johnson
by attorneys
Brown & Reward

(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

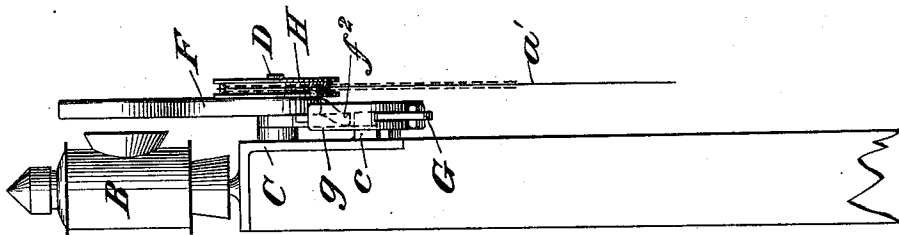
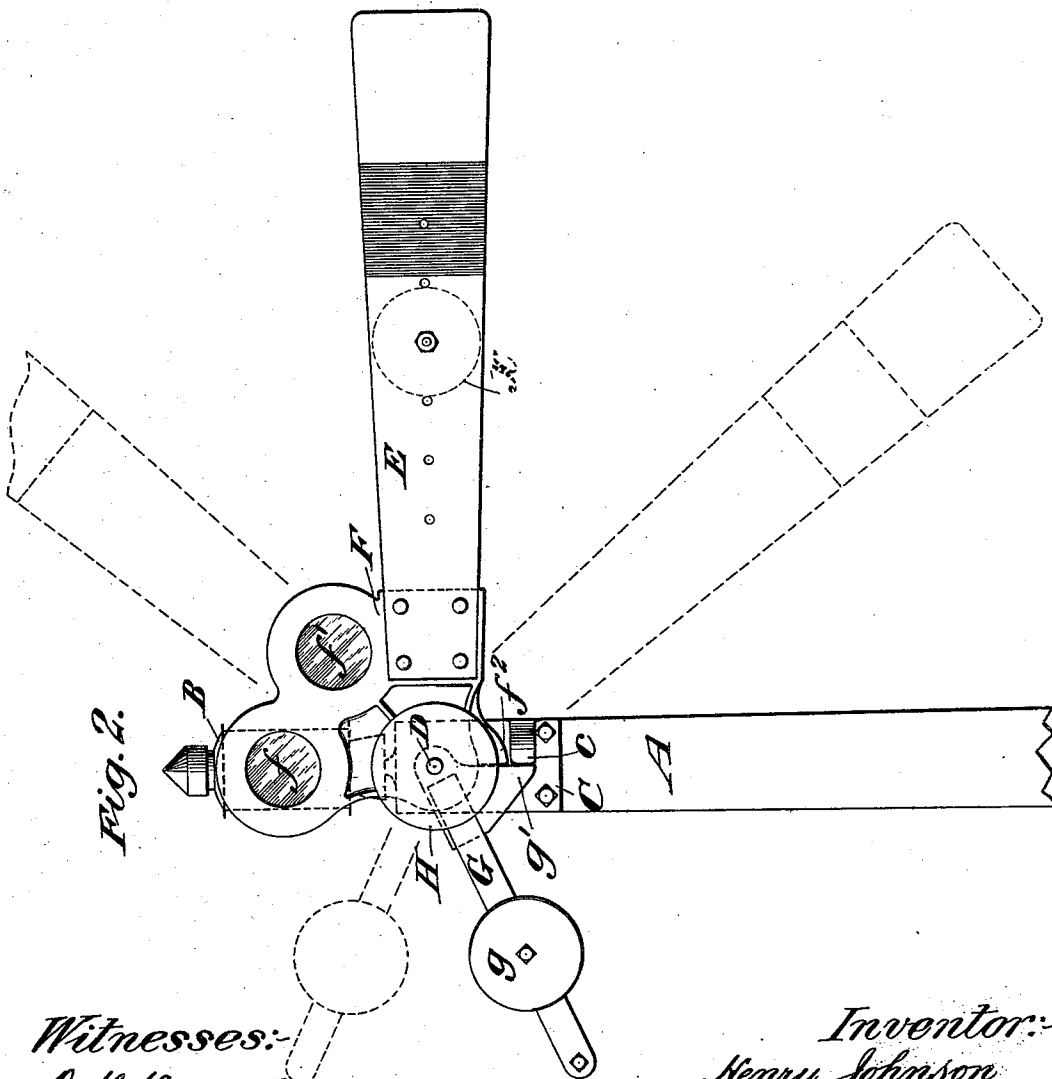


Fig. 2.



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UNITED STATES PATENT OFFICE.

HENRY JOHNSON, OF RAHWAY, NEW JERSEY.

THREE-POSITION SIGNAL.

SPECIFICATION forming part of Letters Patent No. 514,191, dated February 6, 1894.

Application filed March 21, 1892. Serial No. 425,773. (No model.)

To all whom it may concern:

Be it known that I, HENRY JOHNSON, of Rahway, in the county of Union and State of New Jersey, have invented a new and useful Improvement in Three-Position Signals, of which the following is a specification.

My invention relates to an improvement in three position signals in which provision is made for utilizing gravity to return the signal to "danger" both from its position of "caution" and from its position of "safety."

A practical embodiment of my invention is represented in the accompanying drawings in which—

Figure 1 is a view of the signal mounted on a post as it appears in use. Fig. 2 is an enlarged view of the signal and top of the post showing in full lines the signal at "danger" and in dotted lines its positions when at "caution" and when at "safety." Fig. 3 is a view of the same in end or edge elevation. Fig. 4 represents the positions of the parts when the signal arm is at "caution," and Fig. 5 represents the position of the parts when the signal arm is at "safety."

A represents the signal post, shown in the present instance as provided at its top with a lamp B, which for purposes of explaining the operation of the signal I will assume to be provided with a white light.

For mounting the signal I provide a plate C fixed to the post and provided with a leg or abutment c. A spindle D is either rigidly fixed to, or loosely secured to the plate C and projects outwardly therefrom to receive the movable parts. The signal blade E is fixed to a plate F, mounted on the spindle D so as to rock up and down from its horizontal position. The plate F has fixed to rotate there- with a pair of lenses or translucent shades f and f' , the former red and the latter green, and so arranged that when the signal blade is at "danger" the red lens or shade f will cover the white light, at "caution" the green lens or shade will cover the light, and when at "safety" the white light will be revealed. An arm G carrying a counterbalance weight g , is pivoted to the post A, in the present instance on the spindle D, and between the parts F and C. A stop or an abutment g' on the arm G is adapted to engage the leg or abutment c on the plate C and prevent the

weighted arm G from falling to any great extent below the position to hold the blade E horizontally at "danger." A stop or an abutment f^2 on the plate F is adapted to engage an abutment on the weighted arm G, the abutment g' for example, when the blade swings from its horizontal "danger" position down to "safety" and cause the weighted arm to rise as the blade lowers, so that, should the operating wire a break the blade E would be promptly returned to "danger" under the impulse of the weighted arm G. When, however, the blade is raised to "caution" by the operating wire a' , the weighted arm G remains at rest with its stop g' in engagement with the abutment c, the blade and the plate F moving independently of the arm G in this direction. If the operating wire a' should break when the signal blade is at "caution" the blade would, under the impulse of its own weight, drop to "danger" when it would be arrested by engagement with the stop on the weighted arm G. The operating wires a and a' conveniently work over a grooved pulley H fixed to rock with the plate F, and the said operating wires are attached to the pulley H in such a manner as to cause it to positively rock in one direction or the other as the one or the other of the wires is pulled. The blade is provided with an adjustable counter balance weight X. By adjusting it at different distances from the pivotal connection of the blade, the latter may be made to drop with the desired promptness from any slightly varying degrees of upward inclination.

What I claim is—

1. A three position signal, comprising a swinging signaling device, means for positively moving it from a horizontal or danger position to either a downwardly inclined or upwardly inclined position, and a counterbalance weight arranged to act upon the arm to hold it at danger and to return it to danger from its downwardly inclined position, the arm being free to fall from its upwardly inclined position to danger position by its own weight, independently of the counterbalance weight substantially as set forth.

2. The three position signal, comprising a rocking support carrying the signaling device, a counterbalance arm pivoted to the rocking

support independently of the signaling device and having an interlocking engagement with the support whereby the counterbalance arm is raised when the signaling device is lowered and allowed to remain at rest when the signaling device is raised, means for limiting the downward movement of the counterbalance arm and means for positively rocking the signal carrying support, substantially as set forth.

3. The three position signal, comprising the rocking support provided with a signal blade and with different colored lenses or shades, the rocking counterbalance arm having an interlocking connection with the rocking support, by which it acts upon the signal blade

throughout a part only of the swinging movement of the blade a lamp in position to rest opposite the one or the other of the different lenses or shades as the support is rocked into different adjustments, and means for rocking the blade and lens or shade carrying support, substantially as set forth.

4. The semaphore blade provided with an adjustable weight mounted on the blade and means for securing the weight at different distances from the pivotal support of the blade, substantially as set forth.

HENRY JOHNSON.

Witnesses:

FREDK. HAYNES,
GEORGE BARRY.