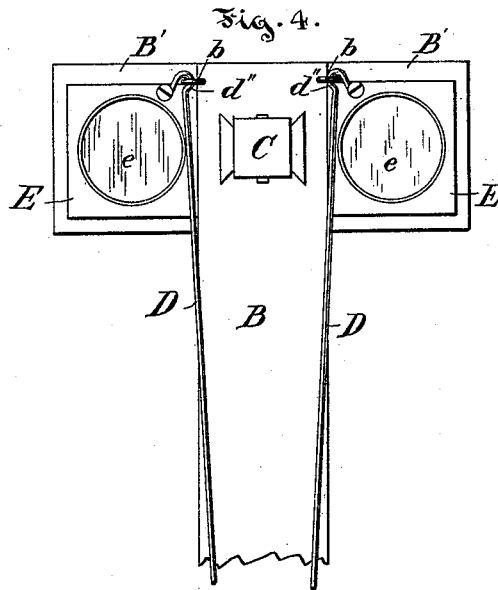
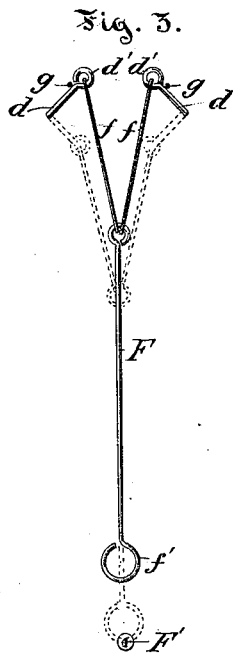
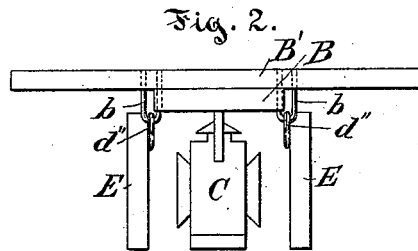
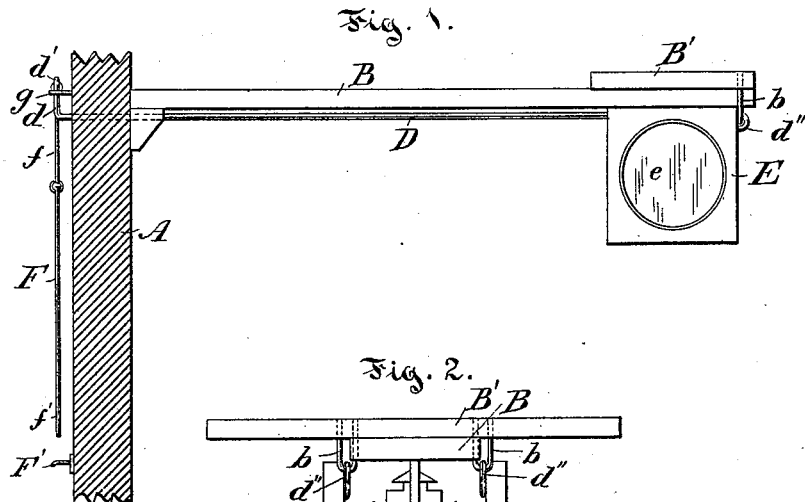


(No Model.)

J. M. KIRBY.
SEMAPHORE.

No. 421,005.

Patented Feb. 11, 1890.



Witnesses:
Chas. Bailey.
L. N. Legendre.

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UNITED STATES PATENT OFFICE.

JOHN MATHEW KIRBY, OF ST. THOMAS, ONTARIO, CANADA.

SEMAPHORE.

SPECIFICATION forming part of Letters Patent No. 421,005, dated February 11, 1890.

Application filed May 24, 1889. Serial No. 311,945. (No model.)

To all whom it may concern:

Be it known that I, JOHN MATHEW KIRBY, of the city of St. Thomas, in the Province of Ontario, in the Dominion of Canada, have invented certain new and useful Improvements in Semaphores; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part hereof.

My invention, which will be hereinafter fully set forth and claimed, relates to devices for exhibiting signals at railway-stations.

Figure 1 is a side elevation of my improved semaphore, the wings being down. Fig. 2 is a front elevation of the same. Fig. 3 is an elevation in the interior of the station-house, showing the means of operating the signal; and Fig. 4 is a view of the under side of the bracket-arm, showing the wings raised.

A represents the wall of the station-house, and B an arm or bracket projecting therefrom or a beam of the roof, at the end of which a lantern C is placed under a cover B'.

D D are cranked rods or shafts journaled in the wall A and passing along the under side of the bracket B, one on each side of the lantern. The ends which project into the interior of the station or office are cranked, as shown in Fig. 3, so that when the wings are down the cranks *d* slant upward toward each other at an angle of about forty-five degrees with the horizontal. An eye *d'* is formed at the end of each crank. The outer ends of the rod D are each bent slightly downward, and then a loop *d''* is formed, which passes through a staple *b* or equivalent, secured to the outer end of the arm, the end of the rod D past said loop *d''* being bent down to form a crank and firmly secured to the wing.

E E are the wings hinged by the ends of

the rods D D and staples *b* to the end of the arm B, and firmly secured to said rods, as described. Said wings are provided with colored-glass insertions *e*.

In the interior of the station or office the crank-eyes *d'* are connected by links *f* to a rod or wire F, having a ring or handle *f'* at its lower end, which, when the rod or wire is drawn down, may be caught on a pin or hook F', secured in the wall in such a position that when the handle *f'* is held on it the wings E are in a horizontal position. Over the cranks *d* are placed pins *g*, to prevent the cranks going up too far and allow the wings to come in contact with the lantern C. When the handle *f'* is released from the pin or hook F', the cranks *d* point upward and the wings E are hanging down vertically. By pulling down the rod F and securing the handle upon the pin or hook F' the wings are raised and held in a horizontal position.

For the station-wall A a post may of course be substituted, to which the bracket-arm B is secured.

I claim as my invention—

In a semaphore, the combination, with a vertical support A and projecting arm B, of the rods D, having inner cranked ends *d* and outer looped and cranked ends *d''*, hinged to the end of the arm B, the wings E, secured to the ends *d''* of the rods D, the links *f*, connecting the cranks *d* and the rod F, the rod F adapted to be secured to a stop, and the stop or pin F', substantially as set forth.

In testimony whereof I have signed in the presence of the undersigned witnesses.

JOHN MATHEW KIRBY.

Witnesses:

JOHN MCFARLANE,
HENRY I. CABLE.