

(No Model.)

2 Sheets—Sheet 1.

C. F. NEWTON.

TRAIN SIGNAL.

No. 333,774.

Patented Jan. 5, 1886.

Fig. 1.

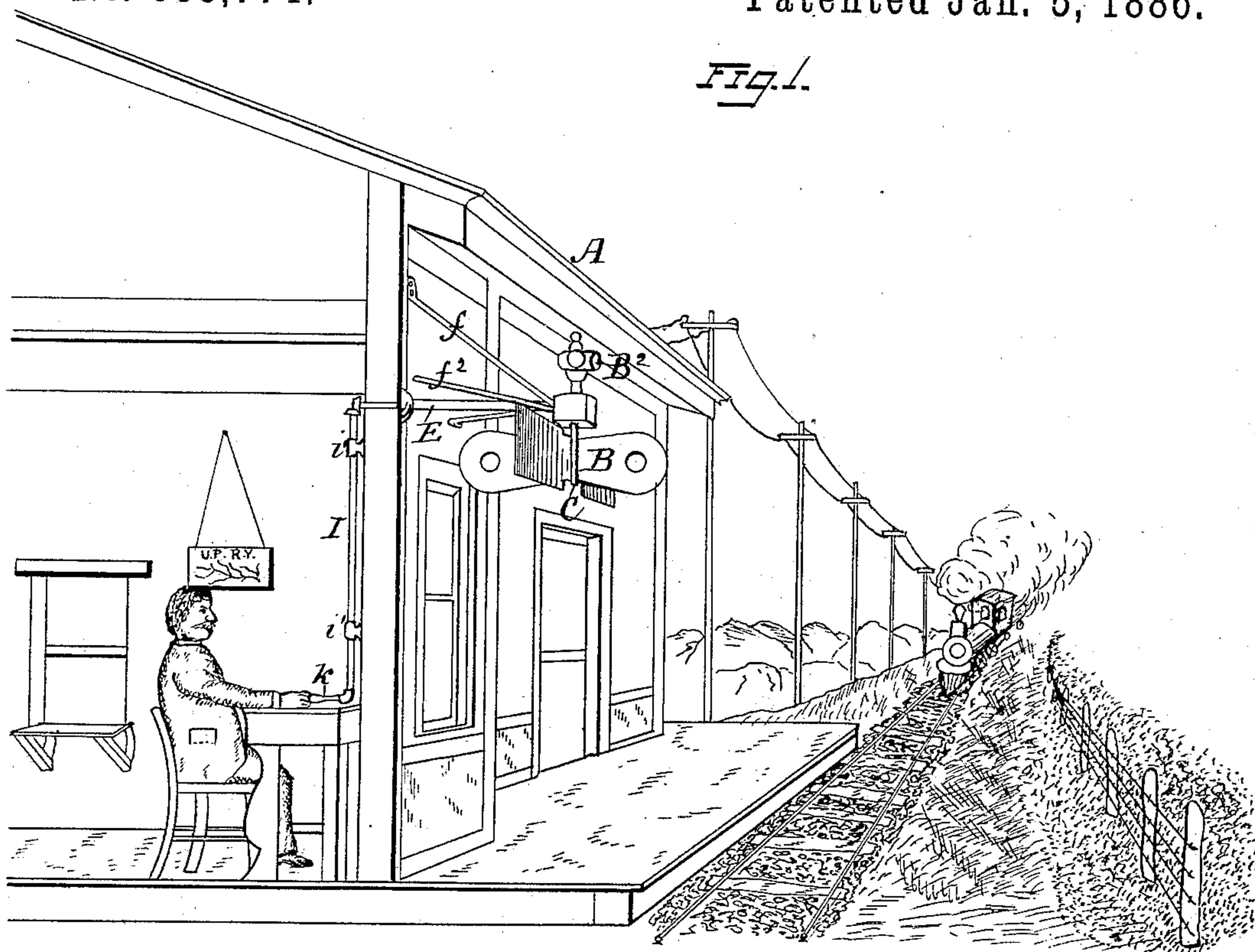


Fig. 2.

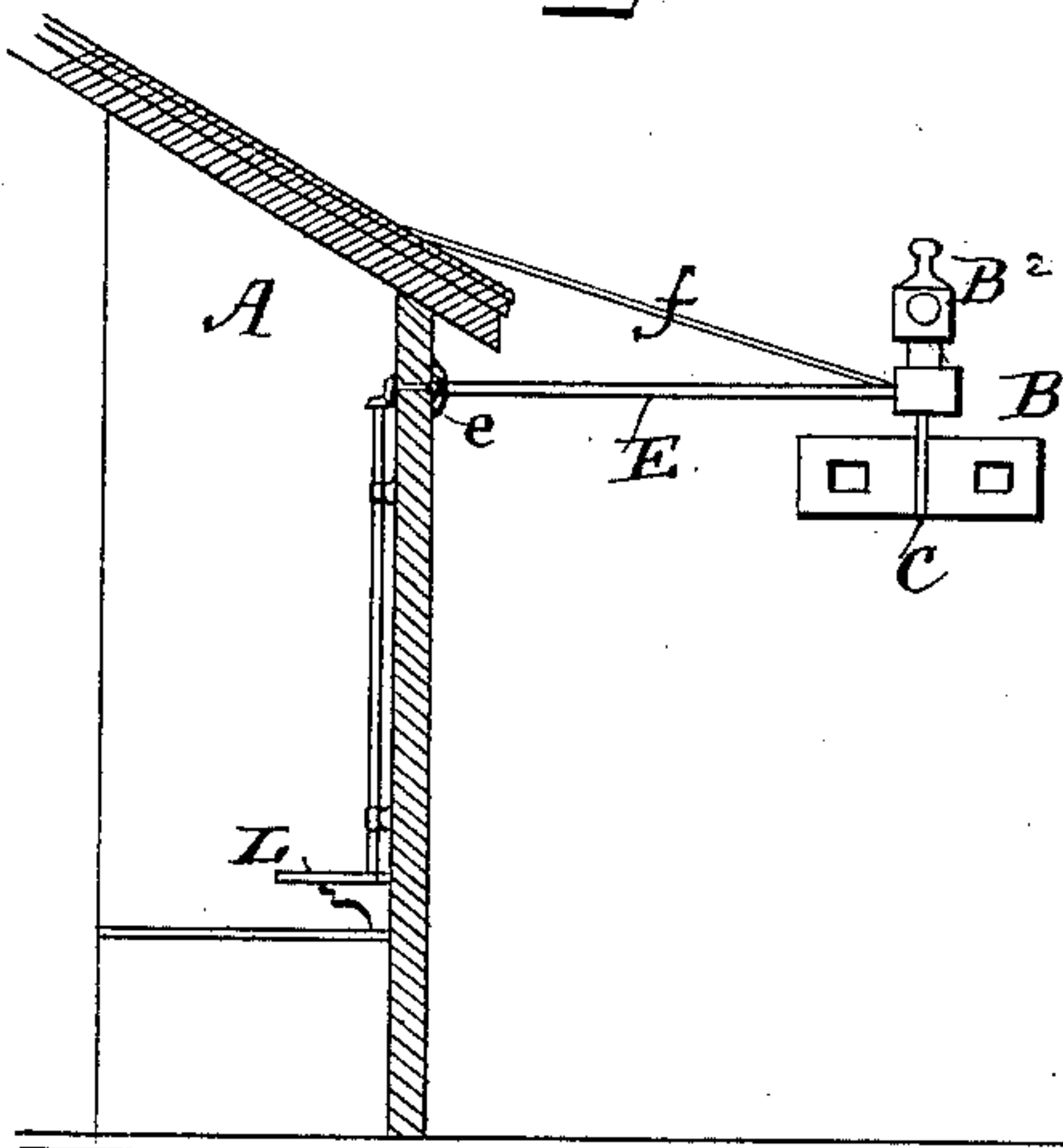
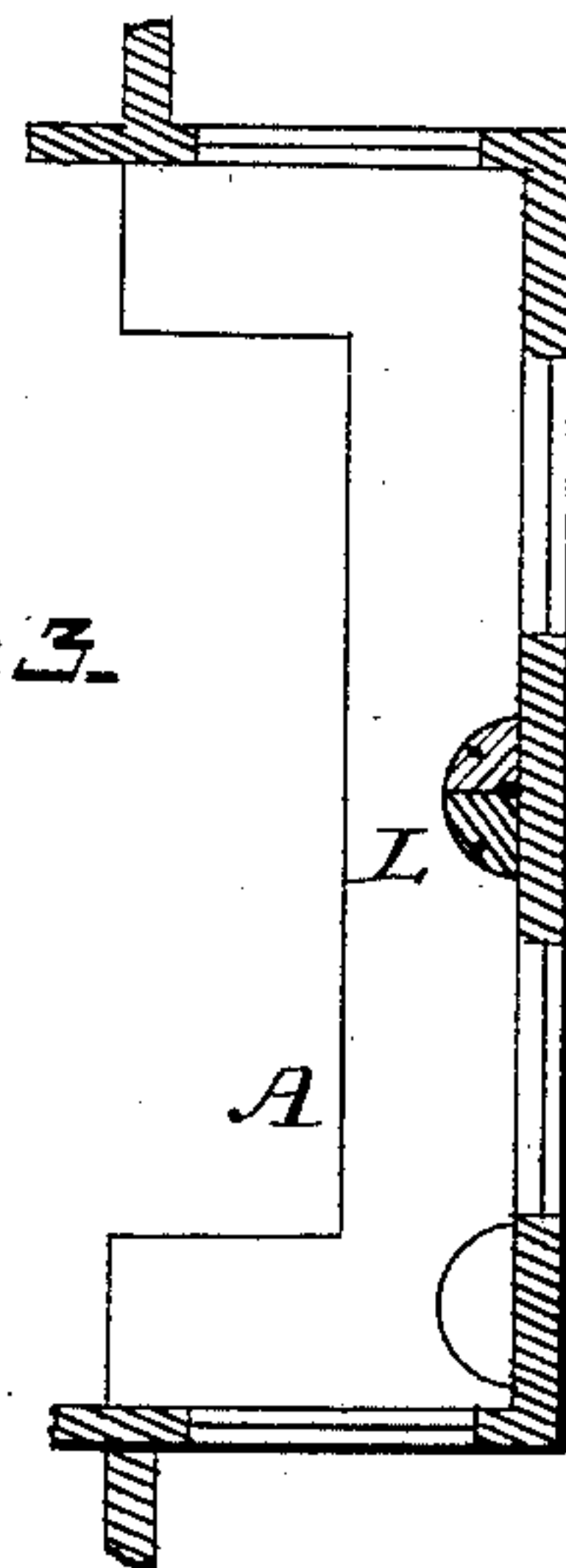


Fig. 3.



Witnesses:
C. B. Mordman
W. B. Masson

Inventor:
Collins F. Newton
by E. E. Masson
att'y.

(No Model.)

2 Sheets—Sheet 2.

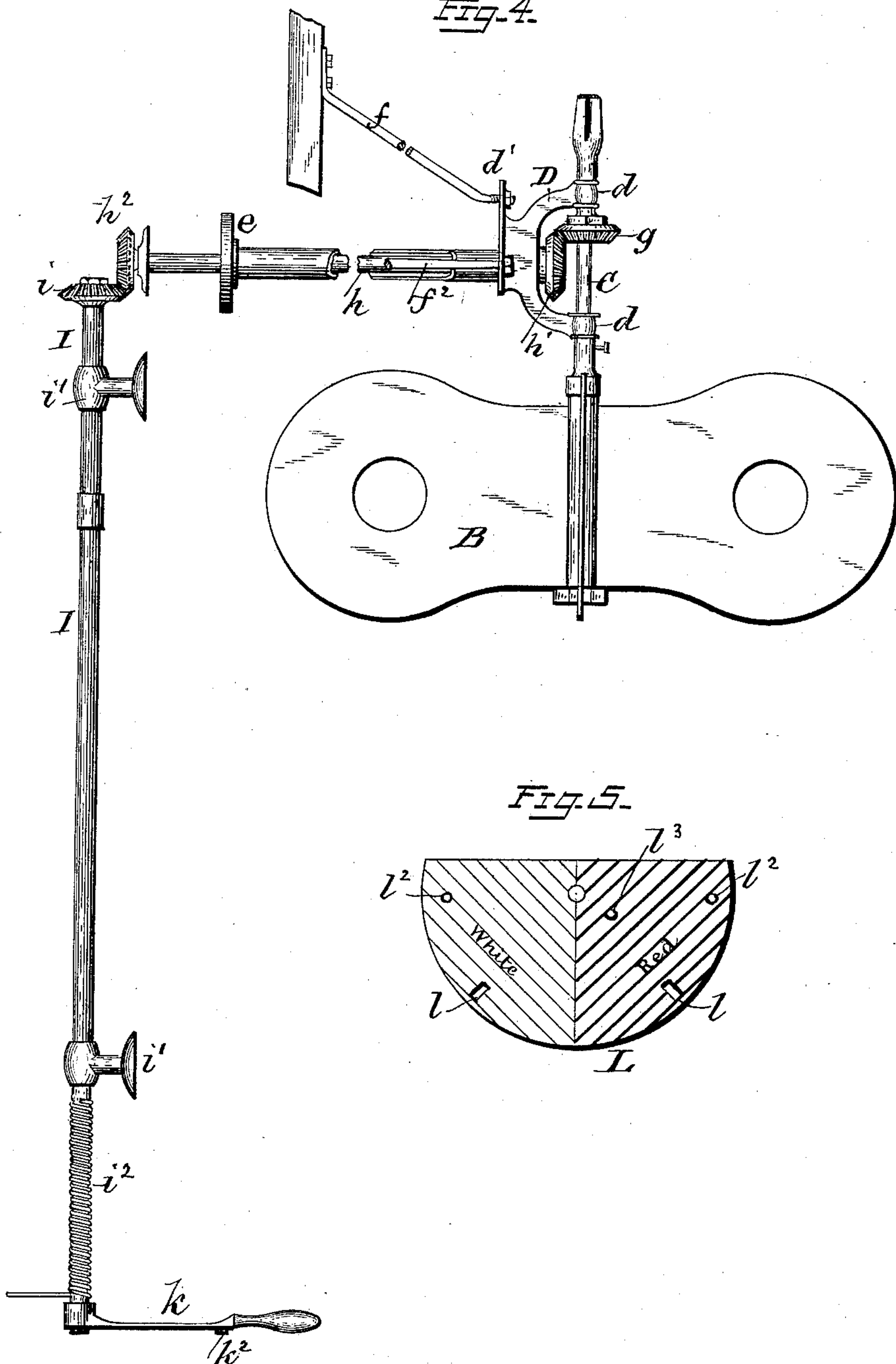
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Fig. 4.



Witnesses:
O. C. Mordeman.
W. B. Masson

Inventor:
Collins F. Newton
by E. E. Masson
att'y.

UNITED STATES PATENT OFFICE.

COLLINS F. NEWTON, OF OMAHA, NEBRASKA, ASSIGNOR OF ONE-HALF TO
WILLIAM S. WING, OF SAME PLACE.

TRAIN-SIGNAL.

SPECIFICATION forming part of Letters Patent No. 333,774, dated January 5, 1886.

Application filed October 10, 1885. Serial No. 179,464. (No model.)

To all whom it may concern:

Be it known that I, COLLINS F. NEWTON, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Train-Signals, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to certain improvements in train order-signals and the object is to provide reliable means for changing the position of the signals that indicate "safety" or "danger," and holding said signals in position, and also providing the surface of the indicator table or plate with colors corresponding with the colors upon the exterior signals and lanterns, as will be herein more fully described, and specifically set forth in the claims.

Figure 1 is a perspective view of the signal-station building, the signal, and means to operate the same, constructed in accordance with my invention. Fig. 2 is a vertical section of a portion of the signal-station; Fig. 3, a horizontal section of a portion of the signal-station containing the indicator-table. Fig. 4 is a side view of the indicator and its operating-lever on a large scale. Fig. 5 is a top view of the indicator-table.

A represents the signal-station building in front of which the signal is to be shown. The signal consists, generally, of two wings, B, painted red on both sides, and at right angles to them two other wings painted white. These wings are secured to a shaft, C, retained vertically in bearings *d*, formed in the casting D, and the latter is secured upon one end of the hollow shaft or tube E, while the other end is provided with a collar, *e*, that is attached to the front of the building. This tube is retained in a horizontal position by means of the diagonal brace *f*, having one end secured to the flange *d'* of the casting D and the other end to the side of the building. The signal is protected against side swaying by the lateral braces, *f*², having one end attached to the flange *d'* of the casting D.

To indicate the signal at night, a lantern, B², having corresponding colored glasses, is

mounted upon the upper end of the shaft C. To rotate this shaft, a bevel cog-wheel, *g*, is secured upon it between the bearings *d*, supporting said shaft. Through the supporting-tube E passes a shaft, *h*, having at its outer end a bevel cog-wheel, *h'*, that meshes with the wheel *g*, and said wheel, may be boxed up or inclosed, to protect them from the weather. The shaft *h* passes through the walls of the signal-building, and upon its inner end carries a bevel cog-wheel, *h*², that meshes with a similar wheel, *i*, secured to the upper end of a vertical shaft, I, retained against the walls of the building by bearings *i'*. To rotate this shaft and the signal, there is secured to the lower end of this shaft a spring-handle, *k*, the outer end of which projects over the edge of the semicircular plate or table L, and to retain said handle in any desired position there are two depressions, *l*, formed in the surface of the table, to receive a lug, *k*², pendent from said handle.

Upon the lower portion of the shaft I is coiled a spring, *i*², having one end secured to the shaft and the lower end bearing against the wall of the building or other stationary object, so that it will have a tendency to throw the handle to one side until arrested by one of the pins *l*², when the handle is released by the operator and keeps the signal in a neutral position, where it may be locked by a pin, *l*².

To prevent mistake in the manipulation of the handle, the surface of the indicator-table L has a quarter-segment painted white and the other red, or some other color corresponding with the color upon the suspended signal.

I am aware that signals have been operated by means of bell-crank levers, cords, and weights, and I do not claim these devices.

Having now fully described my invention, I claim—

1. The combination of the tubular holder E, having collar *e* at its inner end and at its outer end the cast support D, provided with a flange, *d'*, having divergent braces *f* and *f*² secured thereto, and bearings *d* *d*, vertically one above the other, with the vertical shaft C, carrying the four-wing signal B, and the shaft *h*, passing through the tubular holder, the

shafts C and *h* being connected by bevel-gear, substantially as and for the purpose described.

2. The combination of the tubular holder E, having collar *e* at its inner end and at its
5 outer end the cast support D, provided with divergent braces, with the vertical shaft C, carrying the four-wing signal B, and the shaft *h*, passing through the tubular holder, the
10 shafts C, *h*, and I being connected by bevel-gears, and the latter shaft provided with a

spring-handle resting upon a table having colored segments corresponding with the colored signal B, substantially as and for the purpose described.

In testimony whereof I affix my signature in 15 presence of two witnesses.

COLLINS F. NEWTON.

Witnesses:

T. R. WING,

GEO. K. BLACK.