

(No Model.)

M. WUERPEL.

RAILWAY SIGNAL.

No. 330,860.

Patented Nov. 17, 1885.

Fig. 1.

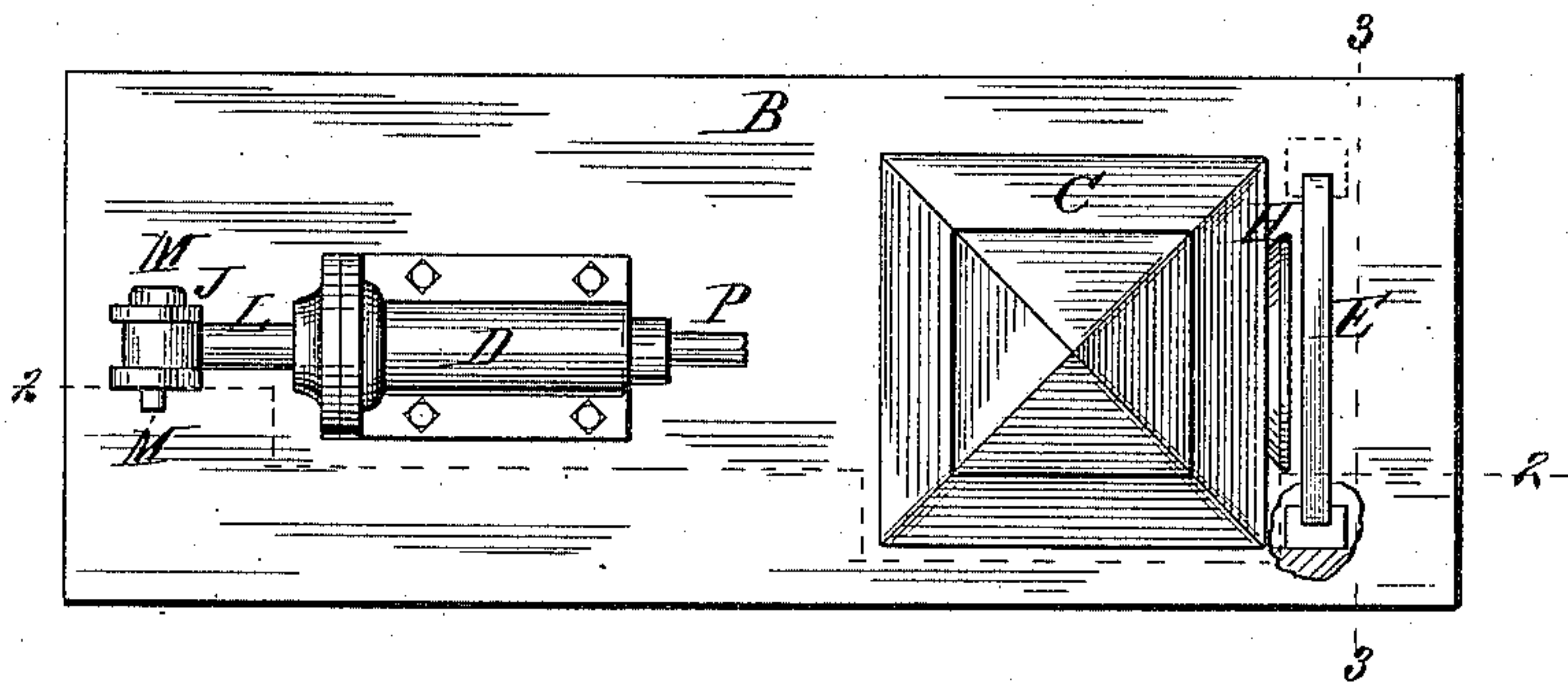


Fig. 2.

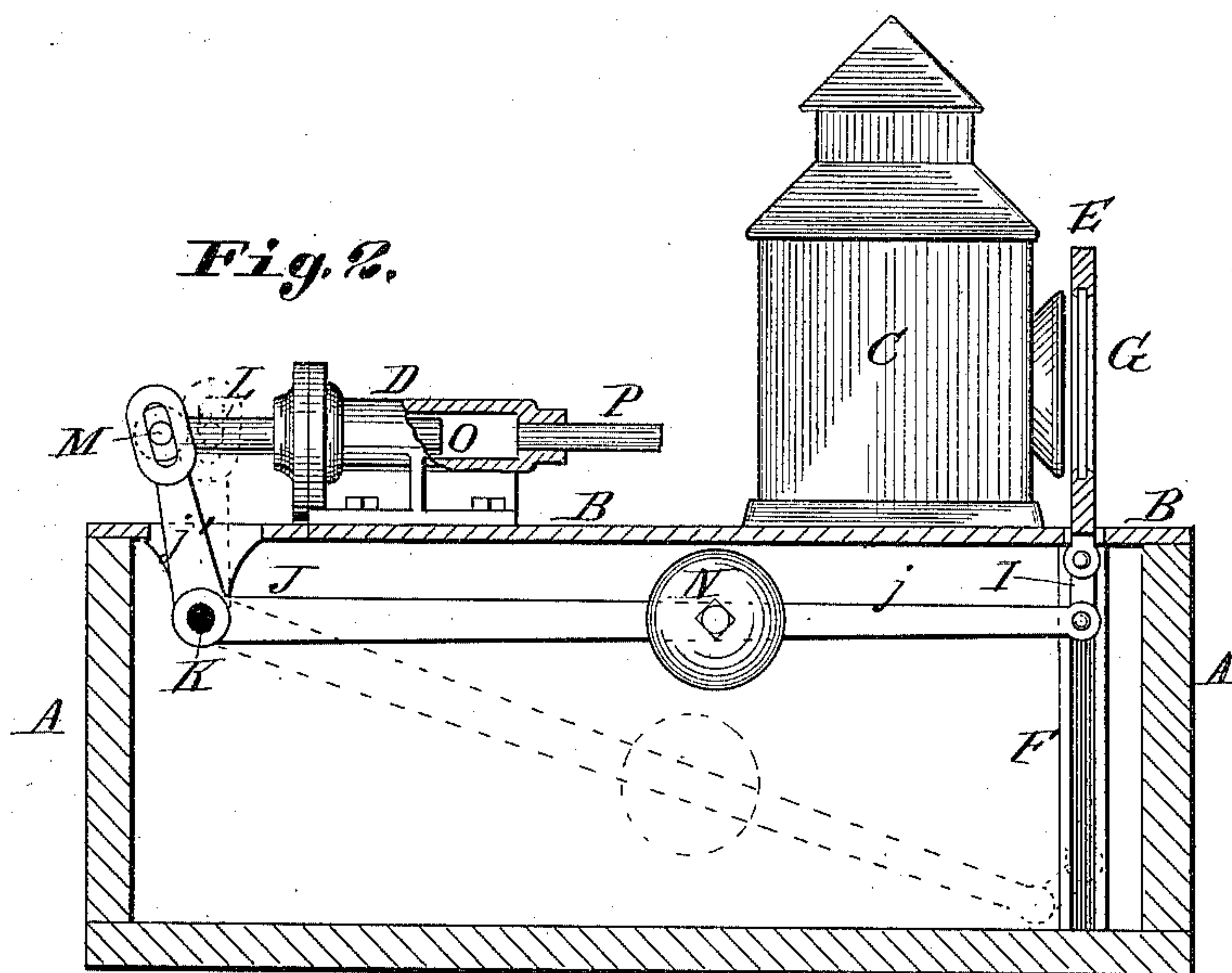
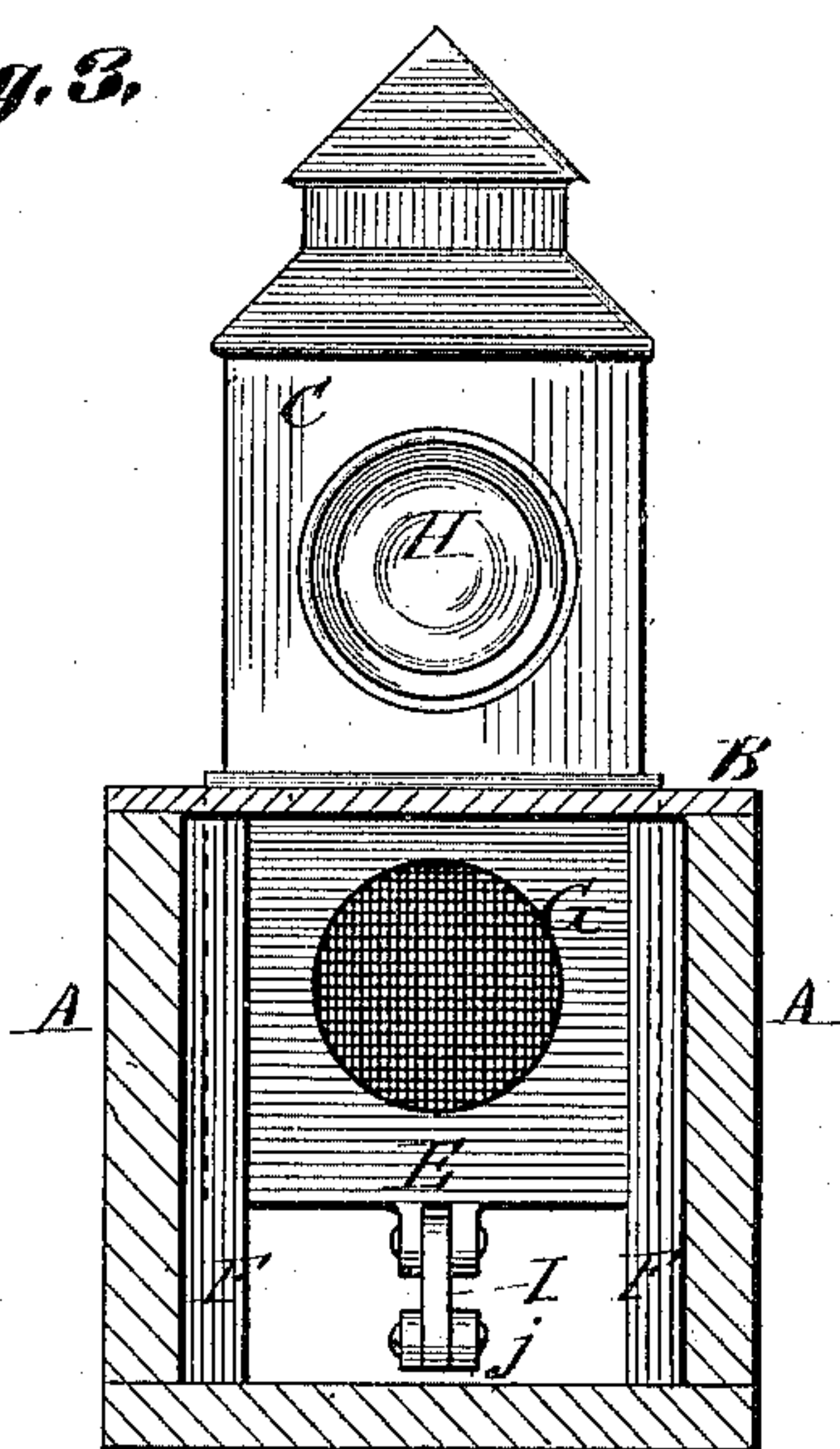


Fig. 3.



Attest
Geo. Wheelock
Victor A. Lewis

Inventor,

Morris Wuerpel

By Wright & Co.

Attys.

UNITED STATES PATENT OFFICE.

MORRIS WUERPEL, OF ST. LOUIS, MISSOURI.

RAILWAY-SIGNAL.

SPECIFICATION forming part of Letters Patent No. 330,860, dated November 17, 1885.

Application filed December 13, 1884. Serial No. 150,254. (No model.)

To all whom it may concern:

Be it known that I, MORRIS WUERPEL, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Railway-Signals, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

The drawings show my improvement in a simple form, a single lantern and a single movable colored glass being shown. There may, however, be more than one lantern and movable signal-glasses, and each lantern may have more than one concentrating lens or other glass through which the light shows.

Figure 1 is a top view. Fig. 2 is a longitudinal section at 2 2, Fig. 1. The sash is here shown in elevated position and its depressed position indicated by broken lines. Fig. 3 is a transverse section at 3 3, Fig. 1, the sash being shown in depressed position.

The box or case is shown at A.

B is the top of the box, to which are secured the lantern C and operating-ram D.

E is the sash, working vertically in guides F, and carrying a pane, G, of colored glass, which, in the elevated position of the sash, is in front of the lantern bull's-eye or glass H.

The lantern lens or glass may be white or of some color indicating "safety," and the color of the pane G may indicate "danger." I do not confine myself to any special color in either case; but it is evident that the most effective construction would have the lantern-glass H white and that of the sash colored. The sash is connected by a link, I, to the arm *j* of a bell-crank lever, J, which has fulcrum-b aring at K. The other arm, *j'*, of this lever extends through a slot in the top B, and is forked to receive the end of the ram-plunger stem L, the ears of the fork being slotted for the ends of a cross-pin, M, fixed in the end of the stem.

N is a weight adjustably fixed upon the arm *j*, the weight being so arranged on the arm that it will return the sash to its lower position when the pressure is removed from the plunger O of the ram. The ram may be operated by any fluid—such as air, steam, or water—passing through the pipe P, which

communicates, through any suitable cock or valve, with a supply of the fluid under pressure. Where liquid is used, the cock or valve may be arranged to allow the liquid to waste from the ram into a tank or reservoir. Where air or steam is used to work the ram, the valve or cock may be arranged to exhaust from the ram into the atmosphere.

It is obvious that the lantern may be made with one bull's-eye, H, as shown, or with two or more, and that there may be a sash, E, with glass G for each bull's-eye, and that the sashes may be operated by connection with a single lever, J, or each sash or any number of them operated by separate levers. It is also obvious that there may be two or more sashes operating independently in front of each bull's-eye, so as to show any desired color in connection therewith. Thus by means of a fixed lantern any color may be shown and in any desired direction.

It will be understood that each independent movement is accomplished by a separate ram.

I am aware that it is not broadly new to connect a sliding sash to one end of a lever which is provided with a weight for holding it normally in one position and connection with a piston for moving it at the will of the operator.

I claim—

1. The combination, with the signal C, of the sliding sash E, the weighted bell-crank lever J, having the slotted arm *j'*, loose connection between the other arm, *j*, and the sash E, and the plunger L, having the pin M working in the slot in the arm *j'*, substantially as and for the purposes set forth.

2. The combination, with the signal C, of the sliding sash E, the plunger L, the weighted bell-crank lever J, loose connection between one arm of said bell-crank lever and said plunger, and the link I, connecting the other arm of said bell-crank lever with the sliding sash E, substantially as and for the purposes set forth.

MORRIS WUERPEL.

Witnesses:

SAML. KNIGHT,
GEO. H. KNIGHT.