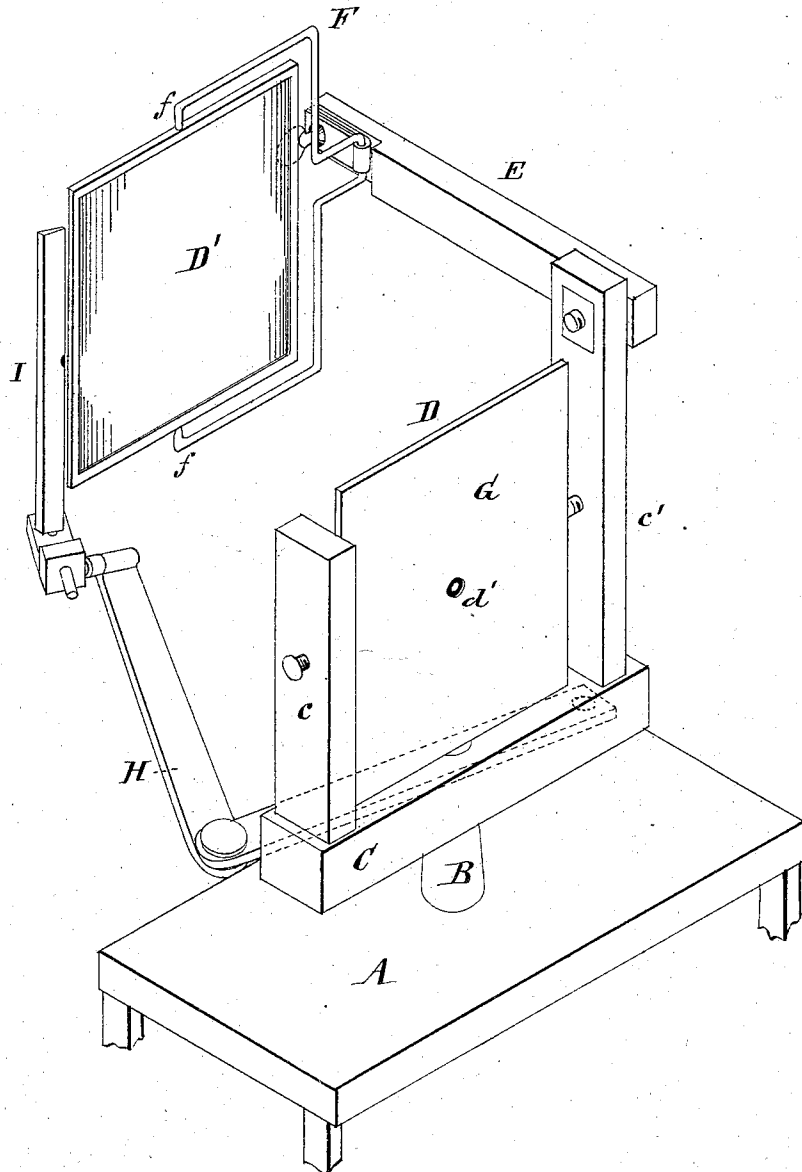


M. M. KENNEY.

Methods of Adjusting Signalling Mirrors.

No. 138,162.

Patented April 22, 1873.



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UNITED STATES PATENT OFFICE.

MARTIN M. KENNEY, OF TRAVIS, TEXAS.

IMPROVEMENT IN METHODS OF ADJUSTING SIGNALING-MIRRORS.

Specification forming part of Letters Patent No. **138,162**, dated April 22, 1873; application filed December 2, 1872.

To all whom it may concern:

Be it known that I, MARTIN M. KENNEY, of Travis, in the county of Austin and State of Texas, have invented a new and Improved Method of Throwing the Reflected Light of a Mirror with Accuracy Upon a Distant Object in Flash-Signaling; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification.

The invention consists in a mirror made susceptible of a vertical and horizontal adjustment, and unsilvered, as well as uncovered, on one portion of its back, in combination with an adjustable post for the purpose of verifying the place upon which a flash-signal is to be made, and thus enabling the party signaling to be sure that the flash or flashes will certainly come under the observation of the party to be signaled.

The drawing represents a perspective view.

In the drawing, A represents a base or bed, from which rises a stud, B. On this stud is swiveled the frame C, which supports a mirror, D, journaled in the uprights *c c'*. To the longer upright *c'* is pivoted an arm, E, on the end of and at right angles to which is hinged the bent bar F. Between the ends *f f'* of this bar, and on the same, is swiveled a second mirror, D', which can be carried to either side of the first and adjusted to a plane of any suitable obliquity thereto, so as to give a double reflection. These mirrors are each provided with a frame, G, and the usual amalgam on the back, except at the middle, where an eyehole or opening is left. To one end of the lower part of frame C is attached a folding arm, H, which receives at its end a shadowing-post, I.

The operation is as follows: The mirror is

set so as quite or approximately to face the object previously agreed upon, and upon which the signal-flashes are to be thrown. The folding arm H and the mirror are then moved until the post comes between the eye and the object. The post is brought with its edge to the line extending from the eye to the distant point, while the small shadow, corresponding to the unsilvered part of the mirror, is brought to the edge of post by a slight lateral change in its position. One-half of the shadow is then allowed to rest on post, and is recognized by the eye with great distinctness and certainty. By then moving the mirror with the finger the shadow is caused to change its position until it covers the distant object. The signal-flashes will then necessarily be projected upon the desired point and within range or visual direction of the person signaled.

The eyehole may be of any magnitude, dimensions, or shape, although I prefer one that is round, and it may be on any part of the mirror, although I prefer it to be in the middle. When the sun is in that part of the heavens opposite to the object upon which the flashes are to be thrown, I use a second mirror, D', in order to obtain a double reflection, which enables me to produce the same effect.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination of an adjustable perforated mirror and an adjustable shadowing-post, arranged and applied as and for the purpose described.

MARTIN M. KENNEY.

Witnesses:

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