J. CORBETT & F. J. MILLER.

Dial-Screen for Permutation-Locks.

No. 212,359. Patented Feb. 18, 1879.

Fig. 1.

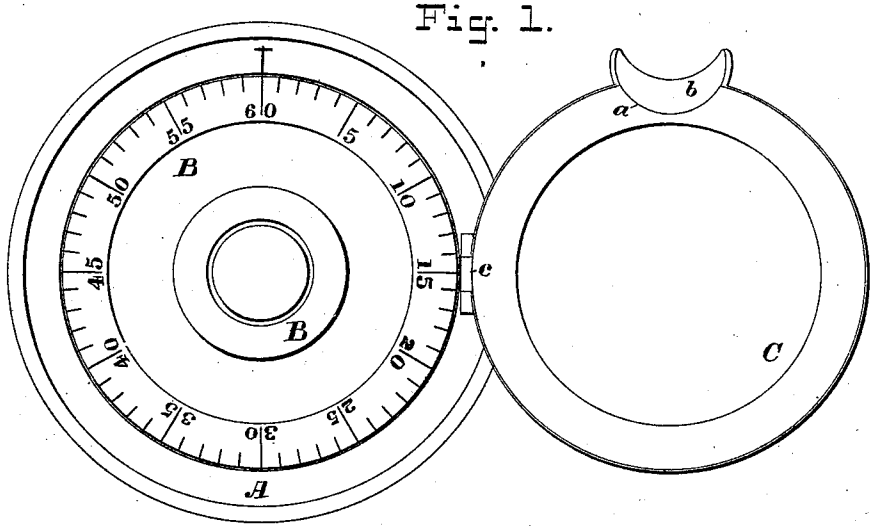


Fig. 2.

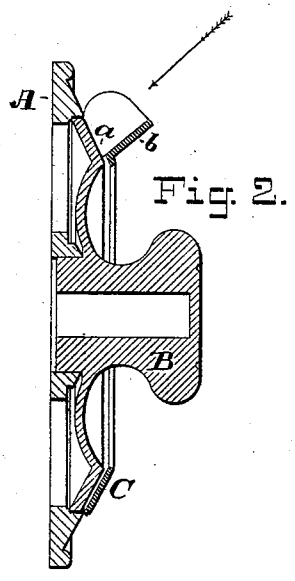
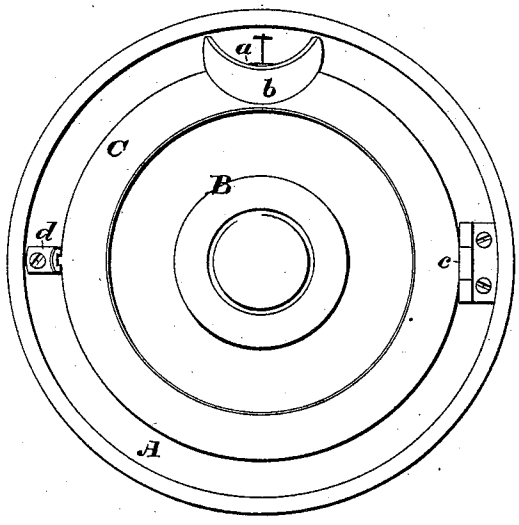


Fig. 3.



ATTEST:

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JOSEPH CORBETT, OF NEW YORK, AND FRED. J. MILLER, OF BROOKLYN, N. Y., ASSIGNORS TO SAID MILLER.

IMPROVEMENT IN DIAL-SCREENS FOR PERMUTATION-LOCKS.

Specification forming part of Letters Patent No. **212,359**, dated February 18, 1879; application filed November 11, 1878.

To all whom it may concern:

Be it known that we, JOSEPH CORBETT, of the city, county, and State of New York, and FRED. J. MILLER, of Brooklyn, in the county of Kings and State of New York, have jointly invented a certain Improved Attachment for Combination-Locks, of which the following is a specification:

Our invention has reference to what are known as "combination-locks;" and its object is to prevent the combination of numbers or letters to which the lock is set being seen or read by strangers during the operation of locking or unlocking.

Our invention consists in an annular screen, provided with a flanged aperture, and arranged over the graduated, numbered, or lettered portion of the dial-plate, which is rotated by the knob, so as to conceal the same from all persons except the one who is operating the lock.

In the drawings, Figure 1 is a front view of the external mechanism of a combination-lock provided with our screen, the latter being turned back. Fig. 2 is a vertical mid-section of the same, with the screen in its operative position; and Fig. 3 is a front view of Fig. 2, with the screen in position over the dial.

A represents the rose-plate, and B the ordinary dial-plate and operating-knob of a combination-lock. These may be of any desired construction, and the rim of the dial-plate may be graduated and numbered or lettered in any common manner.

C is an annular screen, which is arranged to cover or conceal the graduated rim of the dial-plate. We prefer to make this screen of metal, and of such size and shape as to nearly conform to the surface it is designed to cover, as shown.

At one part of the dial-plate, usually the top, the screen is partially cut away to leave an opening, *a*, through which the operator may read the marks or graduations in operating the lock. To prevent this exposed portion of the dial-plate from being seen at such time by any except the operator himself, we provide a projecting wall or flange, *b*, around the opening *a*, standing out from the surface of the screen somewhat in the manner of a tube. When provided with this aperture and flange the screen conceals the graduated rim of the dial-plate from every point of observation, except when viewed in the direction of the arrow in Fig. 2, and as this position is occupied by the person who is operating the lock no other person can, by watching the movement of the dial-plate, learn the combination to which the lock is set. The wall or tube *b* may be made of translucent material, if preferred, to admit light to the dial-plate laterally.

To facilitate the ready examination of the dial-plate, the screen may be attached to the rose-plate in such a manner as to be easily removed. We have shown it as connected to the rose-plate by a hinge, *c*, so that it may be turned back and expose the dial-plate, as in Fig. 1. It may also be held in place when closed by a catch, *d*. (Shown in Fig. 3.)

We claim as our invention—

The screen C, covering the graduated portion of the dial-plate, so as to conceal it from view, and provided with an aperture, *a*, and a wall or flange, *b*, surrounding the aperture, substantially as and for the purposes set forth.

In witness whereof we have hereunto signed our names in the presence of two subscribing witnesses.

JOSEPH CORBETT.
FRED. J. MILLER.

Witnesses:
JNO. S. STILES,
K. M. MILLER.