

(Model.)

B. F. KELLY.
Permutation Lock.

No. 236,596.

Patented Jan. 11, 1881.

Fig. 1.

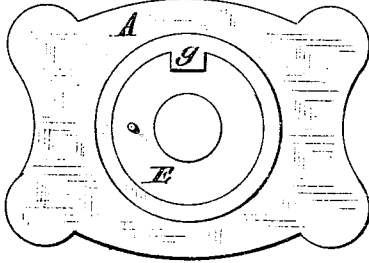


Fig. 2.

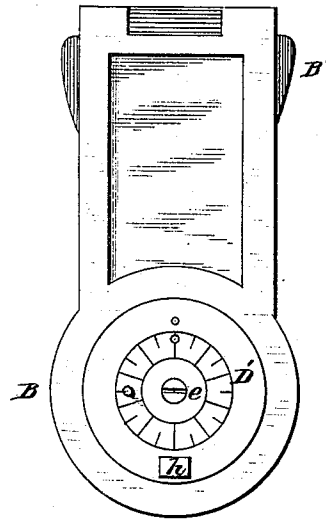


Fig. 3.

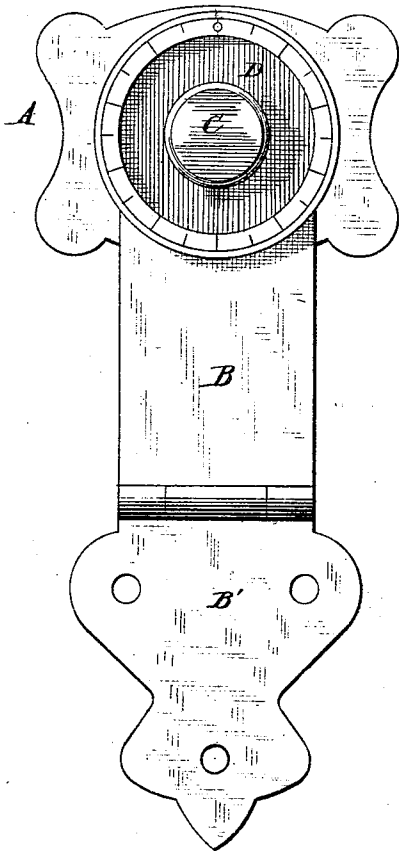
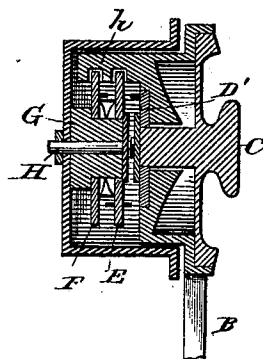


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

BENJAMIN F. KELLY, OF SHELOCTA, PENNSYLVANIA, ASSIGNOR TO
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PERMUTATION-LOCK.

SPECIFICATION forming part of Letters Patent No. 236,596, dated January 11, 1881.

Application filed September 18, 1880. (Model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. KELLY, of Shelocta, in the county of Indiana and State of Pennsylvania, and a citizen of the United States, have invented a new and useful Improvement in Combination-Locks, of which the following is a specification.

My invention relates to improvements in locks known as "combination-locks," which improvements are especially adapted to locks for trunks, though applicable to other locks; and it consists in the construction and arrangement of mechanism hereinafter fully set forth; and the object of my improvement is to secure in a simple form a lock adapted to convenient and extensive use, and difficult, if not impossible, to pick. These objects are attained by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a plan of that part of the lock which is attached to the cover of the trunk. Fig. 2 is a plan of the part of the lock which is attached to the body of the trunk, the lock being open. Fig. 3 is a plan of the lock when the trunk is closed and locked. Fig. 4 is a transverse section of the complete lock.

A represents the case attached to the lid of the trunk, in which the tumblers E and F are inclosed.

B is the case attached by the hinge B' to the body of the trunk, and incloses and holds in position the dial D, driving-tumbler D', and the knob C, which operates the tumblers D', E, and F, when the parts of the case B are brought in contact with the parts in the case A by closing the cover of the trunk and closing the case B against the case A. The lower side of B is provided with a slotted lug, h, which enters the case A and passes into the recess g in each of the tumblers E and F when they are in proper position for closing or fastening the lock.

By turning the dial D either to the right

hand or the left the driving-tumbler D' is turned and carries with it the tumblers E and F by pins seen in the tumblers. The pin in tumbler D', coming in contact with a similar pin in tumbler E, moves it as desired, and tumbler F is also moved in a similar manner by a pin in tumbler E.

The tumblers are operated in locking and unlocking in the manner usual with tumbler-locks.

The tumblers E and F revolve upon a hollow stud, G, which is part of the case A, and are prevented from slipping loosely on the stud by the pin H and a spring-washer between the tumblers E and F, or by a spring attached to the case A under the tumblers bearing against the tumblers and resisting their motion by friction, or by any similar device for that purpose.

The combination may be changed by loosening screw e and changing the position of the tumbler D' either way, right or left, the tumbler D' being graduated the same as the dial D in front.

The tumblers E and F being in the case A, and the operating device being included in the part B, it becomes impossible to pick the lock by pulling on the knob C to find the notches in the tumblers E and F, for the reason that the tumbler D' operates so far from tumbler E as to permit the revolution of D' without moving the tumblers E and F.

I claim as my invention and desire to secure by Letters Patent—

The combination of the hasp B, carrying outer dial, D, knob C, inner graduated driving-tumbler D', and slotted lug h, with the case A, stud G, and notched tumblers E, F, substantially as and for the purpose set forth.

BENJAMIN F. KELLY.

Witnesses:

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