R. BEACHMAN.

Attachments to Combination-Locks.

No. 200,599. Patented Feb. 26, 1878.

Fig. 1.

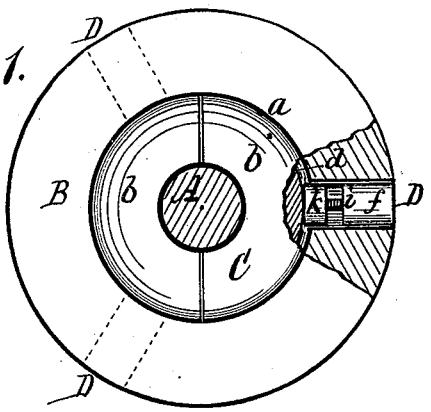


Fig. 2.

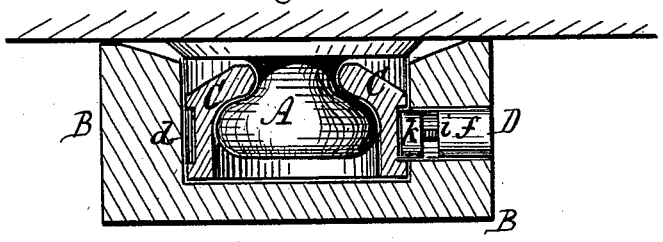


Fig. 3.

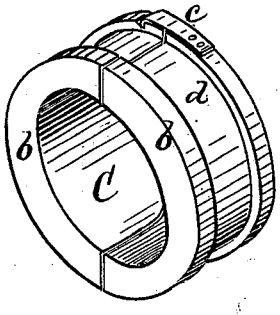
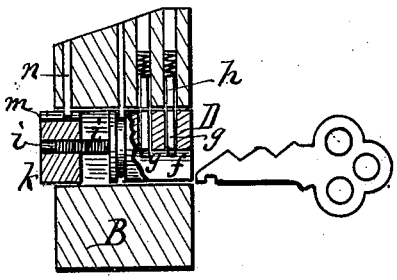


Fig. 4.



Attest.

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IMPROVEMENT IN ATTACHMENTS TO COMBINATION-LOCKS.

Specification forming part of Letters Patent No. **200,599**, dated February 26, 1878; application filed June 20, 1877.

To all whom it may concern:

Be it known that I, ROBERT BEACHMAN, of Lyons, in the county of Wayne and State of New York, have invented a certain new and useful Improvement consisting of an Attachment to Combination-Locks for Bank and other Uses; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, in which—

Figure 1 is an elevation, looking from the inside, and showing the device attached to the knob of the combination-lock. Fig. 2 is a cross-section in line *x x* of Fig. 1. Fig. 3 is a perspective view of the divided center-piece of the attachment, which fits around the knob. Fig. 4 is a view of one of the supplementary flat-keyed locks which secure the center-piece within the outer rim or body.

My improvement relates to combination-locks for safes and vaults; and the invention consists of an attachment which is applied around the knob of the lock, on the outside of the safe or vault, for the purpose of preventing said knob from being turned till the time when the several persons holding the keys to the supplementary locks have come together and unlocked their respective locks, when the attachment can be removed, leaving the knob free to be operated in the ordinary way.

A represents the knob of any ordinary combination-lock, which knob projects from the outside of the safe or vault door in the ordinary way. B is the external ring or shell, and C the center-piece, which fits within said ring or shell, both of which are applied around the knob, embracing the same, as shown in Fig. 2. The part B is simply a ring of cast-iron, of suitable size and strength, having on one side a cylindrical hole, *a*, extending but part way through, in which rests the center-piece C. The part C is made in two halves, *b b*, for the purpose of opening to be fitted around the knob, and has a central opening of such size and shape as to fit around the knob loosely, but embrace the same, so that the attachment cannot be drawn off bodily when fixed in place.

c c are devices for connecting the two halves of the center-piece, consisting of springs, clamps, or other fixtures, which are used to facilitate the handling of the center-piece, and might be dispensed with. *d* is a circumferential groove formed in the periphery of the center-piece, for the connection of the bolts of the supplementary locks, as will presently be described.

D D are the supplementary locks, of which two or more may be used. They are in the nature of flat-keyed locks, well known, but of peculiar construction to adapt them to this use. They are set radially into holes formed in the outer shell B, at intervals apart, so that their bolts shall center and strike into the groove *d* of the center-piece C when operated.

Each lock consists of a slotted cylinder, *f*, into which the flat key enters at the end, and engages with pins *g g g*, which enter the bits of the key, said pins resting under spring-pins *h h h* in the shell B. When the key is inserted the pins spring back, and the cylinder can then be turned.

i is a screw-stem, made fast to the inner end of the cylinder *f*. *k* is the bolt of the supplementary lock, which screws forward and back upon the screw-stem *i*. The bolt is kept from turning axially by having a longitudinal groove, *m*, into which projects a pin, *n*, from the shell B.

It will be seen that when the cylinder *f* is turned by the flat key the bolt *k* will be turned by the screw *i*, and projected into the groove *d* of the center-piece C, thereby preventing the center-piece from being withdrawn from the outer shell B, and, as said center-piece embraces the knob, the whole remains an attachment to the knob till the supplementary bolts are unlocked; but as the center-piece rests loosely upon the knob, the attachment can be turned without giving motion to the knob. The back side of the shell B being closed, the knob is insulated, and cannot be reached to be operated.

By the means above described the safe or vault cannot be opened till all the persons holding the keys of the supplementary locks have unlocked their locks, which is a safeguard both against burglars and dishonest clerks and officials, for there is no possible way of operating the lock till the attachment has been removed from the knob. The attachment is made sufficiently strong to resist

ordinary attacks, and, if wrenched or broken from place, it must carry the knob with it, thereby rendering abortive the opening of the lock after the attachment is destroyed. The attachment may be made of any metal adapted to the purpose.

Having thus described my invention, I claim—

1. An attachment for the knobs of combination-locks, consisting of the shell B and center-piece C, fitting one within the other, and having a loose turning movement upon the knob, said parts being secured together by locks, as shown and described, and for the purpose specified.

2. The center-piece C, constructed in halves or sections for fitting around the knob, and provided with the circumferential groove *d*, in combination with the outer shell or casing B, provided with a socket to receive it, and with supplementary locks D set into the outer shell and in line with the said groove *d*, as shown and described, and for the purpose specified.

3. The combination, with the center-piece C, provided with the circumferential groove *d*, of the lock D, having a bolt, *k*, movable endwise into and out of said groove, as shown and described, and for the purpose specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

ROBERT BEACHMAN.

Witnesses:
R. F. OSGOOD,
J. H. GRAVES.