

J. R. FLETCHER.

LOCK.

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1,008,533.

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Fig. 2.

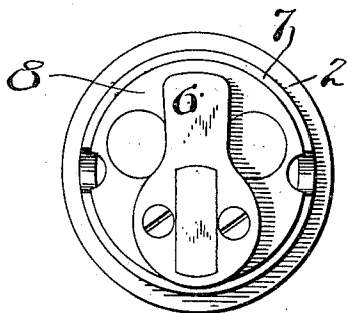


Fig. 1.

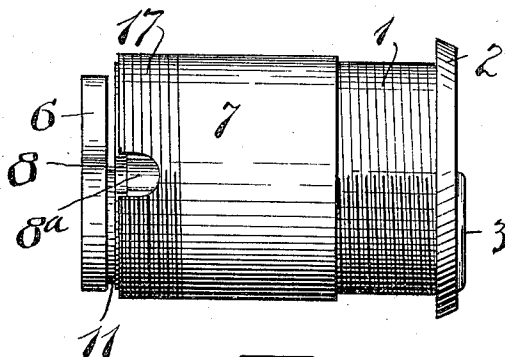


Fig. 5.

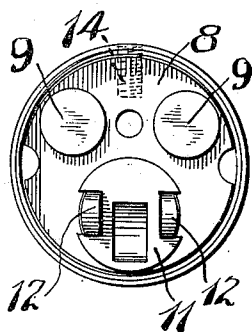


Fig. 4.

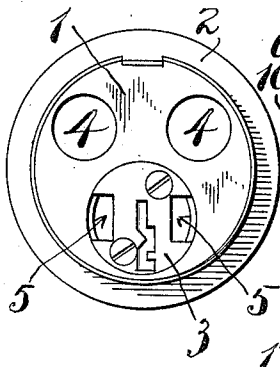


Fig. 3.

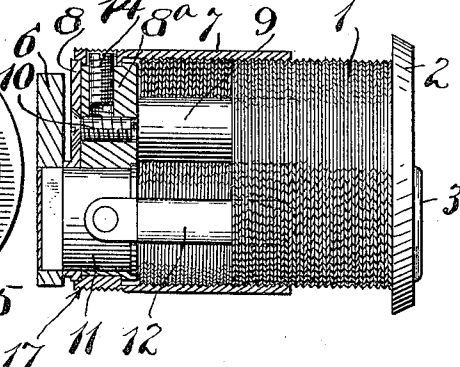


Fig. 6.

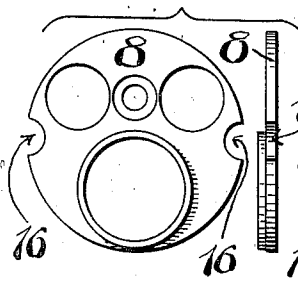


Fig. 7.

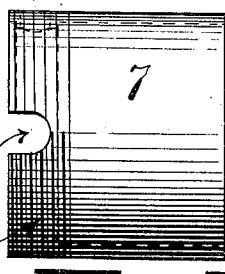


Fig. 8.

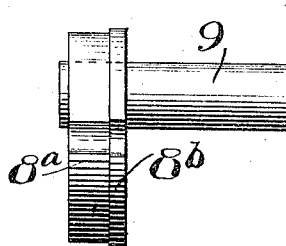
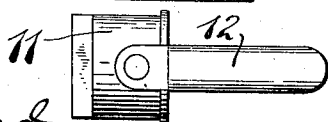


Fig. 9.



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LOCK.

1,008,533.

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To all whom it may concern:

Be it known that I, JAMES R. FLETCHER, a citizen of the United States, residing at New Britain, Hartford county, State of Connecticut, have invented certain new and useful Improvements in Locks, of which the following is a full, clear, and exact description.

My invention relates to improvements in cylinder locks, and the object is to provide means for permitting longitudinal adjustment thereof, whereby said lock may be applied to doors of different thicknesses.

In the accompanying drawings, Figure 1 is a side elevation of the lock complete and assembled, said lock being shown on a relatively enlarged scale. Fig. 2 is a view of the inner end of the lock shown in Fig. 1. Fig. 3 is a side elevation, partly in longitudinal section. Fig. 4 is a view of the inner end of one section of the lock, the other section being detached. Fig. 5 is a view of the inner end of the other section. Figs. 6 to 9 inclusive are detail views.

The lock comprises in the main two sections which are adjustable to and fro relatively to each other for the purpose of increasing or decreasing the over-all length of the lock whereby the same may be adjusted to doors of different thicknesses.

1 represents the main body of the outer section of a cylinder lock. 2 is the face plate therefor.

3 is a plug which is adapted to receive a key. The plug 3 is rotatably mounted (preferably eccentrically) in the main body 1. The means to lock the plug 3 against rotation preferably comprises the usual pin tumblers (not shown) of the well-known "Yale" lock construction, although, obviously the particular form of locking means for the plug 3 is not essential to those features of construction which constitute the present invention.

4-4 are longitudinal bores in the inner end of the body 1, said bores being provided to receive the guide rods or pins hereinafter referred to.

5-5 are longitudinal recesses in the inner end of the plug 3, the same being provided to receive coupling devices whereby the cam, or roll-back element, 6, hereinafter more fully described, may be adjustably connected to said plug, and so that when the

plug 3 is turned, said cam, or roll-back, 6 will be similarly turned.

7 represents a rotatable coupling sleeve which is adjustably mounted upon the body 1, said parts being correspondingly threaded, as shown, whereby, by turning said sleeve on the body 1, it will move to and fro thereon. There is a head fitted into the extreme rear end of the sleeve 7, said head being so connected with the sleeve that the latter can be turned independently of said head. The head carries the guide pins 9-9, which are adapted to enter the bores 4-4. The head is preferably made up of two pieces, as shown in Figs. 6 and 8. The outermost of these two pieces is indicated at 8 and is in the form of a plate, while the innermost of these two pieces is indicated by the numeral 8^a. The part 8^a has a flange 8^b. The diameter of the plate 8 is such that when associated with the part 8^a, the two parts collectively provide an annular channel. The rear end of the sleeve 7 is so shaped as to extend into the annular channel in the head so that relative longitudinal displacement of the sleeve and the head will be prevented when the parts are assembled.

10 is a screw which furnishes one simple means of connecting together the two parts 8 and 8^a of the head.

11 is a hub rotatably mounted in the head in such a position that it will line up with the plug 3. This hub 11 carries the aforesaid cam, or roll-back, 6, and it likewise carries forwardly projecting arms or rods 12-12, which are adapted to enter the recesses 5-5 of the plug.

14 is a screw carried by the head. In this particular instance, the said screw is threaded into a transverse bore in the section 8^a of said head. At the rear end of the sleeve 7 there is an opening or passage of sufficient size to permit a screw 14 to be inserted or withdrawn. This screw 14 operates as a locking device when the same is retracted so that its head stands in the aforesaid passage in the shell 7, said locking position being shown in Fig. 3. When, however, the screw 14 is turned in, it is obvious that the shell 7 can be rotated independently of the head. If, when the parts are as shown in said figure, the shell 7 is rotated, it is obvious that the head, together with the roll-back 6, will be moved to and fro according

to the direction of rotation of the sleeve, the guide-pins 9—9 moving in and out of the bores 4, the connecting rods 12—12 partaking of a similar movement, said connecting rods serving at all times to couple the plug 3 and the hub 11. If desired, the extreme inner edges of the shell 7 may be cut away at opposite edges, as indicated at 15—15, while the edges of the head may be notched, as indicated at 16—16. The outer wall of the extreme inner end of the shell 7 is provided with the usual threads 17, whereby the same may be screwed into the ordinary lock-case (not shown) with which the cylinder is to be associated. As is well-known, such lock-cases ordinarily provide set-screws to hold the cylinder lock against turning, when once in place. The recesses 15—16 are provided to receive the ends of such set-screws. Since such lock-cases and set-screws are well-known, no illustration or further description is required, particularly as no claim of novelty is based thereon.

What I claim is:

1. In an adjustable lock of the character described, a main body portion of cylindrical outline, a plug carried thereby, a thread on the cylindrical wall of said body, an internally threaded sleeve mounted upon and co-acting with the thread on said body portion whereby the rotation of the sleeve thereon will move said parts relatively to and fro, a head carried by said sleeve and movable to and fro, but not rotatably, therewith, a hub carried by said head, an adjustable guide connection between said head and body portion, another adjustable connection between said hub and said plug, and means for locking all of said parts, excepting the plug and hub, against rotation.

2. In an adjustable lock of the character described, a main body portion of cylindrical outline, a thread on the cylindrical wall thereof, an internally threaded sleeve mounted upon and co-acting with the thread on said body portion whereby the rotation of the sleeve thereon will move said parts relatively to and fro, a head carried by said sleeve and movable to and fro, but not rotatably, therewith, a hub carried by said head, an adjustable guide connection between said head and body portion, another

adjustable connection between said hub and said plug, and means for locking all of said parts, excepting the plug and hub, against rotation, said means comprising a screw carried by one part and arranged to take into another part.

3. In an adjustable lock of the character described, a main body portion of cylindrical outline, a plug carried thereby, a thread on the cylindrical wall of said body, an internally threaded sleeve mounted upon and co-acting with the thread on said body portion whereby the rotation of the sleeve thereon will move said parts relatively to and fro, a head carried by said sleeve and movable to and fro, but not rotatably, therewith, a hub carried by said head, an adjustable guide connection between said head and body portion, another adjustable connection between said hub and said plug, and means for locking all of said parts, excepting the plug and hub, against rotation, said means comprising a screw carried by said head and movable in and out relatively thereto, and an opening in said shell of sufficient size to receive the outer end of said screw when retracted.

4. In an adjustable lock of the character described, a main body portion of cylindrical form, a plug carried thereby, a thread on the cylindrical wall of said body, an internally threaded sleeve mounted thereon and co-acting therewith, a head mounted within the sleeve, said sleeve being rotatable independently of the head, adjustable guide connection between the head and the aforesaid body portion, a rotatable hub carried by the head, an adjustable connection between the hub and the plug, a locking device between said head and said sleeve comprising a screw mounted in the edge of said head, an opening in the sleeve of sufficient size to receive the outer end of said screw when retracted, means of connection between said sleeve and said head whereby said head will move longitudinally with said sleeve.

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