No. 898,078. PATENTED SEPT. 8, 1908.

H. G. VOIGHT.

CYLINDER LOCK.

APPLICATION FILED FEB. 15, 1908.

2 SHEETS—SHEET 1.

Fig. 1.

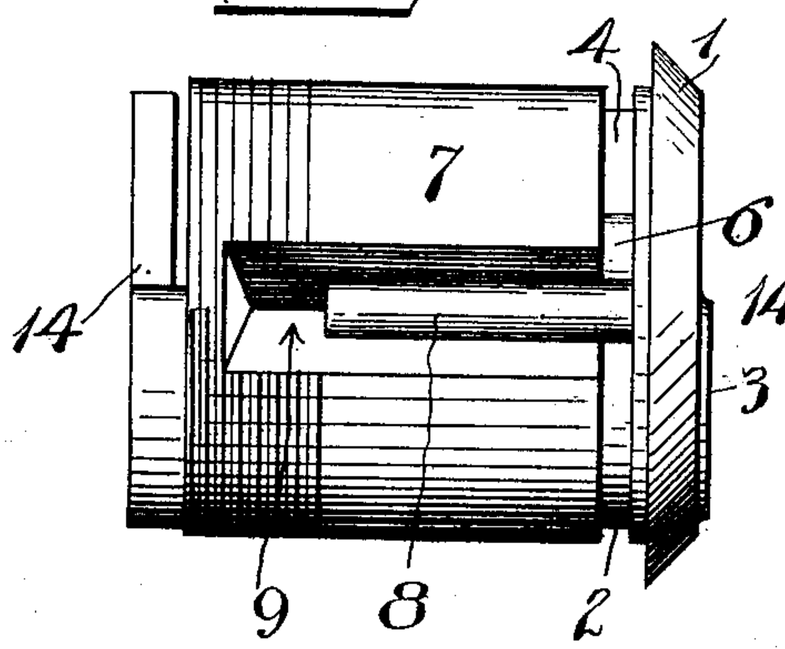


Fig. 2.

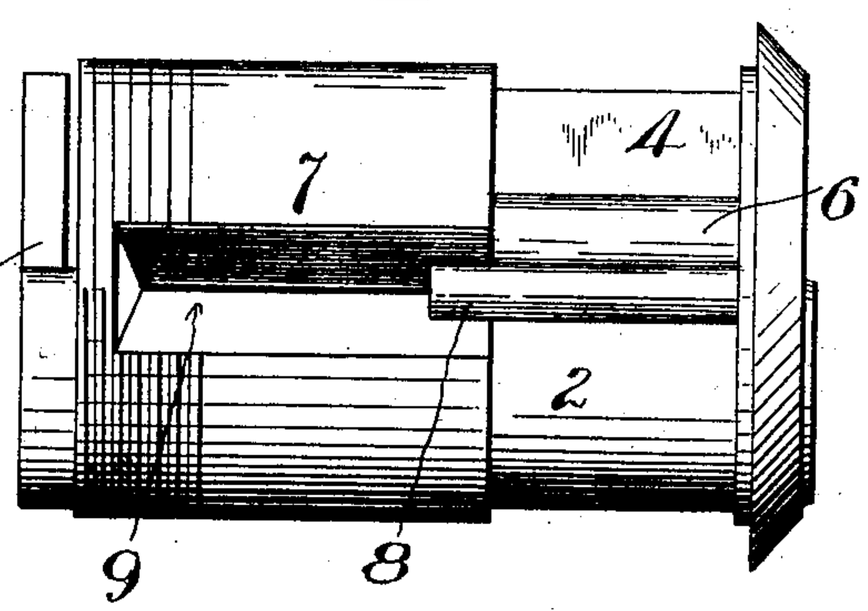


Fig. 3.

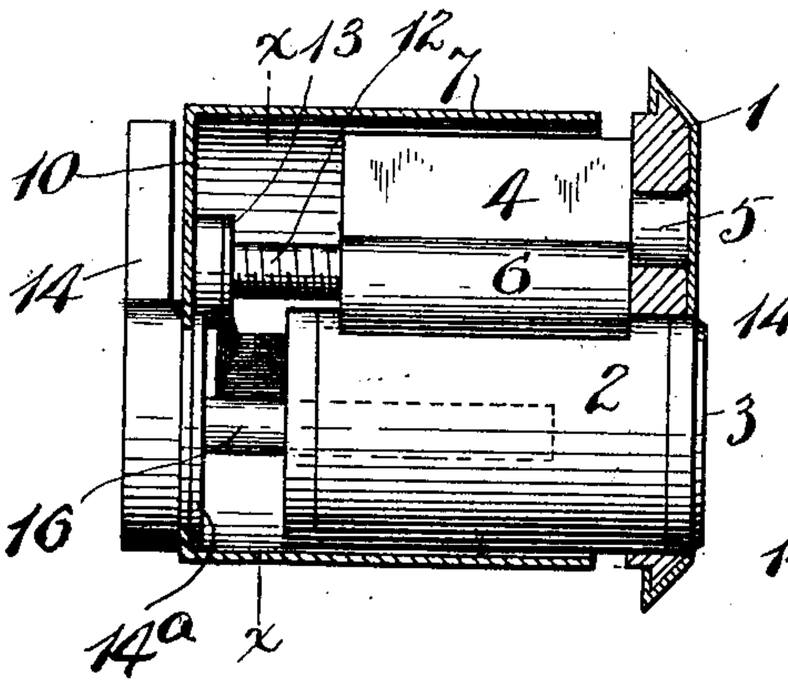
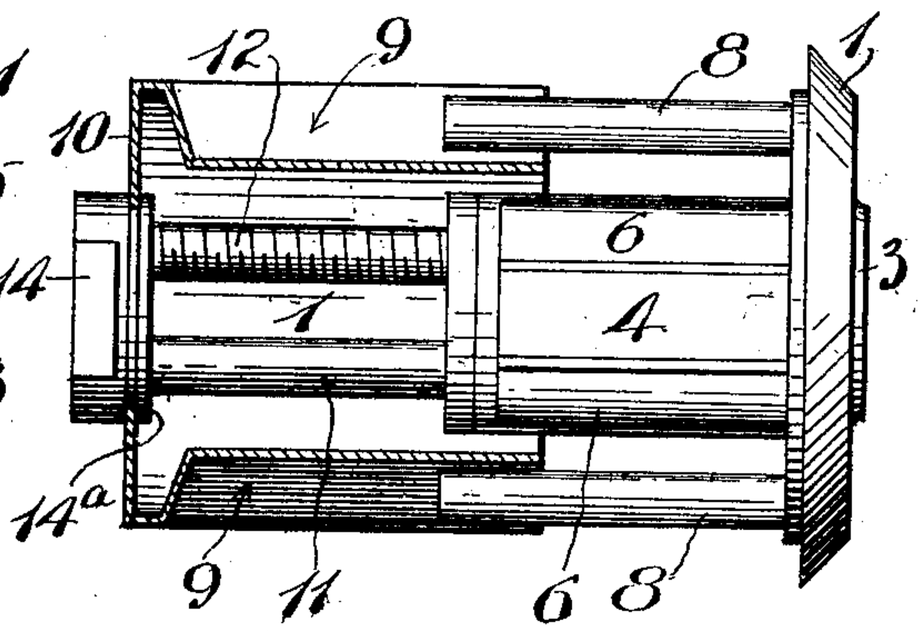


Fig. 4.



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2 SHEETS—SHEET 2.

Fig. 5.

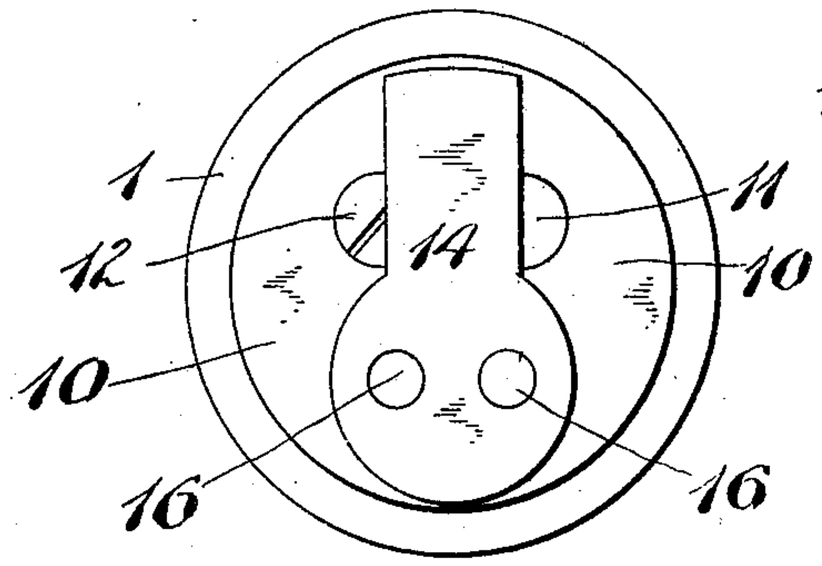


Fig. 6.

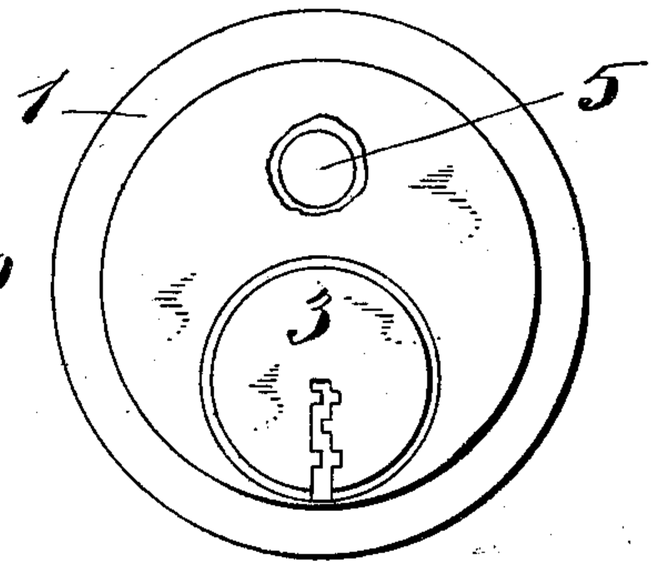


Fig. 7.

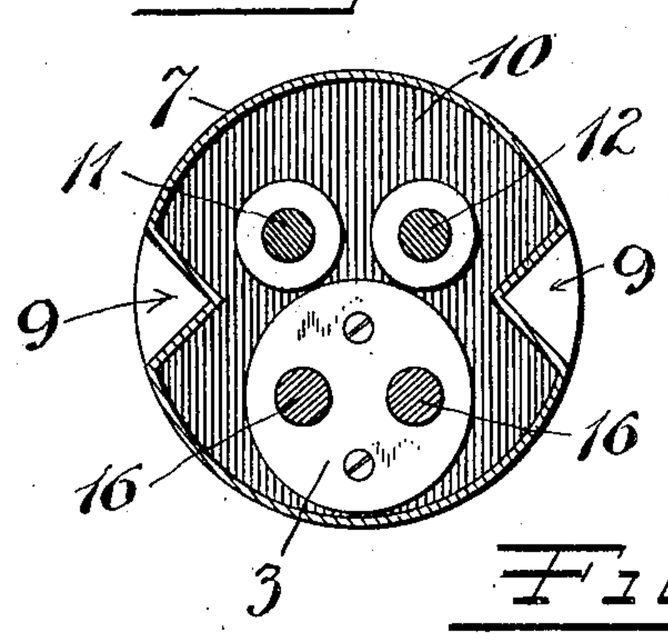


Fig. 8.

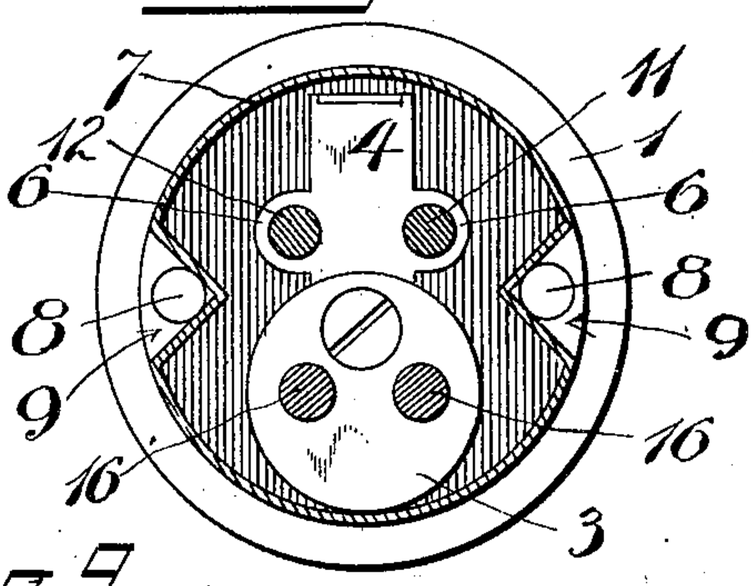
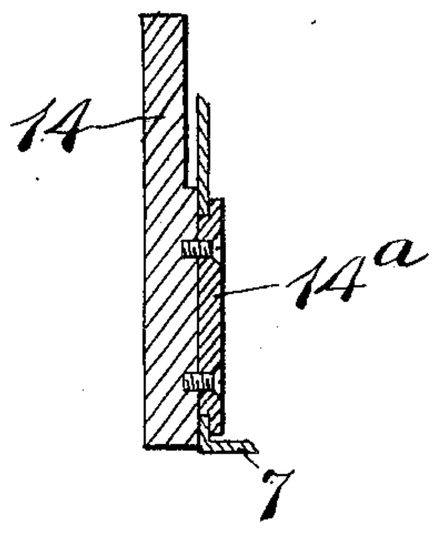


Fig. 9.



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UNITED STATES PATENT OFFICE.

HENRY G. VOIGHT, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO RUSSELL & ERWIN MANUFACTURING COMPANY, OF NEW BRITAIN, CONNECTICUT, A CORPORATION OF CONNECTICUT.

CYLINDER-LOCK.

No. 898,078. Specification of Letters Patent. Patented Sept. 8, 1908.

Application filed February 15, 1908. Serial No. 416,038.

To all whom it may concern:

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

This invention relates to certain improvements in locks of the so-called cylinder type, the object of the invention being to simplify and cheapen the cost of production without sacrificing quality, efficiency and durability.

Another object of the invention comprises the provision of an adjustable feature whereby the cylinder may be connected to locks fitted to doors of different thicknesses.

In the drawings—Figure 1 is a side elevation of the complete cylinder, the parts being arranged for approximately the minimum adjustment. Fig. 2 is a similar view arranged for approximately the maximum adjustment. Fig. 3 is a vertical longitudinal section of Fig. 1, certain parts being shown in elevation. Fig. 4 is a horizontal sectional view of Fig. 2, certain parts being shown in elevation. Fig. 5 is a view of the inner end of the lock. Fig. 6 is a view of the outer end of the lock, partly broken away. Fig. 7 is a section on the plane of the line X—X of Fig. 3, looking to the left. Fig. 8 is a section on the plane of the same line, looking to the right. Fig. 9 is a vertical section of a detail of construction, showing the method of connecting the same.

1 represents the face plate, of the usual disk-like outline, which may be constructed in any desired manner. If desired, this plate may have an external scalp lining applied thereto, as indicated in section, Fig. 3.

2 is the cylinder casing, the forward end of which is mounted in the face plate 1 in the usual manner. Within the cylinder casing is the key-plug 3.

4 is the tumbler casing which is connected with the cylinder casing 2 and carries the usual tumblers (not shown). The forward end of the cylinder casing 2 preferably takes a circular seat in the face plate 1, while the tumbler casing is preferably provided with a forward projection 5, which also takes a seat in face plate 1 and may be riveted, as shown, thus locking the parts 1, 2 and 4 against independent rotation and separation and forming a frame. The tumbler casing has lateral offsets 6—6, which extend longitudinally of the casing to provide bearings for a guide pin and adjusting screw hereinafter described.

7 is a hollow shell of cylindrical form.

8—8 are guide pins carried by the end plates 1 and projecting rearwardly and making an operative guiding connection in grooves 9—9 in the external wall of the shell 7, said grooves being deep enough to permit said rods 8 to lie therein without projecting above the cylindrical surface of the shell. The rear end of the hollow cylinder 7 is closed by an end plate 10.

From the foregoing it will be seen that the hollow shell 7 may be moved to and fro on the guide pins 8 and relatively to the frame or face plate 1, said guide pins maintaining the correct alinement of said parts and preventing independent rotation.

14 is a roll-back mounted to rotate on the end plate 10, being secured thereby by a flanged disk 14^a, Fig. 9. The axis of this roll-back 14 is in line with the axis of the plug 3.

16—16 are dowel pins carried by the hub of the roll-back 14, the same making a longitudinally adjustable connection with the key-plug 3, the inner end of said plug being suitably bored to receive said dowel pins. Other adjusting devices are provided, as indicated by the screw 12, which is suitably carried by the end plate 10 and takes into a tapped opening in one of the offsets 6. Parallel with this screw 12 may be a dowel pin 11, which projects into an opening in the other offset 6. The heads of the screw 12 and dowel pin 11 are preferably flush with the rear surface of the end plate 10, and may be secured against longitudinal movement by collars 13. The collar on the screw 12 should be sufficiently free to permit said screw to be rotated.

From the foregoing it will be apparent that the hollow shell may be moved longitudinally relatively to the face plate 1. The connection between the key plug 3 and the roll-back 14 is always maintained, irrespective of the particular adjustment of the parts.

The lock thus constructed is formed of comparatively light parts, thereby effecting great economies in manufacture. The inner end of the hollow shell is threaded, as indicated in Figs. 1 and 2, so as to make the usual connection with the lock case with which the cylinder lock is to be used. By

this means the cylinder lock may be adjusted to permit of connection with locks applied to doors of varying thickness.

The grooves 9—9 serve not only to receive the guide pins 8, but also to receive the set screw (not shown) commonly employed with locks to which devices of this kind are to be applied, to prevent the dislocation of said parts after they have been properly assembled.

It should be understood that the terms "roll-back" and "key-plug" are conventionally employed and are intended to include the substitution of equivalent devices. It should also be understood that the particular tumbler construction employed is immaterial to this invention.

What I claim is:

1. In a cylinder lock, the combination of a frame, a key-plug carried thereby, longitudinally arranged guides carried by said frame, a hollow shell mounted within said guides and arranged to slide thereon, a roll-back carried by said hollow shell and connected with said plug, and means for effecting a longitudinal adjustment of said shell relatively to said frame without disconnecting the plug and roll-back.

2. In a cylinder lock, the combination of a frame, a key-plug carried thereby, longitudinally arranged guides carried by said frame, a hollow shell mounted within said guides and arranged to slide thereon, a roll-back carried by said hollow shell and connected with said plug, and means for effecting a longitudinal adjustment of said shell relatively to said frame without disconnecting the plug and roll-back, said means being independent of said plug and roll-back.

HENRY G. VOIGHT.

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