H. G. VOIGHT.

ADJUSTABLE CYLINDER LOCK.

APPLICATION FILED DEC. 23, 1910.

997,429. Patented July 11, 1911.

Fig. 2.

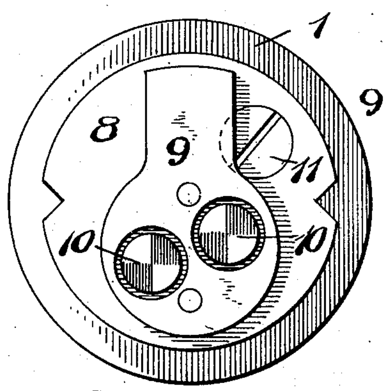


Fig. 1.

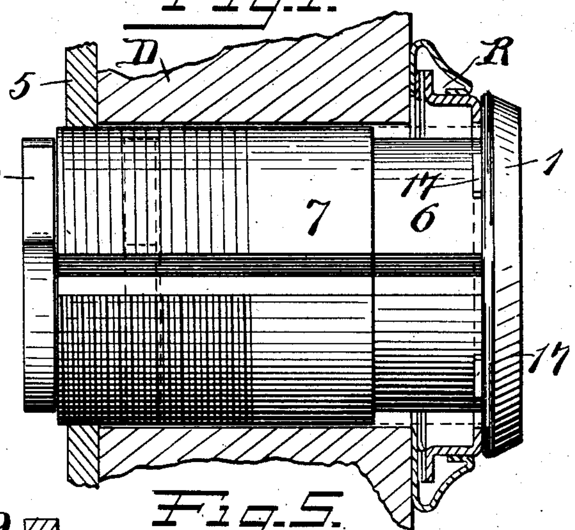


Fig. 3.

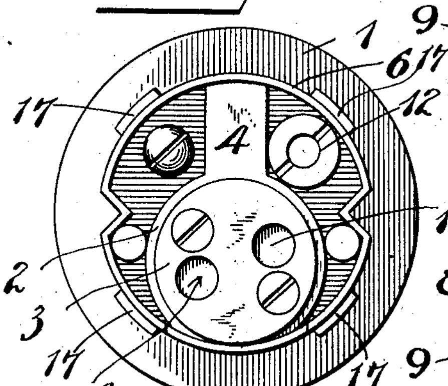


Fig. 5.

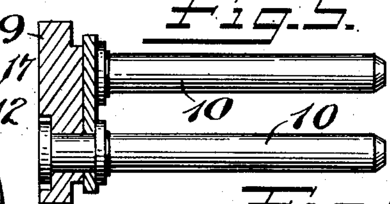


Fig. 6.

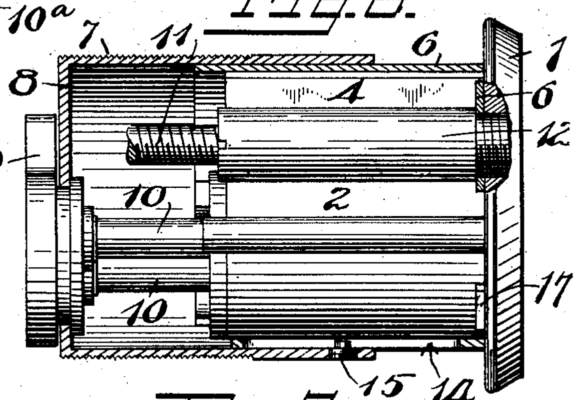


Fig. 4.

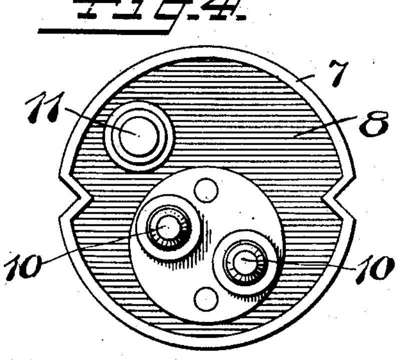
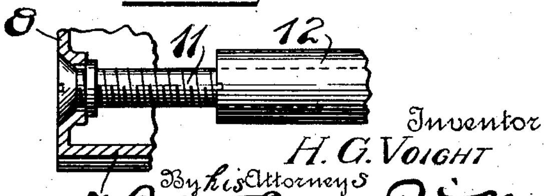


Fig. 7.



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UNITED STATES PATENT OFFICE.

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ADJUSTABLE CYLINDER-LOCK.

997,429. Specification of Letters Patent. Patented July 11, 1911.

Application filed December 23, 1910. Serial No. 598,908.

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 Adjustable Cylinder-Locks, of which the following is a full, clear, and exact description.

My invention relates to adjustable cylinder locks of the type set forth in my former Patent No. 904,580 of November 24, 1908.

In the present invention, I have embodied several features of improvement.

In the drawings, Figure 1 is a side elevation, relatively enlarged, on my lock as it would appear in place on a door, certain parts being shown in section. Fig. 2 is a rear end elevation. Fig. 3 is an inside view of the lock, one end being removed. Fig. 4 is a view of the inner end of a part removed from the part shown in Fig. 3. Fig. 5 is a side elevation, partly in section, of a detail. Fig. 6 is a longitudinal section of the complete lock. Fig. 7 is a detail view.

1 is a face plate; 2 is a cylinder casing; 3 is a key plug; 4 is a tumbler casing; 6 is a hollow cylindrical shell carried by the face plate 1. 7 is a second cylindrical shell telescoping with the shell 6. These shells 6 and 7 are each preferably provided with registering longitudinal grooves which, when the shells are placed together, prevent the independent rotation of one on the other.

8 represents the rear end plate of the shell 7.

9 is a roll-back carried by the end plate 8 and held in place in any desired manner. Projecting forwardly from the roll-back 9 is a coupling which makes slidable engagement with the end of the key plug 3 whereby, and irrespective of the adjustment of the parts, when the latter is turned said roll-back will likewise be turned. In this particular instance, the coupling comprises two dowel pins 10—10, which take into corresponding recesses 10^a—10^a in the end of the plug 3 so that the shell 7, together with the roll-back 9, may be moved to and fro on the shell 6 and relatively to the plug 3, thereby permitting the setback of the roll-back 9 to be varied to any desired degree to compensate for various thicknesses of doors.

As shown in the drawing Fig. 1, 5 represents part of a lock case with which the end of the cylinder lock may be secured in the usual manner. Outside of this wall 5 of the lock case is the material of the door D, while on the outside of the door is a rose plate R. As shown, the rose plate R is of the self adjusting type, one part of the rose plate being arranged to yieldingly press against the rear of the flange of the face plate 1, so as to make a snug fit at all times.

As shown in Figs. 1 and 3, there is arranged at the rear of the face plate a plurality of centering devices 17—17 which are so arranged as to coincide with the circumference of the outer sliding shell, which, as indicated, is of such size as to just pass through the rose plate or escutcheon. Obviously, when the shell is adjusted forwardly, as shown in Fig. 1, the inner sleeve or shell 6 would be of insufficient diameter to steady the outer end of the lock. To that end, I prefer to provide the aforesaid centering devices as shown.

11 represents an adjusting screw. This adjusting screw is carried by the rear end of the plate 8 and is entirely independent of the roll-back 9. The forward end of this screw 11 makes adjustable connection with a tubular stud 12, which latter is rigidly secured to the rear of the face plate 1, for example, by a thread which permits said stud to serve as one of the screws for securing the shell section 6 to the rear of the face plate 1 (see Fig. 6). To adjust the lock to doors of different thicknesses, the operator simply turns the screw 11 in one direction or the other to the desired extent, moving said shells 7 and 6 to and fro on one another until the proper fit is secured. It will be observed that pressure outwardly upon the rear of the face plate 1 by the spring rose plate R will tend to push the shell section 6 outwardly. Since the shell section 7 is anchored rigidly in the lock case 5, it is obvious that this outward strain will be taken wholly by the screw 11. In the present instance I make this screw 11 entirely independent of the roll-back 9 so that this drag upon the screw will not exert any drag or friction on said roll-back.

14 represents a slot in one shell; 15 represents a removable stop pin carried by the other shell projecting into said slot, said pin operating to prevent said shells 6 and 7 from being accidentally entirely separated. As will be seen, the face plate and the two shells constitute a frame inclosing the key

operated means, which may be of any suitable type, but which, in the form shown, may be of the pin cylinder type, this invention relating more especially to, and having particular advantage when employed with lock mechanism of the pin cylinder type.

What I claim is:

1. In a cylinder lock, two slidably connected external parts, a face plate secured to one and a roll-back carried by the other, key operated means between said face plate and roll-back, an adjustable connection between said roll back and key operated means whereby all of said parts may be moved to and fro, and an adjusting device operatively connecting one of said slidable parts with the other, said adjusting device being independent of said roll-back and means at the rear of the face plate to center and steady the same when the device is in use.

2. In a cylinder lock, two slidably connected external parts, a face plate secured to one part, a roll-back carried by the other part, key operated means between the face plate and the roll-back, an adjustable connection between said roll-back and said key operated means whereby all of said parts may be moved to and fro, and an adjusting screw operatively connecting one of said slidable parts with the other, said screw being independent of said roll-back, a threaded sleeve arranged to receive said adjusting screw, the forward end of said sleeve being externally threaded and operating as a fastening screw to connect one of said relatively slidable external parts to said face plate.

3. In a cylinder lock, two slidably connected external parts, a face plate secured to one and a roll-back secured to the other, key operated means within said slidably connected parts and between the face plate and the roll-back, an adjustable connection between said key operated means and said roll-back whereby all of said parts may be moved to and fro, means for moving said parts to and fro and a stop for preventing the accidental disconnection of the slidably connected parts.

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