H. G. VOIGHT.

COMMUNICATING ROOM LOCK.

APPLICATION FILED JUNE 21, 1911.

1,007,826.

Patented Nov. 7, 1911.

2 SHEETS—SHEET 1.

Fig 1.

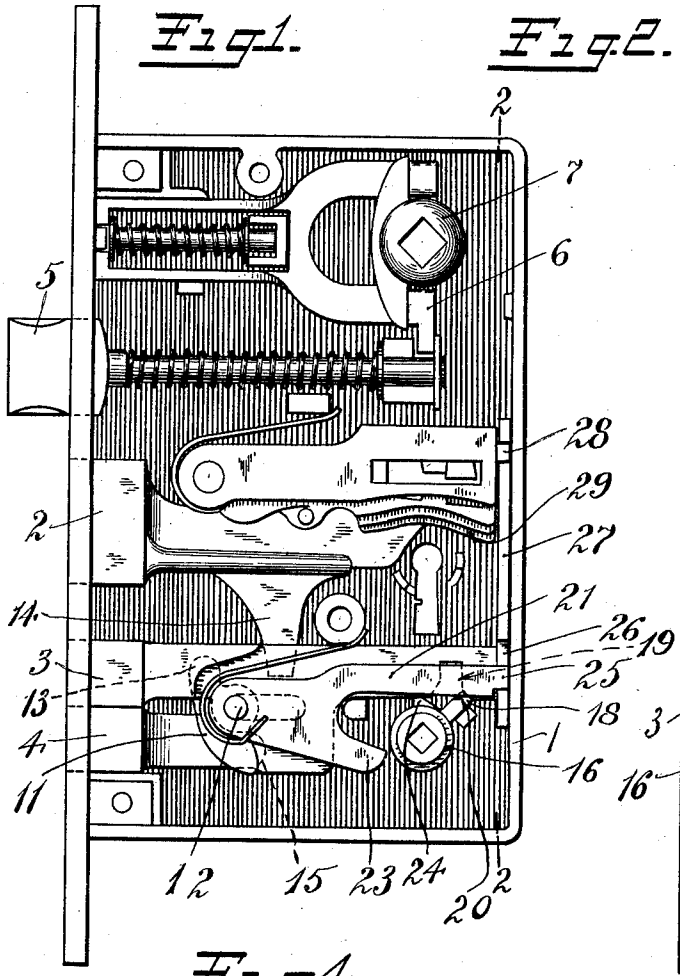


Fig 2.

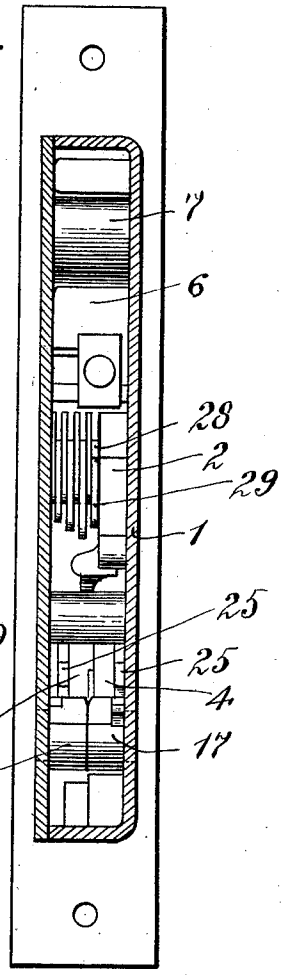


Fig 4

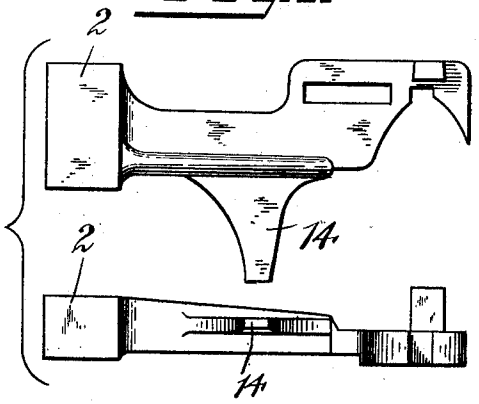
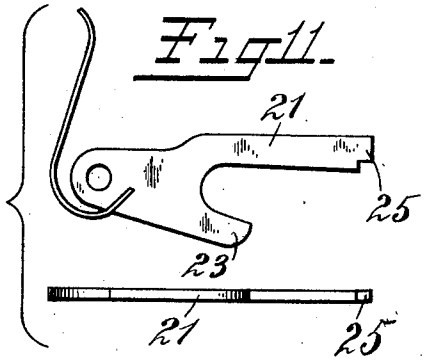


Fig 11.



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2 SHEETS—SHEET 2.

Fig. 3.

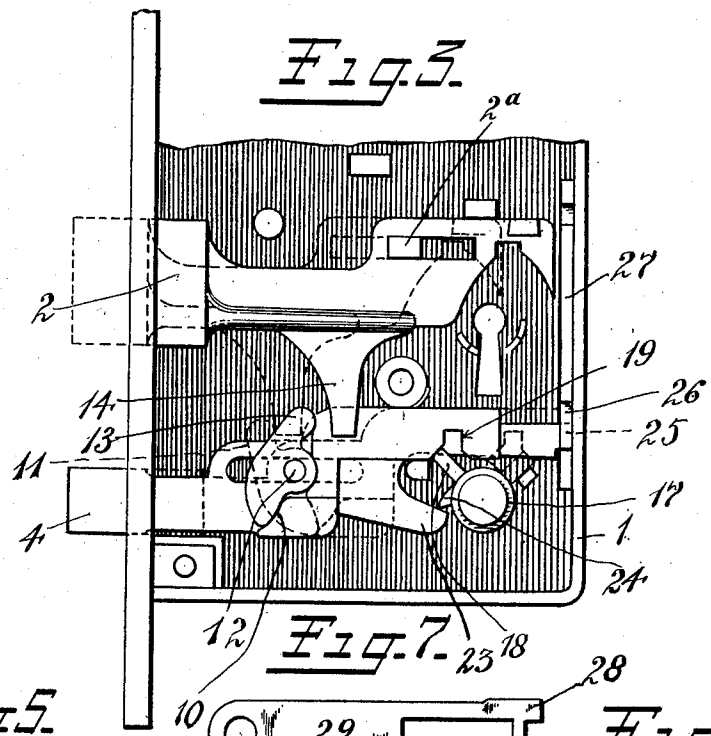


Fig. 7.

Fig. 5.

Fig. 6.

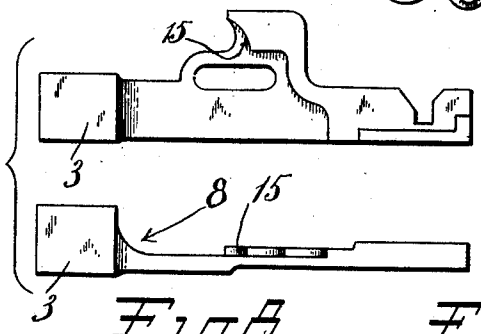


Fig. 8.

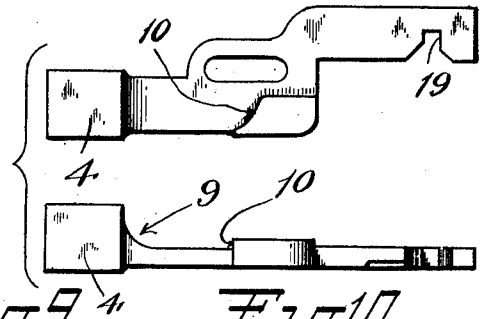
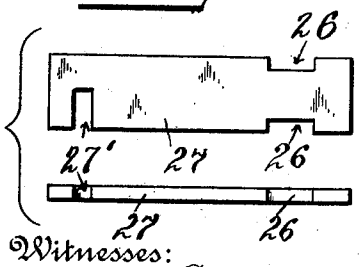
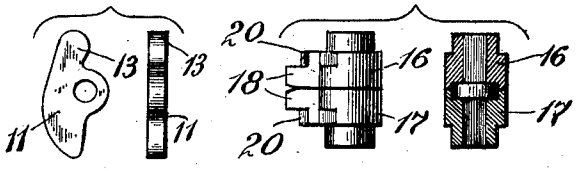


Fig. 9.

Fig. 10.





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UNITED STATES PATENT OFFICE.

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COMMUNICATING-ROOM LOCK.

1,007,826. Specification of Letters Patent. Patented Nov. 7, 1911.

Application filed June 21, 1911. Serial No. 634,516.

To all whom it may concern:

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

My invention relates to locks and is particularly concerned with a lock adapted for use on bathroom doors where adjoining rooms of a hotel have a bathroom between them, and where the bathroom is sometimes rented with one apartment and sometimes with the other.

This invention constitutes an improvement on the construction shown in patent to Caley No. 806,775, December 12th, 1905.

The object of the invention is to provide means whereby the occupant of each apartment can, by throwing a thumb-piece bolt from his particular side, feel absolutely sure that the door of the bathroom communicating with the other room is locked.

A further object of the invention is to provide a key controlled bolt to enable the proper person, for example, the bell boy or maid, to deadlock either or both of the doors of the bathroom against operation by the guest or guests from either side or both. For example, when a bell boy conducts a guest into an apartment adjoining a bathroom which is located between two apartments, and this bathroom has been previously rented to the party occupying the other apartment, and the thumb-piece bolt of the lock is found to be thrown from the bathroom side of the door, in such case by inserting his key in the lock and throwing the main bolt, the bell boy may retract the thumb bolt, and then by retracting the main bolt open the door. Were it not for the fact that the key also controls the supplemental or thumb bolts, the bell boy would be obliged to go around into the other apartment and retract the thumb bolt from that side before he could open the door. By my improved construction this inconvenience is avoided. Furthermore, after the bell boy has opened the door leading into the bathroom, he may insert his key in the other door leading from the bathroom into the other apartment, and by throwing the main bolt and then retracting it, he may retract either one, or both, of the thumb bolts with which the lock is provided, if they have been previously projected and this door may, if desired, be opened, or by leaving the main bolt locked this door is then securely locked against being opened either from the bathroom side or from the other apartment, and can only be opened by again using the master key in the hands of the maid or bell boy, or the hotel management. In short, the control of this lock either to deadlock the door or to open it when deadlocked by either thumb bolt, is absolutely under the control of the pass or master key. For it is to be borne in mind, that when the main bolt is thrown by the key, the door is effectually blocked against being opened by a guest in either apartment, as neither of the thumb bolts can be moved in such case.

With the above objects in view, the invention consists in a construction and arrangement of parts, a preferred embodiment of which is illustrated in the accompanying drawings in which,

Figure 1 is a side view of the lock with the cover plate removed to show the interior mechanism. Fig. 2 is a vertical sectional view on the line 2—2, Fig. 1. Fig. 3 is a fragmentary view similar to Fig. 1, showing one of the thumb bolts in projected position, and indicating the control thereof by the main bolt. Fig. 4 comprises a side elevation and underside view of the main bolt. Fig. 5 comprises similar views of one of the thumb bolts. Fig. 6 comprises similar views of the companion thumb bolts. Fig. 7 is a side elevation of one of the tumblers of the main bolt. Fig. 8 comprises a side and edge view of a tumbler operating bar for releasing the thumb bolt roll-backs from deadlocked position. Fig. 9 comprises side and edge views of the thumb bolt retracting lever. Fig. 10 comprises a side elevation and sectional view of the duplicate thumb turn roll backs, and Fig. 11 comprises a side elevation and edge view of one of the thumb turn deadlocking releasing members.

In the embodiment of my invention herein selected for illustration, 1 indicates the lock case, 2 the main bolt, 3 one of the thumb turn bolts, 4 the companion thumb bolt, 5 the latch bolt operated by a rollback yoke 6, roll back 7 and a knob spindle (not shown)

by which the latch bolt may be operated by knobs from either side of the door in the usual manner.

In Fig. 1 the parts of the lock are shown completely assembled. In Fig. 3 the upper thumb turn bolt 3 has been removed for clear illustration of the mechanism by which the main bolt may, when projected, retract either, or both, of the thumb turn bolts. The thumb turn bolts, as shown in Figs. 5 and 6, respectively, are cut away or reduced in thickness at 8 and 9 respectively, thereby leaving a clearance between them for the main bolt controlling mechanism. The lower thumb bolt 4 is provided with a shoulder 10 adapted to be engaged by one arm and of the operating lever 11 pivoted at 12 upon the lock case, the upper end 13 of which lever lies in the path of the controlling arm 14, extending from the shank of the main bolt.

When the lower thumb turn bolt is projected, the lever 11 stands in the position indicated in full lines, Fig. 3, so that when the main bolt is projected by the master key, its arm 14 engages the arm 13 of said lever, rotates the same, and thus retracts the lower thumb bolt 4. Likewise the upper thumb bolt 3 is provided with a shoulder 15 as shown in Fig. 5 in which figure the portion carrying shoulder 15 is shown extending upwardly for convenient illustration, although in actual use, this portion extends downward as indicated in Fig. 1, to bring the shoulder 15 also in the path of the lower arm of the lever 11, whereby this thumb bolt also is retracted by projection of the main bolt in the manner hereinbefore described.

For operation of the thumb bolts, I provide the double roll-back (Fig. 10) consisting of the independent roll-back members 16 and 17, each of which is provided with a roll-back arm 18, which engages the usual roll-back notch 19 in its thumb bolt, and also with a cam shoulder 20 engaged by a suitable spring pressed member 21 to hold the roll-backs securely in their projecting or retracting positions to cause the roll-back arms 18 to dead-lock the thumb bolts in the usual manner well-known to those familiar with this art. In order to release the thumb bolt roll-backs from deadlocking position to permit retraction of said bolts by the main bolt, I provide each of these spring arms with a finger 23 adapted to engage a shoulder 24 on its thumb turn roll-back, and the rear end 25 of the spring actuated lever lies in a slot 26 in the lower end of a tumbler bar 27 at the rear of the lock case, which tumbler bar has a slot 27′ and is engaged at its upper end by a finger 28 formed on one of the tumblers 29 (Fig. 7) coöperating with the main bolt.

The keyholes in the back plate and cover plate, respectively, of the lock case are located directly opposite each other, and the master key, for operation of the main bolt, is of the usual solid pin type. The ward of this key is so bitted that, when inserted from either side, it will always raise the tumbler 29 to operate the tumbler bar 27, and thus release the thumb turn roll-backs from deadlocking position by means of their respective levers 21, when said thumb bolts are projected.

From an examination of the dotted position (shown in Fig. 3) of the arm 14 of the main bolt when projected, and of the lever 11, it will be evident that when the main bolt is projected, neither of the thumb bolts can be projected by their thumb turns, since the arm 14 blocks rotation of the lever 11, which in turn, by its engagement with the shoulders 10 and 15 of the thumb bolts, blocks their forward movement. When the main bolt is thrown, it is impossible for a guest in either apartment to open the door for the reason that while the main bolt can be retracted by the master key, it cannot be retracted by the operation of either thumb bolt. For, as will be seen from an inspection of Fig. 3, the thumb bolts cannot in this case be projected since they are blocked by the lever 11 in contact with their shoulders 10, and also in contact with the arm 14 of the main bolt, which bolt can only be moved after release of its tumblers from the fence post 2^a and these tumblers cannot be released by the thumb turn roll-back, since the slots 26 in the tumbler bar 27 extend sufficiently far above the rear ends of the levers 25 to permit free play of these levers, should attempt be made to rotate the roll backs, thus the tumblers which operate the tumbler bar 27 cannot be operated thereby by the mechanism shown. Also from an inspection of the same figure, it will be seen that projection of the main bolt always retracts either or both of the thumb bolts when projected.

While I have herein described a particular embodiment of my invention, the same may be altered in detail and relative arrangement of parts without departing from the scope thereof.

What I claim is:

1. In a lock mechanism, the combination with a pair of independent bolts and a pair of corresponding independent hubs with projections for operating said bolts, of a key-controlled bolt and means whereby said key-controlled bolt may be operated to retract said independent bolts.

2. In a lock mechanism, the combination with a pair of independent bolts and a pair of corresponding independent hubs for operating said bolts, of a key-controlled bolt and means operating when said key-controlled bolt is projected to prevent projection of said independent bolts.

3. In a lock mechanism, the combination with a pair of independent bolts and a pair

of corresponding independent hubs for operating said bolts from opposite sides of a door respectively, of a key-controlled bolt and means whereby said key-controlled bolt may retract said pair of bolts and may prevent projection of said pair of bolts.

4. In a lock mechanism, the combination with a pair of independent bolts and a pair of corresponding independent hubs for operating said bolts from opposite sides of a door respectively, of a third locking bolt and means whereby said third bolt may prevent projection of said pair of bolts.

5. In a lock mechanism, the combination with a pair of independent bolts and a pair of corresponding independent hubs for operating said bolts from opposite sides of a door respectively, of a third bolt and means whereby said third bolt may be operated to retract each of said pair of bolts.

6. In a lock mechanism, the combination with a pair of independent bolts and a pair of corresponding independent hubs for operating said bolts from opposite sides of a door respectively, of a third bolt operable from either side of a door, and means whereby the operation of said third bolt may retract each of said pair of bolts.

7. In a lock mechanism, the combination with a pair of independent bolts and a pair of corresponding independent hubs for operating said bolts from opposite sides of a door respectively, of a third locking bolt operable from either side of a door, and means whereby said third bolt may prevent operation of each of said pair of bolts.

8. In a lock mechanism, the combination with a pair of independent bolts and a pair of corresponding independent hubs for operating said bolts from opposite sides of a door respectively, of a third bolt operable from either side of a door to lock said door, and means whereby said locking operation may cause the retraction of each of said pair of bolts.

9. In a lock mechanism, the combination with a pair of independent bolts and a pair of corresponding independent hubs for operating said bolts from opposite sides of a door respectively, of a third bolt operable from either side of a door, a projection carried by said third bolt and a pivoted member located between said pair of bolts whereby when said third bolt is projected, said projection carried thereby may rotate said pivoted member to retract each of said pair of bolts.

10. In a lock mechanism, the combination with a pair of independent bolts and means for operating said bolts from opposite sides of a door respectively, of a third bolt operable from either side of a door, an arm carried by said third bolt, a lever pivoted between said pair of bolts, said arm and lever being so relatively arranged that upon projection of said third bolt said arm will cause retraction of either or both of said pair of bolts through said lever, and whereby upon projection of said third bolt said arm will prevent projection of each of said pair of bolts.

11. In a lock mechanism, the combination of a pair of independent bolts and means for operating said bolts from opposite sides of a door respectively, dead-locking means for each of said pair of bolts, a third bolt operable from either side of a door and means operable when said third bolt is projected to release said dead-locking means, and means operable when said third bolt is projected to retract each of said pair of bolts.

12. In a lock mechanism, the combination of a pair of independent bolts and means for operating said bolts from opposite sides of a door respectively, dead-locking means for each of said pair of bolts, a key-controlled bolt, tumbler mechanism therefor and a connection between said tumbler mechanism and said dead-locking means operable when said key-controlled bolt is projected to release said dead-locking means, and means whereby projection of said key-controlled bolt will retract each of said pair of bolts.

13. In a lock mechanism, the combination of a pair of independent bolts, independent means for operating said bolts from opposite sides of a door respectively, dead-locking means for each of said pair of bolts, a key-controlled bolt operable from either side of a door, tumbler mechanism for said key-controlled bolt and a connection between said tumbler mechanism and said dead-locking means whereby projection of said key-controlled bolt may release said dead-locking means and means whereby projection of said key-controlled bolt may retract either or both of said pair of bolts and may prevent projection of each of said pair of bolts when said key-controlled bolt is projected.

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