July 3, 1923.

L. SCOLA

1,460,609

DOOR LOCK

Filed Feb. 13, 1922

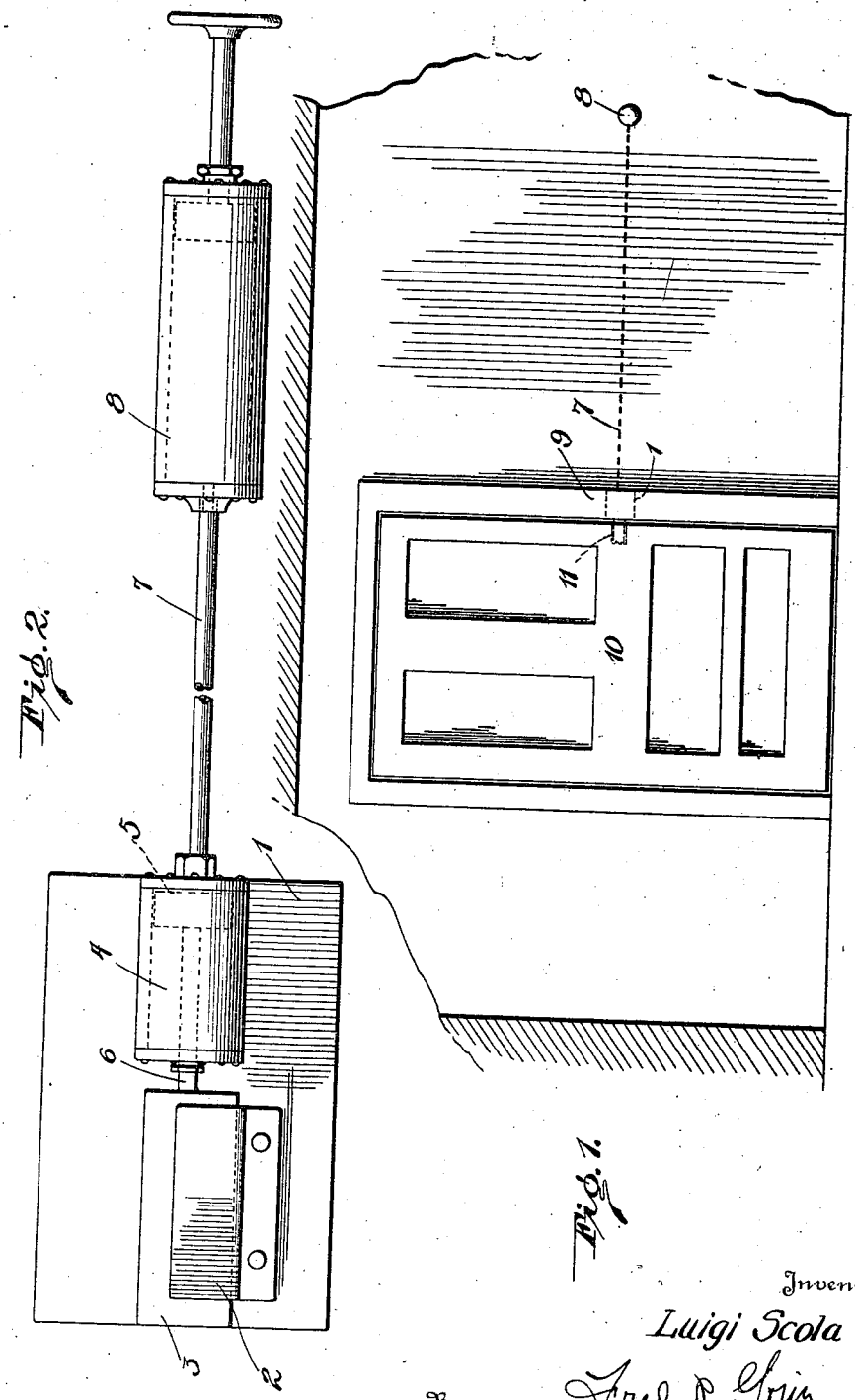


Fig. 2.

Fig. 1.

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UNITED STATES PATENT OFFICE.

LUIGI SCOLA, OF NEWCASTLE, WASHINGTON.

DOOR LOCK.

Application filed February 13, 1922. Serial No. 536,129.

To all whom it may concern:

Be it known that LUIGI SCOLA is a subject of the King of England, residing at Newcastle, in the county of King and State of Washington, U. S. A., has invented certain new and useful Improvements in Door Locks, of which the following is a specification.

The invention relates to an improvement in locks, wherein pneumatic means are provided for operating the lock, with such means arranged so that the lock may be operated from a comparatively remote distance.

The invention contemplates a lock casing having an ordinary reciprocating bolt therein. The bolt is connected with a piston operating in a cylinder arranged within the casing, and the cylinder is connected to a remote source of air under pressure, or to means by which a pressure of air may be generated at will, whereby to provide for operating the locking bolt from such remote point.

In the drawings:

Fig. 1 is a view in elevation illustrating the application of the improved lock to a door.

Fig. 2 is an enlarged view of the lock and operating means therefor.

The improved lock comprises a casing or plate 1 having a guide 2, between which and the wall of the casing is arranged a reciprocating locking bolt 3. In the casing in line with the bolt is a cylinder 4 having a piston 5 arranged therein. A rod 6 connects the piston 5 and bolt 3, so that the bolt is reciprocated to and from locking position in the movement of the piston. A conduit 7 connects the cylinder 4 with a source of air under pressure, as for example, an ordinary air pump 8, though obviously this may be any means for inducing air pressure within the conduit 7, as the invention is not concerned with the particular air pressure means.

Obviously, air under pressure passing thru the conduit 7 will operate the piston 5 and so actuate the locking bolt 3.

The casing 1 is adapted to be set in the frame 9 of the member to be locked, as for example a door 10, and the latter is provided with an appropriate mortise 11 to receive the locking bolt 3 when actuated for locking purposes.

Claims:

1. A door lock, comprising a plate, a guide mounted on the plate, a bolt slidable between the guide and plate, a cylinder mounted on the plate, a piston mounted for reciprocating movement in the cylinder, and a rod rigidly connecting the piston and the bolt, and means remote from the cylinder for exerting a pressure on the piston for projecting the bolt and creating a suction thereon for retracting the bolt.

2. A bolt lock comprising a plate, a guide mounted on the plate, a bolt slidable in the guide, a cylinder mounted on the plate, a piston mounted for reciprocation in the cylinder having a rod rigidly connecting it with the bolt, and manually operated means for producing a fluid pressure on the piston for projecting the bolt and creating a suction in the cylinder to operate the piston for retracting the bolt.

In testimony whereof I affix my signature in the presence of two witnesses.

LUIGI SCOLA.

Witnesses:

H. S. DRAKE,

D. CHAMBERLAIN.