No. 614,052. Patented Nov. 8, 1898.

J. JACKSON.

DOOR LOCK.

(Application filed Oct. 16, 1897.)

(No Model.)

FIG. 1.

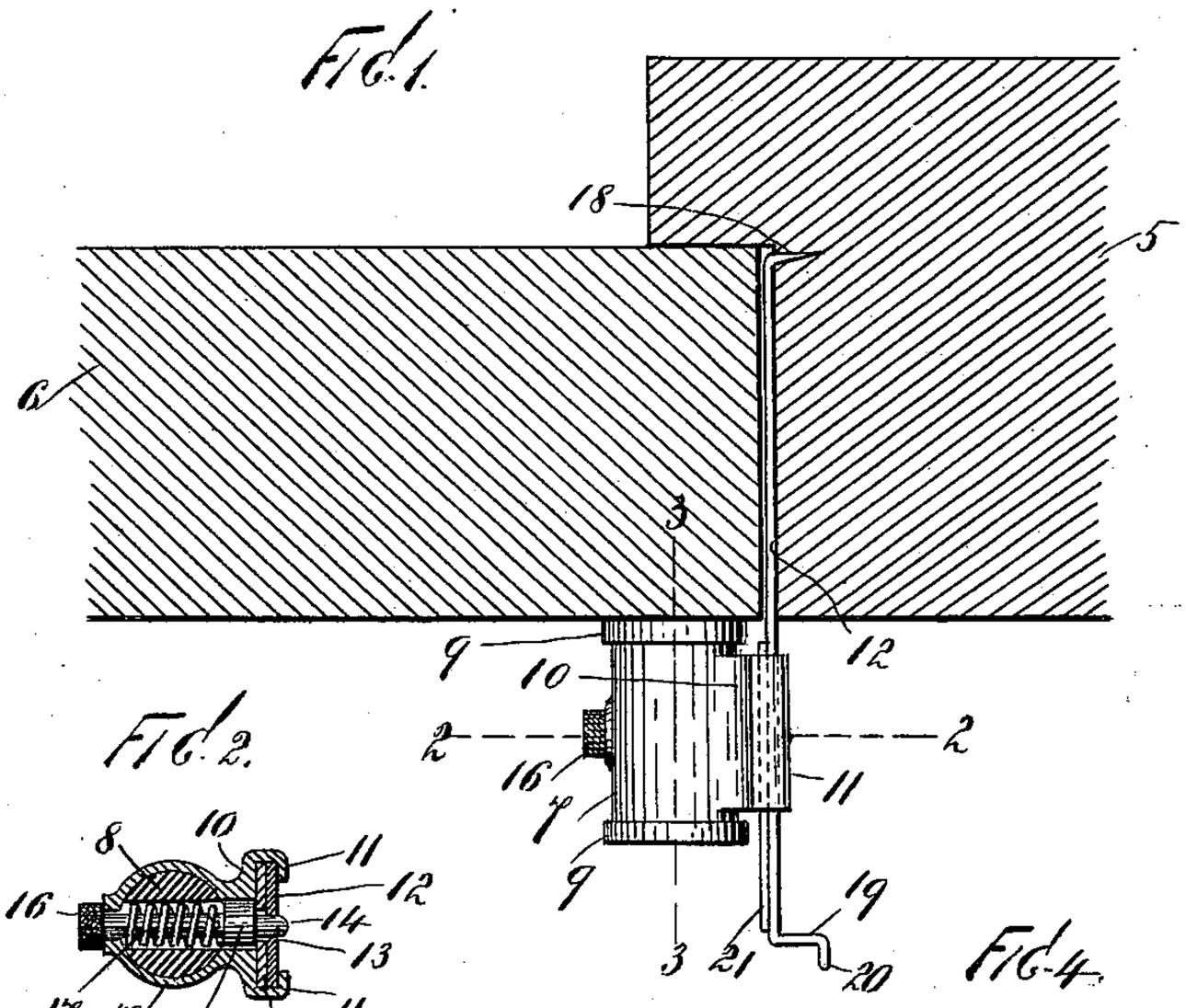

FIG. 2.

FIG. 3.

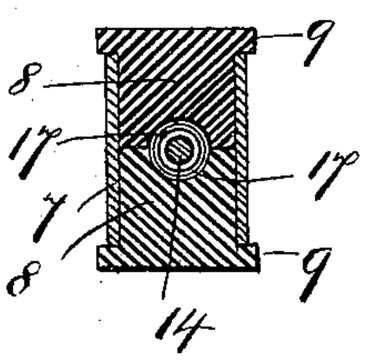

FIG. 4.

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WITNESSES:

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BY

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UNITED STATES PATENT OFFICE.

JAMES JACKSON, OF NEW YORK, N. Y.

DOOR-LOCK.

SPECIFICATION forming part of Letters Patent No. 614,052, dated November 8, 1898.

Application filed October 16, 1897. Serial No. 655,441. (No model.)

To all whom it may concern:

Be it known that I, JAMES JACKSON, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Door-Locks, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to detachable and portable door-locks; and the object thereof is to provide an improved device of this class which is simple in construction and operation and which may be so applied as to form a secure lock or fastening device for a door from the inner side thereof.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by the same numerals of reference in each of the views, and in which—

Figure 1 is a transverse section of a part of the frame of a door, also of a part of the door, and showing the operation of my improved lock or fastening device; Fig. 2, a transverse section of the lock on the line 2 2 of Fig. 1; Fig. 3, a longitudinal section of a part of the lock on the line 3 3 of Fig. 1; and Fig. 4, a view similar to Fig. 1 of the frame of the door, and the door, and showing all the parts of the lock in longitudinal section, and also a modification of the construction.

In the drawings forming part of this specification I have shown at 5 a cross-section of a part of the frame of a door and at 6 a similar section of the corresponding part of the door, and in the practice of my invention I provide a lock which consists of a casing 7, which is tubular in form and the opposite ends of which are filled with rubber plugs 8, which are provided at their ends with rims or flanges 9.

One side of the casing 7 is provided with a longitudinal shoulder or projection 10, the opposite sides of which are provided with outwardly and inwardly curved flanges 11, which form longitudinal guides, within which is arranged a locking bar or strip 12, and this locking bar or strip 12 is provided longitudinally thereof with perforations or openings 13, any desired number of which may be employed, these perforations or openings being shown in Figs. 2 and 4, and I also employ a lock-bolt 14, which passes loosely through the casing 7 and through the longitudinal shoulder or projection 10, and which is provided near its inner end with a piston-head 15 and at its outer end with a button or head 16, and mounted on said lock-bolt between the side of the casing 7, opposite the longitudinal shoulder or projection 10 and the piston-head 14, is a spiral spring 17, which is designed to force the lock-bolt 14 into the position shown in Figs. 2 and 4, in which position the inner end thereof passes through one of the perforations 13 in the locking-bar 12.

In the form of construction shown in Fig. 1 the locking-bar 12 is provided at its inner end with an angular block or projection 18, which is designed to be forced into the frame 5 of the door, and said locking-bar is preferably provided at its outer end with an angular projection 19, having a right-angled extension 20, and I also provide a plate 21, which may or may not be employed, as the occasion may require, said plate being provided with a longitudinal slot 22, through which the inner end of the locking-bolt 14 is adapted to pass, and this plate 21 is designed to be used when it is necessary to take up the space between the flanges 11 of the guides through which the locking-bar 12 passes and when the space between the door and the frame thereof is greater than usual. It is obvious that the locking-bar 20 may be arranged within the guideway formed by the flanges 11 either by bending the flanges 11 over the edges of the said bar or by passing the bar between said flanges before bending up the ends 19 and 20 in the form shown in Fig. 1. The operation of this form of construction will be readily understood from the foregoing description when taken in connection with the accompanying drawings and the following statement thereof.

The locking-bar 12 is free to move in the guides formed by the flanges 11, and in practice when it is desired to lock the door the said locking-bar is placed in the position shown in Fig. 1, and the angular pointed projection 18 is forced into the frame of the door, as shown in said figure. The door is then closed,

and the casing 7 is then moved along the locking-bar until one end thereof presses against the door, as clearly shown in Figs. 1 and 4, the locking-bolt being pulled outwardly by the head or button 16 in order to permit of the adjustment of said casing and after which the locking-bolt is released and the inner end thereof passed through the locking-bar 12 or one of the perforations or openings therein, and the casing 7 is securely locked to said bar and at the same time presses on the door, and the rubber plugs or fillings 8 serve to facilitate this operation and to prevent the casing 7 from scratching or otherwise injuring the door.

This device is simple in construction and operation and perfectly adapted to accomplish the result for which it is intended, and by means thereof almost any door may be securely locked, when desired, from the inner side thereof, and it will be apparent that the door cannot be opened except from the inner side without breaking or destroying the lock.

In the modification shown in Fig. 4 I provide a screw 23, which is screwed into the frame of the door and which is provided with a bayonet-slot or otherwise formed angular slot or opening, as shown at 24, and the angular extensions 19 and 20 at the end of the locking-bar are adapted to be inserted into this slot in the operation of locking the door, as hereinbefore described and as clearly shown in said Fig. 4. This construction prevents injury to the door-frame, and it will be apparent that the angular projection or prong 18 may be inserted into a slot formed in the screw 23, in which event only one end of the locking-bar 12 need be prepared with an angular projection or prong.

It will be noted that in the improved constructions and arrangement comprising my invention the tubular casing has an open longitudinal bore, and the belt is transversely mounted upon and carried by said tubular casing and operates through the diametrically opposite side walls of the same, the coiled spring being inclosed within the bore of the casing and bearing upon said bolt. The ends of the tubular casing are closed and the mechanism housed and protected by means of the elastic plugs which are inserted in both the outer ends of the continuous longitudinal bore of the casing and conform to and fill said bore, the elastic plug being provided with the outer ends which are extended laterally beyond the edge of the tubular casing, whereby a most effective, compact, and durable construction is insured.

Having fully described my invention, I claim as new and desire to secure by Letters Patent—

The herein-described improved door-lock, comprising the tubular casing having an open longitudinal bore and provided in one of its walls with a longitudinal slot or opening, a bolt transversely mounted upon and carried by said tubular casing or barrel and operating through the diametrically opposite side walls of the same, said bolt having an end intersecting said longitudinal slot or opening and an operating headed end projecting at the opposite side of the casing, a coiled spring inclosed within the bore of the casing or barrel and bearing upon said bolt, and elastic plugs inserted in both the outer ends of the continuous longitudinal bore of said casing or barrel and conforming to and filling said bore, said elastic plugs being provided with outer ends which are extended laterally beyond the edge of the tubular casing, in combination with a locking-bar operating through said longitudinal slot or opening and adapted to be engaged by the spring-actuated bolt, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 17th day of September, 1897.

JAMES JACKSON.

Witnesses:

GEO. W. SHOEMAKER,

THOMAS J. BOWEN, Jr.