

No. 646,810.

Patented Apr. 3, 1900.

W. DOYLE, JR.
DOOR FASTENER.

(Application filed Nov. 21, 1899.)

(No Model.)

FIG. 1.

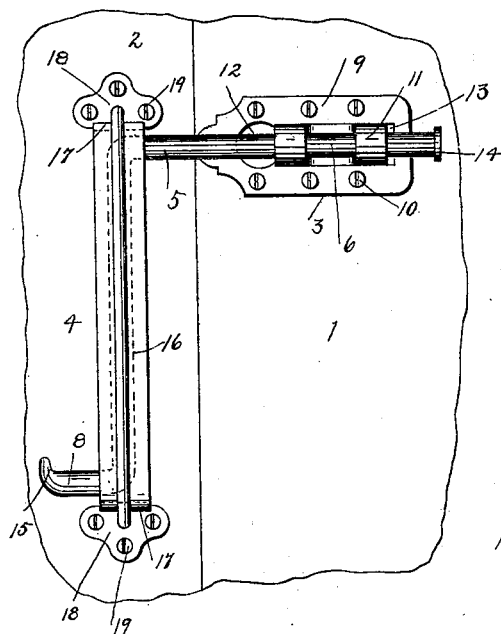


FIG. 2.

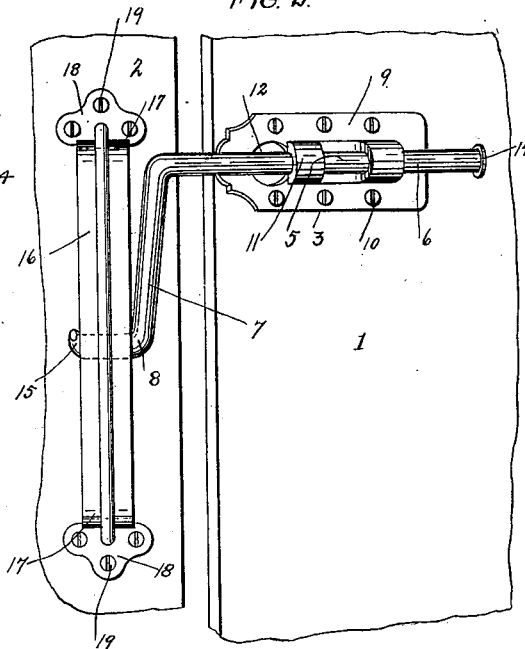


FIG. 3.

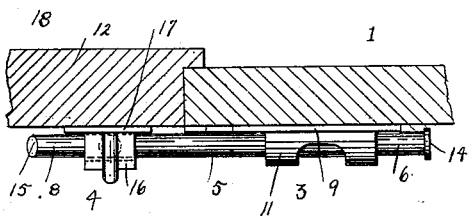
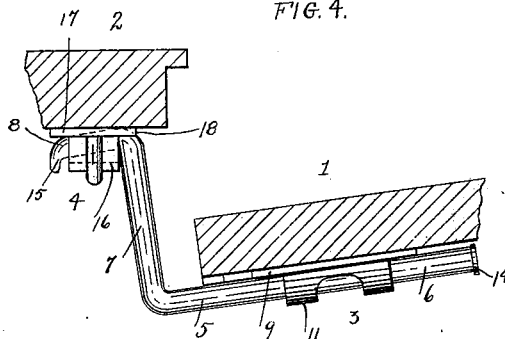


FIG. 4.



WITNESSES

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DOOR-FASTENER.

SPECIFICATION forming part of Letters Patent No. 646,810, dated April 3, 1900.

Application filed November 21, 1899. Serial No. 737,733. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM DOYLE, JR., 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-Fasteners, 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 bolts for doors or the like; and it has for its object to provide a simple and improved fastening or locking device of this class which will effectively operate to fasten the door when it is in either closed or partially-open position.

In the accompanying drawings, forming a part of this specification, in which like numerals of reference denote corresponding parts in the several views, Figure 1 is an elevation illustrating the locking operation of the device when the door is closed. Fig. 2 is a corresponding view with the door partially open. Fig. 3 is a top or plan view of the structure shown in Fig. 1, partly in section; and Fig. 4 is a view corresponding to Fig. 3 and illustrating the position of the parts as shown in Fig. 2.

Referring to the drawings, 1 designates the door, and 2 the frame, the bolt device 3 being secured upon the member 1, while the keeper device 4 is secured to the member 2.

The improved bolt device 3 comprised in my invention and improvements embodies a bolt proper, 5, having a main arm 6, which is slidably and revolvably mounted, and a supplementary arm 7, which projects at right angles from the main arm 6 and has a projecting end 8 turned at right angles to the portion 7. Said portions 7 and 8 thus form an angular extension of the main bolt-arm 6. The bolt device proper, 5, is preferably of cylindrical contour, as shown, and it may be slidably and revolvably mounted upon and connected with the door 1 in any suitable or desired manner. I prefer, however, to employ the plate 9, as herein illustrated, which may be secured by means of screws, as at 10, and which embodies a semicylindrical outwardly-projecting portion 11, adapted to receive and retain the arm or rod 6. Said plate

9 has an opening, as at 12, at the front end of the cylindrical portion 11 and intersecting the latter, said cylindrical portion being open at its rear side, and at the rear end of the portion 11 the plate 9 is provided with a slot, as at 13. By means of the construction just described the arm or rod 6, which is provided with a retaining flange or head, as at 14, can be first inserted through the opening 12 and then along at the back of the portion 11 and then turned forwardly to its seat in said portion 11, whereby a convenient relative connection and adjustment of the bolt proper, 5, and its retaining-plate 9 is effected in the application of the device to the door 1, and after the plate 9 is secured to the door the head or flange 14 will operate to retain the bolt proper, 5, from accidental detachment or disconnection from its plate 9. The end of the portion 8 is preferably turned, as shown at 15, to form a projection which will facilitate the engagement of the angular end portion of the bolt with the keeper, as will be hereinafter set forth.

The keeper 4 embodies a long arm or body portion 16, having angular ends 17, whereby the arm 16 is retained away from the surface of the frame 2, and a sufficient space intervenes between the inner face of the arm 16 and said surface 2. At its angular portions 17 the keeper 4 is secured to the frame 2 by means of a flange 18 and screws 19 or in any other suitable manner. Said keeper is mounted in a position at right angles to the longitudinal extension of the slidable and revoluble bolt-arm 6, and its arm 16 is of sufficient longitudinal extension to entirely receive the angular arm 7 of the bolt device, as clearly indicated in dotted lines in Fig. 1. The inner face of the longitudinal arm 16 of the keeper is of greater width or diameter than the arm 7 of the bolt device, so that said cylindrical arm 7 will have a firm bearing against the inner wall or face of the keeper-arm 16 when the device is in the locking position illustrated in Fig. 1.

The operation and advantages of my invention will be readily understood.

The device is exceedingly simple and will conveniently and effectively operate either as a lock-bolt for fastening the door when it

is closed or as a check-bolt which will fasten the door when it is partially opened. These alternate operations are accomplished with the same simple device, as follows: When the door is closed, the bolt device 5 is slid across the joint between the door and the casing by means of the sliding office of the bolt-arm 6 until its angular end arm 7 is received within the space back of the inner wall or face of the keeper-arm 16, as represented in Figs. 1 and 3, in which position said arm 7 will bear against the keeper-arm 16 and serve to retain the door securely in locked or fastened position. To fasten the door in partially-opened position, it is only necessary to slide back the bolt proper, 5, until the end portion 8 registers with the rear wall or face of the keeper-arm 16, when the door can be opened, and by reason of the revoluble operation of the bolt-arm 6 the same will turn and the end portion 8 of the bolt will slide upwardly upon and in engagement with the keeper-arm 16, this operation being indicated in Figs. 2 and 4. During this movement of the bolt, as just described, its end portion 8 will remain in connection with the keeper-arm 16 and will maintain such engagement at all times while the door is partially opened, this engagement being further insured by the angular end projection 15.

It will be understood that my improved bolt device is adapted for convenient and effective application not only to doors, but to gates and in all other positions and arrangements in which a swinging or hinged member is

adapted to be fastened or locked when either in closed or partially-opened position.

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

1. In a bolt or fastening device of the class described, a longitudinally-extended keeper, and a slidable and revoluble bolt having an end engaging said keeper with a locking contact at one position of said bolt and with a sliding contact at another position of said bolt.

2. In a bolt or fastening device of the class described, a longitudinally-extended keeper, and a slidable and revoluble bolt embodying a main arm carrying a supplementary arm projecting at an angle thereto and provided with an angular end extension, the relative construction and arrangement being such that the supplementary arm of the bolt engages the keeper in a longitudinal plane at one degree of the slidable adjustment of the bolt to form a fixed locking contact, while the angular end extension engages said keeper at another degree of the slidable adjustment of the bolt to form a sliding contact.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 18th day of November, 1899.

WILLIAM DOYLE, JR.

Witnesses:

F. A. STEWART,
V. M. VOSLER.