No. 896,817. PATENTED AUG. 25, 1908.

P. FORG.

DOOR CATCH.

APPLICATION FILED NOV. 14, 1907.

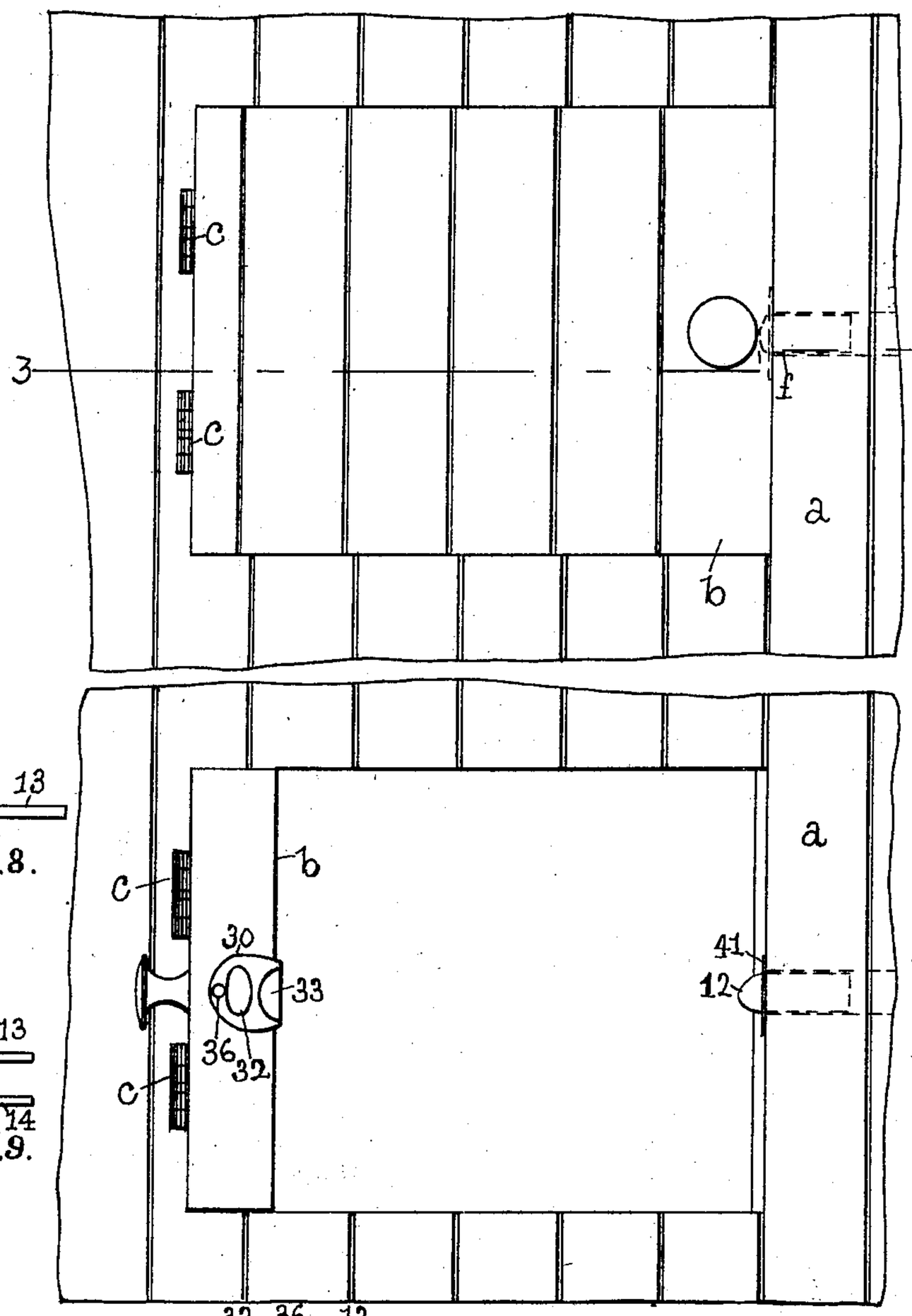

Fig. 1.

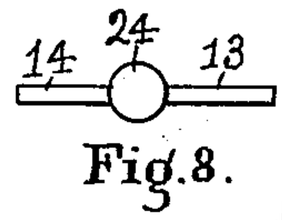

Fig. 8.

Fig. 2.

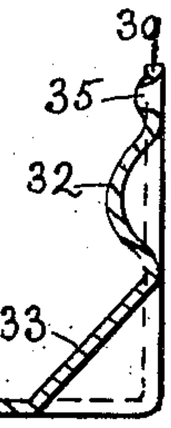

Fig. 7.

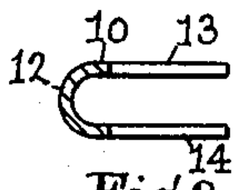

Fig. 9.

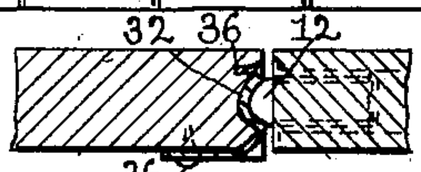

Fig. 4.

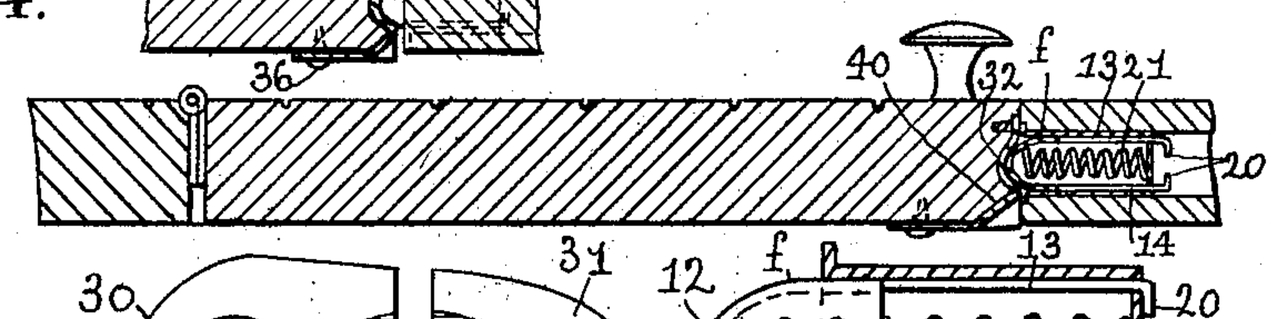

Fig. 3.

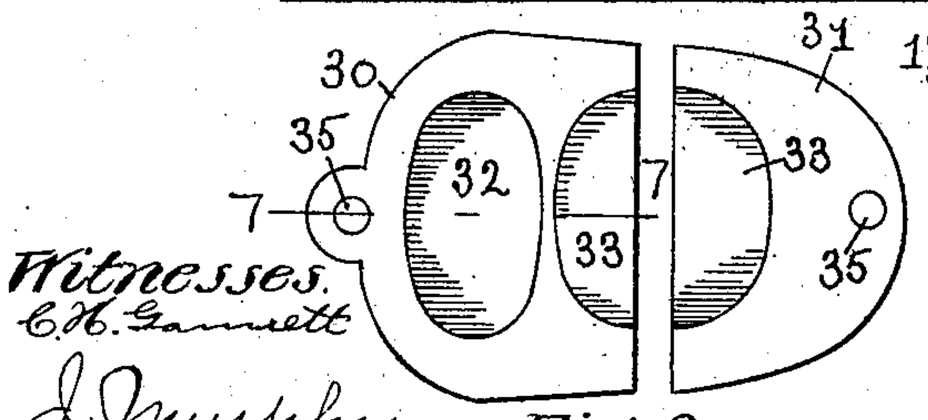

Fig. 6.

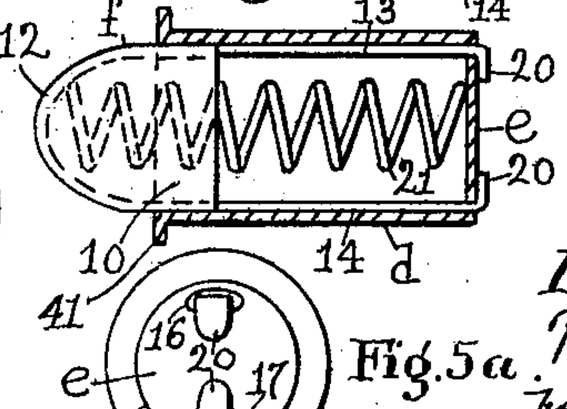

Fig. 5.

Fig. 5a.

Witnesses.
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atty.

UNITED STATES PATENT OFFICE.

PETER FORG, OF SOMERVILLE, MASSACHUSETTS.

DOOR-CATCH.

No. 896,817. Specification of Letters Patent. Patented Aug. 25, 1908.

Application filed November 14, 1907. Serial No. 402,096.

To all whom it may concern:

Be it known that I, PETER FORG, a citizen of the United States, residing in Somerville, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Door-Catches, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to a fastening device for doors and has for its object to provide a simple, cheap and efficient device, which is especially designed and adapted for use on doors of sinks, closets, etc.

The invention has for one of its objects to provide a door-catch or fastening device, which automatically compensates for shrinkage of the door away from its casing.

Another feature of the invention consists in providing a novel striker with which the bolt coöperates and which can be applied to the door with a minimum amount of labor and expense.

These and other features of this invention will be pointed out in the claims at the end of this specification.

Figure 1 represents in elevation a door and its casing provided with a fastening device embodying this invention. Fig. 2, an elevation with the door opened. Fig. 3, a cross-section on the line 3—3, Fig. 1. Fig. 4, a detail in section to be referred to. Fig. 5, a detail in elevation and section on an enlarged scale of the catch shown in Fig. 1. Fig. 5[a], a rear elevation of the catch shown in Fig. 5. Fig. 6, enlarged details of the striker shown in Fig. 2. Fig. 7, a section on the line 7—7, Fig. 6. Fig. 8, a plan of the blank from which the catch is made, and Fig. 9, a partial section and elevation to be referred to.

Referring to the drawing, *a* represents the casing of a sink, closet or similar structure, which is provided with a door *b*, hung upon hinges *c* and adapted to be held in its closed position by a fastening device embodying this invention.

The fastening device comprises a catch shown separately in Figs. 5 and 5[a], and a striker shown separately in Fig. 6. The catch comprises a shell *d* closed at its rear end by a head *e* and open at its front end for the reception of a bolt *f* which is preferably made of sheet metal, such as sheet brass, and consists of a cylindrical body portion 10, having a rounded substantially conical nose or end 12 and rearwardly extended arms 13, 14, preferably substantially diametrically opposite and extended rearwardly through slots 16, 17, in the head *e* of the shell, the said arms being bent at their ends to form fingers 20, which serve as stops to limit the outward movement of the bolt *f*, under the influence of a helical spring 21 located within the shell *d* and bolt *f*, and bearing against the nose or front end 12 of the bolt and against the head *e* of the shell. The bolt *f* may be made in one piece from a blank shown in Fig. 8, which consists of a disk 24 having the diametrically opposite arms 13, 14. The disk 24 is struck up or forced by suitable tools (not shown) to form the bolt shown in Fig. 9, which is then inserted into the open end of the shell *d* over the spring 21, the arms 13, 14 passing through the slots 16, 17, and being then bent to form the fingers 20.

It will be seen from an inspection of Fig. 5, that the bolt *f* is capable of being forced back into its shell *d* against the action of the spring 21, and that when the pressure is removed, the spring forces the bolt outward until arrested by the engagement of the fingers 20 with the head *e*. It will thus be seen, that when the bolt is applied to a door or as in the present instance to the door casing, the bolt automatically compensates for shrinkage of the door or casing.

When first applied to the casing, the door usually fits snugly as represented in Figs. 1 and 3, but in time the wood shrinks and a considerable space is left between the door and its casing as represented in Fig. 4. In this case the bolt *f* is forced outward from its shell and is kept in engagement with its striker, which may be and preferably is made as herein shown, and consists of a sheet metal plate bent to form two members 30, 31, substantially at right angles to each other. The member 30 is provided with a concavity 32 for the reception of the nose 12 of the bolt *f* and both members at their junction may be provided with a depressed portion 33, which forms an inclined reinforce or brace for both members, thereby enabling a strong and rigid striker to be made from substantially thin sheet metal stock. The members of the striker are provided with suitable holes 35 for the reception of nails, brads or screws 36 by which the striker is secured to the door. By reference to Figs. 3 and 7, it will be seen that the striker may be secured to the door in a minimum time, as it is only necessary to cut out with a chisel or other tool, a rough re-

cess 40 in the edge of the door. It is not necessary that the recess 40 be nicely made as the striker does not require to be nicely fitted therein. The shell *d* and the bolt *f* being both of sheet metal may be made at a minimum expense and said parts may be assembled and connected together by simply bending the arms 13, 14, to form the fingers 20, which requires the least possible time and labor. The shell *d* may and preferably will be provided with a flange 41 to abut against the casing *a* and position the catch in the casing.

Claims.

1. In a fastening device of the character described, in combination, a shell provided at one end with a head having a slot or opening, a bolt movable in said shell and provided with an arm extended through said slot, a spring within the shell acting to force the bolt out therefrom, and means on the said arm outside of said shell to engage the head of the latter and limit the outward movement of said bolt by said spring.

2. In a fastening device of the character described, a sheet metal striker comprising two members substantially at right angles to each other, one of said members having a concavity to form a socket for a bolt, and both of said members having a depressed portion forming an inclined brace or reinforce for both members, substantially as described.

3. In a fastening device of the character described, a shell, a bolt movable longitudinally therein, a spring in said shell to move the bolt in one direction, and means located outside of said shell and connected with the bolt within the shell to limit the movement of the bolt by said spring, substantially as described.

4. In a fastening device of the character described, a shell provided at one end with a head having slots and open at its other end, a sheet metal bolt movable in said shell and comprising a cylindrical body portion having a rounded nose and arms extended rearwardly through the slots in said head, said arms being bent outside of said shell to form fingers, and a spring within the shell to normally force the bolt outward, substantially as described.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

PETER FORG.

Witnesses:
JAS. H. CHURCHILL,
J. MURPHY.