

No. 648,299.

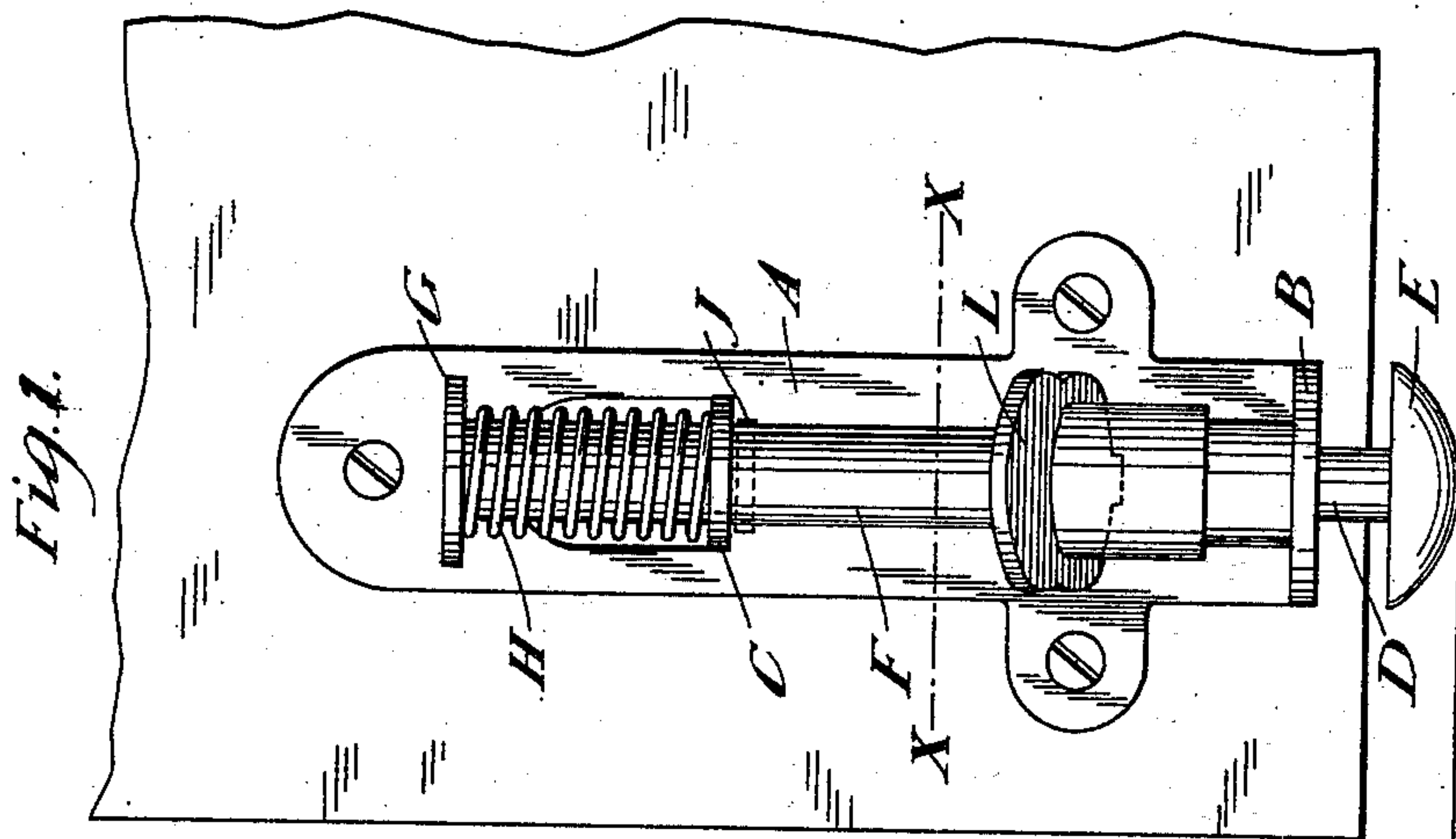
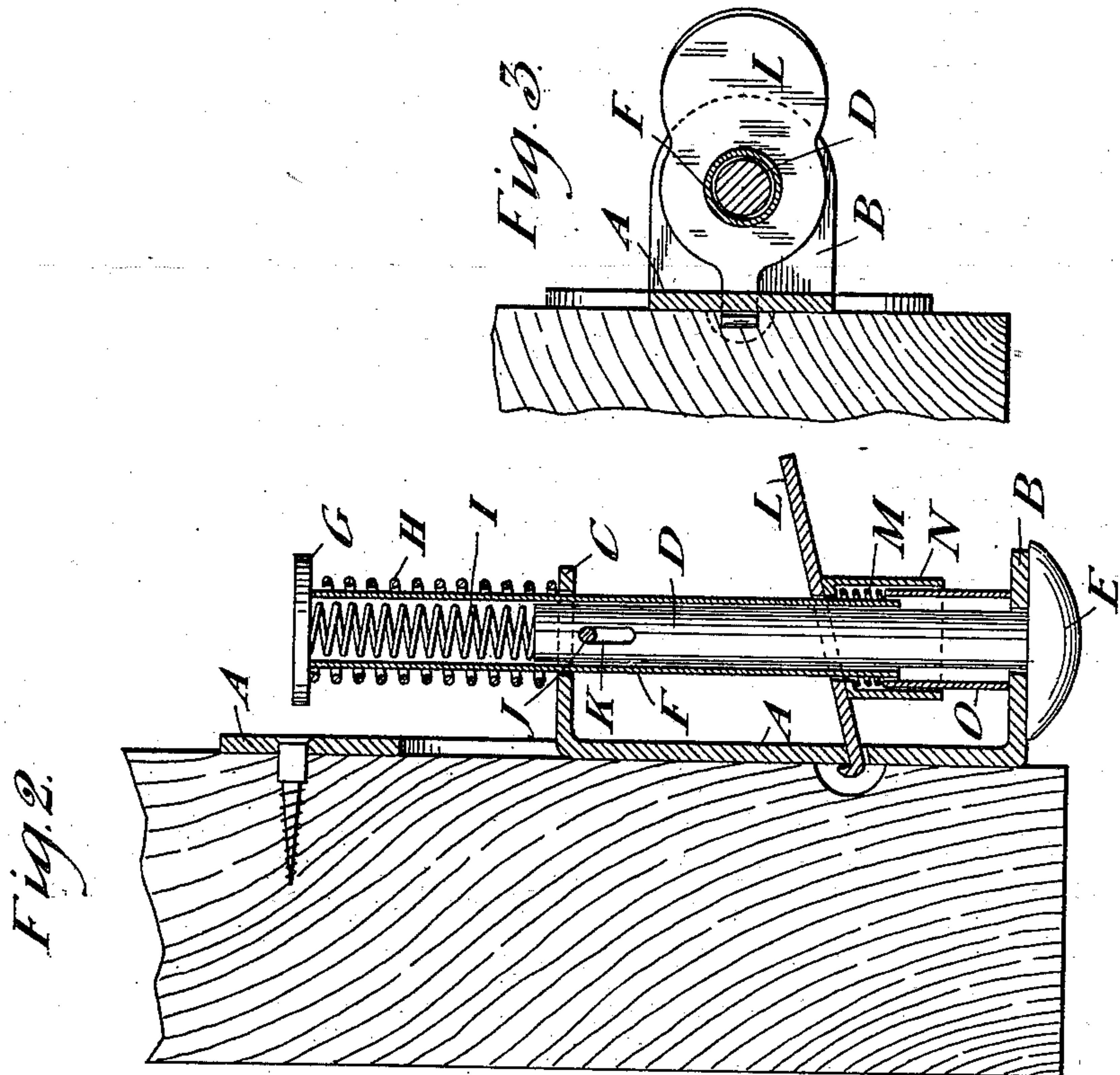
Patented Apr. 24, 1900.

J. H. REEVES.

APPLIANCE FOR HOLDING DOORS IN OPEN POSITIONS.

(Application filed Dec. 11, 1899.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN HORACE REEVES, OF LONDON, ENGLAND.

APPLIANCE FOR HOLDING DOORS IN OPEN POSITIONS.

SPECIFICATION forming part of Letters Patent No. 648,299, dated April 24, 1900.

Application filed December 11, 1899. Serial No. 739,942. (No model.)

To all whom it may concern:

Be it known that I, JOHN HORACE REEVES, a citizen of England, residing at 85 Eltham road, Lee, London, in the county of Kent, England, have invented certain new and useful Improvements in Appliances for Holding Doors in Open Positions, (for which I have applied for a patent in Great Britain, dated May 3, 1899, No. 9,334,) of which the following is a specification.

My invention relates to that kind of appliance for holding a door in a more or less open position wherein a vertically-sliding bolt is combined with two springs so arranged that in pressing down the bolt so as to bear with its lower end upon the floor the one spring is compressed, while the second spring operates in combination with a suitable catch for holding the bolt down with an elastic pressure, so that the bolt can readily pass over inequalities of the floor, while on releasing the catch the compressed spring raises the bolt up again. According to my present invention I construct such appliances as I will describe with reference to the accompanying drawings, in which—

Figure 1 shows a front elevation of the appliance. Fig. 2 shows a vertical section taken at right angles to Fig. 1, and Fig. 3 shows a cross-section on line X X.

A is a plate of any desired configuration adapted to be fixed against the bottom part of a door. It has its lower end bent up to form a bracket B, and at an intermediate point it has a second bracket C, which may conveniently be stamped out of the plate and bent down, as shown. Through holes in these brackets passes the sliding bolt, composed of the lower cylindrical piece D, with rounded head E, adapted to bear upon the floor, and the upper tubular piece F, fitting over the upper part of D and having fixed to its upper end a disk G.

Surrounding the upper part of F is a helical spring H, bearing with its upper end against the disk G and with its lower end against the bracket C, and consequently tending to hold the combined parts D and F in the raised position shown at Fig. 2. Within the upper part of F is a second helical spring I, also bearing with its upper end against the disk G, while its lower end bears

against the upper end of D, and consequently it tends to force the part D downward relatively to F. This motion is, however, prevented in the raised position by a pin J, fixed in F and passing transversely through both parts, the holes K in D, through which it passes, being slotted, as shown, so that D can be forced upward in F against the action of the spring I to an extent limited by the slots.

Over the lower part of F is fitted a clutch-plate L, having its fulcrum in a slot in plate A and forced up into the angular position shown by means of a small spring M, bearing with its upper end against an inner flange on the sliding tubular piece N, which in its turn bears against the clutch-plate, while the lower end of the spring bears against the tubular abutment-piece O, resting on the bottom bracket B. When the clutch-plate L is in the raised angular position shown, it exercises a frictional grip upon the tube F in the well-known manner and prevents its upward motion.

The appliance constructed as above described is operated as follows: The parts being in the position shown at Fig. 2, when the door is opened to a position in which it is desired to retain it the foot is applied to the disk G, so as to press downward the tube F, and with it, through the medium of the spring I, also the tube D, until the head E bears upon the floor—that is to say, in the position shown at Fig. 1. By such depression the spring H will be compressed between G and C, as shown at Fig. 1, but spring I being somewhat stronger than H will not be compressed much beyond the position shown at Fig. 2, as it merely moves downward with F, pushing D down with it until E bears with a certain pressure against the floor. The pin J will then have been pushed slightly away from the upper end of the slot. On removing the foot from G the spring H will tend to force the parts D F upward again; but this is prevented by the frictional grip of the clutch-plate L, which is tightened by any tendency of F to rise. Consequently when the parts are in the position shown at Fig. 1 the appliance holds the door open by the elastic pressure of E upon the floor, the elastic pressure being afforded by the spring I, and if when in this position the door be pushed in one direction

or the other the foot E will readily yield to any slight obstruction in its path in being forced up thereby against the downward pressure of the spring I, the slotted hole K 5 allowing of such motion relatively to the part F, which remains held stationary by the clutch. For freeing the door the foot is applied with slight downward pressure to the frictional clutch-plate L, so as to cause this 10 to release the part F, whereupon the compressed spring H will be free to raise the combined parts D, F, and I into their original position at Fig. 2.

Having thus described the nature of this 15 invention and the best means I know of carrying the same into practical effect, I claim—

In an appliance for holding doors in open positions, a sliding telescopic bolt consisting of a lower cylindrical part D with head E 20 adapted to bear on the floor and an upper tubular part F with head G adapted to be pressed down by the foot, a spring I, inter-

posed between part D and part F tending to force the former downward, a second spring H interposed between the head G of part F 25 and a bracket C on the holding-plate A, which spring is compressed when the parts D, F, I, are depressed and a frictional clutch-plate L pivoted to the holding-plate A and held in an inclined position by means of a 30 spring so as to grip the part F when in the depressed position, so that on the depression of the clutch-plate L the spring H will raise the parts to the original position again, substantially as described with reference to the 35 drawings.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN HORACE REEVES.

Witnesses:

CHAS. D. ABEL,
GERALD L. SMITH.