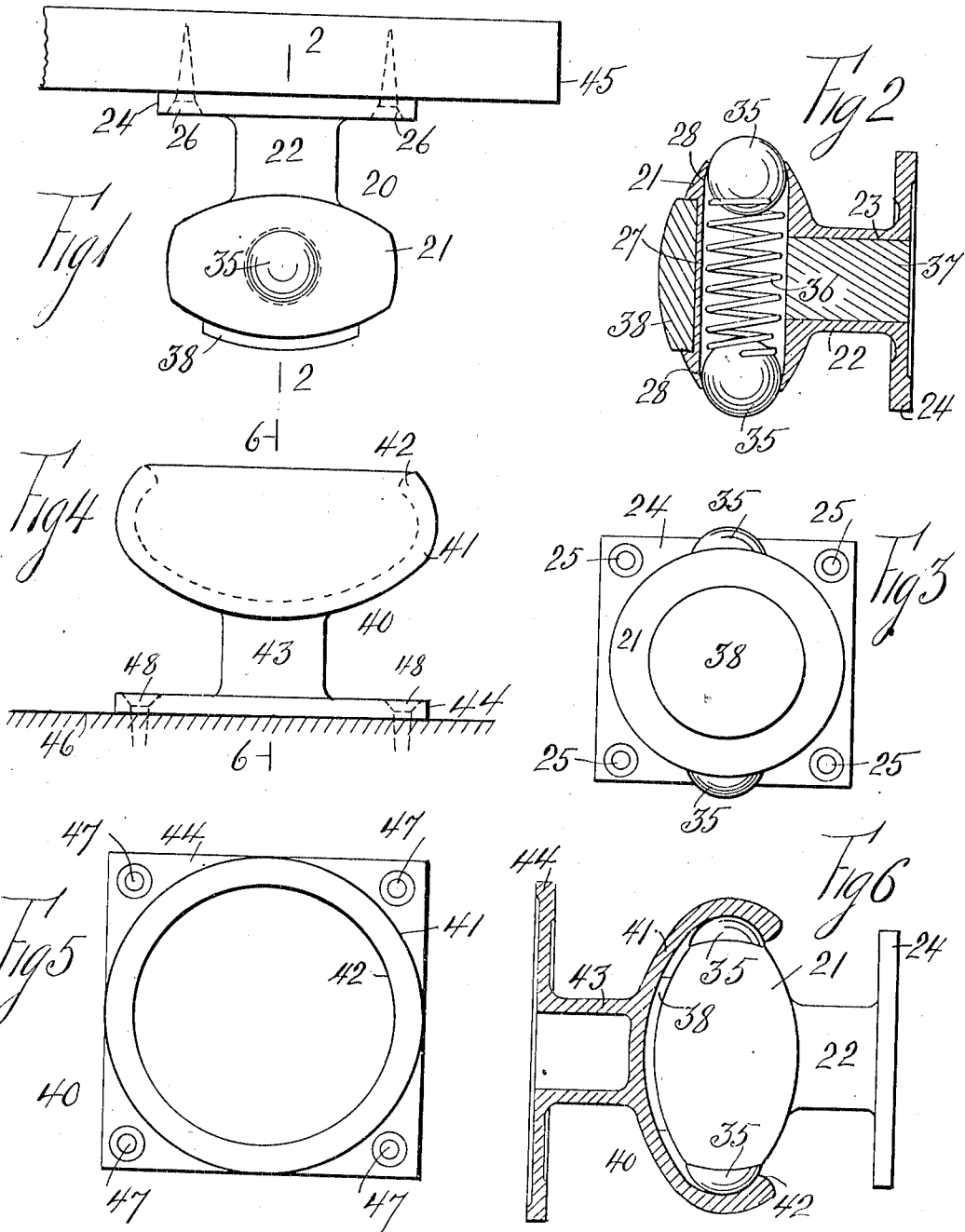


1,089,891.

Patented Mar. 10, 1914.

3 SHEETS-SHEET 1.



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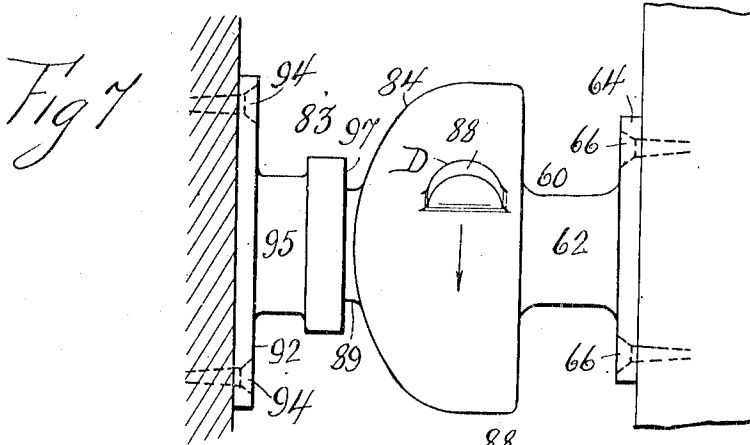
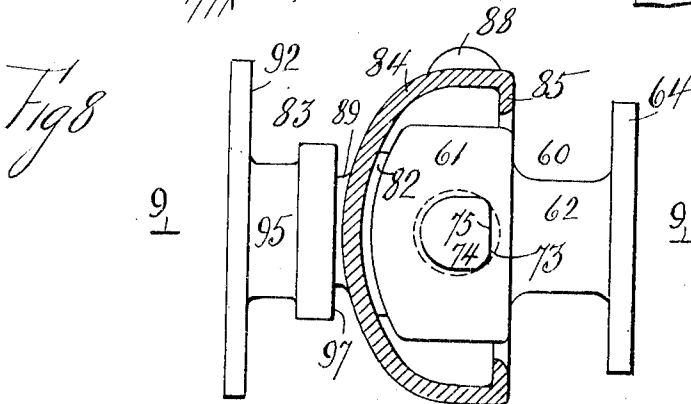
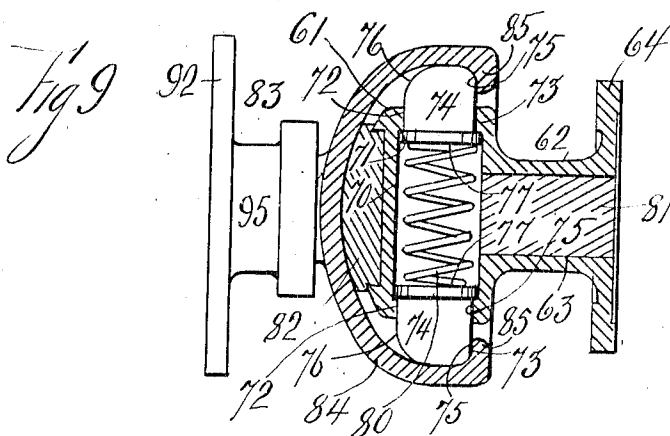
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APPLICATION FILED AUG. 6, 1910.

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3 SHEETS—SHEET 2.



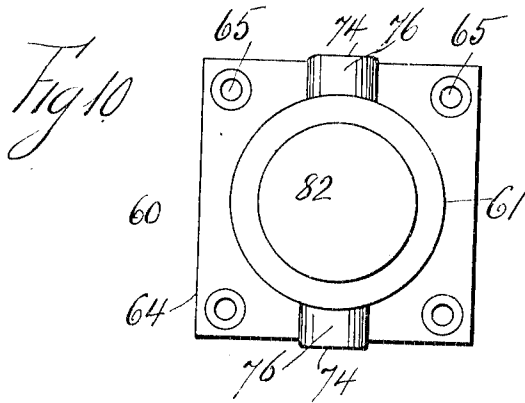
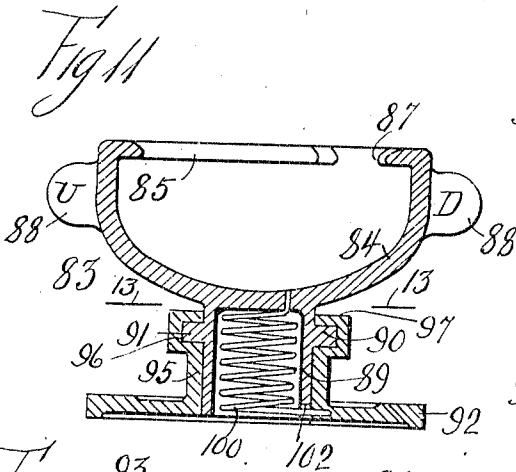
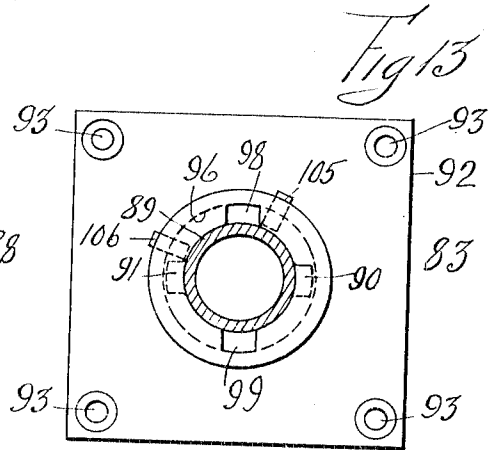
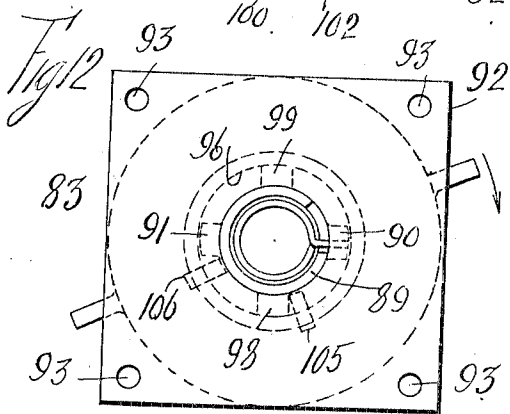
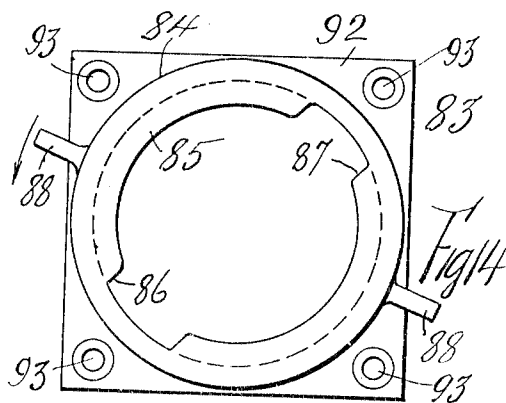
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APPLICATION FILED AUG. 6, 1910.

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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

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DOOR-HOLDER.

1,089,891.

Specification of Letters Patent.

Patented Mar. 10, 1914.

Application filed August 6, 1910. Serial No. 575,886.

To all whom it may concern:

Be it known that I, EDWARD W. WOOLLEY, a citizen of the United States, and a resident of Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Door-Holders, of which the following is a specification.

This invention relates to a door holder, and has for its object such a device in which the mechanism is covered by the shell thereof, so that it can not injure a user and also that the moving elements thereof can not be tampered with.

In the accompanying drawings, Figure 1 represents a top plan view of the male member of the invention attached to a door, Fig. 2 shows a section of the male member on the line 2, 2, of Fig. 1, Fig. 3 represents a bottom plan view of Fig. 1, Fig. 4 is a top plan view of the female member of the invention extending from a wall, Fig. 5 represents a top plan view of Fig. 4, Fig. 6 shows a section of Fig. 4 on the line 6, 6, and the male member locked therewith, Fig. 7 shows a side elevation of a modification of the invention with the members thereof in their locked position, Fig. 8 represents a top plan view of Fig. 7 with a portion of the female member broken away, Fig. 9 shows a partial section of Fig. 8, as on the line 9, 9, Fig. 10 shows a front view of the modified male member, Fig. 11 represents a section of the modified female member as on the line 9, 9, of Fig. 8, Fig. 12 is a bottom plan view of Fig. 11, Fig. 13 shows a section as on the line 13, 13, of Fig. 11, and Fig. 14 represents a top plan view of Fig. 11.

Referring to Figs. 1 to 6, the invention is shown to comprise the male member 20 and the female member 40. The male member consists of a hollow knob 21 from which extends the neck 22 with the opening 23. A foot 24 having the openings 25 for the screws 26 extends from the neck 22. The knob 21 has a cylindrical opening 27 with converging ends 28. The opening 27 connects with the opening 23. Spherical latches 35 are located in the opening 27 and are forced into the ends 28 by means of the spring 36. A wooden plug 37 is forced into the opening 23 to maintain the spring in place. The latches 35 are of a diameter so that their centers will always be maintained within the outer perimeter of the knob. A cushion 38 of

flexible material is secured in and projects from the face or crown of the knob and constitutes a buffer for the holder.

The female member 40 comprises the bulged shaped cup 41 with the reinforced edge 42, neck 43 and foot 44 having the openings 47 for the screws 48. The male member is connected to a door 45 and the female member is fastened to a wall 46. It being understood that the location of the members may be reversed.

To use the invention the male member 20 is fastened to its door with the longitudinal axis of the opening 27 in a vertical position, so that the spherical latches 35 come top and bottom. When the members are forced to lock with each other, the edge 42 of the female member will force the latches enough within the knob, so that the latter can enter the cup 41, and as soon as the spherical latches pass said edge 42, the spring 36 will again force them to their normal positions and lock them with the edge 42 of the cup, keeping the door locked with the wall. When the male member is locking itself with the female member the cushion 38 comes in contact with the bottom of the cup 41, prevents noise and performs the functions of a buffer. Should it be desired to unlock the door from the wall, a pull exerted on the door will again force the spherical latches 35 into the opening 27 and unlock the female member 40 from the male member 20.

Referring now to Figs. 7 to 14, the modified form of the invention is shown to comprise a male member 60 and a female member 83. The male member 60 comprises a knob 61 from which extends the neck 62 with the opening 63. A foot 64 having the openings 65 for the screws 66 extends from the neck 62. The knob 61 has a vertical cylindrical cavity 70, shouldered at 71. Beyond the shoulders are formed partial cylindrical end openings 72 with the flat sides 73. The cavity 70 connects with the opening 63. Partially cylindrical latches 74 with flat rear faces 75 and chamfered front faces 76, have formed therewith the flanges 77 at their inner ends and are located in the openings 72 with the flanges 77 in the opening 70, and the flat faces 75 bearing against the flat sides 73. A spring 80 is located in the cylindrical opening 70 and bears against the inner accompanying faces of the latches 74. A wooden plug 81 is forced into the opening

63 to maintain the spring 80 in place. A cushion 82 of flexible material is secured into and projects from the face of the knob 61. The female member 83 comprises the cup 84 with the inwardly extending flange 85 having the diametrically opposite openings 86, 87, and the operating lugs 88 extending from the outer surface of the cup, one being marked with the letter D and the other with the letter U. A hollow neck 89 having the flange lugs 90, 91, and the notch 102, extends from said cup 84. A support for said neck 89 is shown with the foot 92 having the openings 93 for the screws 94. A hollow barrel 95 extends from the foot 92, and at its upper end has formed a groove 96 with the top wall 97. Openings 98 and 99 somewhat larger than the flange lugs 90 and 91 are formed in the top wall 97 of the said support. To assemble the parts of the female member the neck 89 is located within the hollow barrel 95, the flange lugs 90, 91 entering the openings 98, 99, after which the cup 84 is turned so that the lugs 90, 91 enter the groove 96. The locations of the lugs 90, 91 and openings 98, 99 when in their normal positions are shown in Figs. 12 and 13. A spring 100 connects the cup 84 with the foot 92. Stop pins 105 and 106 extend into the groove 96 of the barrel 95 of the support, on opposite sides of the diametrical line extending through the openings 98, 99, the pin 105 being adjacent to the opening 98, and the pin 106 being about 45 degrees from the opening 98. These pins constitute stops to control the movement of the cup 84 of the female member 83, and prevent the lugs 90, 91 coming in line with the openings 98, 99 when the parts of the female member have been assembled thereby preventing the disengagement of the members 60 and 83. The pins 105 and 106 are located in place after the flange lugs 90, 91 are properly located in the groove 96.

To operate the modified form of the invention the operator bears down on the operating lug marked D in the direction of the arrows in Figs. 7, 12 and 14, or pushes up the operating lug marked U, until the latches 74 register with the openings 86, 87, which requires a rotation of about forty five degrees of the cup 84, when the members of the door holder may be pulled apart and with it the door may be swung from the wall. The cup 84 when turning, moves until the lug 90 strikes the pin 105, when the openings 86 87 are in line with the latches 74. When the said cup is released it will move in an opposite direction until the lug 91 bears against the pin 106. As soon as the members 60 and 83 are separated the tension of the spring 100 returns the member 83 to its normal position. To lock the members 60 and 83 they are simply pushed together by swinging the door to which one of the

members is fastened, when the chamfered front faces 76 of the latches 74 will ride on the flange 85 and be forced inwardly against the tension of the spring 80 until the knob 61 enters the cup 84, the cushion 82 bearing against the inner surface of said cup preventing noise when the members of the holder come together. When the members are locked, the flat rear faces 75 of the latches 74 bear against the inner faces of the flange 85 securely locking the members together and preventing their detachment, unless the cup 84 is turned so that the latches 74 register with the openings 86, 87.

Having described my invention what I desire to secure by Letters Patent and claim is:

1. In a holder the combination of a knob shaped male member having an opening therethrough, latches located in the opposite ends of said opening, a spring bearing between said latches and a bulged shaped cup female member coacting with said male member.

2. In a holder the combination of a knob shaped male member, having an opening with converging ends, latches located in said opening and extending through said converging ends, a spring located in said opening and bearing between said latches and a bulged shaped cup female member coacting with said male member.

3. In a holder the combination of a male member, a pair of latches supported in said member, a spring bearing between the inner faces of the latches, a cup shaped female member having a pair of openings that register with said latches in one position of said female member, means to turn the female member to cause said openings to register with said latches and automatic means to return the same to its normal position.

4. In a holder the combination of a male member, a pair of latches supported in said member, means to maintain said latches in their normal positions, a movable female member comprising a cup, having a pair of openings that register with said latches in one position of the female member, a neck extending from the cup, flange lugs extending from the neck, a barrel having a groove supporting said neck, the said groove registering with the flange lugs of said neck, and a spring connected between the cup and the barrel.

5. In a holder the combination of a male member, a buffer extending from said member, a pair of vertical latches supported in the member, means to maintain said latches in their normal extended locations, a female member comprising a cup, a flange on the cup having a pair of openings adapted to register with the latches in one position of the cup, a support for the cup to turn on, a spring connected between the cup and support adapted to maintain the cup with the

openings out of register with the latches and means to control the amount of rotation of the cup.

6. In a holder the combination of a male member comprising a knob, a pair of spring actuated latches located in a vertical cavity in said knob, a female member comprising a rotatable cup having a pair of openings to register with said latches in one position of said cup, stop pins to control the movement of said cup, a support for said cup and a spring connected up between the cup and its support to return the former to its normal position, with the openings out of register with the latches.

7. In a holder the combination of a male member, a pair of latches in said member, means to maintain said latches in their normal outward positions, a female member having a pair of openings to register with said latches in one position of the female member, a neck formed in the female member, a lug extending from said neck, a barrel to support said neck, a groove formed in the neck engaging said lug, a pair of stop pins in said groove in the path of said lug to control the amount of movement of said female member.

8. In a holder the combination of a male member comprising a knob having a cavity, a pair of latches extending from said cavity, a spring bearing between said latches to normally maintain them in their separated location, a cup shaped female member, an inwardly extending flange with a pair of openings formed with the female member said openings registering with said latches in one position of the female member, a hollow neck formed with the female member, a pair of flange lugs extending from said neck, a barrel supporting said neck, a groove formed in the barrel registering with said flange lugs, a pair of stop pins in said groove to limit the movement of one of said flange lugs, a pair of operating lugs extending from the female member and a spring in said neck connected between the cup of the female member and said barrel.

Signed at Jersey City in the county of Hudson and State of New Jersey this 4th day of August A. D. 1910.

EDWARD W. WOOLLEY.

Witnesses:

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