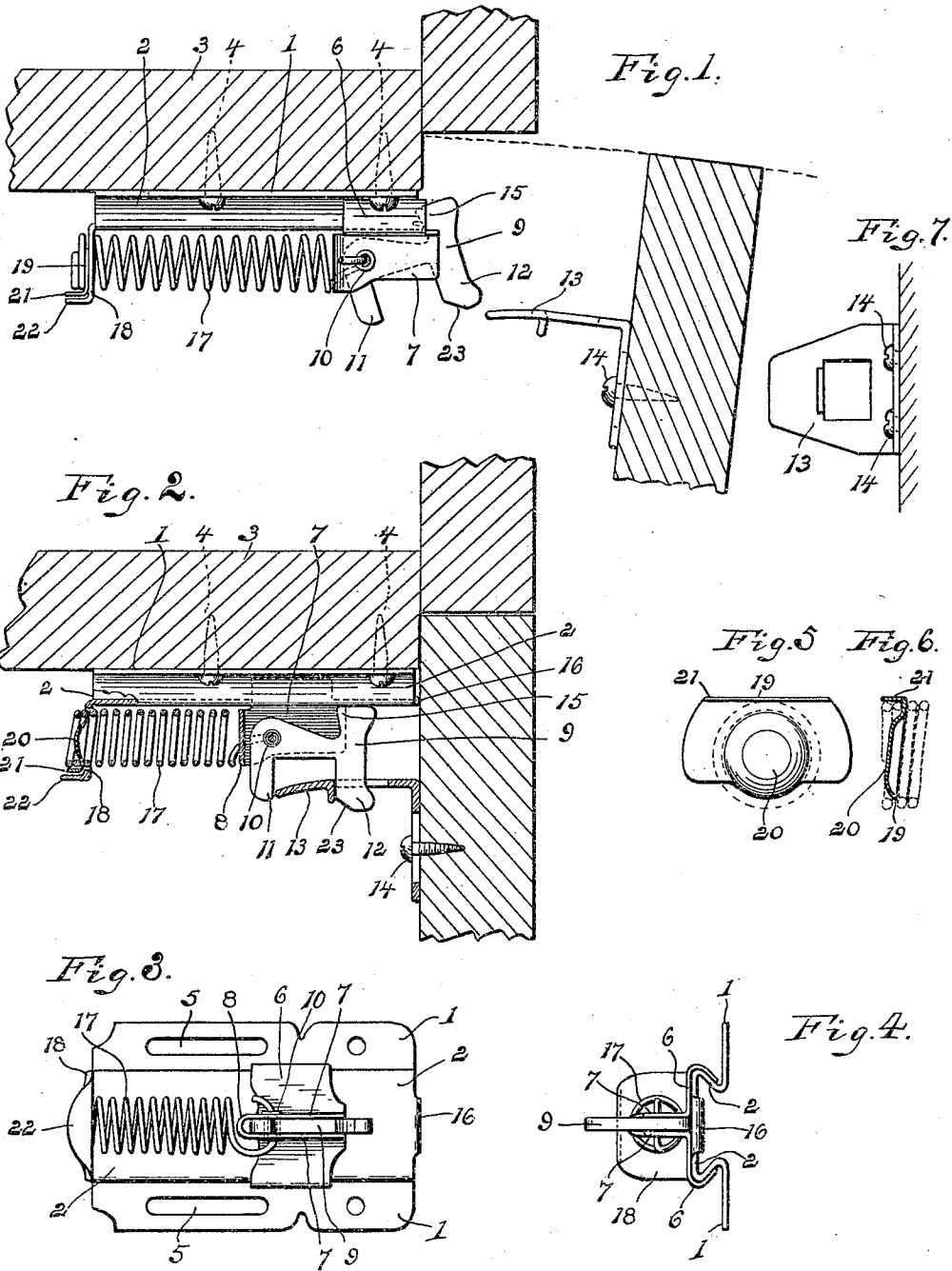


G. W. MALLORY.
DOOR CATCH OR CHECK.
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959,241.

Patented May 24, 1910.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE W. MALLORY, OF BLENHEIM, ONTARIO, CANADA.

DOOR CATCH OR CHECK.

959,241.

Specification of Letters Patent.

Patented May 24, 1910.

Application filed March 29, 1909. Serial No. 486,538.

To all whom it may concern:

Be it known that I, GEORGE W. MALLORY, a subject of the King of Great Britain, residing at Blenheim, in the county of Kent and Province of Ontario, Canada, have invented certain new and useful Improvements in Door Catches or Checks, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in door checks and more particularly to that class of devices shown and described in my Letters Patent Nos. 849,692 and 863,413.

The object of this invention is to provide a very cheap and efficient device for the purpose, having certain new and useful features in its construction all as hereinafter more fully described and particularly pointed out in the claims reference being had to the accompanying drawings in which:—

Figure 1 is a side elevation of the device as applied to a door casing and showing the door partly open; Fig. 2 is a similar view showing the door closed; Fig. 3 is a plan view of the device; Fig. 4 an end elevation of Fig. 3; Fig. 5 is an enlarged detail of the spring holding clip showing the same in elevation; and Fig. 6 is a vertical section of Fig. 5. Fig. 7 is an elevation of the apertured plate.

As shown in the drawings 1 is a base plate which is formed with a central longitudinally extending raised portion or rib 2 which is formed flat on top and has inwardly slanting side portions, the rib thus being in the form of a dovetail guide. The base plate is secured to the door casing 3 by means of screws 4, two of which pass through elongated slots 5 in the plate so that said plate may be adjusted longitudinally upon said screws in securing it to the casing and when properly adjusted may be firmly secured in place against longitudinal movement by the other screws and at the same time allow for the variation in width of the door jamb. The slide 6 formed of sheet metal is held in place upon the guide 2 by having its edges turned inward beneath the slanting sides of the dovetail guide, and along the center line of the guide the slide is formed with outwardly extending parallel right angle flanges 7 connected at the rear end 8 by a portion of the metal from which the slide is formed. Between the flanges 7 is pivoted a dog 9 upon a tubular rivet 10 passing through the flanges 7, which rivet

not only forms the pivot for the dog, but also serves to firmly secure the flanges from spreading apart.

The dog is formed with outwardly extending parallel arms 11 and 12 adapted to be engaged by the apertured plate 13 secured to the door by screws 14 extending through elongated slots in the said plate. At its opposite or inner side the dog is formed with a shoulder 15 adapted to engage a lip 16 on the end of the guide 2 formed by doubling the edge of the metal upon itself.

A coiled spring 17 is attached at one end to the slide 6 by passing the end of the spring through the tubular rivet 10, and the opposite end of the spring is adapted to extend through and open into the up-turned end portion 18 upon the rear end of the guide 2. A clip plate 19 formed of thin sheet metal is provided to engage between the turns of the spring and thus detachably secure the end of the spring within the opening in the up-turned end 18. This clip is formed with a concavo-convex portion of a diameter less than the internal diameter of the spring so that when the plate is inserted between the turns of the wire this protuberance will prevent its slipping out, and the plate is bent laterally at one edge at 21 so that it may be readily detached thereby. The upturned end 18 of the guide is provided with a laterally bent portion 22 and when the clip plate is in place its flange 21 will lie close beneath the portion 22 and thus the clip is prevented from becoming detached further. The tension of the spring may thus be readily varied by means of the clip plate 19 and thus make it adaptable to doors of different weights.

When the door is closed with the arm 12 of the dog 9 engaging the aperture in the plate 13 carried by the door, said door is held in closed position by the action of the spring 17 which tends to draw the slide away from the door, and thus the arm 12 is brought into engagement with the side of the opening in the plate 13 on the door and the door pulled closed by the spring. When the door is opened the spring will be drawn out as shown in Fig. 1 the slide moving along the guide until the shoulder 15 of the dog passes the lip 16 when said dog will turn on its pivot and its arm 12 will be disengaged from the opening in the plate 13 on the door and release the door. The spring is held under tension by the dog and

the dog remains in the position in which it was placed by the opening of the door until the door is again closed when the end of the plate 13 will pass the arm 12 as before but will strike the arm 11 and tilt the dog disengaging the shoulder 15 from the lip and reengaging the arm 12 with the opening in the plate 13. The spring will then act as before to move the slide and hold the door closed. The outer end of the arm 12 is preferably beveled as at 23 so as to increase the turning movement of the dog so that said plate 13 may not disengage itself from the arm 12 before the dog has engaged the lip 16. Thus it will not be necessary to adjust the plate 13 accurately in order that it may properly cooperate with the dog and the shrinkage or expansion of the door will not affect the operation of the catch.

By forming the parts as described an extremely cheap and efficient construction is secured and the parts may be very quickly assembled and the device readily attached to the door and casing and properly adjusted.

What I claim as my invention is:—

1. In a device of the character described, the combination of a base, a slide on the base, a coiled spring attached at one end to the slide, means having an opening to receive the opposite end of the spring, and a removable plate adapted to be inserted between the turns of the spring and engage said means to detachably and adjustably hold the spring within said opening.

2. In a device of the character described, the combination of a base, a slide on the base, a coiled spring attached at one end to the slide, a projection on the base having an opening to receive the opposite end of the spring, a removable plate adapted to be inserted between the turns of the spring and provided with a protuberance projecting laterally therefrom to extend within the interior of the spring and detachably hold the plate in place.

3. In a device of the character described, the combination of a base, a slide upon the base, a coiled spring attached at one end of the slide, an outwardly turned portion on

the base having an opening to receive the opposite end of the spring and provided with a laterally extending flange at its free end, a plate adapted to be inserted between the turns of the spring and formed with a concavo-convex portion to extend within the spring, and a laterally turned flange on the plate adapted to lie beneath the other flange when the plate is in place.

4. In a device of the character described, the combination with a base plate formed with a longitudinally extending raised guide, a slide engaging said guide and formed with parallel outwardly extending flanges connected at one end, a dog between said flanges, a tubular rivet extending through the flanges and dog to form a pivot for the dog and secure the flanges, a coiled spring to actuate the slide attached thereto by having its end extended through the tubular rivet, a plate adapted to be inserted between the turns of the spring at its opposite end to hold the spring in position on the base plate, and a plate to cooperate with the dog and actuate the slide.

5. In a device of the character described, the combination of a base plate formed with a longitudinally extending dovetail guide, a slide upon said guide having outwardly extending parallel flanges, a dog pivoted between said flanges and provided with a shoulder at one side adapted to engage the end of the raised guide and parallel arms at its opposite side, one of which arms is of greater length than the other and formed with a beveled end, a spring secured at one end to actuate the slide in one direction, an apertured projection on the base to receive the opposite end of the spring, a plate adapted to be inserted between the turns of the spring to hold the spring in said apertured projection, and an apertured plate adapted to be attached to a door and to cooperate with the arms on the dog.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE W. MALLORY.

Witnesses:

C. R. STICKNEY,
A. M. DORR.