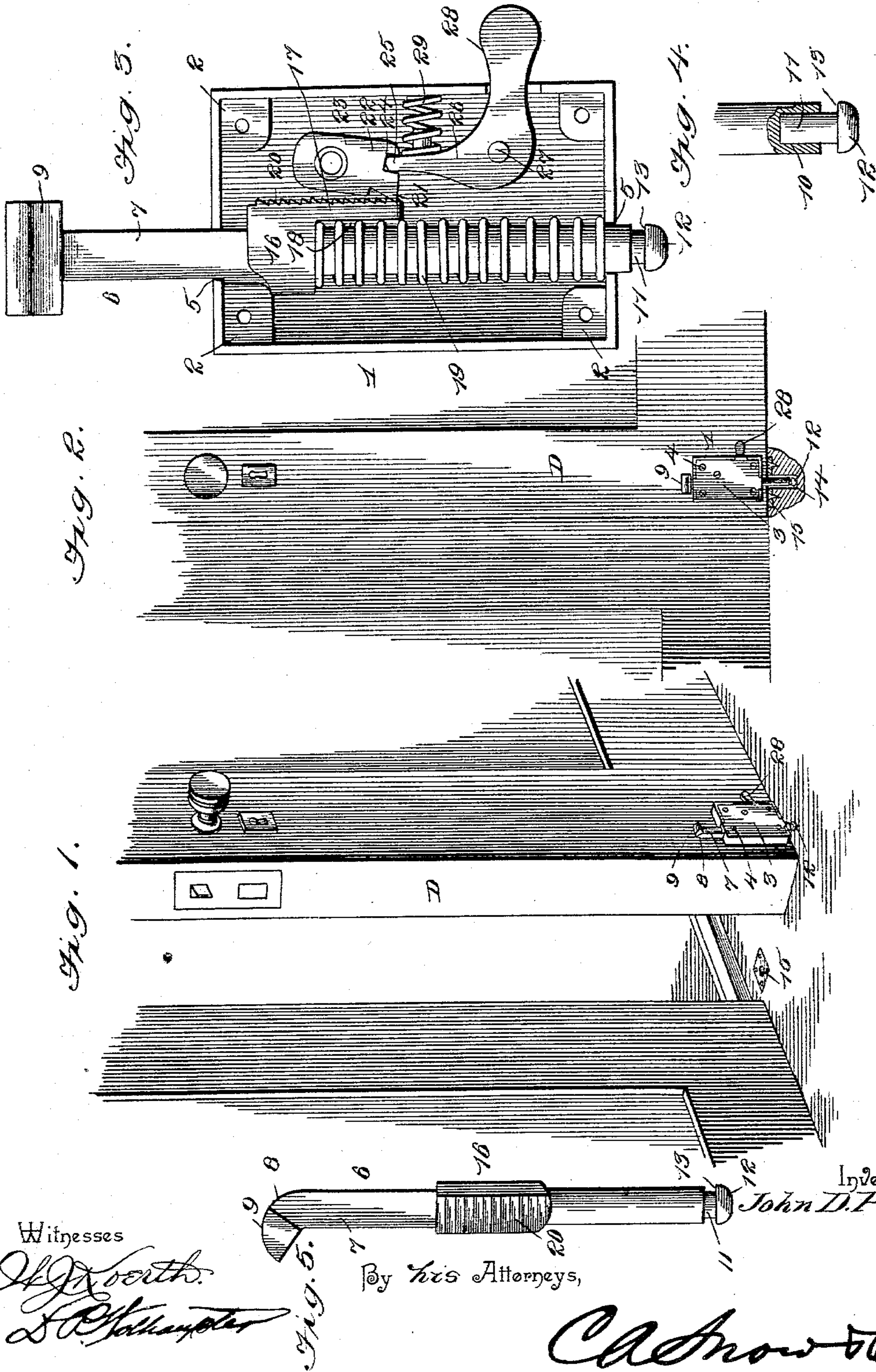


(No Model.)

J. D. PLATT.
DOOR CHECK.

No. 559,600.

Patented May 5, 1896.



Witnesses

H. J. North.
S. R. Chandler

By his Attorneys,

C. A. Snow & Co.

Inventor

John D. Platt,

UNITED STATES PATENT OFFICE.

JOHN D. PLATT, OF FORT PLAIN, NEW YORK, ASSIGNOR OF ONE-HALF
TO FRANK G. KELSEY, OF SAME PLACE.

DOOR-CHECK.

SPECIFICATION forming part of Letters Patent No. 559,600, dated May 5, 1896.

Application filed January 9, 1896. Serial No. 574,893. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. PLATT, a citizen of the United States, residing at Fort Plain, in the county of Montgomery and State of New York, have invented a new and useful Combined Door Check and Bolt, of which the following is a specification.

This invention relates to combined door checks and bolts; and it has for its object to provide a new and useful device of this character that shall be very simple in construction, while at the same time very efficient in operation, to provide for securely bolting a door when closed, and also for securely fastening or checking the door at any angle when open to prevent the same from slamming or being blown either way by drafts or wind.

The invention also contemplates an improved combined door check and bolt which is capable of application to any part of a door and which can be entirely controlled by foot without the necessity of reaching down to manipulate the same, as is necessary in similar devices in use.

With these and other objects in view, which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

In the drawings, Figure 1 is a perspective view of a door partly open, showing the herein-described combined check and bolt applied thereto. Fig. 2 is an elevation of a door in its closed position, showing the use of the combined door check and bolt for bolting the door when closed. Fig. 3 is a side elevation of a combined door check and bolt constructed in accordance with this invention, the cover of the casing being removed. Fig. 4 is an enlarged detail sectional view of the extreme lower end of the sliding pressure-bolt. Fig. 5 is a detail elevation of the sliding pressure-bolt removed from its casing.

Referring to the accompanying drawings, the numeral 1 designates a rectangular box-casing provided in its corners with the perforated corner-lugs 2, on which are removably clamped the corners of the cover-plate 3, partly fastened in position by means of the

screws 4, that pass through the perforations of the lugs 2 and also afford a means of attaching the box-casing to a door D, at the bottom thereof and directly adjacent to its swinging or free edge, although it will of course be understood that the box-casing can be conveniently attached to any other part of the door where the device can act as a combined check and bolt, as contemplated by the present invention.

The casing 1 is provided in its upper and lower ends with the vertically-alined slide-openings 5, which loosely receive the vertically-sliding pressure-bolt 6, which extends through both of said slide-openings 5 and projects above and below the casing 1, in which it works. The sliding pressure-bolt 6 has the upper portion thereof preferably square, as at 7, and the upper slide-opening 5 is also correspondingly square, so as to obviate any undue play or turning of the pressure-bolt during the operation thereof. The vertically-sliding pressure-bolt 6 is provided with a forwardly-curved upper extremity 8, having a rounded cross-head 9, forming a foot-piece for the toe of the foot in depressing the plunger-bolt to either lock the door in a closed position or check the same in a partly-open position, and it will be noted that by reason of the forward curvature or projection of the upper extremity of the pressure-bolt the cross-head 9 is disposed sufficiently far away from the face of the door so that the toe of the foot can be readily placed thereon.

The lower tip end of the vertically-sliding pressure-bolt below the casing 1 is provided therein with a socket 10 to receive the cylindrical shank 11 of the rounded rubber friction-tip 12, disposed a distance below the said lower tip end of the bolt. The said rubber friction-tip 12 joins its shank 11 in a shoulder 13, which is normally disposed below the lower end of the bolt 6, but which is adapted to be forced thereagainst by a continued downward pressure of the bolt, and it will therefore be observed that by reason of having the shoulder 13 and the tip 12 normally below the lower end of the bolt 6 the rubber is allowed to yield considerably before the shoulder 13 engages against the lower end of the bolt 6, thereby

providing a very secure check for holding the door partly open, as illustrated in Fig. 1, without defacing the floor or injuring the carpet. The rubber friction-tip 12 is of the same or a smaller diameter than the bolt 6, so that the lower end of said bolt will freely enter a keeper-socket 14, formed in the floor adjacent to the threshold or in the threshold itself, so that when the door is closed and the lower end of said bolt forced into said keeper-socket the door will be securely bolted in this position, and a perforated escutcheon-plate 15 is preferably fitted in position at the upper end of the socket 14 to prevent undue enlarging thereof, as will be readily understood.

The vertically-sliding pressure-bolt 6 is provided at a point intermediate of its upper and lower ends with an integral enlarged ratchet-head 16, which is provided at its lower side with a depending arm extension 17, disposed parallel to the bolt 6 and spaced a sufficient distance therefrom to form a keeper-socket 18 for the upper end of the spiral spring 19. The spring 19 is coiled on the bolt 6 below the head 16, and bearing at its lower end against the lower end of the casing 1 provides for normally holding the bolt 6 in an elevated position, and when the bolt is depressed so as to contract the spring the keeper-socket 18 materially assists in maintaining the shape of the spring by preventing undue bulging thereof. The arm extension 17 and the side of the head 16, alining therewith, are provided with a continuous series of upwardly-disposed ratchet-teeth 20, which are normally engaged by the beveled catch-point 21, formed at one lower corner of the catch-dog 22. The catch-dog 22 is perforated, in a plane above its catch-point, to pivotally fit on the pivot-post 23, projected outwardly from the inner side of the casing 1, and in its lower end the pivoted catch-dog 22 is provided with a notch 24, which loosely receives the narrowed top extremity 25 of one arm of the bell-crank lever 26.

The bell-crank lever 26 is pivotally mounted at its angle, as at 27, within the casing 1, and has one end thereof extended through an opening in one side of the casing to form a foot-piece 28, adapted to be engaged by the toe of the foot in order to disengage the catch-dog from the ratchet-teeth 20.

A coiled spring 29 is disposed between the inner arm of the bell-crank lever and one side of the casing to normally adjust the lower pointed end of the dog in engagement with said ratchet-teeth. By reason of having the catch-point of the catch-dog disposed below and at one side of the pivot of such dog it will be obvious that any upward pressure exerted on the pressure-bolt will necessarily bind the ratchet-head of the bolt in tighter engagement with the catch-dog, so as to positively prevent the disengagement of said dog from the ratchet-teeth of said head, thereby completing a very positive and effective lock

connection for the plunger-bolt in its adjusted position to either bolt or check a door.

In operation, to either bolt or check the door it is of course understood that the pressure-bolt is forced downward with the foot or hand by a pressure on the cross-head 9, and to release the bolt from the keeper 14, or from the floor itself, a pressure of the foot on the foot-piece 28 of the bell-crank lever releases the dog 22 from the ratchet-teeth 20 and allows the spring 19 to force the bolt upward. At this point attention is further called to the fact that while the herein-described combined door check and bolt is illustrated as applied to the lower edge of a door it will of course be understood that the said device can be applied in any convenient position on the door and also applied to windows to serve the function of a window-fastener. It will be further observed that when the device is used simply as a lock-bolt in connection with the keeper 14 the pressure-bolt is preferably operated by hand, so as to force one end thereof into the keeper, and in order to insure the greatest degree of durability the pressure-bolt and dog 22 are preferably made of malleable iron, whereby the liability of the breakage of the ratchet-teeth 20 and the point of the dog is reduced to a minimum.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

In a combined door check and bolt, the combination of the casing provided in its upper and lower ends with vertically-alined slide-openings, a pressure-bolt mounted to slide in said openings and provided at an intermediate point within the casing with a ratchet-head having at one side a vertical series of upwardly-disposed ratchet-teeth, a spring arranged under the ratchet-head of said bolt to normally elevate the latter, a catch-dog pivotally mounted within the casing and provided in its lower end with a notch and at one lower corner with a beveled catch-point normally engaging the teeth of said ratchet-head, a bell-crank lever pivotally mounted within the casing and having a foot-piece projected out of the casing and a narrowed extremity loosely engaging the notch of the dog, and a spring disposed between the inner arm of the bell-crank lever and one side of the casing, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN D. PLATT.

Witnesses:

F. J. EHLE,
C. A. BERGEN.