F. C. RUSSELL.

DOOR CHECK.

APPLICATION FILED APR. 10, 1909.

943,791. Patented Dec. 21, 1909.

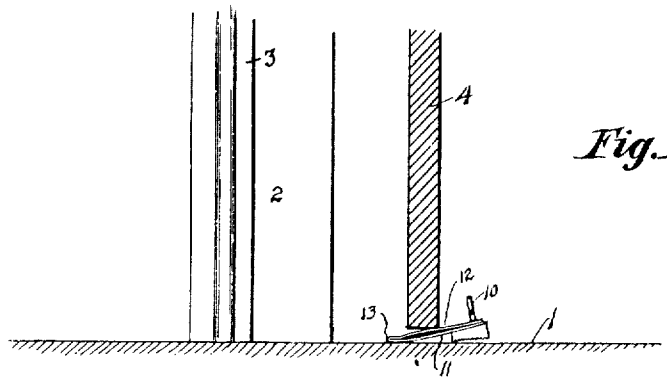

Fig. 1.

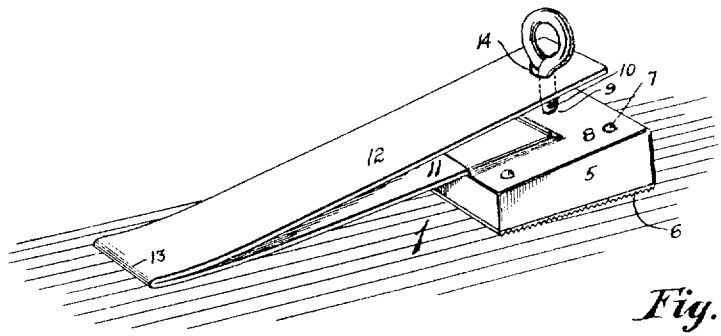

Fig. 2.

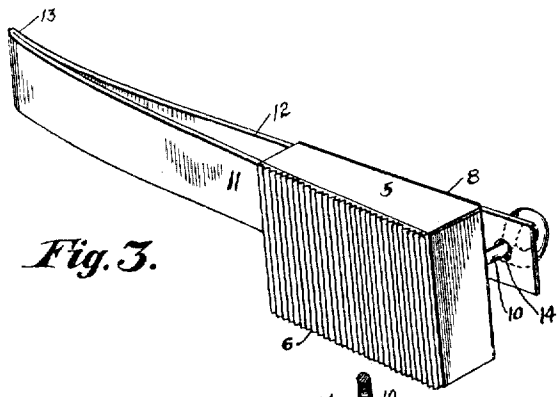

Fig. 3.

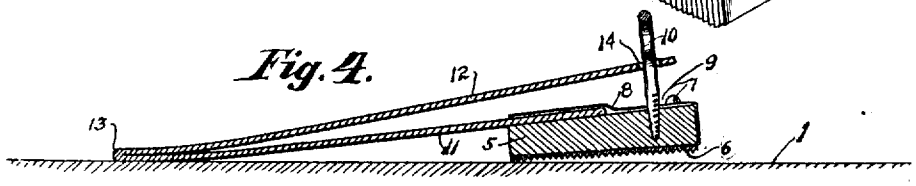

Fig. 4.

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UNITED STATES PATENT OFFICE.

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DOOR-CHECK.

943,791. Specification of Letters Patent. Patented Dec. 21, 1909.

Application filed April 10, 1909. Serial No. 489,210.

To all whom it may concern:

Be it known that I, FRANK C. RUSSELL, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented a new and useful Door-Check, of which the following is a specification.

My invention relates to improvements in devices to be used for temporarily holding hinged doors against swinging movement when open; and the objects of my improvement are to provide a neat, substantial, convenient and efficient device of the character described which may be used for various doors and which need not be altered to suit varying conditions, to provide a device which will not injure the door or floor, and to so construct the device as to render it cheap and easily made. I attain these objects, together with other objects readily apparent to those skilled in the art, by the construction illustrated in the accompanying drawing, in which—

Figure 1 is a view, partly in vertical section, illustrating the jamb of a door, the door partially opened from said jamb, and a device embodying my invention arranged to hold the door temporarily in position. Fig. 2 is a perspective view of my device properly arranged upon a floor in position for stopping, catching and locking the door. Fig. 3 is a perspective view of the device from the under side. Fig. 4 is a longitudinal sectional view through the device.

Throughout the several views similar numerals of reference indicate similar parts.

The numeral 1 indicates the floor which, in so far as the operation of my invented construction is concerned, may be of wood, marble, covered with carpet or in fact of any of the ordinary floor constructions.

2 indicates the door jamb and 3 indicates the door stop against which the free edge of the door is adapted to close.

4 indicates the door.

My invented construction consists of a block, 5, preferably constructed of wood and provided upon its under surface with a frictional pad, 6, adapted to frictionally engage the floor. In the place of the pad, 6, which is usually constructed of rubber and provided with a roughened surface, it is evident that metallic projections or teeth might be employed which would so engage the floor as to prevent slipping of the block 5 thereon, but the rubber pad is preferable because of the fact that it will produce no injury to the floor. The block 5 is preferably so shaped that its upper surface is not parallel with the surface of the pad 6, but is at a slight angle thereto for the purpose hereinafter more fully disclosed.

Arranged upon the top surface of the block 5 and connected thereto by any suitable means, such as the tacks 7, is a sheet metal cap, 8, provided with an aperture at 9, for the reception of a screw-eye, 10, which is screwed into the block 5, as illustrated in Fig. 4.

Arranged between the cap 8 and the block 5 and frictionally held between the two is the end of the lower portion 11 of the door engaging spring. This spring is preferably formed of a flat strip of steel and comprises the said lower portion 11 and the integral upper portion 12 connected by the folded portion 13. In the manufacture of the spring the portions 11 and 12 are so formed as to diverge from the portion 13 at a somewhat wide angle with reference to each other. The upper portion 12 is provided with an aperture 14 adapted to register with the aperture 9. In constructing the device the block 5 and lower portion 11 are arranged and connected as hereinbefore described, the upper portion 12 is then forced downwardly against its spring action, and the screw-eye arranged in the apertures 14 and 9 and screwed into the block 5, to hold the portion 12 against undue upward movement. It should be stated that the material of which the said spring is composed should be of such dimension and temper as to produce a considerably strong spring action. It should also be stated that the downward slant of the upper surface of the block 5 should be arranged in the direction of the portion 13. The arrangement of the said block 5 and the spring and the slant of the upper side of the block 5 is preferably so arranged that when the device is placed upon the floor it will assume the position illustrated in Fig. 4, the edge of the pad 6, opposite the portion 13 of the spring being slightly elevated from the floor 1 when the said portion 13 rests upon the floor.

A device of the character described having been provided the manner of its use is as follows. It is a well known fact that swinging doors are so constructed as to

leave a space between the bottom edge of the door and the surface of the floor for the purpose of permitting the door to freely swing over rugs and the like. It will be presumed that it is desired to prevent the door in Fig. 1 from swinging farther away from the jamb. The device is arranged upon the floor in the position illustrated in Figs. 2 and 4, with the portion 13 of the spring extending toward the door. The door is then swung toward the device, when the bottom edge of the door will swing over the portion 13 and against the inclined portion 12 of the spring. The pad 6, frictionally engaging the floor or floor covering will prevent the block 5 from moving or sliding upon the said floor and as the door is moved into firmer engagement with the device it will be found that the spring and block will co-act to provide what may be termed a spring wedge well adapted to stop, catch, and lock the door in the desired position. In case the space between the lower edge of the door and the floor is slight the door may be held with sufficient firmness in the desired position by advancing the said door, with reference to the spring, only to the position illustrated in Fig. 1. In cases where the space between the bottom edge of the door and the floor is greater the door may be swung over the device until it is directly above the block 5. When this relative position is attained it will be found that the block 5 will lie with the pad 6, at all points in engagement with the floor, or in other words the block 5 will rock from the position illustrated in Fig. 4 into a position in which it will lie flat against the floor. In this position it will be found that the portion 12 of the spring will sufficiently engage the bottom of the door to frictionally maintain it against movement.

In connection with doors where spring door checks, spring hinges, or other door closing devices are employed it will be found that my invented construction is particularly convenient. Another use of the device is to prevent the slamming of open doors by drafts of air. Yet another practical use of the device is to hold the door ajar for purposes of ventilation in hotels, lodging houses and the like where it is desired to permit the door of the room to stand in a slightly opened position without permitting the uninvited intrusion of other persons who might otherwise enter the room without warning. While the device will of course not prevent the entrance of undesired persons in such cases, provided they are permitted to manipulate the door sufficiently to loosen it from the device, yet when the device is used in such instances warning is given the intruder that he is attempting to enter the wrong room or at least that the occupant of the room does not desire to be disturbed, and at the same time any manipulation of the door by the intruder in order to enter the room will be sufficient warning to the occupant.

I claim:

1. A device of the character herein described comprising a block, frictional means arranged upon said block and adapted to engage the floor, and a folded spring, one end of said spring connected to said block and the other end of the spring lying normally in vertically spaced relation with reference to said block, the folded portion of said spring being adapted to normally rest against the floor and to enter the space between the door and the floor when the said door is swung toward the device.

2. The herein described device comprising a block adapted to be placed upon the floor, frictional means on the bottom of said block adapted to engage the floor and prevent sliding movement of said block thereon, and a spring connected to said block and adapted to frictionally engage the bottom edge of a door when the said door is swung into engagement with the same.

3. A device of the character described comprising a block, a frictional pad arranged upon the under surface of said block and adapted to frictionally engage the floor, the upper surface of said block arranged in inclined relation with reference to the said under surface, a sheet metal cap arranged upon and connected to said block upon its upper surface, an aperture in said metal cap, and a spring consisting of two portions, the one lying above the other and in spaced relation thereto and connected by an integral folded portion, the end of the lower portion opposite the folded portion arranged between said sheet metal cap and said block, the end of the upper portion opposite said folded portion provided with an aperture and a screw-eye extending through the aperture in said spring, the aperture in said sheet metal cap and into the said block for the purpose of preventing undue separation between said upper and lower portions of said spring while permitting a downward movement of said upper portion with reference to said block.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

FRANK C. RUSSELL.

Witnesses:
LAURA R. KLINE,
WILLIAM H. MILLER.