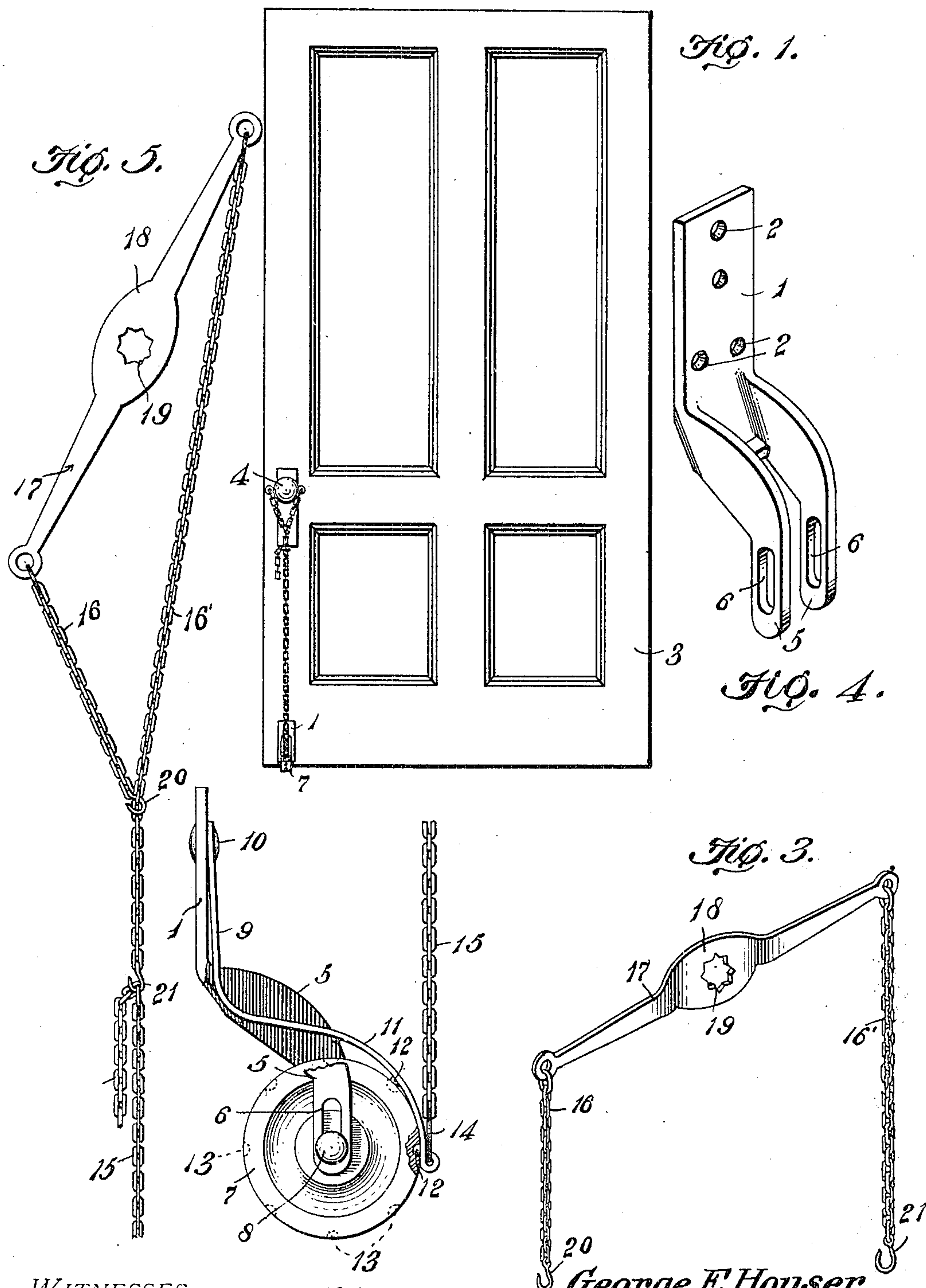


No. 831,788.

PATENTED SEPT. 25, 1906.

G. E. HOUSER.
DOOR STOP.

APPLICATION FILED MAR. 7, 1906.



UNITED STATES PATENT OFFICE.

GEORGE EDWARD HOUSER, OF COLUMBUS, KANSAS.

DOOR-STOP.

No. 831,788.

Specification of Letters Patent.

Patented Sept. 25, 1906.

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To all whom it may concern:

Be it known that I, GEORGE EDWARD HOUSER, a citizen of the United States, residing at Columbus, in the county of Cherokee and State of Kansas, have invented a new and useful Door-Stop, of which the following is a specification.

This invention relates to door-stops, and has for its object to provide an improved device of this character which is complete in itself and capable of being fitted to any ordinary swinging door so as to hold the latter in any open position and which is controlled by the knob-spindle of the door to release the stop when it is desired to open and close the door.

With this object in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is an elevation of a door equipped with the stop of the present invention. Fig. 2 is an enlarged side elevation of the device with parts broken away. Fig. 3 is a detail perspective view of the cross-head for connection with the knob-spindle. Fig. 4 is a detail perspective view of the bracket member of the device. Fig. 5 is a detail view illustrating the adjustment of the device.

Like characters of reference designate corresponding parts in all of the figures of the drawings.

The present invention includes a bracket made up of a flat top plate or shank member 1, provided with suitable perforations 2 for the reception of fastenings to secure the shank flat against the door 3 adjacent its lower edge and in vertical alinement with the knob 4 thereof. The lower end of the bracket is provided with outwardly and downwardly inclined fork members 5, each of which has its lower end portion disposed in an upright position and provided with a longitudinal slot 6. Within the fork there is a roller 7, having the ends of its axle or journals 8 slidably received within the slots 6 in order that the wheel may not only rotate as it rolls on the floor during the opening and

closing of the door, but may also yield vertically to compensate for changes in distance between the door and floor or to follow the undulations or unevennesses in the latter. A spring-arm 9 is secured at its upper end to the outer face of the bracket 1, as at 10, and has its lower end portion 11 bowed around the top and outer peripheral portions of the wheel so as to form a brake-shoe, and at suitable intervals the under side of the brake-shoe is provided with studs or projections 12. The periphery of the wheel is provided with an annular series of sockets or seats 13, into which the projections 12 are designed to engage, and thereby prevent rotation of the wheel. A suitable link 14 is loosely connected to the free end of the brake-shoe, and a chain or the like 15 rises from the link. The upper end portion of the chain is provided with diverged or forked branches 16 and 16', which are connected to the respective ends of a cross-head 17, preferably in the nature of a flat metallic bar having its middle portion 18 enlarged and offset laterally, there being a central opening 19 formed in the enlarged portion and provided with a polynotched periphery for the reception of the knob-spindle.

In practice the device being attached to the door, as shown in Fig. 1 of the drawings, the brake-shoe holds the wheel down in engagement with the floor and prevents rotation of the wheel, whereby the door will be held in any open position. Upon grasping the knob and turning the latter in either direction the brake-shoe will be lifted through the pull thereon which is exerted by the chain 15, whereby the wheel or roller will be free to rotate and rise or fall as it rolls on the floor during the movement of the door, and the door may be opened and closed without any interference on the part of the stop. Just as soon as the knob is released the spring brake-shoe will become set, so as to lock the roller against rotation, and thereby hold the door in a very simple and efficient manner.

By reference to Fig. 3 of the drawings it will be noted that the chain 16 is shorter than the chain 16', and the free ends of these chains are provided with the respective hooks 20 and 21. When the cross-head is applied horizontally to the knob-spindle, the hook 20 is engaged with an intermediate portion of the chain 16', and the hook 21 is engaged with one of the links of the chain 15. Should the cross-head be of a length to project be-

yond the free edge of the door, it should be turned into an upright position, as shown in Fig. 5 of the drawings, in which event the hooks 20 and 21 are engaged with the chain 5 15 at suitable points to have the latter relatively taut, so as to quickly respond to swinging movements of the cross-head.

Having thus described the invention, what is claimed is—

10 1. A door-stop comprising an attaching-bracket, a freely-rotatable floor-engaging roller carried thereby, a spring fixed at one end to the bracket and disposed partially around the periphery of the roller to normally 15 prevent rotation of the latter, and a door-knob-controlled device connected adjacent the free end of the spring for disengaging the same from the roller.

20 2. A door-stop comprising an attaching-bracket, a rotatable floor-engaging roller carried by the bracket, a leaf-spring carried by the bracket and formed into a brake-shoe normally engaging the roller to prevent rota- 25 tion thereof, and means connected to the shoe for disengaging the same from the roller.

30 3. A door-stop comprising an attaching-bracket, a rotatable floor-engaging roller mounted thereon and provided in its periphery with an annular series of sockets, a leaf-spring carried by the bracket and bowed to embrace the periphery of the roller as a brake-shoe, said shoe having a projection to enter the respective sockets of the roller to prevent 35 rotation thereof, and means connected with the shoe for releasing the same from the roller.

4. A door-stop comprising a bracket hav-

ing downwardly-directed laterally-offset fork members provided with upright slots, a floor-engaging roller journaled in the slots and slid- 40 able therein, a leaf-spring having its upper end connected to the bracket and its lower end portion bowed to frictionally embrace the roller in the manner of a brake-shoe, and means connected to the free end of the 45 spring to discharge the shoe from the roller.

5. A door-stop comprising an attaching-bracket, a floor-engaging roller mounted thereon, a brake for the roller, a cross-bar for engagement with the knob-spindle, a chain 50 connected to the brake, and chains of different lengths connected to opposite ends of the cross-head and provided with terminal hooks for engagement with the first-mentioned chain. 55

6. A door-stop comprising an attaching-bracket, a floor-engaging roller mounted thereon, a brake for the roller, a cross-bar for engagement with the knob-spindle, a chain 60 connected to the brake, and chains of different lengths connected to opposite ends of the cross-head and provided with terminal hooks for engagement with the first-men- 65 tioned chain, the cross-bar being provided with a central knob-spindle opening provided with a polynotched wall.

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

GEORGE EDWARD HOUSER.

Witnesses:

N. T. ALLISON,
PEARL KOONTZ.