No. 678,889. Patented July 23, 1901.

G. W. MALLORY.

DOOR CHECK.

(Application filed Nov. 5, 1900.)

(No Model.)

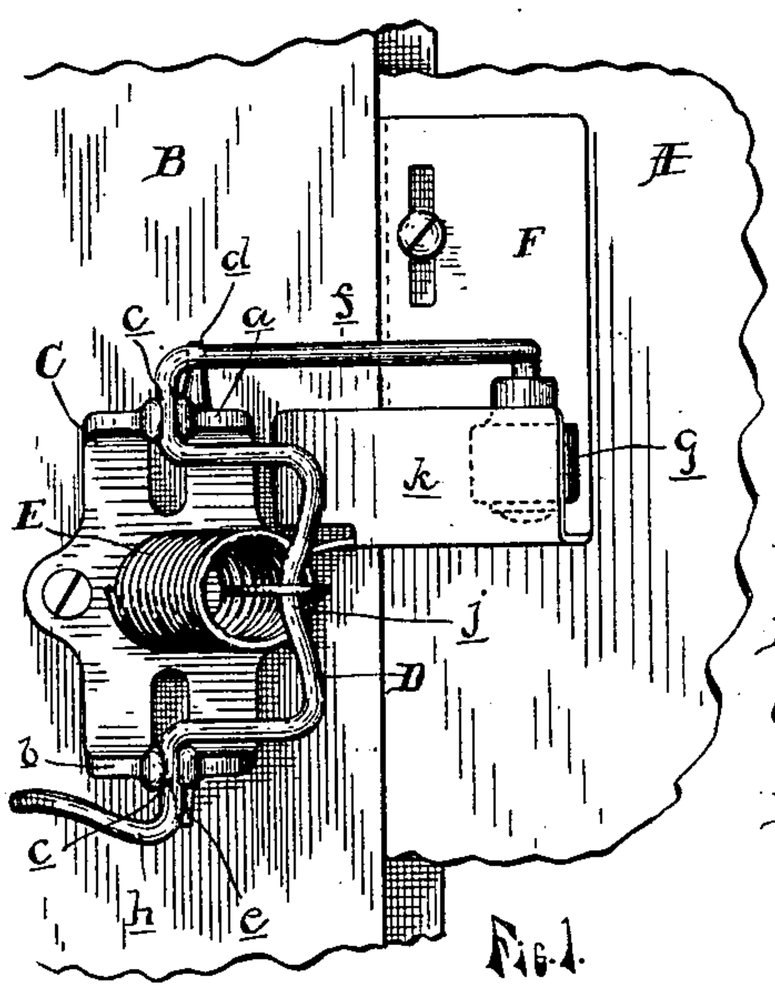


Fig. 1.

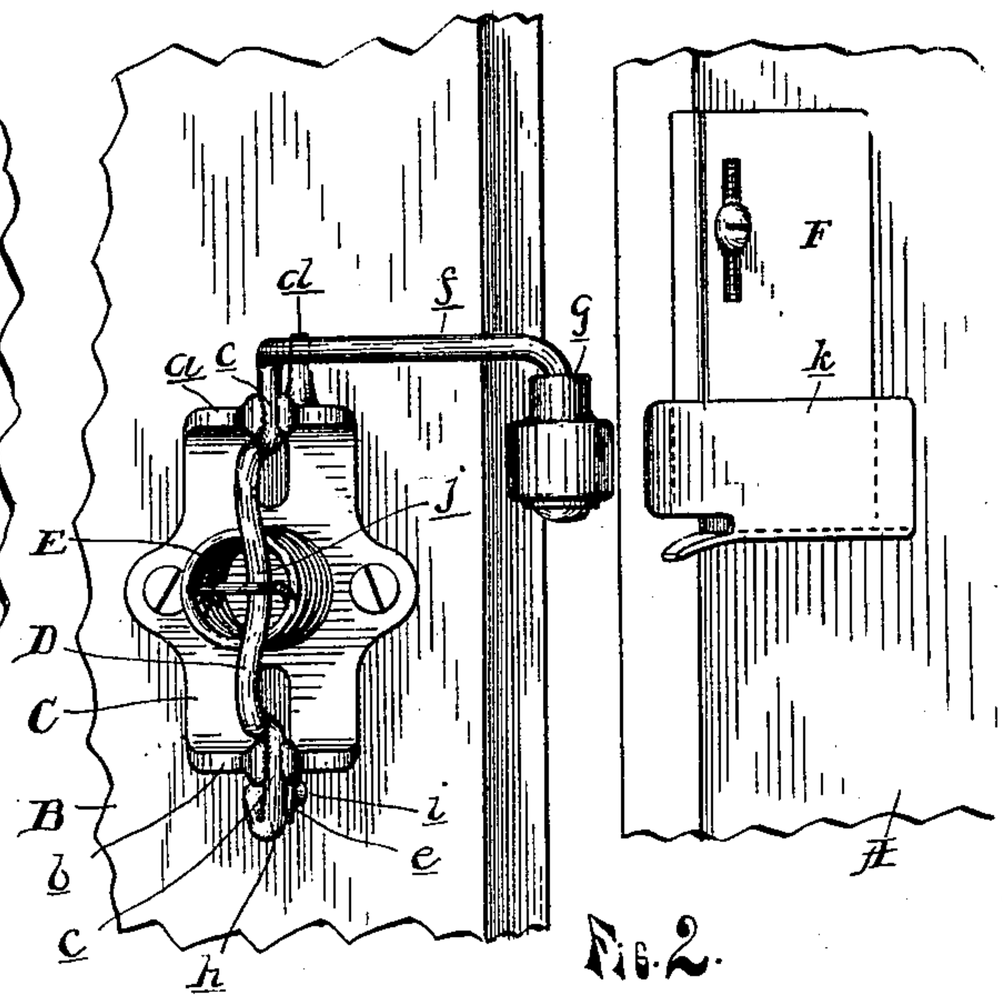


Fig. 2.

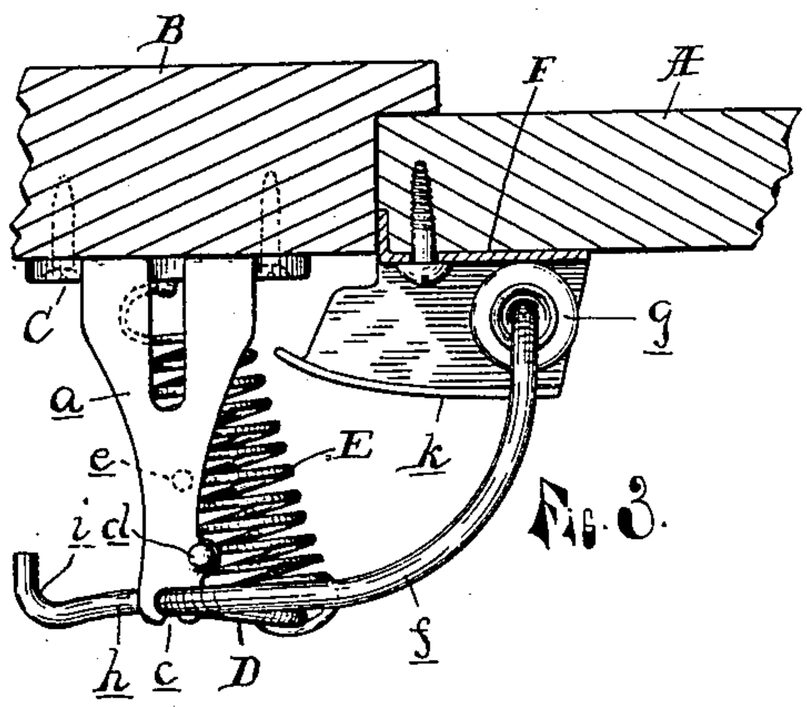


Fig. 3.

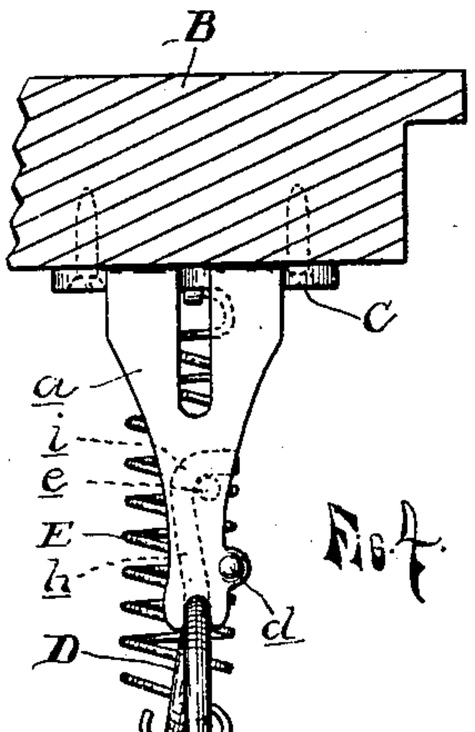


Fig. 4.

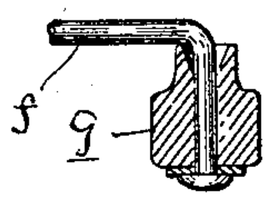
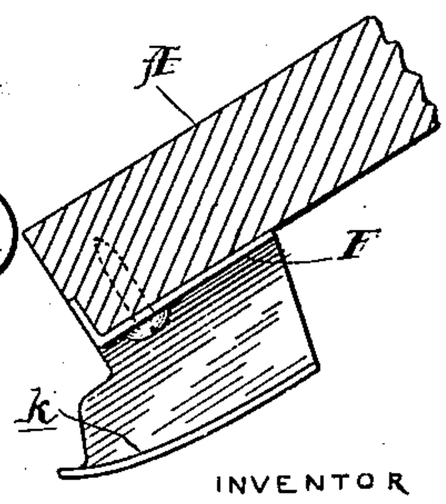


Fig. 5.



INVENTOR

WITNESSES:

Lewis E. Sanders

Joseph A. Wordke

George W. Mallory

By Bartlett & Bartlett

Attorneys.

UNITED STATES PATENT OFFICE.

GEORGE W. MALLORY, OF GUILDS, CANADA.

DOOR-CHECK.

SPECIFICATION forming part of Letters Patent No. 678,889, dated July 23, 1901.

Application filed November 5, 1900. Serial No. 35,453. (No model.)

To all whom it may concern:

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

This invention relates to new and useful improvements in door-checks, and has for its object to provide a door-check which does not depend upon the thickness of the door for actuating it, but is applicable to any door and will close the same perfectly; and to this end the invention consists in the use of a spring-actuated arm journaled in a bracket secured to the door-casing and a plate carried by the door adapted to strike said arm and set the same in motion to close the door; and the invention further consists in the peculiar construction, arrangement, and combination of parts, all as more fully hereinafter described, and shown in the accompanying drawings, in which—

Figure 1 is a front elevation of my improved door-check with the door closed. Fig. 2 is a front elevation with the door as in the act of being closed. Fig. 3 is a plan view of Fig. 1. Fig. 4 is a plan view of Fig. 2. Fig. 5 is a section through the antifriction-roller.

As shown in the drawings, A is the door, and B the door-casing, to which the bracket C is attached, which bracket is preferably made of malleable iron, with the arms *a b* bent at right angles thereto and provided at their outer ends with the open bearings *c* and the stop-pins *d e*, respectively.

D is a crank-shaft laid in the bearings *c*, and after which the open ends of said bearings are bent over the shaft to pivotally hold the same in place, the opposite ends of said shaft being provided with the curved arm *f*, carrying an antifriction-roller *g* at its outer end, and the short arm *h*, extending in the opposite direction on the opposite end of the shaft and having a hook *i* at its outer end adapted to strike against the stop-pin *e* when the curved arm is thrown back.

E is a spring connecting the base of the bracket with the crank-shaft at a point *j*, and it will be seen that the U-shaped portion of the crank-shaft is bent slightly out of line with the arm *f*, so as to hold the same, through the medium of the spring, in its extended position, as shown in Figs. 2 and 4.

F is a sheet-metal plate adjustably secured to the door A in operative relation to the roller *g* and at its lower end is provided with a curved lip or flange *k*, adapted to strike the roller as the door is swung closed and carry the crank-shaft D over the center, when the spring E, through the medium of the curved arm *f*, will hold the door closed, as shown in Figs. 1 and 3, and as the door is opened the roll *g*, through the medium of the arm *f*, will throw the crank-shaft over the center line, in which position it will be held by the spring until the door is again swung closed.

It will thus be seen that my door-check acts upon and is actuated by one side of the door only, thus not being affected by the varying thickness of doors. The stop-pin *d* is for the purpose of keeping a slight tension on the spring E when the parts are packed for shipping or in the store, so that the parts will not rattle loose and become lost, and to aid the purchaser in attaching it properly to the door.

I preferably countersink the upper portion of the roll *g*, as shown in Fig. 5, so that said roll will not bind on the curved portion of the arm.

As shown in the drawings, it will be seen that the coacting parts of the checking device are located at or near the meeting edges of the door and jamb in operative relation to each other, and, if desired, I may attach the spring-arm to the inside of the door and the lip to the inside of the door-casing instead of as shown in the drawings, as the parts are entirely reversible, thus enabling my device to be applied to any door.

Having thus fully described my invention, what I desire to secure by Letters Patent is—

1. In a door-checking device located at or near the meeting edges of the door and jamb, the combination of a bracket, a spring-actuated shaft journaled in the bracket, a presser-arm extending from said shaft, and a plate or lip for actuating the presser-arm upon the inward movement of the door, substantially as described.

2. In a door-checking device located at or near the meeting edges of the door and jamb,

the combination of a bracket, a crank-shaft journaled in said bracket, a spring connected to the crank, a presser-arm extending from one end of the shaft, a finger from the other end, and a stop to limit the movement of the shaft in one direction, and a plate or lip in operative relation for actuating the presser-arm by the inward movement of the door, substantially as described.

3. In a door-checking device located at or near the meeting edges of the door and jamb, the combination of a bracket, a crank-shaft journaled in said bracket, a spring connected to the crank, a presser-arm extending from one end of the shaft, a finger from the other end, and stops to limit the movement of the shaft in either direction, and a lip or projection for operating the presser-arm upon the inward movement of the door, substantially as described.

4. In a door-checking device located at or near the meeting edges of the door and jamb, the combination of the bracket having arms *a b*, a crank-shaft journaled in the ends of said arms, a spring E at one end connecting with the crank-shaft and connected at the other end to the bracket, of the curved presser-arm *f* at one end of the crank-shaft, the antifriction-roller *g* thereon, the arm *h* at the other end of the shaft, the stop *e* with which the arm *h* is adapted to engage, and the plate F with which the arm *f* is adapted to engage substantially as and for the purpose described.

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

GEORGE W. MALLORY.

Witnesses:
OTTO F. BARTHEL,
JOSEPH A. NOELKE.