(No Model.)

J. LEGER & E. KELLER.

COMBINED DOOR KNOB AND STOP.

No. 329,321. Patented Oct. 27, 1885.

Fig. 1

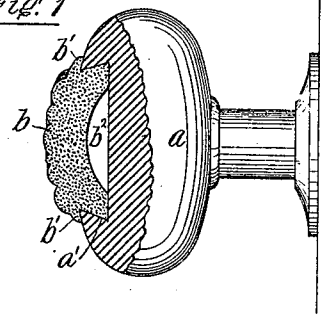


Fig. 2

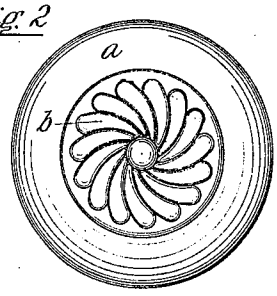


Fig. 3

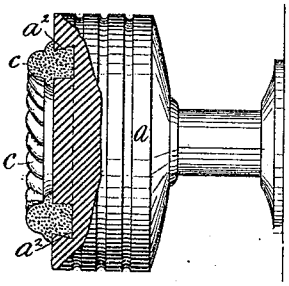


Fig. 4

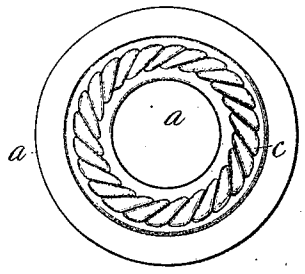


Fig. 5

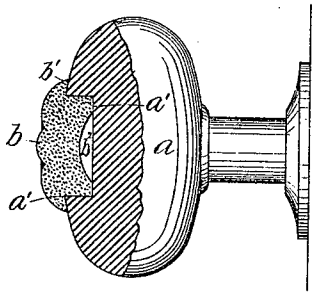
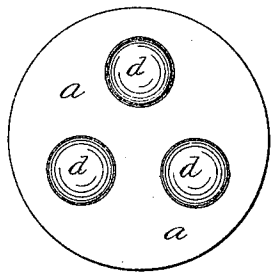


Fig. 6



Witnesses

H. D. Williams

E. L. Coy.

John Leger

Ernest Keller

Inventors

per Alfred Theobald

Atty.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

JOHN LEGER AND ERNEST KELLER, OF NEW YORK, N. Y.

COMBINED DOOR KNOB AND STOP.

SPECIFICATION forming part of Letters Patent No. 329,321, dated October 27, 1885.

Application filed March 25, 1885. Serial No. 160,127. (No model.)

To all whom it may concern:

Be it known that we, JOHN LEGER and ERNEST KELLER, citizens of the United States, residing at New York, county and State of New York, have invented a certain new and Improved Combined Door Knob and Stop, of which the following is a specification.

This invention consists in so constructing the knobs of door latches and locks as to impart to them the additional functions of stops or cushioning devices, to prevent injury to the walls or other parts of buildings or to the knobs when the doors are opened, to accomplish which we provide the face of said knobs with soft and elastic cushions or stop-pieces. By imparting to a door-knob the properties of an elastic stop all jars or strains to the doors when opened against a fixed object are opposed by a soft and elastic medium at about the central part of the door, between the hinges, thus avoiding the twisting strain applied to the hinges by the use of ordinary door-stops, which have heretofore been secured to the lower part of the wall or fixed object projecting therefrom sufficiently to stop the door before the knob comes in contact with the wall, by the lower corner of the door striking the stop. Another objection to such fixed projecting stops is that they are in the way, and are sometimes broken or knocked off the wall. Two doors are often so located that their knobs strike together, or the knob of each comes in contact with the other door when one or both of them are opened.

Our improved elastic stop-knob is particularly useful when applied to such doors, as it will prevent injury to the knobs and doors.

In making knobs embracing our invention the knobs, whether of porcelain, metal, or other material, are provided with a recess or recesses in their faces, formed therein during the process of manufacture, and no other changes are made in the knobs over the ordinary mode of making them. In these recesses are placed plugs or blocks made of a soft and elastic material, preference being given to india-rubber for this purpose, their exposed surfaces projecting beyond the face of the knob; and these surfaces may be formed in any ornamental manner, as desired. To secure these soft elastic stop-cushions in the knobs, the recesses in the knobs may be undercut or dovetail in form, the stop-cushions being correspondingly shaped and pressed therein, with or without a cement; or the recesses may be plain and the stop-cushions secured therein by means of a suitable cement.

In the accompanying drawings, forming part of this specification, to which we will now refer, Figure 1 is a side view of our combined door knob and stop, partly in section, showing the elastic cushion centrally located in the face of the knob. Fig. 2 is a face view of the same. Fig. 3 is a side view, partly in section, showing the elastic cushion in the form of an annulus secured in the face of the knob. Fig. 4 is a face view of the same. Fig. 5 is a side view, partly in section, showing a modification in the method of securing the elastic cushion centrally in the knob, and Fig. 6 is a face view of a door-knob provided with several plugs of an elastic material secured in and projecting from the face of the same.

The door-knob *a*, composed of any suitable material, is applied to the door in the ordinary manner, and made as heretofore, with the exception of having the recess *a'* formed in its face, which recess, in Fig. 1, is circular, with the outer edge or side undercut, as shown, and in Fig. 5 is similarly shaped, with straight sides or edges. In the recess *a'* is placed the circular piece of elastic material *b*, shaped so as to fit in the recess *a'* and to be somewhat compressed when forced therein. The exposed part of cushion *b* projects beyond the face of the knob *a*, and it is provided with flange *b'*, which rests on the face of the knob at the edge of the recess *a'*, and so covers the juncture of the cushion with the knob. This flange *b'* may be omitted, if desired. The under or inner side of the elastic cushion *b* is hollowed or recessed, as shown at b^2, to impart to it greater elasticity when its face first comes in contact with a fixed object by the movement of the door to which the knob is attached, and the pressure, if sufficient, eventually compresses the substance of the elastic cushion itself, thus opposing to the movement of the door a gradually-increasing amount of resistance. The elastic cushion may, if desired, or when the substance of which it is composed is sufficiently soft and elastic, be made so as to entirely fill the recess in the knob *a*. In practice we have found the soft and elastic kind of

vulcanized india-rubber the substance best adapted for this purpose.

Instead of the elastic cushion being applied to the knob in the form of a circular central plug, as shown at Figs. 1, 2, and 5, it may be made annular in form, as at *c*, Figs. 2 and 3, and secured in a correspondingly-shaped recess, a^2, in the knob a'; or several separate plugs, *d d*, of elastic india-rubber or other suitable material, may be secured in separate holes or recesses formed in the face of the knob, as shown at Fig. 6, it being understood, in whatever form the stop-cushions may be made, that in all cases their elastic faces project beyond the rigid body of the knob in such a manner as to prevent it from coming in contact with the wall or other object near which the door is located. The elastic cushion may be secured in the body of the knob or attached thereto by any suitable cement; or, where the contact parts are undercut or dovetailed, the resilience of the cushion may be relied on to hold it in place. The exposed part of the elastic cushions may be figured as desired, to add to the ornamental appearance of the knobs, and for a like object they may also be of various colors.

Having now described our invention, what we claim, and desire to secure by Letters Patent, is—

1. As an article of manufacture, a door-knob having a soft and elastic cushioning-face, substantially as and for the purpose set forth.

2. In combination, a door-knob provided with a recess in its face, and an elastic cushioning-piece shaped so as to fit into said recess and project beyond the face of the knob, substantially as and for the purpose set forth.

3. The combination, with the knob *a*, having the undercut recess a', of the elastic cushion *b*, with or without the flange b', having its inner side, b^2, hollowed or recessed, substantially as and for the purpose set forth.

In testimony whereof we have hereunto set our hands, at New York, county and State of New York, this 19th day of March, 1885.

JOHN LEGER.
ERNEST KELLER.

Witnesses:
H. D. WILLIAMS,
ALFRED SHEDLOCK.