J. C. Plumer,

Door Check.

No. 46,697. Patented Mar. 7, 1865.

Fig. 3.

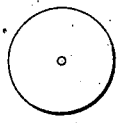
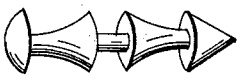


Fig. 4.

Fig. 2.



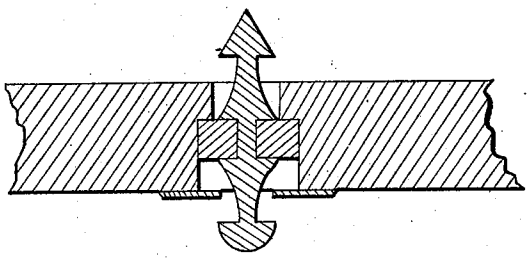


Fig. 1.

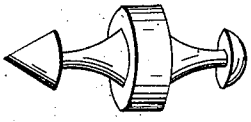


Fig. 5.

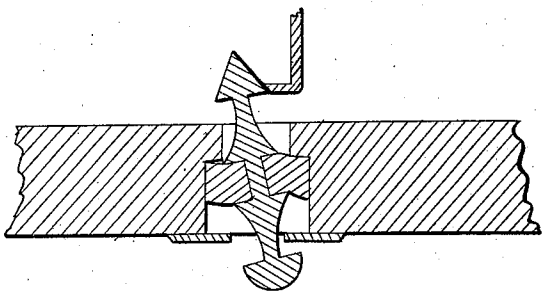
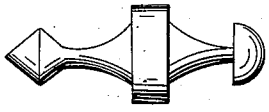


Fig. 7.



Fig. 6.



Witnesses,
William A Clifford
L. C. Strauch

Inventor,
J. C. Plumer

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

J. C. PLUMER, OF BOSTON, MASSACHUSETTS.

IMPROVED SPRING-CATCH FOR DOORS.

Specification forming part of Letters Patent No. **46,697**, dated March 7, 1865.

To all whom it may concern:

Be it known that I, J. C. PLUMER, of Boston, in the State of Massachusetts, have invented a new and useful improvement in spring-catches, to be used on doors, blinds, lids, and for other purposes; and I do hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which –

Figure 1 represents a view of my improved spring catch unapplied. Fig. 2 represents the metallic portion of my improvement; Fig. 3, the elastic portion of the same; Fig. 4, a horizontal section of Fig. 1 as applied. Fig. 5 represents Fig. 4 in operation. Figs. 6 and 7 represent modifications of Figs. 4 and 2.

The object of my invention is to produce a spring-catch, employing india-rubber for the spring, which may with facility be applied to doors, blinds, lids, and for other purposes where such a mechanical device is required, and one which operates readily and effectively in any and all directions.

My invention consists of a spring-catch comprising an inelastic part and an elastic part or parts. The elastic portion is constructed of rubber, and the other of iron, brass—any metal or hard and enduring substance—so arranged in reference to each other that the unyielding or inelastic portion of the catch shall be partially or entirely impacted within the yielding or elastic part or parts.

The part first described is represented by Fig. 3 in the accompanying drawings, and the second in Fig. 2 of the same.

Every catch which substitutes rubber for a metal spring must necessarily operate by means of the general elastic property of the rubber. The difference in springs using such a means of imparting elasticity must consist in the different modes of application or the different kinds of elasticity employed—for example, one spring may operate by means of the expansive power of rubber when compressed, and another by its cohesive or contractile power when stretched. I am aware that "snap-springs" have been made in which a piece of rubber has been substituted for the spiral spring, but in such cases the rubber is impacted between and subjected to direct compression by the metallic portions, and the spring operates by means of that property in rubber which enables it to recover its form and size when compressed.

In my invention the spring or power of the metallic part to recover its place when pushed aside by the catch, as in Fig. 5, is bestowed by the flexibility or bending properties of the rubber, as in Fig. 5. The flange A presses the rubber at one point on one side, while the flange B presses it on a corresponding point on the opposite side, thus calling into action both the powers of the rubber at the same time.

In order to enable others skilled in the art to make my invention, I will proceed to describe its construction.

I first construct the catch or bar with the conical point and flanges or shoulders A and B, Fig. 2. Through a piece of rubber, of such size and thicknes as convenience may require, either square or circular in shape, perforated at the center, I thrust the metallic part, (represented in Fig. 2,) until the rubber becomes impacted between the flanges A and B.

The metallic part of my improvement (represented in Fig. 2) may be varied to any convenient form embracing the flanges A and B and the conical point. The spring-catch (represented in Fig. 1) may then be attached to doors, blinds, lids, &c., or any other articles to which it is adapted, by a strap or staple, or by making a hole for its reception, as in Figs. 4 and 5, or by any mechanical contrivance.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The use of rubber in spring-catches when so arranged in reference to the inelastic portion of the catch as to partially or entirely encompass it, and operating by means of its flexibility or bending property in any or all directions.

2. The combination of the rubber with the catch, as described, substantially as and for the purposes enumerated.

J. C. PLUMER.

Witnesses:

WILLIAM H. CLIFFORD,
SEWALL C. STROUT.