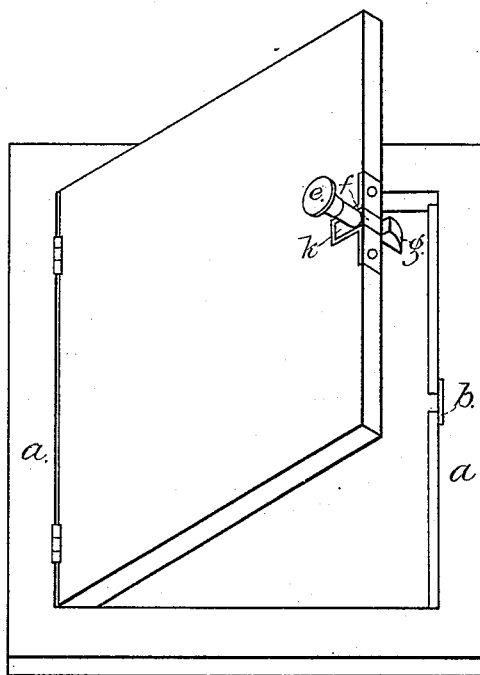


(No Model.)

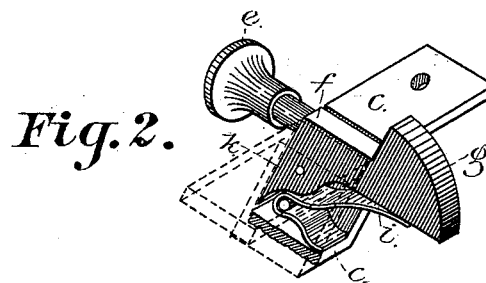
C. RETTIE.  
LATCH.

No. 420,963.

Patented Feb. 11, 1890.



*Fig. 1.*



*Fig. 2.*

**Witnesses:**

*F. J. Steley.*  
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*per atty,*  
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# UNITED STATES PATENT OFFICE.

CHARLES RETTIE, OF LIVERPOOL, COUNTY OF LANCASTER, ENGLAND.

## LATCH.

SPECIFICATION forming part of Letters Patent No. 420,963, dated February 11, 1890.

Application filed March 30, 1888. Serial No. 269,033. (No model.) Patented in England October 17, 1887, No. 14,082, and in Canada April 24, 1889, No. 31,192.

*To all whom it may concern:*

Be it known that I, CHARLES RETTIE, of Liverpool, in the county of Lancaster, England, have invented certain new and useful  
5 Improvements in Door-Catches, (for which I have obtained a patent in Great Britain, No. 14,082, bearing date October 17, 1887, and in Canada, No. 31,192, bearing date April 24, 1889,) and I do hereby declare that the follow-  
10 ing is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of refer-  
15 ence marked thereon, which form a part of this specification.

My invention relates to improvements in door-catches, and especially to such as are designed for use in ships and cars, where  
20 there is great jar and vibration.

It consists of a latch pivoted in a case, said case being adapted to be recessed in the side, top, or bottom of a door, as is most convenient, and said latch possessing the features  
25 hereinafter more fully set forth.

In the drawings herewith accompanying and making a part of this application, Figure 1 is a view showing the catch in position in the edge of the side of a door. Fig. 2 is a detail showing arrangement of the spring and the form of the latch, and the same letters  
30 refer to like parts.

In the edge of the top, bottom, or side of a door is made a recess; extending entirely  
35 through the door. Into said recess is fitted a metal case having flanges also so recessed as to be even with the edge of the door, said flanges having holes for the attaching-screws. Pivoted in the case *c* is the latch proper *f*,  
40 having finger *g* and handle *e*. The latch has a rear projection *k* integral therewith, adapted to rest upon or against the case, so as to limit the operation of the spring as it presses the finger outward, and also covers up what  
45 would be a hole in the door. Were it not for the stop or shoulder *k*, when the door is open the spring would force the finger so far over that it would strike on the edge of the casing, and thus prevent the door from shutting.  
50 Between the rear of the recess in the case

and the back of the latch is a spring *i*, which constantly tends to force the finger end of the latch outward, so that the finger will engage with the clip *b*, set in the casing of the door.

When the door is open or shut entirely to, the latch is in the case in the position shown in Fig. 1. In shutting the door having my improved latch, when the inclined edge of the finger *h* strikes the clip, the spring *i* is  
55 compressed and allows the finger to be forced backward, thus permitting the door to be closed, when the spring again expands and forces the latch-finger into engagement with the clip. In order to open the door, push the  
60 handle or knob *e* outward toward the casing to unlock and then open. 65

The advantages of my improved catch are that it is self-acting in closing; that it cannot fail to act, on account of the point of the finger  
70 getting beyond the edge of the casing; that it is free from rattle; that it entirely closes up the hole in the door caused by the swinging of the latch, and that it can be used at will in the top, bottom, or side edge of a door. 75

Having thus described my invention and its use, what I claim, and desire to secure by Letters Patent of the United States, is—

The combination, with a door having a recess in the edge thereof passing entirely  
80 through the door, of a metal casing set in said recess, a catch pivoted in said casing having a wedge-shaped finger on the inner end, a handle or knob on the outer end, and a rear projection adapted to rest on said casing, and  
85 a spring between the finger end of the catch and the rear of the recess formed in the casing, substantially as and for the purposes set forth.

In testimony that I claim the foregoing as  
90 my own I affix my signature in presence of witnesses.

CHARLES RETTIE.

Witnesses:

HENRY JOHN HANKS,  
GEO. HAILEY,  
Both of 36 Onslow Road, Fairfield, Liverpool.  
J. SPIERS BAKER,  
Notary Public, Liverpool, England.