

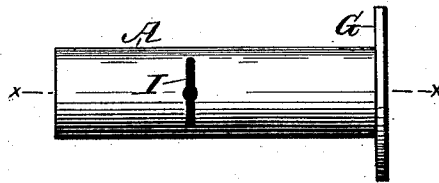
(No Model.)

C. ORTH.  
LATCH.

No. 487,153.

Patented Nov. 29, 1892.

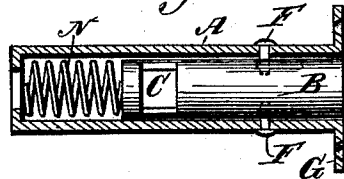
*Fig. 1.*



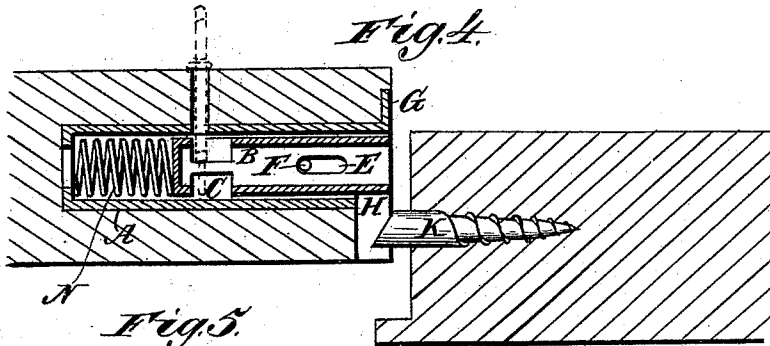
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*

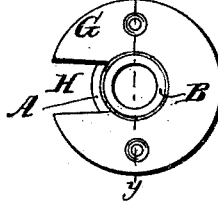


*Fig. 5.*



Witnesses:  
*Robert Swatt,*  
*William Gaskin*

*Fig. 6.*



Inventor:  
*Claus Orth.*  
By  
*Edward Tappan*  
*Atty*

# UNITED STATES PATENT OFFICE.

CLAUS ORTH, OF GRAND RAPIDS, MICHIGAN.

## LATCH.

SPECIFICATION forming part of Letters Patent No. 487,158, dated November 29, 1892.

Application filed June 14, 1892. Serial No. 436,709. (No model.)

*To all whom it may concern:*

Be it known that I, CLAUS ORTH, a citizen of the United States, residing at the city of Grand Rapids, in the county of Kent and State

5 of Michigan, have invented certain new and useful Improvements in Door-Catches, of which the following is a specification.

This invention relates to a new and improved catch for doors of various kinds, and is designed to be used not only for the doors of houses in connection with a knob and shank, but also for small doors of secretaries and other articles of furniture; and the invention consists in the use of a hollow tubular bolt

10 adapted to move longitudinally and receive the catch within the bolt; and the objects of my invention are, first, to construct a catch which will not mar or injure the door-casing; second, to construct a bolt so that it may be

20 operated by a key or knob or other suitable means, which bolt may be entirely concealed within the door and supported by a surrounding case, and, third, to construct a catch which will be durable and ornamental and which

25 may be readily applied in any place where a catch is desired to be used upon doors large or small. These objects I accomplish by means of the mechanism illustrated in the accompanying drawings, in which—

30 Figure 1 is a side view of the outer inclosing shell in position to show the keyhole or opening for the reception of the key or shank, whereby the tubular bolt may be withdrawn. Fig. 2 shows a side view of the tubular bolt removed from the case. Fig. 3 shows a sectional view of the case and bolt on a line at right angles with the view shown in Fig. 1, the same being on line Y Y, as shown in Fig. 6. Fig. 4 shows a section of the door-casing with catch located therein and a sectional view of a tubular bolt and casing on line X X of Fig. 1. Fig. 5 shows a form of key which may be used for operating the tubular bolt. Fig. 6 shows an end view of the bolt and case designed to show the flange by means of which

45 the case containing the bolt is attached to the door.

Similar letters refer to similar parts throughout the several views.

50 A represents a surrounding case or shell provided with a flange G, by means of which

the same may be attached to the door. The flange G has a part cut out for the passage of the catch, which catch is shown by K in Fig. 4. The part cut out is shown by H.

55 B represents the tubular bolt, which is preferably round or cylindrical in form; but it may be of any suitable form to fit the inclosing case. The tubular bolt B fits into the case A and the spring shown by N serves to press the bolt B outwardly into engagement position with the catch K.

60 C represents an opening in the tubular bolt for the reception of a key or shank to operate the same. This opening would not be used in case a rigid projection is applied for removing the bolt.

In cases where my invention is used with a key I provide slots or openings in the bolt, (shown by E) and also provide screws or pins, as F F, which pass through the shell or supporting-case A into the opening E of the bolt, so as to limit its longitudinal movement. In case a knob is used or a projection rigidly attached to the tubular bolt B the openings E with the

75 screws or pins F would be unnecessary.

I have shown in Fig. 5 a key J, which has winged projections adapted to press against the shoulders of the opening C, so that by turning the key J in either direction the tubular bolt B would be withdrawn from engagement with the catch K. The catch K is provided with an inclined or beveled face N, so that when the bolt comes in contact with this inclined face it is automatically driven backward against the pressure of the spring until the catch K passes within the hollow end of the tubular bolt.

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In cases where it is desirable to use the catch merely for holding a door in position, but not to lock it there, the catch may be beveled in both directions, so that the door may be opened by merely pulling upon the door or door-knob. This form of catch is frequently found desirable in cabinet furniture.

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The flange G is made of suitable size to thoroughly protect the edge of the door to which my invention is applied. It may be of any desirable form. I have shown it substantially round; but it is evident that the form may be varied, as may also the form of the tubular bolt and its supporting-case. It

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will also be understood that any suitable spring may be applied for driving the tubular bolt forward into engagement with the catch.

I have shown the catch K in the form of a screw, which is my preferred form; but it will be apparent that any form of catch may be used which is adapted to engage with the end of the tubular bolt. When a screw is used, the catch can readily be adjusted to the proper position. In case the door or case shrinks the catch can be readily adjusted to proper position, as it will be evident that by giving the screw a turn in either direction it will be lengthened or shortened with reference to the case.

In Fig. 1, I shows an opening for the key. In case a rigid attachment is made the opening I would be placed longitudinally with reference to the shell instead of crosswise, as shown in Fig. 1.

Having thus described my invention, what I claim to have invented, and desire to secure by Letters Patent, is—

1. As a new article of manufacture, a door-catch tubular in form supported with a suitable case held in operative position by means of a spring and having its outer end open for the purpose of receiving the extremity of a door-catch in the door-case, substantially as described.

2. The combination of a shell or case adapted

to inclose a tubular bolt, a tubular bolt supported within a shell or case and having an open outer end, a spring adapted to press the tubular bolt into operative position, and a catch adapted to enter the open outer end of said tubular bolt, substantially as described.

3. The combination of a tubular bolt having an open outer end, the spring, and supporting-case, said supporting-case having a flange whereby the same may be attached to the door, and catch adapted to enter the outer open end of the tubular bolt, and suitable means for withdrawing the tubular bolt, substantially as described.

4. The combination of a tubular bolt having an open outer end, a supporting-case surrounding said tubular bolt, a spring located within the supporting-case and adapted to move said tubular bolt into operative position, and a catch located in the door-case, said catch provided with a screw-thread, whereby the same may be adjusted to proper position to enter the open outer end of the tubular bolt, substantially as described.

In witness whereof I have hereunto set my hand and seal in the presence of two witnesses.

CLAUS ORTH. [L. S.]

Witnesses:

EDWARD TAGGART,  
MARY E. HEANEY.