F. E. DAVIS.

LATCH.

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1,379,537. Patented May 24, 1921.

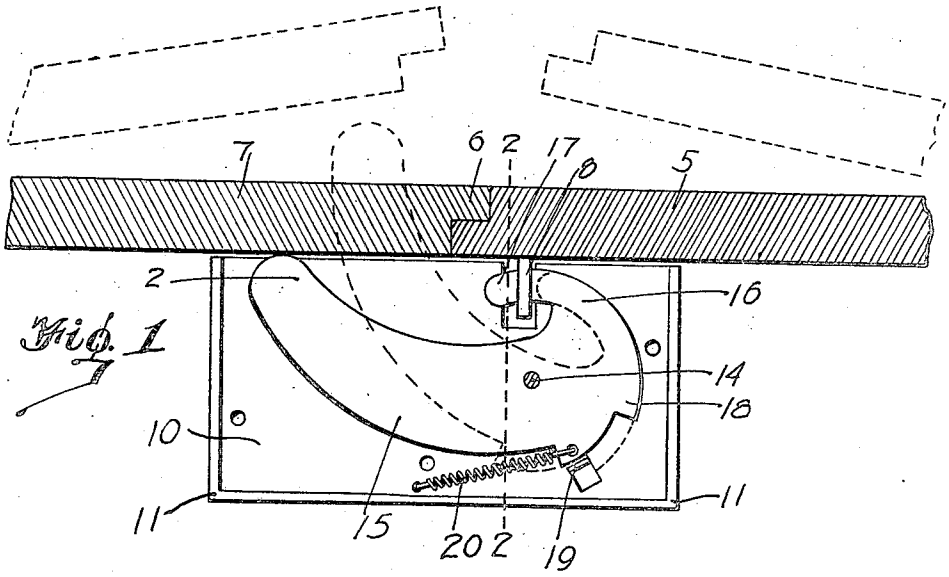


Fig. 1

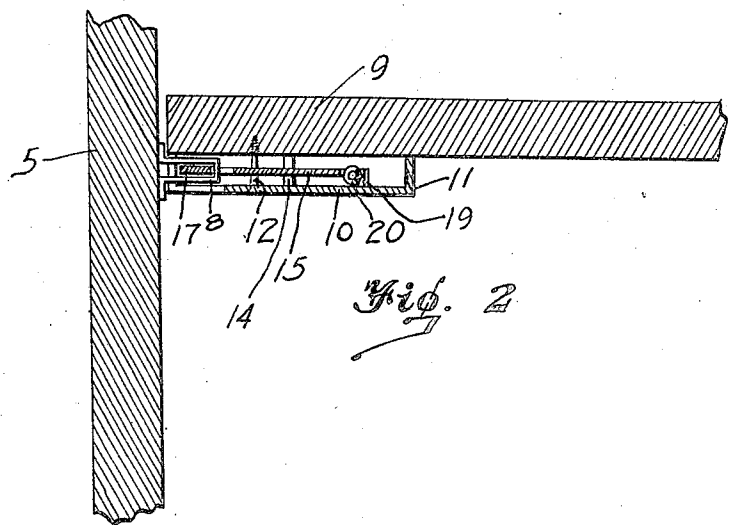


Fig. 2

Witnesses

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FRANK E. DAVIS, OF BREMERTON, WASHINGTON.

LATCH.

1,379,537. Specification of Letters Patent. Patented May 24, 1921.

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To all whom it may concern:

Be it known that I, FRANK E. DAVIS, a citizen of the United States, residing at Bremerton, in the county of Kitsap and State of Washington, have invented new and useful Improvements in Latches, of which the following is a specification.

This invention has reference to a latch for the double doors of a cupboard or the like.

The object of the invention is to produce an automatic inside latch or lock which will be brought to engagement with one of the doors for locking the same only when the other door is closed, spring means being provided for retaining the lock or latch normally out of such engagement.

Other objects and advantages will present themselves as the nature of the invention is better understood, reference being had to the accompanying drawings in which there is illustrated a simple and satisfactory reduction of the improvement to practice, and in which:

Figure 1 is a horizontal sectional view through the closed doors of a cupboard or the like and through the securing means for the latch or lock casing, showing the latch or lock in locking position, the dotted lines indicating the arrangement of parts when the doors are partly opened.

Fig. 2 is a sectional view approximately on the line 2—2 of Fig. 1, the lock or latch being illustrated in attached position to the shelf of a cupboard or the like.

A portion of a cupboard is illustrated in the drawings, but in this connection it is to be stated that my improvement is not necessarily restricted to use in connection with a cupboard or the doors therefor, but that the same may be employed with equal efficiency upon any construction in which two doors are employed. One of the doors is indicated by the numeral 5, the same having its edge rabbeted or otherwise formed with a depression to receive a reduced tongue 6 formed on the inner end of the other door 7. It is, of course, to be understood that the doors are hinged at their outer ends. The door 5, upon its inner face is provided with a bail 8.

To one of the shelves 9 of the cupboard, and upon the under face I secure the casing of my improvement. The casing is preferably in the nature of a flat plate having its ends angular as at 11, the said angle ends contacting with the under face of the shelf 9. The plate 10 is provided at suitable intervals with openings through which pass securing elements 12 that enter the under face of the shelf 9.

In the casing is pivotally secured, as at 14 my improved lock or latch.

The lock or latch is particularly indicated by the numeral 15, and has a head which is struck concentric of the pivot 14, so that the outer edge of the said head is rounded. The head is indicated by the numeral 16 and has at its outer end an extending lip 17 of a size to be received in the staple 8 when the doors 5 and 7 are closed. The opposite end of the head is notched to provide a shoulder 18, and this shoulder is in the path of contact with the lug 19 formed by slitting the plate 10 both longitudinally and transversely and bending up the metal bounded by the slit. To the rear of the shoulder 8 there is secured one end of a helical spring 20, the other end being connected to the plate 10.

The body of the lock is arranged at a curvature from the head, so that both the edges thereof are rounded and the outer end of the said body is also rounded as indicated by the numeral 2. This rounded end provides the abutment portion for the lock and as the lock is influenced by the spring 20 the same is normally swung to the position illustrated by the dotted lines in Fig. 1 of the drawings, so that the lip 17 is brought out of engagement with the staple 8 of the door 5 and consequently the door 5 may be brought to an open position when the door 7 is open. The door 5 is first closed as is ordinary in such constructions, and thereafter the door 7 is swung to its closed position. In closing the door 7, which by the way may have a contact plate upon the inner face thereof, it contacts with the abutment or tail end 2 of the lock, causing the same to be swung upon its pivot 14 to bring the finger 17 thereof through the staple 8 and thus locking the door 5. Through the medium of the spring 20 the tail portion 2 of the latch exerts a pressure against the door 7, when the latter is in contact therewith, and consequently serves as an impelling means for opening the said door 7. Thus the door 7 will be automatically opened when the ordinary latch that retains the doors 5 and 7 closed is released.

It is thought, from the foregoing descrip-

tion, when taken in connection with the drawings, the simplicity of the construction and the advantages thereof will be readily apparent without further detailed description.

Having thus described the invention, what is claimed as new, is:—

In combination with two swinging doors of a cupboard or the like which are latched closed in the ordinary manner, and one of said doors having an inwardly projecting staple, of a lock for said doors, comprising a pivotally supported member having one of its ends formed with a finger to be received in the staple, its other end extended to provide a tail designed to be contacted by the second door, a shoulder on the lock, a stop in the path of contact with the shoulder for limiting the swinging of the lock in one direction, and a spring influencing the lock whereby to cause the swinging thereof to normally project the tail beyond the door casing to bring the finger of the lock out of staple engaging position, and said lock, when the tail thereof is contacted by one of the doors and is swung to bring its finger into the staple of the other door being influenced by its spring to cause the tail portion thereof to exert a constant pressure against the door with which it engages, and to impel the door to open position when the latching means for the doors is released.

In testimony whereof I affix my signature.

FRANK E. DAVIS.