

H. DAVIS.
COMBINED LOCK AND LATCH.
APPLICATION FILED NOV. 23, 1910.

981,843.

Patented Jan. 17, 1911.

2 SHEETS—SHEET 1.

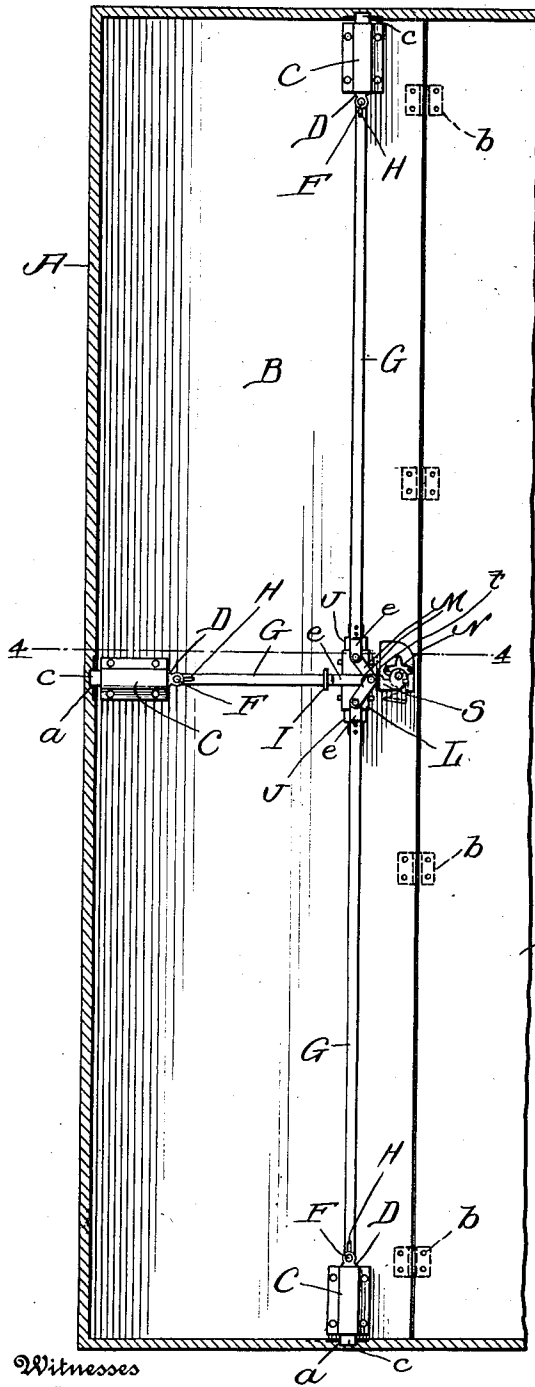


Fig. 1.

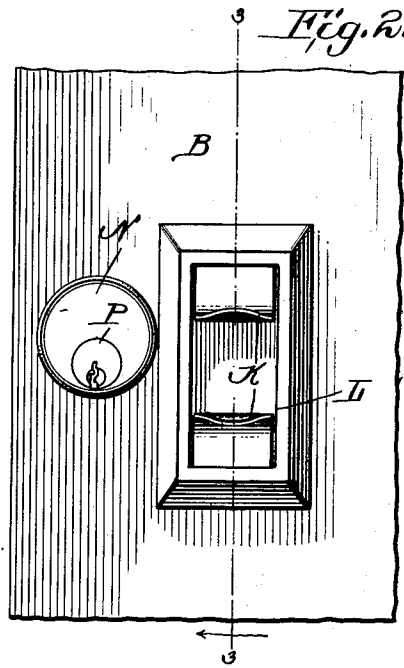


Fig. 2.

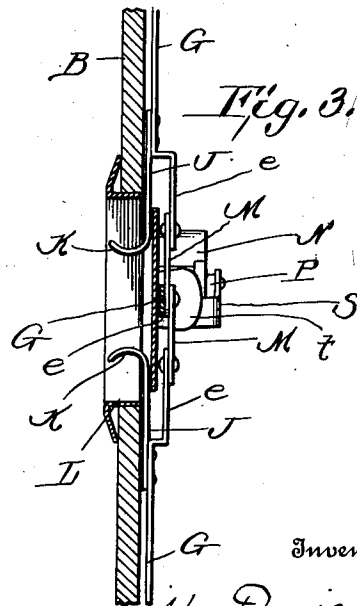


Fig. 3.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 4.

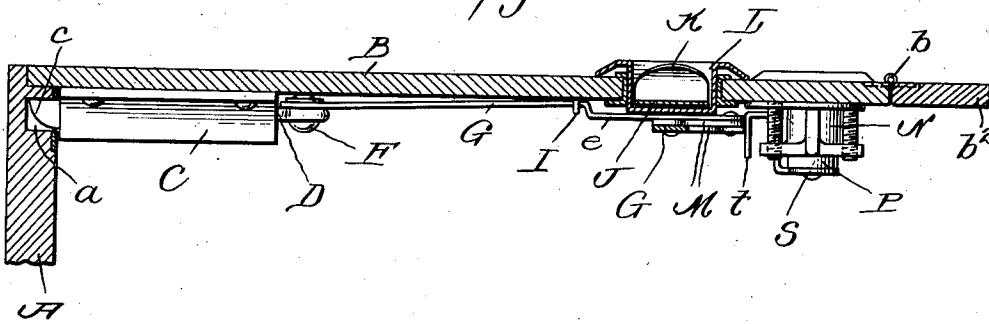


Fig. 5.

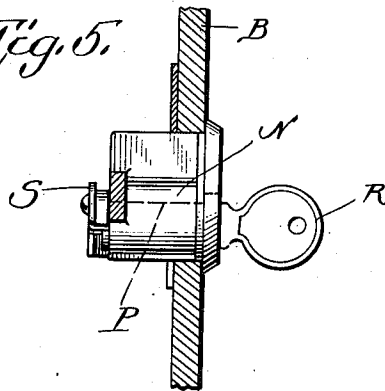
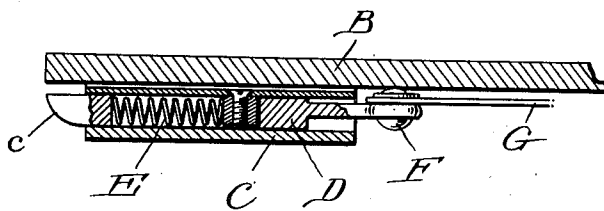


Fig. 6.



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UNITED STATES PATENT OFFICE.

HERMAN DAVIS, OF NEW ORLEANS, LOUISIANA.

COMBINED LOCK AND LATCH.

981,843.

Specification of Letters Patent.

Patented Jan. 17, 1911.

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To all whom it may concern:

Be it known that I, HERMAN DAVIS, citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented new and useful Improvements in Combined Locks and Latches, of which the following is a specification.

My present invention has to do with combined locks and latches; and it has for its object to provide a simple, durable and reliable combined lock and latch, calculated to fasten a door or other device at a multiplicity of points, and designed more particularly, though not necessarily, for use on the hinged door of the garment-hanging compartment of a wardrobe trunk to fasten the door in closed position to the body of said compartment.

The invention will be best understood by reference to the accompanying illustration of one specific embodiment thereof, while its scope will be more particularly pointed out in the appended claims.

In the drawings which constitute part hereof: Figure 1 is a vertical section taken through the garment-hanging compartment of a wardrobe trunk, at the inner side of the hinged door thereof, and showing the said door as locked in closed position through the medium of my combined lock and latch, and also showing by dotted lines the position to which the retainer is swung to permit of retraction of the bolts. Fig. 2 is an elevation of so much of the outer side of the door as is necessary to illustrate the arrangement of my improvement relative thereto. Fig. 3 is a detail vertical section taken in the plane indicated by the line 3-3 of Fig. 2, looking in the direction indicated by the arrow, and showing some of the parts in elevation. Fig. 4 is a detail horizontal section, taken on the line 4-4 of Fig. 1, looking downward. Fig. 5 is a detail view, partly in elevation and partly in section, showing the arrangement of the lock in the door. Fig. 6 is an enlarged detail section showing one of the bolts and its spring.

Similar letters designate corresponding parts in all of the views of the drawings, referring to which:

A is the body of a trunk compartment, which is equipped with suitable keepers *a*. B is the door, hinged at *b* to a part *b*² on one wall of said body.

C C C are suitable bolt casings fixed to the

inner side of the door B, and D D D are bolts movable endwise in the said casings. Two of the casings C and the bolts D therein are arranged in upright position, and the other casing and bolt are disposed horizontally. I would also have it understood that I prefer to bevel the outer end *c* of each bolt, and to employ a spring E such as shown in Fig. 6 to yieldingly hold each bolt in and return it to the extended position in which it is ready to enter its respective keeper when the door is swung open. At its inner end each bolt D is connected by a pin F to an endwise movable bar G; the pin extending through a slot H in the bar so as to permit of limited endwise movement of the bolt independently of the bar, as is necessary to enable the bolt to ride past one wall of and spring into its respective keeper. Two of the bars G are upright, and the other is arranged in horizontal position, and each bar is provided with an inner offset portion *e*. It will also be noticed that the horizontal bar G is disposed in a guide I, and that the upright bars G are fixedly connected adjacent their offset portions *e* to slides J which terminate in outwardly directed finger-pieces K. The said slides J are guided and their finger-pieces K are movable in a suitable housing L fixed to the door B, as will be understood by comparison of Figs. 2 and 3.

By reference to Fig. 1 it will be observed that the offset portion *e* of the horizontal bar G overlaps the inner portion of the housing L, and is connected through the medium of toggle levers M with the offset portions *e* of the upright bars G. From this it follows that when the retainer, hereinafter described, is in the position shown by dotted lines in Fig. 1, and the finger-pieces K are pressed toward each other, the several bolts will be simultaneously retracted against the action of their springs to disengage them from their respective keepers and release the door. It also follows that when the finger-pieces K are released, the bolt springs will force the bolts outward and by so doing will restore the bars G, the slides J, the finger-pieces K and the toggle levers M to the normal positions shown in Figs. 1 and 2.

For the purpose of preventing movement of the toggle levers M and bars G and in that way preventing retraction of the bolts and release of the door, I provide a lock of Yale or other suitable type comprising a cas-

ing X fixed to the door B and a rotatable cylinder P secured in the casing and adapted to be released from the casing and turned by an appropriate key R, and I also provide the
 5 retainer S. This latter is suitably fixed to the inner end portion of the lock cylinder P, and is preferably shaped as shown and provided with a portion *t*, disposed at a right-angle to the door B and designed to be opposed to
 10 the inner end of the horizontal bar G and the adjacent ends of the toggle levers M, as shown by full lines in Fig. 1 and in Fig. 4, this with a view to effectually preventing the inward movement of the bars G necessary to retract the bolts.

When the parts are in the position shown by full lines in Fig. 1, the door B will be effectually locked in closed position to the body A. When, however, the key R is inserted in the cylinder P, and the said cylinder is turned through the medium of the key, the retainer S will be swung to the position shown by dotted lines in Fig. 1, and then the finger-pieces K can be moved
 25 toward each other to draw the bars G inward and retract the bolts.

It will be gathered from the foregoing that so long as the retainer S is in the position shown by dotted lines in Fig. 1, the
 30 bolts can be conveniently retracted by moving the finger-pieces K toward each other. When, however, the key is inserted and the lock cylinder is turned by the key to swing the retainer S into the position shown by
 35 full lines in Fig. 1, the bolts cannot be retracted, and hence the door will be effectually locked in its closed position.

While I have shown and described one form of my invention, it is to be understood
 40 that I am not limited to the details or the form or relative arrangement of parts disclosed, but that extensive modifications may be made therein, without departing from the spirit thereof.

45 Having described my invention, what I claim and desire to secure by Letters-Patent, is:

1. In a combined lock and latch, the combination of a suitable support, upright bolt
 50 casings fixed thereto, a bolt casing fixed to the support and disposed at an angle to the first-named casings, spring-pressed bolts arranged in said casings, a housing fixed to the support, slides guided in the housing and
 55 having finger-pieces movable therein, bars connected with the bolts in the upright casings and also connected with said slides and having offset end portions disposed back of the housing, a bar connected with the bolt
 60 in the third casing and having an offset por-

tion arranged back of the housing, toggle levers connecting the adjacent ends of the three bars, a lock casing fixed in the support, a cylinder adapted to be turned about its axis in said casing by its respective key, and
 65 a retainer fixed to and movable with said cylinder and having a portion adapted, in one position of the retainer, to be opposed to the third bar and the adjacent ends of the toggle levers.

2. The combination of a suitable support, upright bolt casings fixed thereto, a bolt casing fixed to the support and disposed at an angle to the first-named casings, spring-pressed bolts arranged in said casings, a
 75 housing fixed to the support, slides guided in the housing and having finger-pieces movable therein, bars connected with the bolts in the upright casings and also connected with said slides and having offset end portions
 80 disposed back of the housing, a bar connected with the bolt in the third casing and having an offset portion arranged back of the housing, and toggle levers connecting the adjacent ends of the three bars.

3. The combination of a suitable support, bolts mounted thereon, a third bolt mounted on the support and disposed at an angle to the first-named bolts, bars connected to and
 90 arranged in alinement with the first-named bolts, a bar connected with the third bolt and arranged at an angle to the first-named bars, toggle levers connecting the adjacent ends of the three bars, finger-pieces fixed to the
 95 first-named bars and movable toward and from each other, a lock member carried by the support and adapted to be moved by its respective key, and a retainer movable with said lock member and adapted in one position to prevent movement of the third bar
 100 and the toggle levers.

4. The combination of a suitable support, bolts mounted thereon, a third bolt mounted on the support and disposed at an angle to the first-named bolts, bars connected to and
 105 arranged in alinement with the first-named bolts, a bar connected with the third bolt and arranged at an angle to the first-named bars, toggle levers connecting the adjacent ends of the three bars, and finger-pieces
 110 fixed to the first-named bars and movable toward and from each other.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

HERMAN DAVIS.

Witnesses:

E. M. ROBERT,
 JOS. HELMS.