(No Model.)

# W. HEGENSCHEIDT.

## LOCK HINGE.

No. 529,171. Patented Nov. 13, 1894.

Fig. I.

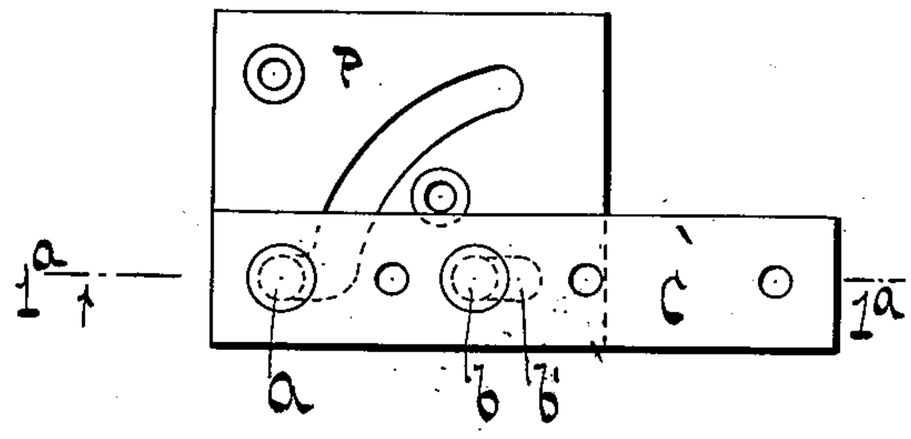



Fig. I.a

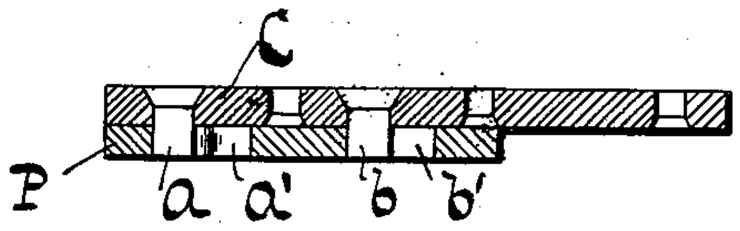



Fig. II.

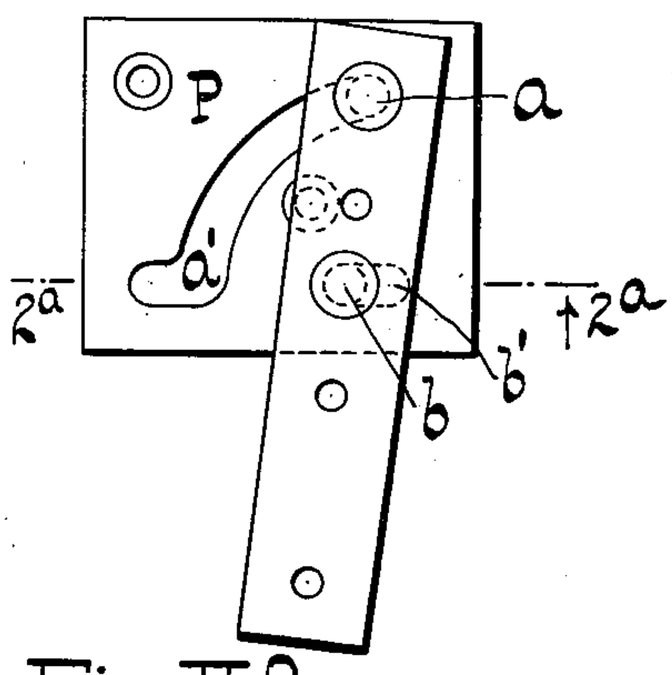



Fig. II.a

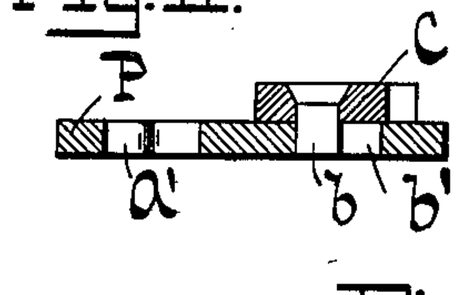



Fig. III.

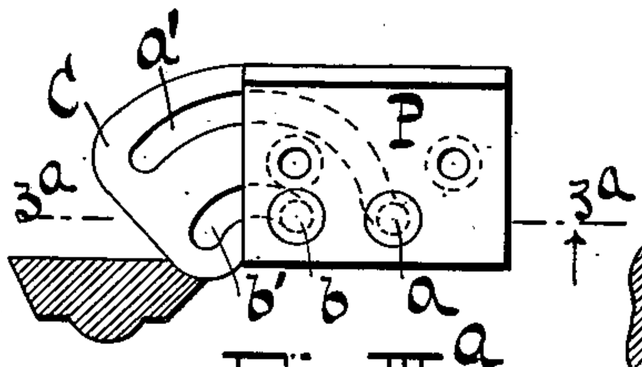



Fig. III.a

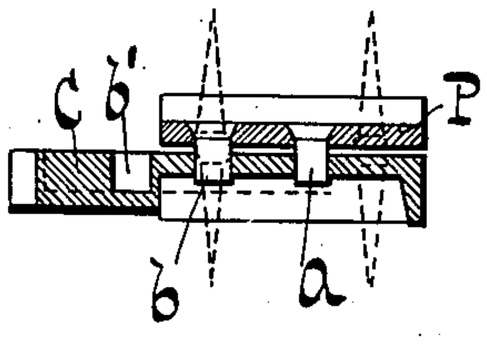



Fig. IV.

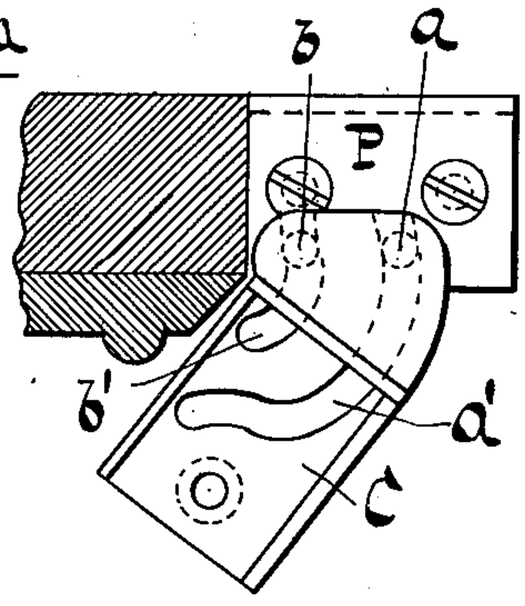



Fig. V.

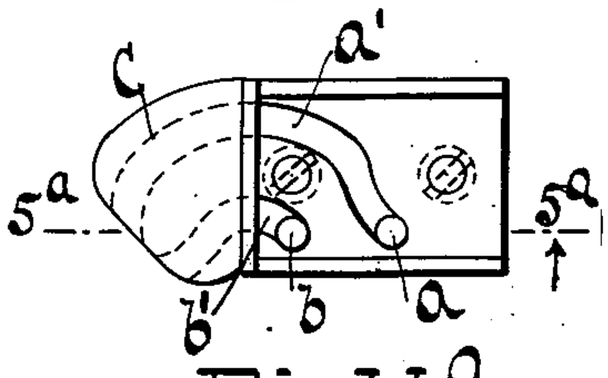
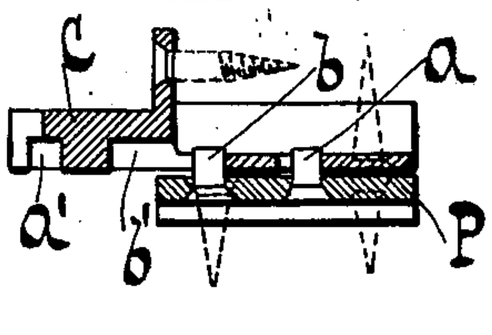



Fig. V.a

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# UNITED STATES PATENT OFFICE.

WILHELM HEGENSCHEIDT, OF RATIBOR, GERMANY.

## LOCK-HINGE.

SPECIFICATION forming part of Letters Patent No. 529,171, dated November 13, 1894.

Application filed April 26, 1893. Serial No. 471,847. (No model.)

*To all whom it may concern:*

Be it known that I, WILHELM HEGENSCHEIDT, a subject of the King of Prussia, residing at Ratibor, in the Kingdom of Prussia, Germany, have invented new and useful Improvements in Lock-Hinges, of which the following is a specification.

My invention has reference to a lock hinge for doors, casement windows, and the like, and has for its object to provide a simple and economical substitute for the hinges now in general use.

To this end my invention consists essentially in a lock-hinge composed of two plates adapted to be secured respectively to the door and frame, one of said plates being provided with a pivot pin and an auxiliary pin and the other with a slot receiving the pivot pin, and with a curved slot receiving the auxiliary pin, the latter slot having a deflected termination.

The nature of the said invention will best be understood when described in connection with the annexed sheet of drawings, in which—

Figure I represents a plan view of the lock-hinge with its parts in the positions they occupy when the door or casement is closed. Fig. I$^a$ is a section on line 1$^a$—1$^a$ Fig. I. Fig. II is a similar view showing the positions occupied by the parts when the door or casement is open. Fig. II$^a$ is a section on line 2$^a$—2$^a$ Fig. II. Figs. III to V illustrate a modified construction, Fig. III showing the upper hinge closed, Fig. IV the lower hinge open, and Fig. V the lower hinge closed, while Figs. III$^a$ and V$^a$ are sections on the lines 3$^a$ and 5$^a$ respectively.

Referring to Figs. I and II the letter P designates the plate of the lower hinge adapted to be attached to the door frame. It is provided with a short straight slot $b'$ and with a curved slot $a'$. Opposite this plate is secured to the door a rectangular plate C provided with a pin $a$ entering the slot $a'$, and with a pin $b$ entering the slot $b'$ in plate P. The curved slot $a'$ has a radially deflected portion in line with the short slot $b'$.

When the door is closed as indicated in Fig. I, the pins $a$ and $b$ are locked in line with each other, in view of the pin $a$ entering the straight portion of the slot $a'$, and the plate C cannot be displaced laterally. When the door is to be opened it is first shifted to one side a sufficient distance to clear the pin $a$ from the straight portion of the slot. To lock the door in its closed position the door must be shifted, after being swung to, in the opposite direction. Of course with the present construction the extent of motion of the door will be somewhat limited. To enable the door to be swung open wide when desired, I have provided the modified construction shown in Figs. III to V. In this hinge the slot $b'$ in plate P, instead of being straight, is curved concentrically with the slot $a'$. Consequently pin $b$ instead of acting as a stationary axis travels with pin $a$ and the extent of movement of the door is increased accordingly. As before, the hinge is locked by a deflected portion of the slot $a'$ engaging the pin and the door cannot be opened unless it is shifted toward the right of Fig. III sufficiently to release the pin $a$. The slots of the plate C of the upper hinge, as shown in Fig. III, are closed at their outer ends, while the corresponding slots of the lower hinge are open at their outer ends (Figs. IV and V). This enables the door to be readily fitted in position.

At their outer ends, *i. e.* the parts entered by the pins when the door is swung open, the slots of the lower hinge are preferably curved toward each other to prevent the pins from leaving the said slots when the door is fully opened. When, however, it becomes necessary to remove the door after being fully opened, it is simply drawn horizontally away from the frame thereby forcing the pins $a$ $b$ out of the slots.

While I have herein described the hinges as applied to doors it is evident that they can be equally well applied to shutters, casements, &c.

Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed, I declare that what I claim is—

1. In a device of the character specified, the combination of two plates arranged opposite to each other, the one being provided with a pivot pin and an auxiliary pin, and the other with a slot receiving the pivot pin, and per-

mitting travel of the same, and a curved slot receiving the auxiliary pin, the latter slot having a deflected termination, substantially as described.

2. In a device of the character specified, the combination of two plates arranged opposite to each other, the one being provided with a pivot pin and an auxiliary pin, and the other with two concentric slots adapted to receive the pins, the outer slot having a deflected termination, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILHELM HEGENSCHEIDT.

Witnesses:

OTTO FRANK,

GUSTAV HÜLSMANN.