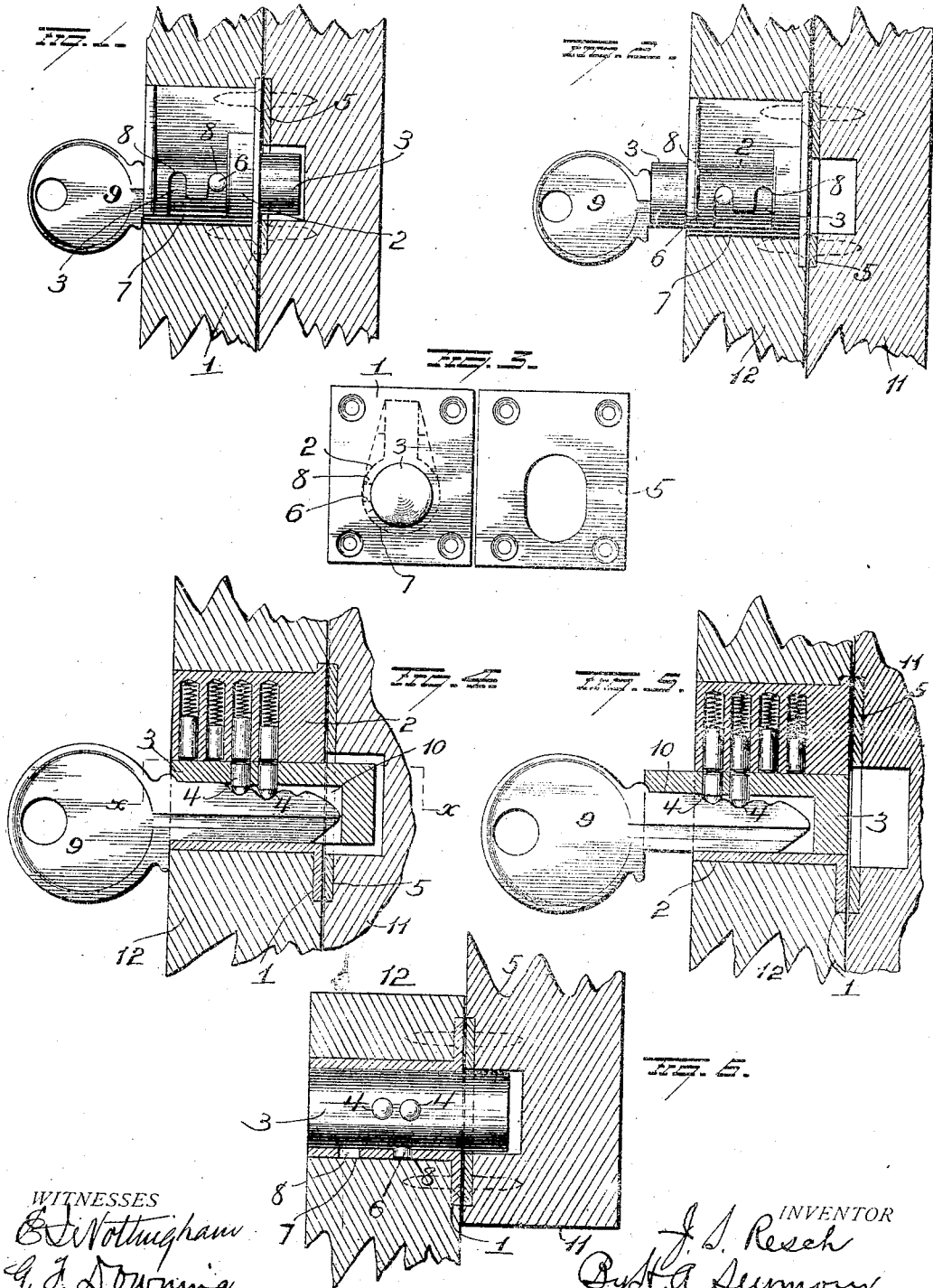


J. S. RESCH.
PIN TUMBLER LOCK.
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WITNESSES
B. Nottingham
G. J. Downing

INVENTOR
J. S. Resch
By A. A. Seymour
Attorney

UNITED STATES PATENT OFFICE.

JOSEPH S. RESCH, OF LA CROSSE, WISCONSIN, ASSIGNOR TO THE YALE & TOWNE
MANUFACTURING COMPANY, OF STAMFORD, CONNECTICUT.

PIN-TUMBLER LOCK.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOSEPH S. RESCH, a citizen of the United States, residing at La Crosse, in the county of La Crosse and State of Wisconsin, have invented certain new and useful Improvements in Pin-Tumbler Locks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in pin tumbler locks designed particularly for use on show cases or other structures or devices having sliding closures, and it consists in a pin tumbler lock having a revolving and longitudinally movable plug.

It further consists in a pin tumbler lock having a revolving and longitudinally movable plug the latter being retained in its locked position both when retracted and projected.

It further consists in the parts and combination of parts as will be more fully described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view showing the lock applied to a sliding closure, the bolt being projected. Fig. 2 is a similar view showing the bolt retracted. Fig. 3 is a view in elevation of the face of the lock and the keeper. Fig. 4 is a view in section through the lock showing the bolt projected; Fig. 5 is a similar view showing the bolt retracted and Fig. 6 is a view in section on the line $x-x$ of Fig. 4.

1 represents a face plate carrying the lock cylinder 2, which is provided with a cylindrical bore for the plug 3, and with holes or recesses arranged to aline with similar holes in the key plug 3, for the reception of the pin tumblers 4, which latter are of the well known construction and are operated by the key in the usual manner. The plug 3 is cylindrical in shape and is provided with a key way extending throughout part of its length, and it is longer than the cylinder so that when in its locking position it projects through the plate and into the keeper 5, and when retracted or unlocked, its inner end rests flush with the face plate, while its front end projects at the front of the cylinder. Projecting from the side of the plug 3 is the stop 6 which latter rests in the slot 7 formed in the wall of the cylinder 2, and limits the rotary as well as the longi-

tudinal movement of the plug. This slot 7 extends lengthwise the cylinder and is provided at each end with an extension 8 extending at right angles to the slot 7 so as to permit the plug 3 to make a partial rotation.

In operating the lock the key 9 is introduced into the key slot 10 in the plug 3 and turned as far as the circumferential slot 8 will permit. This movement of the key turns the plug and carries the sections of the pin tumblers 4 within the plug, out of alinement with the recesses in the cylinder, and permits the plug to be moved longitudinally until the stop 6 is in alinement with the circumferential slot 8 at the opposite end of longitudinal slot 7, and by now turning the key and plug, the latter will be partly rotated and carry the sections of the pin tumblers within the plug into alinement with tumbler recesses in the cylinder, so that the plug will again be locked against any movement except when released by its key. This longitudinal movement of the plug 3 within the cylinder, necessitates the employment of a greater number of tumbler recesses and drivers in the cylinder 2 than there are tumblers in the plug 3, and in the present instance I have shown the cylinder provided with two pin tumblers and the cylinder with four recesses and drivers.

It is necessary to have two different points at which the tumblers may be set in order to remove the key in the projected and retracted, or locked and unlocked position of the plug, but a particular number of such recesses and tumblers is not material hence I would have it understood that I do not confine myself to the particular number herein shown.

This improvement is especially adapted for sliding closures such as show cases, window sash, etc., and when applied the keeper plate 5 is secured to one member 11 of the structure and the face plate carrying the lock, is secured to the overlapping member 12 with the plug 3 of the lock in line with the opening in the keeper 5. By inserting the key and manipulating the plug as above described, the end of the plug will be projected into the opening in the keeper and thus lock, both members, against any movement, and by again manipulating the key to retract the plug, the keeper will be released and thus free the sliding member or members of the structure.

It is evident that many slight changes might be resorted to in the relative arrangement of parts shown and described without departing from the spirit and scope of my invention. Hence I would have it understood that I do not wish to confine myself to the exact construction and arrangement of parts herein shown and described, but

Having fully described my invention what I claim as new and desire to secure by Letters-Patent, is:—

1. In a pin tumbler lock, the combination of a cylinder, a plug having a semi-rotary and longitudinal movement within the cylinder and pin tumblers for locking the plug in its two positions.

2. In a pin tumbler lock, the combination of a cylinder, a combined key plug and locking bolt having a longitudinal and a semi-rotary movement within said cylinder and tumblers for locking said combined key plug and locking bolt in its locking and also in its retracted positions.

3. In a pin tumbler lock, the combination of a cylinder having a series of pin tumbler

recesses and provided with a longitudinal slot and a circumferential slot at each end of the longitudinal slot, a key plug having a semi-rotary and longitudinal movement in said cylinder and provided with a pin tumbler for each two recesses in the cylinder, and also provided with a stop resting and moving within the slots in the cylinder.

4. A lock for a sliding closure comprising a keeper, a face plate, a cylinder carried by the face plate, a combined key plug and locking bolt having a longitudinal and semi-rotary movement within the cylinder whereby it may be moved into and out of engagement with said keeper and tumblers for locking said combined key plug and locking bolt in its two positions.

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

JOSEPH S. RESCH.

Witnesses:

AUG. H. RANIS,
J. R. WOLFORD.