LOCKING DEVICE FOR WINDOW SCREENS

Filed July 6, 1931

Inventor

Joseph J. Dawicki Jr.
My invention relates to improvements in latches especially adapted for window screens and the like.

It is an object of the invention to provide a latching device which may be readily applied to the conventional window screen and will securely lock the screen against opening from the outside.

A further object of the invention is to provide a device of the above-mentioned character which is simple and durable in construction, reliable and efficient in use and inexpensive to manufacture.

Other objects and advantages of the invention will be apparent during the course of the following description.

In the accompanying drawings, forming a part of this specification and in which like numerals are employed to designate like parts throughout the same,

Fig. 1 is a side elevation view of the latching device in locking position.

Fig. 2 is a front elevation view of the same.

Fig. 3 is a longitudinal sectional view taken on lines 3—3 of Fig. 2, and,

Fig. 4 is a transverse section taken on lines 4—4 of Fig. 2.

In the drawings, wherein for the purpose of illustration, I have shown a preferred embodiment of my invention, the numeral 5 denotes an elongated casing adapted to be secured to the jamb 6 of the window frame, by means of screw fasteners 7. The locking mechanism is disposed within the casing and consists of a round keeper 8, the ends of which are connected to rods 9 and 10, extending longitudinally of the casing and protruding through apertures in the top and bottom walls of the casing. A coil spring 11 is mounted on the rod 10 between the bottom of the casing and the keeper and normally urges the keeper upwardly into locking position. A coil spring 12 is mounted on the rod 9 between the top of the casing and the pin 13 extending transversely through the rod and acts to resist the upward movement of the keeper. A knob 14 is fixed on the upper end of the rod 9, by means of which the rod is depressed to move the keeper against the tension of the spring 11, to an inoperative position. A spring strip 15 has one end attached to the top of the casing, as at 16, and extends downwardly to a point below the upper end of the keeper, when the latter is in an operative position. Upon depressing the keeper to its inoperative position, the spring strip 15, by reason of its resiliency swings to a position, so that its lower end engages the upper end of the keeper, holding it in its inoperative position.

The latch arm 17 is of rectangular shape in cross section having spaced ears 18 at its lower end to receive the pintle pin 19 which has one end mounted in the bracket 20 and its opposite end mounted in the base plate 21 which is attached to the frame 22 of the window screen by screws 23. The bracket 20 is attached to the base plate by screws 24 and mounted on the pintle pin 19 between the ears 18 is a coil spring 25 which normally swings the latch arm away from the casing. The upper end of the latch arm 17 is bent at right angles, as at 26, in a direction towards the casing and is adapted to enter the opening 27 formed in the front wall of the casing 5. The free end of the latch arm is provided with a slot 28 communicating with an opening 29, the slot being of such width as to permit the rod 9 to pass therethrough when the latch arm enters the casing and the diameter of the opening 29 is slightly greater than the diameter of the keeper 8, to receive the keeper when pressed upwardly by the spring 11.

In operation, the casing 5 is attached to the jamb of the window frame and the latch arm 17 is attached to the frame of the screen, so that when the window screen is closed the latch arm will be in position to engage the casing. To lock the screen in its closed position, the latch arm 17 is swung towards the casing, so that its angular end 26 enters the opening 27 in the casing. The end 26 upon entering the casing engages the spring strip 15, forcing it from engagement with the upper end of the keeper 8 and upon release of the keeper, it is forced upwardly by the expansion spring 11 into engagement with the opening 29 in the end 26, securing the latch arm in locking position. To release the
latch arm, the rod 9 is depressed by pressing the knob 14 downwardly, moving the keeper from engagement with the opening 29, and through action of the spring 28 the latch arm 17 will automatically swing to an open position and the spring strip 15 will return to its position in engagement with the upper end of the keeper.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same and that certain changes in the shape, size and arrangement of the parts may be made without departing from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention, I claim:

1. A latching device of the character described comprising a slidably mounted keeper, expansion means for moving said keeper to a locking position, means for moving said keeper to a non-locking position, releasable means for holding said keeper in a non-locking position, and a latch arm having a bifurcated end movable into alignment with said keeper, the movement of said latch arm actuating said releasable means to release said keeper, whereby the keeper is moved into locking engagement with the bifurcation in the end of the latch arm by said expansion means.

2. A latching device of the character described, comprising a slidably mounted keeper, expansion means for moving said keeper to a locking position, means for moving said keeper to a non-locking position, a spring arm engageable with the end of said keeper, to releasably hold said keeper in a non-locking position, and a latch arm having a bifurcated end movable into alignment with said keeper, the movement of said latch arm actuating said spring arm to release said keeper, whereby the keeper is moved into locking engagement with the bifurcation in the end of the latch arm by said expansion means.

3. A latching device of the character described, comprising a slidably mounted keeper, expansion means for moving said keeper to a locking position, a rod extending from the end of said keeper, for moving said keeper to a non-locking position, spring means releasably engaging the end of said keeper, when the keeper is moved to a non-locking position, and a latch arm having a bifurcated end movable into alignment with said keeper, the rear end of said bifurcation being large enough to receive said keeper, while the forward end is only large enough to pass said rod, said spring means being actuated by the end of said latch arm to release said keeper whereby the keeper is moved into lock-