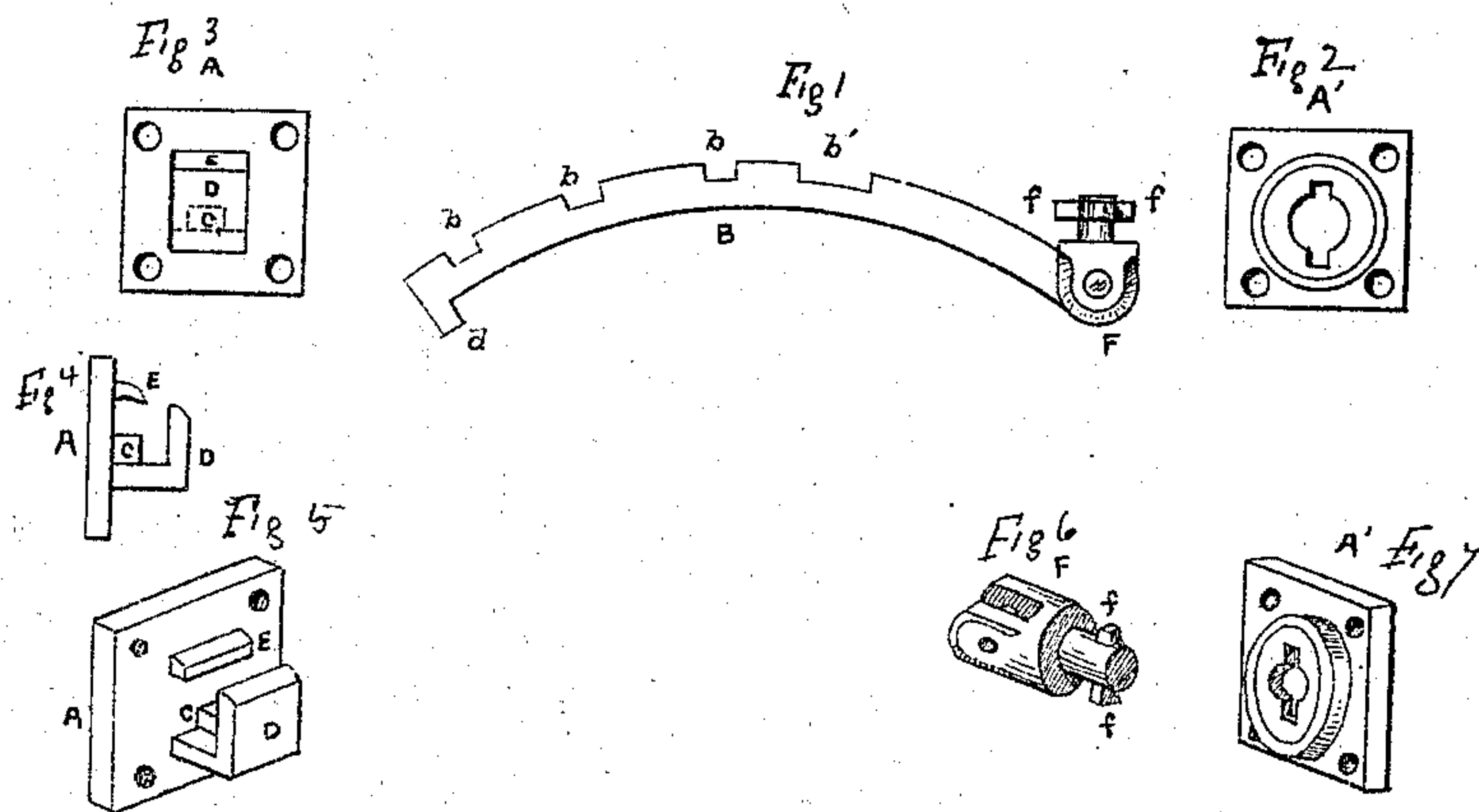


T. ROYER.

Shutter-Bowing Devices.

No. 137,031.

Patented March 18, 1873.



Witnesses
P. E. Slaymaker
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UNITED STATES PATENT OFFICE.

TOBIAS ROYER, OF LANCASTER, PENNSYLVANIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO JOSEPH R. ROYER, OF SAME PLACE.

IMPROVEMENT IN SHUTTER-BOWING DEVICES.

Specification forming part of Letters Patent No. 137,031, dated March 18, 1873.

To all whom it may concern:

Be it known that I, TOBIAS ROYER, of the city of Lancaster, in the county of Lancaster and State of Pennsylvania, have invented certain Improvements in a Device for Bowing Window-Shutters, and securing them in that position, of which the following is a specification:

The nature of my invention consists in so arranging the notches on a curved bar as to require the shutter to be closed, or nearly so, before it can be inserted or detached from the keeper or guide, and to prevent any one from the outside opening the shutter beyond a certain limit, although sufficiently wide apart to admit the hand and arm freely through the opening.

The accompanying drawing illustrates my invention: The curved bar with the swivel-head attached; the plates A and A', shown detached in several positions, front side and perspective, as also the slotted swivel-head and key.

The bar B is curved to coincide with the radius of ordinary shutters to windows. It has a long open notch, *b'*, near its hinged swivel connection, with a plate, A', which latter is attached—say, on the right-hand shutter—at any desired point near the outer or lap edge. This bar B has a series of square lock-notches, *b b b*, into which notches a lock-catch, C, fits on the shutter-plate A, attached to—say, the left-hand shutter—at a corresponding point opposite plate A'. To the left-hand plate A there is a long guard-lug, E, over and above the lock-catch C. The curved bar B has on its outer free end a projecting stay-flange, *d*, and lies on a keeper, D, affixed to the plate A. This keeper D is bent up at right angles, and confines the curved bar and guides it, but the stay-flange *d* arrests it from being drawn out by coming in contact with the vertical portion of the keeper D, as it is locked in the last notch of the series on the bar B, allowing the furthest extent in bowing the shutters. To bring the same one or more notches closer together the bar B can be raised so as to disengage it from the catch C, but confined under the guard-lug E, and by the keeper D, as it is moved to the next or other notch where it can be again dropped down

over the catch onto the horizontal portion of the keeper. Nor can said bar be relieved from the lug and keeper until the shutters are brought so close together as to prevent all tampering from the outside; then only will the long slot *b'* come under the guard-lug E, so as to lift up and clear it, when the bar hinged to the swivel-head and key F *f* will drop down and hang on the shutter. The plate A' has a raised center, G, which is circular and dished or countersunk with an oblong slot across the raised face or key-holder. The one projection, *f*, on the key or swivel-head is made longer, so that it may strike a pin and arrest it from swinging beyond the vertical position. This pin may be inserted into the shutter under the dished portion of A'. The swivel-head F, with the curved bar B hinged to it, is readily removed from the slotted socket-plate A' or attached to it by the key *f* and slot arrangement, leaving nothing but the two neat plates A' A, attached, as shown, by four screws to the shutters.

During the winter season, or when desirable, the bar can be laid aside. During the summer it is desirable to bow the shutters, more or less, for ventilation, and prevent them from being closed or blown open by the wind, to which end various devices have been invented by means of attaching perforated or notched bars, hooks, and the like; but I am not aware that any have been substantially constructed and arranged or ever used, in the manner shown and specified, so as to hold the shutters firmly at any point in which the bar is locked, and so as to prevent opening the shutters from the outside, even when sufficiently far apart to admit the hand and arm.

What I claim as my invention, and desire to secure by Letters Patent, is—

The curved bar B, with its notches *b b b b'* and arresting-lug *d*, when hinged to a swivel-head, F, with its key *f*, in combination with the plates A A', all jointly arranged and operating substantially in the manner and for the purpose specified.

TOBIAS ROYER.

Witnesses:

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