

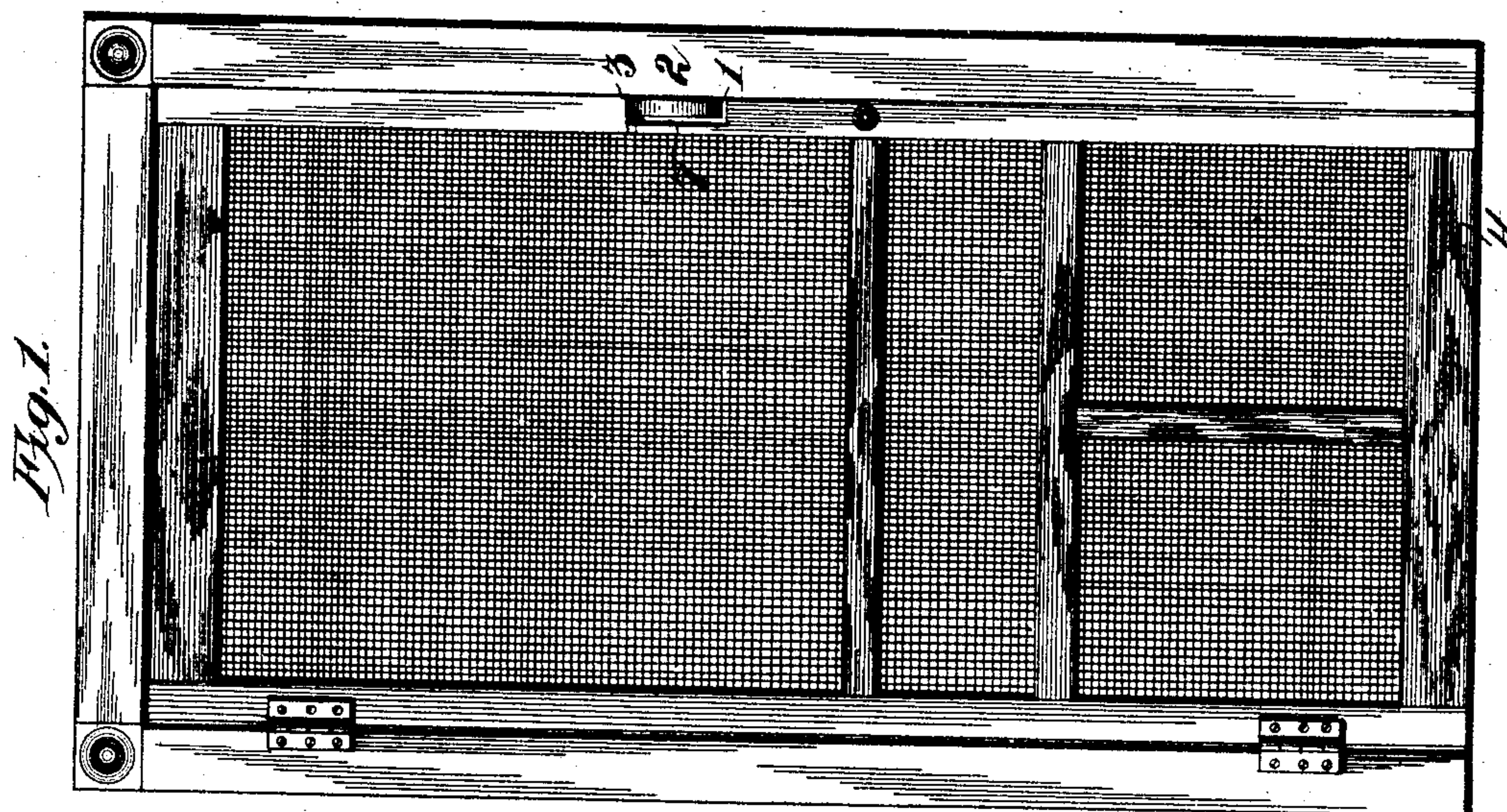
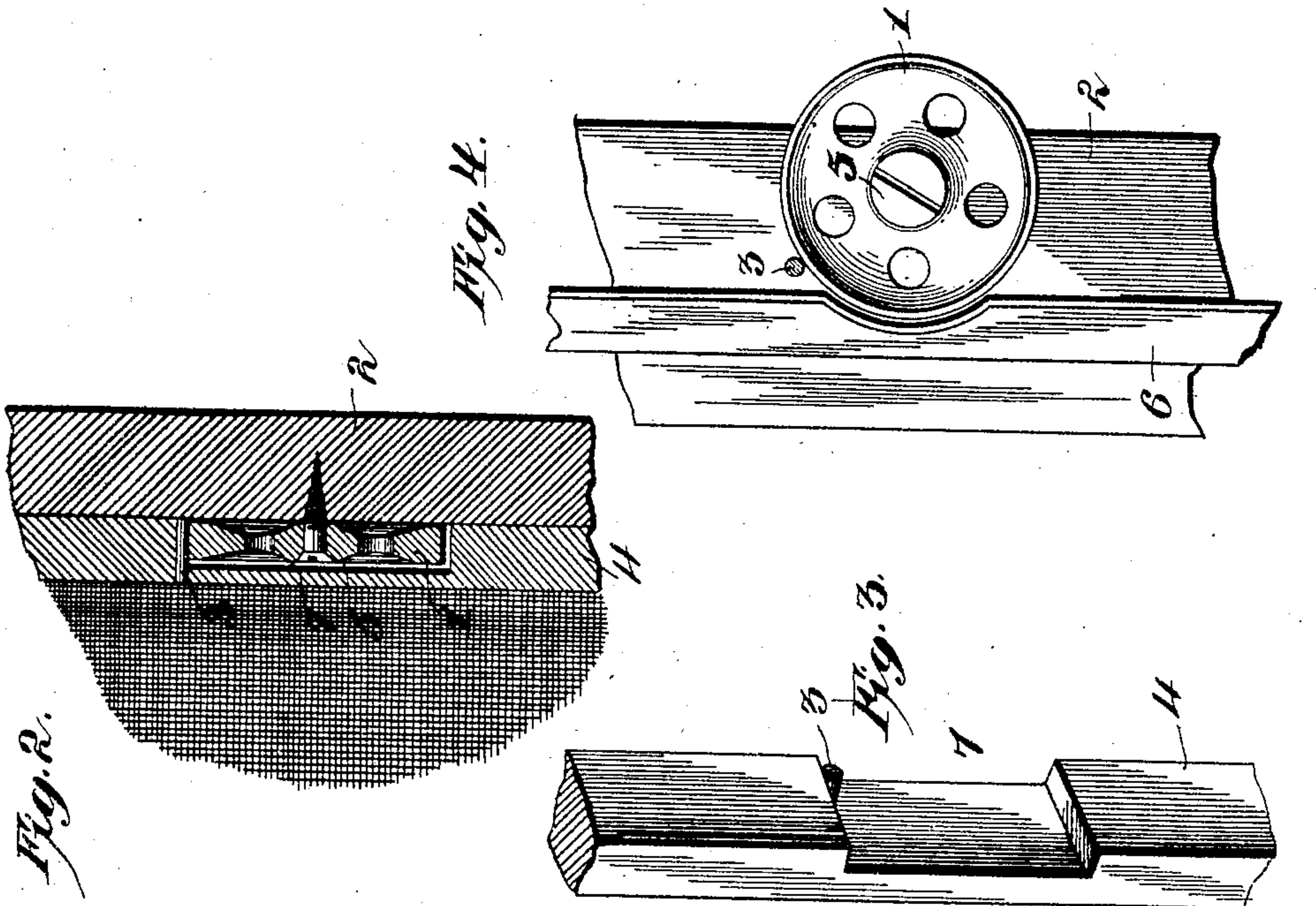
No. 777,743.

PATENTED DEC. 20, 1904.

C. A. PAUL.  
LATCH.

APPLICATION FILED JULY 21, 1903.

NO MODEL.



Charles A. Paul, Inventor

By

E. G. Siggers

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Witnesses.

Louis C. Starkey  
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# UNITED STATES PATENT OFFICE.

CHARLES A. PAUL, OF ORLANDO, OKLAHOMA TERRITORY.

## LATCH.

SPECIFICATION forming part of Letters Patent No. 777,743, dated December 20, 1904.

Application filed July 21, 1903. Serial No. 166,470.

*To all whom it may concern:*

Be it known that I, CHARLES A. PAUL, a citizen of the United States, residing at Orlando, in the county of Logan and Territory of Oklahoma, have invented a new and useful Latch, of which the following is a specification.

The invention relates to improvements in latches for screen-doors and the like.

The object of the present invention is to provide a simple, inexpensive, and efficient device of great strength and durability adapted to be readily applied to screen and other doors and capable of enabling the same to be readily opened and closed by pressure on the interior and exterior of a door to obviate the necessity of latching and unlatching a door by hand.

A further object of the invention is to provide a device of this character adapted to support a door when closed in a slightly-elevated position or to elevate the same slightly in closing, whereby the door will be effectually prevented from sagging and its weight will operate to resist any tendency to open it.

With these and other objects in view the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended, it being understood that various changes in the form, proportion, size, and minor details of construction within the scope of the claim may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is an elevation of a screen-door provided with a combined catch and lifting device constructed in accordance with this invention. Fig. 2 is a detail vertical sectional view of the same. Fig. 3 is a detail perspective view of a portion of the door, illustrating the arrangement of the fixed projection. Fig. 4 is an elevation of a portion of the door-casing, illustrating the arrangement of the wheel, the fixed projection of the door being shown in section.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a wheel designed to be constructed of any suitable inelastic material, preferably metal, and mounted on a door-casing 2 at the jamb thereof and adapted to be engaged by a fixed projection 3 of a door 4. The wheel is provided with a central opening, through which passes a screw 5, which forms the axle or spindle for the wheel. The axle or spindle preferably consists of a wood-screw, as the same will enable the wheel to be readily mounted on a door-casing. The bead or strip 6 may be recessed adjacent to the wheel, as shown; but a wheel of any desired size may be employed, as will be readily understood. The wheel presents opposite inclined upper edges and is also adapted to rotate to enable the fixed projection of the door to readily ride up the outer incline of the wheel and down the inner incline to the position illustrated in Fig. 4 of the drawings. The pin is of less diameter than the wheel, and when the door is closed it lies below the plane of the top of the wheel, whereby the wheel is adapted to operate as a catch for holding the door in its closed position. The door is provided with a recess 7 at its outer edge to receive the wheel, and the fixed transverse projection, which may consist of a nail, pin, or any other suitable fastening device or be formed in any other desired manner, is located at the top of the recess, and when the door closes it is arranged to engage the wheel at a point slightly lower than the top of the same, whereby when the door is closed it will be slightly raised and carried over the top of the wheel. The weight of the door will then resist any tendency of the door to open, and the device is thereby adapted to perform the functions of a catch or fastening device. The pin or projection is of a size to lie back of the wheel between the plane of the top thereof and the plane of the horizontal diameter of the same when the door is closed. The device is also arranged to support the door at the free edge thereof to prevent the door from sagging. The wheel may, if desired, be mounted in a recess of the door-casing, and the pin may be projected from the free edge of the door. As this is simply a reversal of the arrangement shown in the ac-

companying drawings and is perfectly obvious, it is thought that illustration thereof is unnecessary.

In the accompanying drawings the device is shown applied to a screen-door and is especially adapted for use on the same; but it will also be apparent that it may be advantageously employed on various other doors, such as dining-room doors, which are opened and closed with great frequency and on which it would be practically impossible to employ a latch of the ordinary construction.

What I claim is—

The combination with a door, and a casing, of a combined catch and lifting device, comprising a freely - rotatable inelastic wheel mounted on the door-casing, and a fixed transverse pin or projection carried by the door and arranged to engage the front of the wheel

at a point between the center and top when the door closes to cause the wheel to lift the door slightly and to carry the pin or projection backward in rear of the vertical diameter of the wheel, said wheel forming a support for the door to prevent the same from sagging, and the said pin or projection being of a size to lie completely between the plane of the top of the wheel and the plane of the horizontal diameter of the same when the door is closed, substantially as and for the purpose described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

CHARLES A. PAUL.

Witnesses:

LUTHER J. STUBBS,  
MERT MARKER.