

(No Model.)

T. S. WHITE.  
DOOR.

No. 347,852.

Patented Aug. 24, 1886.

Fig. 1

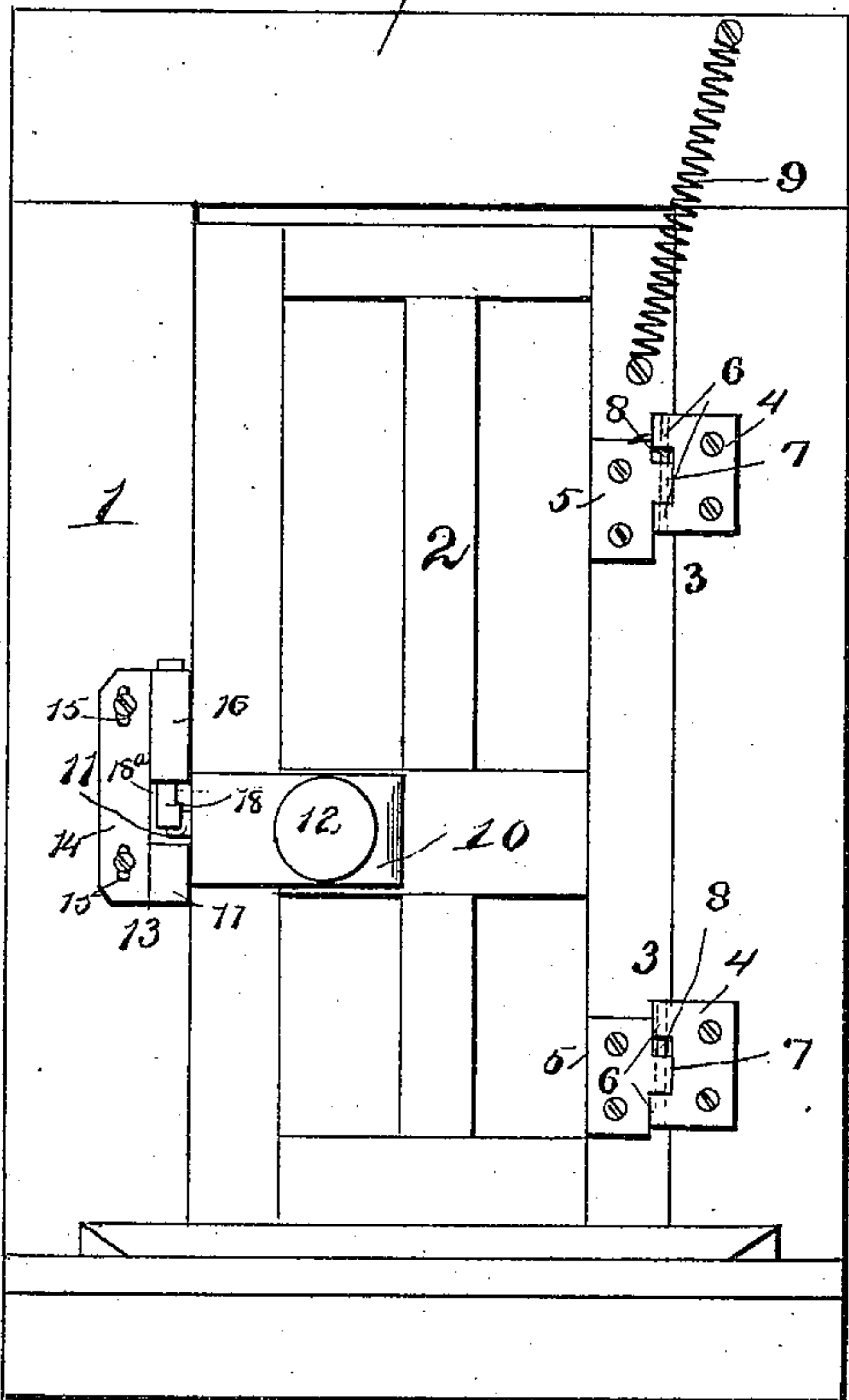


Fig. 2

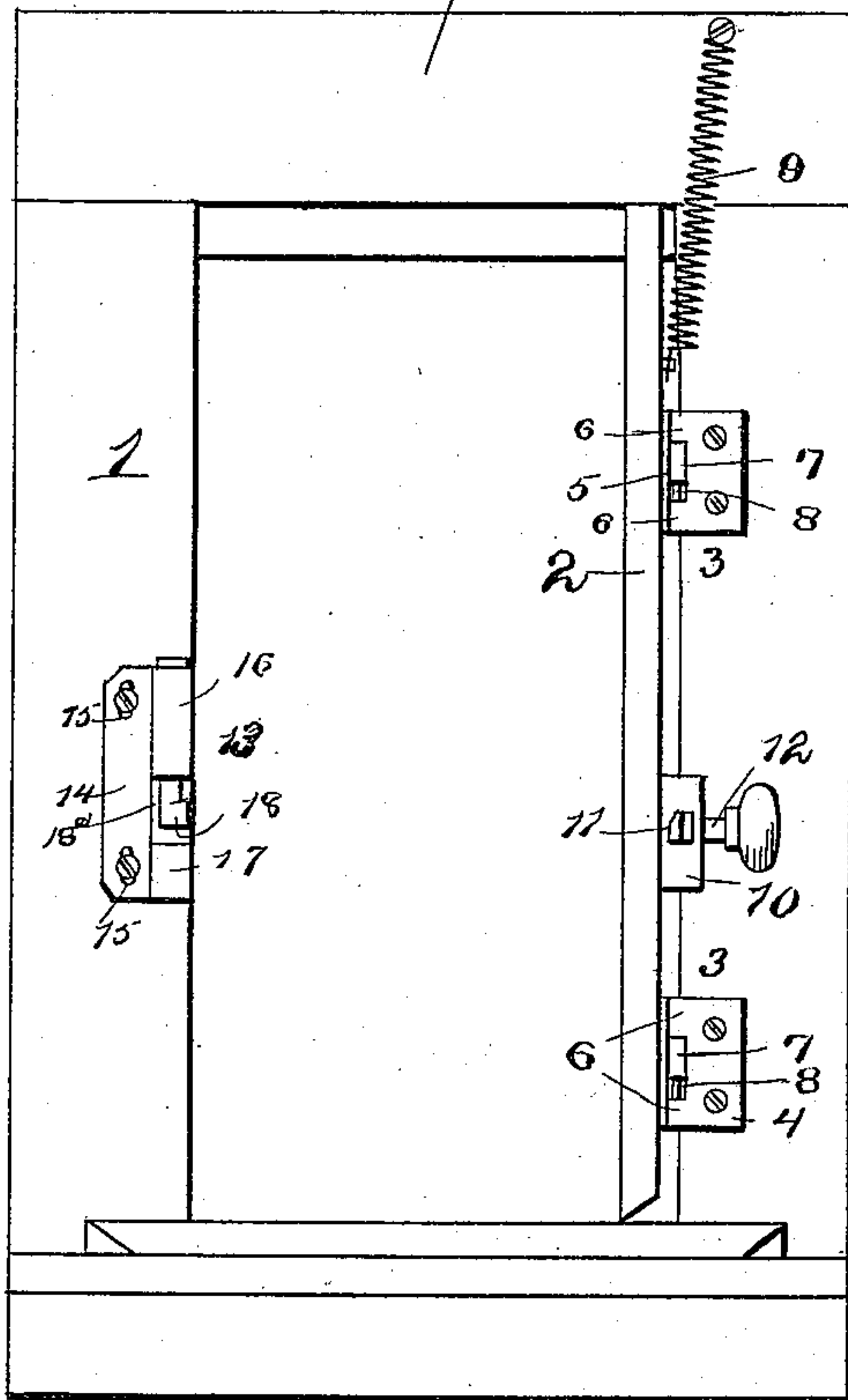
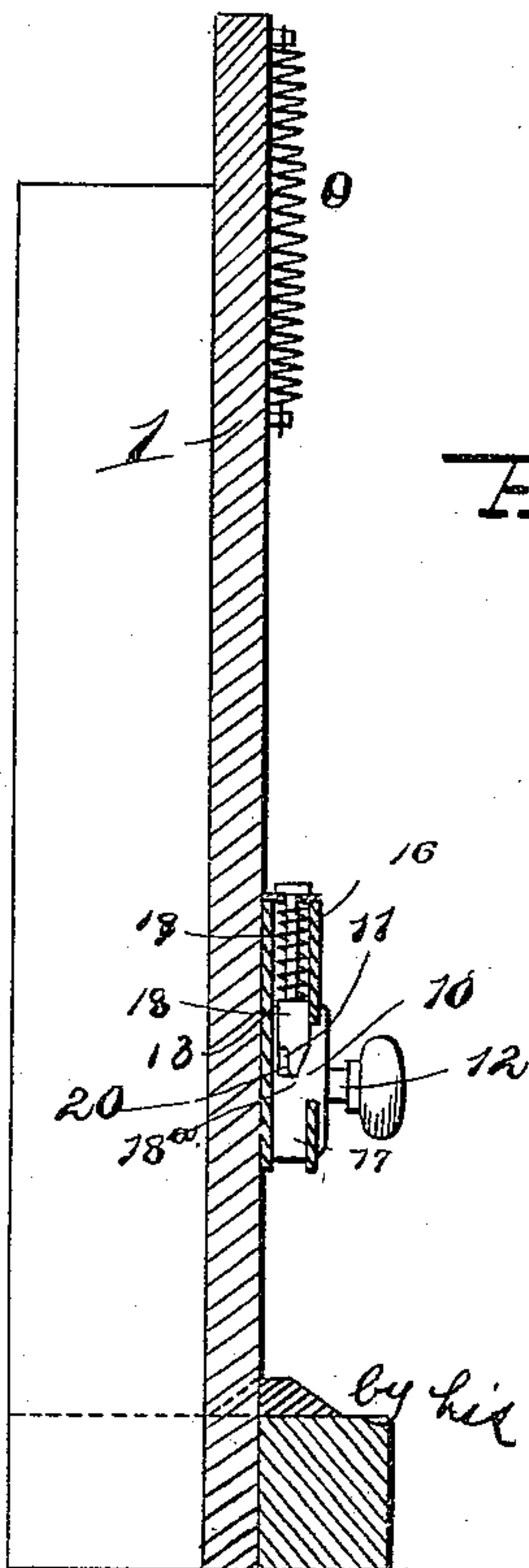


Fig. 3



Witnesses  
Jm. J. Gies  
R. Beruharp

Inventor  
Thomas S. White  
by his Attorneys  
C. A. Howdley

# UNITED STATES PATENT OFFICE.

THOMAS S. WHITE, OF BENTON, ILLINOIS.

## DOOR.

SPECIFICATION forming part of Letters Patent No. 347,852, dated August 24, 1886.

Application filed June 12, 1886. Serial No. 205,001. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS S. WHITE, a citizen of the United States, residing at Benton, in the county of Franklin and State of Illinois, have invented a new and useful Improvement in Doors, of which the following is a specification.

My invention relates to an improvement in doors; and it consists of the peculiar combination and novel construction and arrangement of the various parts for service, substantially as hereinafter fully set forth, and specifically pointed out in the claims.

The object of my invention is to provide improved means for effectually excluding water, snow, drafts, &c., from entering a room or apartment beneath a door, while at the same time the latter can be easily and freely swung on its hinges in opening and closing it.

My improved door is very simple, strong, and durable in construction, cheap and inexpensive of manufacture, and effective and reliable in operation.

In the accompanying drawings, which illustrate a door embodying my invention, Figure 1 is an elevation of the door closed. Fig. 2 is a similar view of the door opened. Fig. 3 is a vertical sectional view on the line  $x x$  of Fig. 1.

Referring to the drawings, in which like figures of reference denote corresponding parts in all the figures, 1 designates the door-frame, and 2 a swinging door, which are of the ordinary construction, the door being provided with a beveled lower edge, which fits a like edge in the door-sill. The door is hinged to the frame by hinges 3, which comprise two sections, 4 and 5, the former of which has two spaced eyes, 6, between which is fitted the single eye 7 of the section 5. The space between the eyes 6 is considerably larger than the width of the eye 7, so that a limited amount of vertical play or movement is permitted to the eye 7 between the eyes 6, thereby permitting the door 2 to be likewise capable of vertical play for a short distance, to permit it to clear the carpet or other object in its path during the swinging movement thereof. The hinge-sections 4 and 5 are secured to the frame 1 and door 2, or vice versa, and they are connected by a pintle, 8, which passes through the aligned eyes of the sections, and the vertical movement or eleva-

tion of the door in opening it is effected by a coiled spring, 9, which is connected with the upper part of the frame 1 and door.

When the door is closed, it fits snugly within the frame and close down to the floor, so as to exclude water, snow, drafts, &c., from beneath the door, the spring being extended; and upon swinging the door open by hand it is elevated by the spring as soon as its edges clear the edges of the frame 1.

The door carries a lock, 10, of any ordinary well-known pattern, which has a latch, 11, that is actuated by a spindle, 12, as is usual, and the door-frame 1 has a keeper, 13, affixed thereto, that is arranged in the path of the lock on the door. This keeper is provided with a plate, 14, having longitudinal slots 15, through which pass screws or other like means for adjustably securing the keeper to the door-frame; and the keeper has a chamber or compartment at its upper and lower ends, which are designated 16 and 17, respectively. These compartments are separated by an intervening space, 18, and in the compartment 17 the locking-bolt of the lock is to be projected in order to lock the door, as is usual. The compartment 16 is arranged above the path of the latch 11, so that it can pass beneath the same very freely, and in its compartment is arranged a catch, 18, that is normally projected into the path of the said latch 11 by a spring, 19, which is of the coiled class and encircles the catch within the case or walls of the compartment, as shown. The free end of the catch is beveled on its outer face to permit the latch to ride freely on the same when the door is closed, and to elevate the catch against the tension of the spring 19 and permit the latch to lie in rear of the catch and within a notch, 20, formed in the catch, to prevent the door from being blown or forced open against the pressure of high winds, &c.

The operation of my invention is obvious. To open the door the spindle of the lock is turned by hand to retract the latch within the lock and away from the catch 18, so that the door can be easily opened by pulling or forcing it away from the frame, and when the door clears the frame it is elevated by the spring to clear the carpet or other objects and swing very freely. In closing the door it is swung to until the latch strikes the spring-pressed



catch, and the door is simultaneously forced down against the tension of the spring, so that it will readily enter the frame and fit snugly therein, to effectually exclude wind and rain, the catch serving to effectually prevent the door from being blown open.

Various slight changes in the form and proportion of parts can be made without departing from the spirit of my invention.

10 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the frame, of the door capable of vertical movement, the hinge-  
15 sections secured to the door and frame, a spring for elevating the door, a keeper having a yielding catch, and a latch carried by the door to engage with the catch when the door is closed, substantially as described.

20 2. The combination, with a frame, of a door capable of vertical movement, the hinge-sec-

tions having the aligned eyes, between which the eyes of the fellow sections are adapted to move vertically, a spring connected with the door for elevating it, and means for locking the door when closed, substantially as described. 25

3. The combination of a swinging door capable of vertical movement, a spring for elevating the door, a latch carried by the door and actuated by a spindle, a keeper secured rigidly to the door-frame, a latch supported in the keeper, and a spring for projecting the catch into the path of the latch on the door, substantially as described. 30

In testimony that I claim the foregoing as  
my own I have hereto affixed my signature in presence of two witnesses. 35

THOMAS S. WHITE.

Witnesses:

J. L. DAVIS.

J. H. BURKITT.