No. 663,989. Patented Dec. 18, 1900.

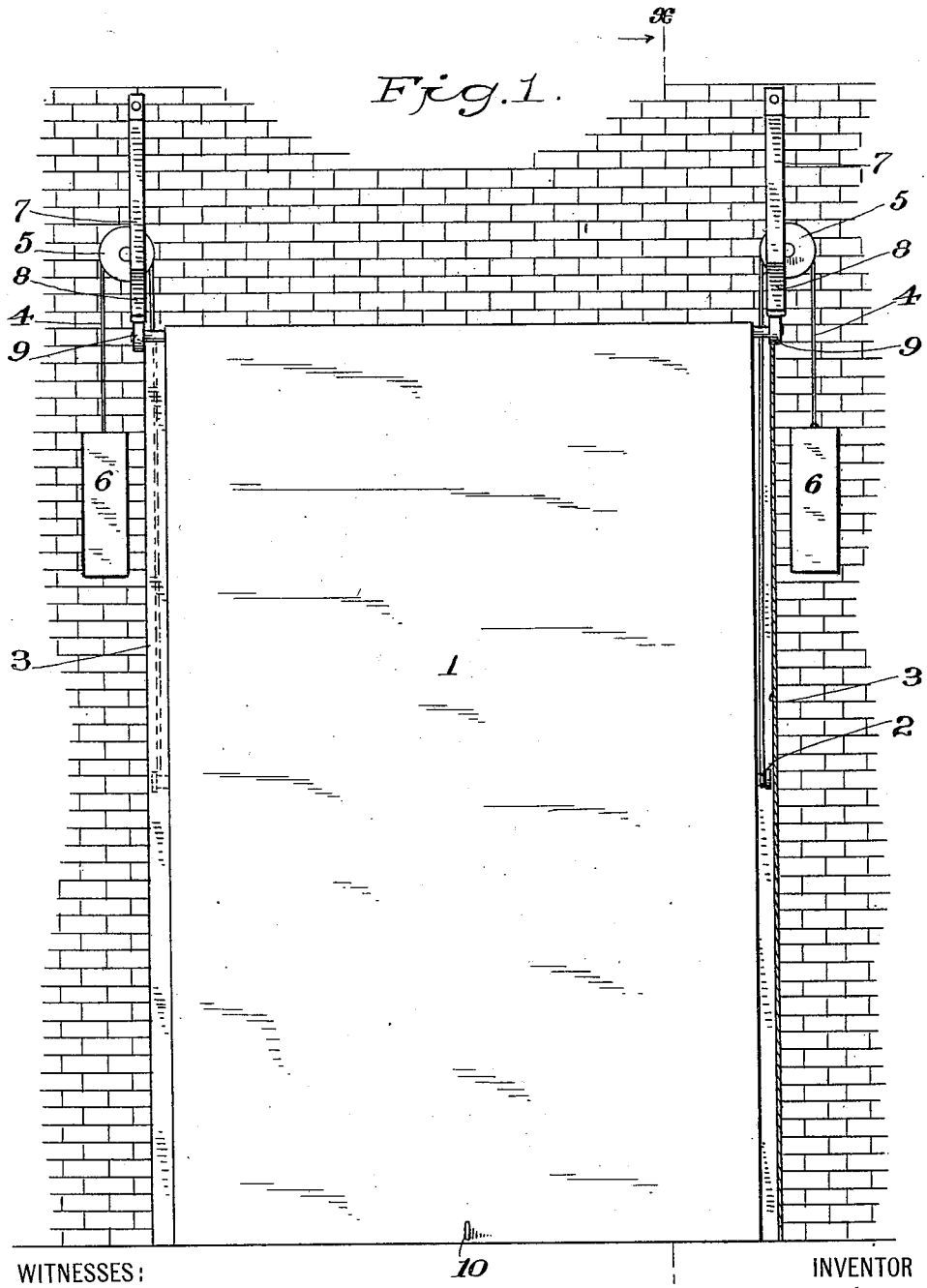
J. G. WILSON.

SHUTTER FOR DOORS OR WINDOWS.

(Application filed June 13, 1900.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.



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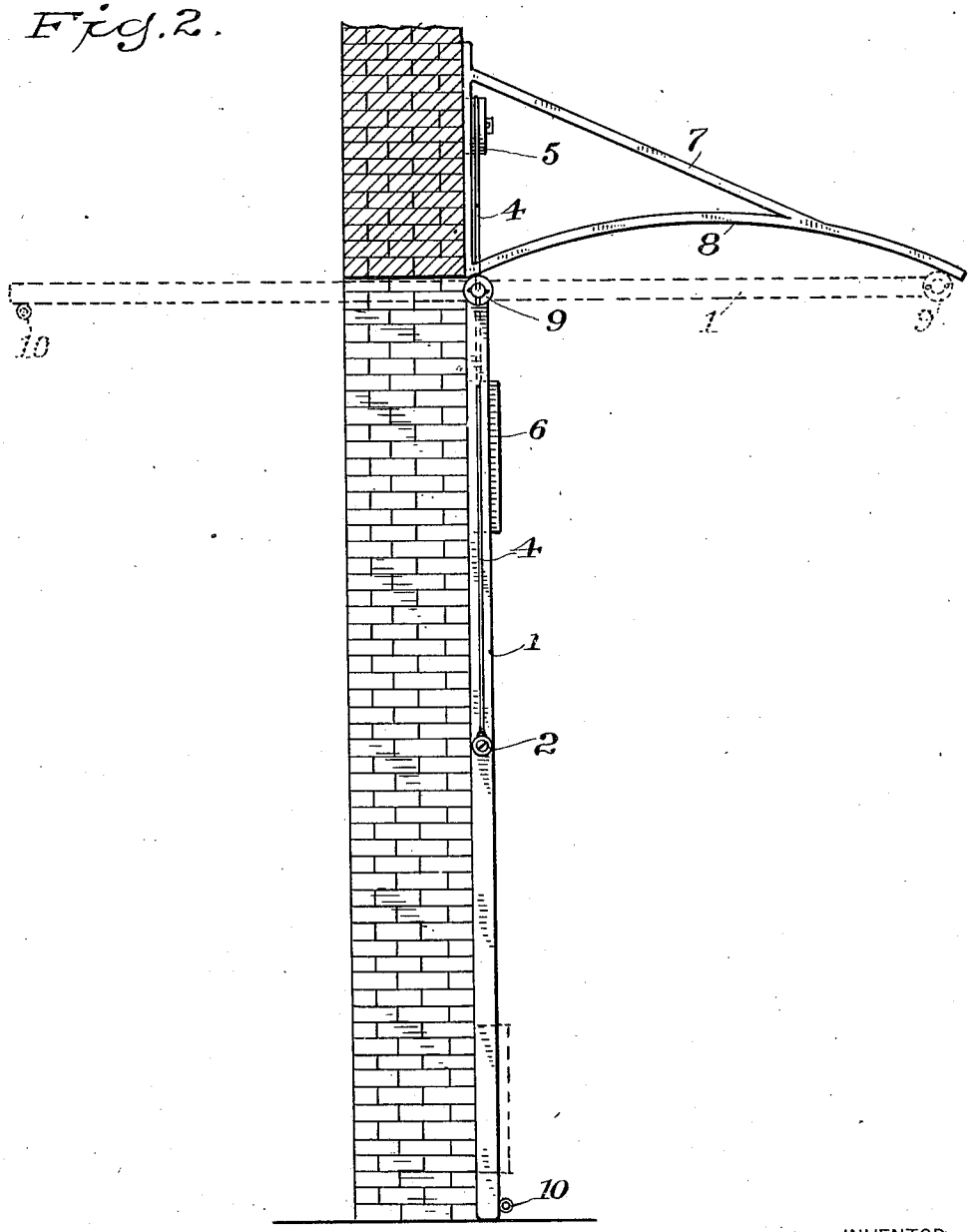
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Fig. 2.



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UNITED STATES PATENT OFFICE.

JAMES G. WILSON, OF NEW YORK, N. Y.

SHUTTER FOR DOORS OR WINDOWS.

SPECIFICATION forming part of Letters Patent No. 663,989, dated December 18, 1900.

Application filed June 13, 1900. Serial No. 20,175. (No model.)

To all whom it may concern:

Be it known that I, JAMES GODFREY WILSON, a subject of Victoria, Queen of Great Britain, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Shutters for Doors or Windows; 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 shutters for windows and doors, and has for its object to provide a shutter which by a simple swinging movement may be caused to become open and raised, while at the same time the shutter in raised condition will afford protection as a shed.

With these ends in view my invention consists in certain details of construction and combination of parts, such as will be hereinafter fully set forth and then specifically designated by the claims.

In the accompanying drawings, Figure 1 is a front elevation showing my shutter applied and in closed condition, and Fig. 2 is a section at the line *x x* of Fig. 1.

Similar numbers of reference denote like parts in both figures of the drawings.

My improved shutter is in the form of a plain door 1, from opposite sides of which and at the middle portion thereof extend trunnions 2, which latter project within suitable guideways 3 at the sides of the casing. 4 represents cords which are connected with these trunnions and which are passed up over pulleys 5 near the top of the doorway on either side thereof, the free ends of these cords being connected to weights 6, which latter are heavy enough to overbalance the weight of the door.

7 represents brackets secured in position immediately above the doorway and at either side thereof, the lower arm of each of these brackets being curved in the arc of a circle and presenting a concave appearance from the under side, as shown at 8.

9 represents friction-rolls secured to the door at each side of the upper end thereof and normally extending in contact with the inner ends of the concave portions of these brackets, as shown in the drawings.

In operating my improvement the door is swung inwardly at the bottom, so as to cause the rolls 9 to pass outwardly from the inner ends of the brackets, and thereupon the weights will draw the door bodily upward, the rolls meanwhile keeping in close contact with the concave portions 8, and this action caused by the weights will continue until the door has reached the substantially horizontal position denoted by dotted lines in Fig. 2.

The provision of the concave surfaces 8 and the action of the rolls in connection therewith prevent the door from wabbling or from being drawn upwardly in an unsteady manner, and also when it becomes necessary to close the door the operator simply engages a hook device with the eye 10 and pulls it downwardly, the rolls at the other end of the door then acting against the concave portions after the manner of cams, serving to force the door bodily downward against the action of the weights until said door is in closed position.

Any suitable contrivance may be employed for locking the door at the bottom or top.

It will be observed that when the door is in a position as shown by dotted lines in Fig. 2 a shed is afforded, which is a great advantage, especially in the instance of warehouses, freight-houses, and the like, where loading and unloading from wagons in front of the doors is commonly carried on, for the shed will afford ample shelter to the goods contained in the wagon until the loading or unloading operations are completed.

While it is desirable in many instances that the trunnions should extend axially from each side of the door, nevertheless they may extend from said door on either side of the middle portion thereof, the effect of which will be to cause the door when elevated to extend in one direction more than it does in the other, and therefore I do not wish to be limited in this respect.

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

1. The herein-described shutter for doors and windows comprising a door having trunnions extending from each side thereof intermediate of the top and the bottom, suitable guideways in the door-casing within which said trunnions project, weights connected to

said trunnions by cords that are passed over pulleys whereby the door is elevated, brackets secured in position at the sides of the doorway above said guideways and disposed throughout their entire lengths in the arcs of circles, and the friction-rolls carried by the door at its upper end and maintained in contact against said arcuate portions, substantially as set forth.

2. The combination of the guideways in the sides of the door-casing, the door having trunnions which project into said guideways from the sides of the door at points intermediate of the top and bottom thereof, the friction-rolls carried by the upper end of the door, the stationary brackets having an arcuate shape throughout their entire lengths and secured immediately above said rolls and in contact therewith, and means for elevating the door whereby the latter is raised and caused to assume a substantially horizontal position, substantially as set forth.

3. The combination of the guideways in the sides of the door-casing, the door having trunnions which project into said guideways from the sides of the door intermediate of the top and bottom thereof, the friction-rolls carried by the upper end of the door, the stationary brackets having an arcuate shape throughout the entire length of their bottom surfaces but having no guideways and secured in position immediately above said rolls and in contact therewith; and weights connected to said trunnions by cords that are passed over pulleys whereby the door is elevated and lowered with a swinging movement and said rolls maintained in contact against said arcuate surfaces throughout said movements, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JAS. G. WILSON.

Witnesses:
R. DABCANDER,
K. J. FENNO.