(No Model.)

G. R. G. JONES.

DOOR CHECK.

No. 406,840. Patented July 9, 1889.

Fig. 1.

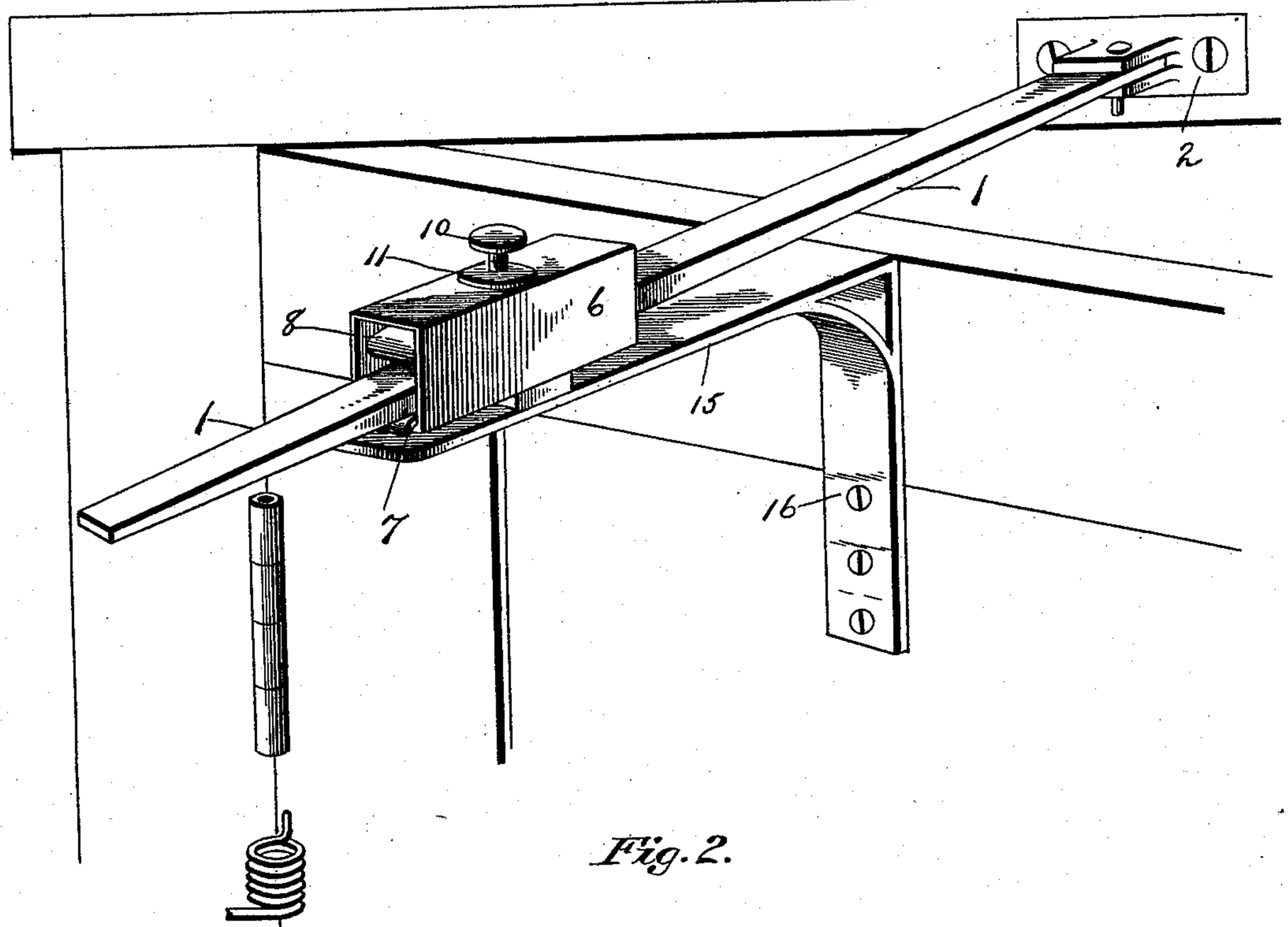

Fig. 2.

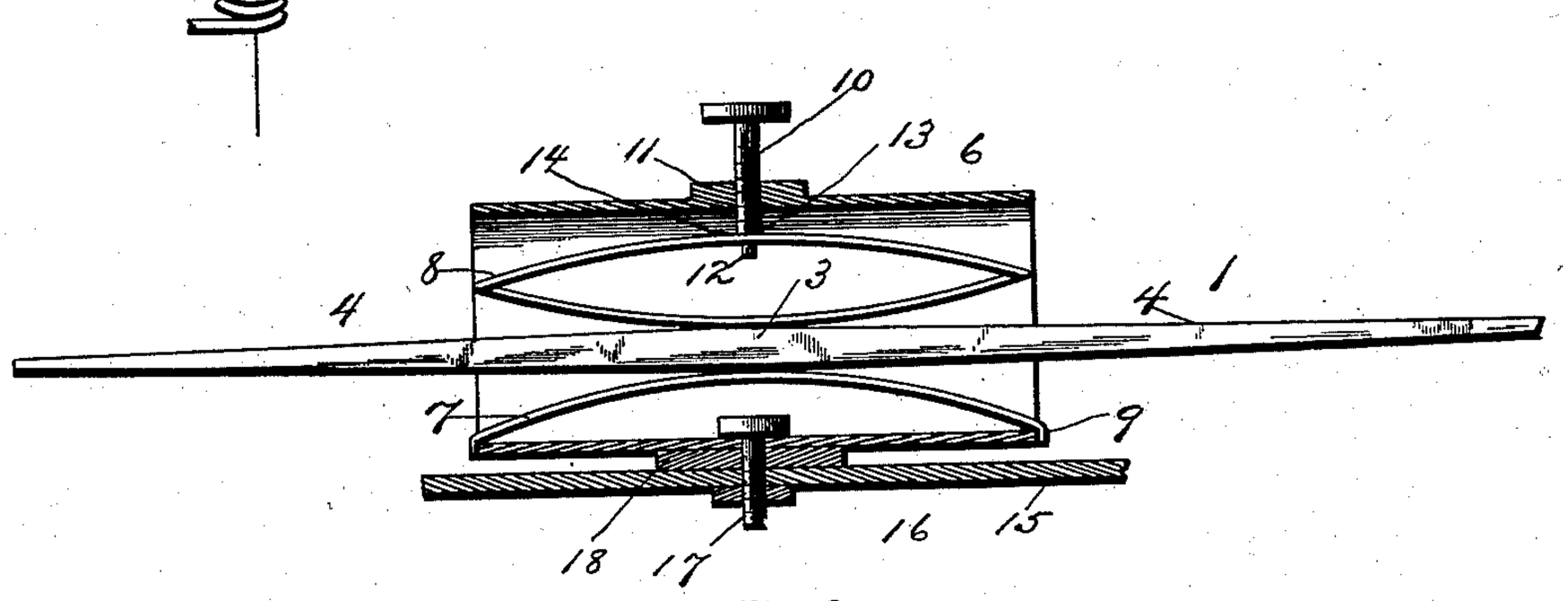

Fig. 3.

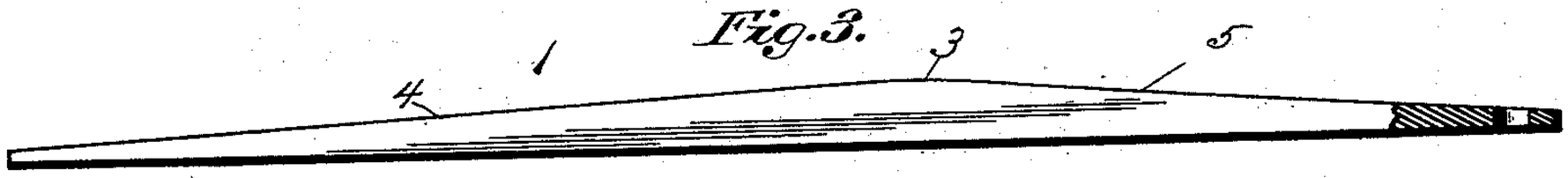

Fig. 4.

Witnesses:

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UNITED STATES PATENT OFFICE.

GEORGE R. G. JONES, OF LOUISVILLE, KENTUCKY.

DOOR-CHECK.

SPECIFICATION forming part of Letters Patent No. 406,840, dated July 9, 1889.

Application filed March 13, 1889. Serial No. 303,065. (No model.)

To all whom it may concern:

Be it known that I, GEORGE R. G. JONES, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Door-Checks; 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 door-checks; and it consists of the peculiar construction and arrangement of parts, as will be hereinafter fully described, and particularly pointed out in the claims.

One of the objects of my invention is to provide an improved door-check, which will permit of the free movement of the door at the initial movement of the door in opening or closing of the same, but which serves to retard and check the door before it finally closes or opens, and thus prevent the door from violently closing; and a further object of my invention is to improve the parts in minor details with a view to promoting simplicity and durability of construction, efficiency of operation, and cheapness of manufacture. With these ends in view I provide a check-rod, which is tapered longitudinally from a point at one side of or near its middle toward both ends, so that the greater thickness or diameter of said check-rod is near the middle of its length; and with this rod I combine a sliding sleeve, which contains two springs, between which the check-rod is fitted. These springs bear or press constantly on opposite sides of the check-rod, and when they ride over the inclined surface of the rod at the point of its greater diameter they are compressed, and serve efficiently to retard the rapid movement of the door in case it is blown by the wind, thus preventing the door from closing violently. These springs are held in place within the sliding sleeve in a novel manner, and suitable means are provided for regulating the tension thereof.

I have found by practical experience that verdigris is deposited on a wooden check-rod when brass springs are employed, owing to the constant friction and wear that takes place when the springs slide over the rod. I therefore prefer in practice to make the check-rod of wood and the springs of sheet-brass, as the rod is in a measure lubricated after the device has been in use for a short period of time, and a free easy movement is imparted to the device; but I would have it understood, however, that I do not confine myself to the use of the particular materials mentioned and hold myself at liberty to use any other materials suitable for the purpose.

To enable others to understand my invention, I will now proceed to describe the same in connection with the accompanying drawings, in which—

Figure 1 is a perspective view of my improved door-check. Fig. 2 is an enlarged detail sectional view through the sliding sleeve, its attached springs, and a portion of the check-rod. Fig. 3 is a detail view of the check-rod, and Fig. 4 is a like view of a modified form of the check-rod.

Like numerals of reference denote corresponding parts in all the figures of the drawings, referring to which—

1 designates the check-rod of my improved door-check, which rod is arranged in a horizontal position above the upper edge of the door and is pivoted at one end to a bracket 2, which is fitted to the lintel of the door-frame, so as to swing or turn freely in a horizontal plane and thereby accommodate itself to the various angles or changes in position of the door when it is opened or closed. This rod is tapered longitudinally, so as to have an enlargement or swell at its middle, as at 3, or at one side of the middle, the taper or incline 4 5 beginning at both ends of the rod and gradually increasing as they approach the middle or point 3 of greater diameter or thickness. I prefer to make the angle of inclination 5 at the pivoted end of the rod more abrupt and sharper than the inclination 4 at the free unconfined end of the rod, the two inclined surfaces joining or merging into each other, so as to be practically continuous, and thus insure the free movement of the sleeve and its contained springs over the inclined surfaces.

The sliding sleeve 6 is rectangular in general outline and of considerably larger diameter than the rod, and within this sliding sleeve is arranged friction-springs 7 8, between which

and a regulating-screw fitted in the threaded boss of the sleeve and connected to the upper spring, substantially as described.

4. A door-check consisting of a pivoted check-rod having its greatest diameter at its middle and gradually tapered toward both ends, a sleeve fitted on said rod, the curved leaf-springs arranged within and secured to the sleeve and bearing on opposite lateral faces of the check-rod, a bracket adapted to be fixed on the door, a washer interposed between the sleeve and bracket, and a vertical pivot-bolt intermediate of the bracket and the sleeve to permit the latter to move in a horizontal plane, substantially as and for the purpose described.

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

G. R. G. JONES.

Witnesses:
H. I. BERNHARD,
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