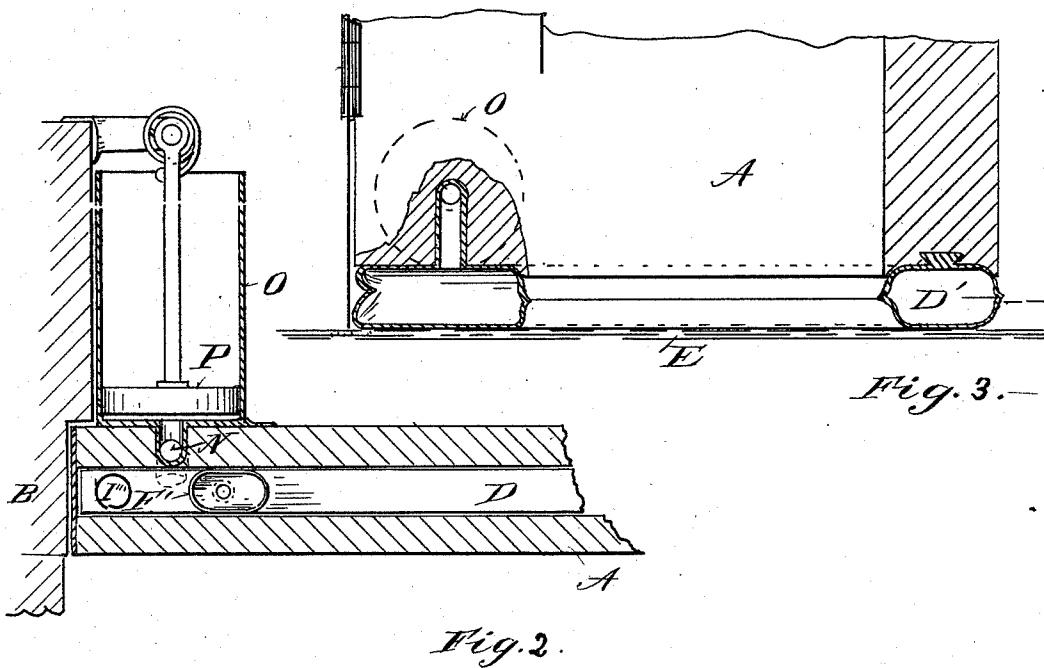
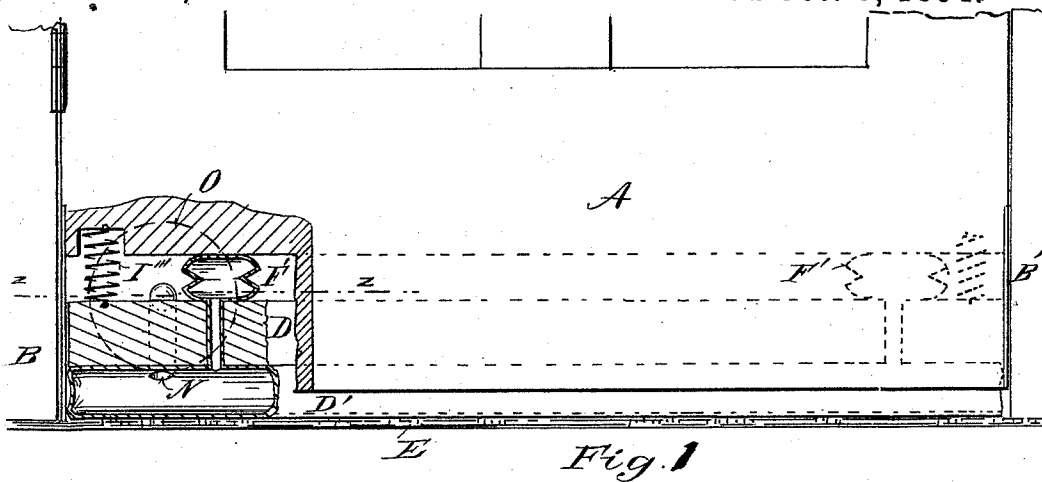


(No Model.)

W. N. MORRISON.
AUTOMATIC DOOR STRIP.

No. 527,212.

Patented Oct. 9, 1894.



WITNESSES:

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WILLIAM N. MORRISON, OF ST. LOUIS, MISSOURI.

AUTOMATIC DOOR-STRIP.

SPECIFICATION forming part of Letters Patent No. 527,212, dated October 9, 1894.

Application filed April 16, 1894. Serial No. 507,747. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM N. MORRISON, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Automatic Door-Strips, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to certain new and useful improvements in automatic door strips, the peculiarities of which will be hereinafter described and claimed.

In the accompanying drawings on which like reference letters indicate corresponding parts, Figure 1 represents the side of a door provided with my automatic pneumatic closing strip; Fig. 2, a section on the line *z z*, Fig. 1, and Fig. 3, a simplified form of strip.

Referring to Fig. 1, the letter A represents a door mounted between the jambs B B'. In the lower part of the door within the bottom rail and lower ends of the stiles is formed a groove open at the bottom. In this groove is mounted a strip D which is adapted to be adjusted substantially vertical, and when up, is preferably hidden within the groove so as to be entirely out of sight; but when forced downward automatically, by means presently to be described, it closes the clearance space between the bottom of the door A and the floor or carpet E, as is shown in Fig. 1. This automatic action is secured by connecting it with one of the ordinary pneumatic door checks of the cylinder and buffer piston style. Figs. 1 and 2 show the automatic pneumatic operating means for a closing strip D, having an inflatable yielding edge D', communicating by a passage N with a compressor cylinder O, in which works the buffer piston P. The figures show the piston at the inner end of the cylinder and the cushion D' inflated. The strip body is also forced down by pressure bulbs F' which constitute the operating means on the pneumatic principle. A lifting spring I''' Fig. 1, acts to lift the strip.

In some cases, the cushion D' may be fastened directly to the door, and connected to the compressor cylinder O. This form is shown in Fig. 3. The exhaustion of air from the rubber cushion as the door is opened, causes

it to rise from the carpet; or the rubber may be made in a flattened tube so as to return to its flat shape when not air-distended.

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

1. The combination with a door, of an inflatable tube mounted along the edge of the door, a compressor cylinder communicating with said tube, and a piston operated in said cylinder by the movement of the door.

2. The combination with a door, of an inflatable tube mounted on the door, a compressor cylinder carried by the door and communicating with said tube, and a piston supported on the door frame and co-operating with said cylinder and tube substantially as shown and described.

3. The combination with the grooved bottom edge of a door, of a closing strip mounted therein consisting of a body strip having an inflatable cushion edge, springs supporting said strip, pneumatic bulbs on the top of said strip reacting on the door, pipe connections from the bulbs above to the inflatable cushion below, and an air-compressor communicating with the cushion and bulbs, adapted to supply and exhaust air automatically to any from said cushion and bulbs, by the act of shutting and opening said door respectively.

4. The combination with the bottom edge of a door, of a closing strip consisting of a body strip and a collapsible tube on its bottom edge, collapsible bulbs above the strip contacting with the door above to press the strip downward when expanded, means to support the said strip, and an air compressor to deliver and exhaust air to and from said tube and bulbs, consisting of an air cylinder on the closing side of the door and a buffer piston therefor on the door frame, substantially as shown and described.

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

WILLIAM N. MORRISON.

Witnesses:

M. JACOBY,

C. H. TALMAGE.