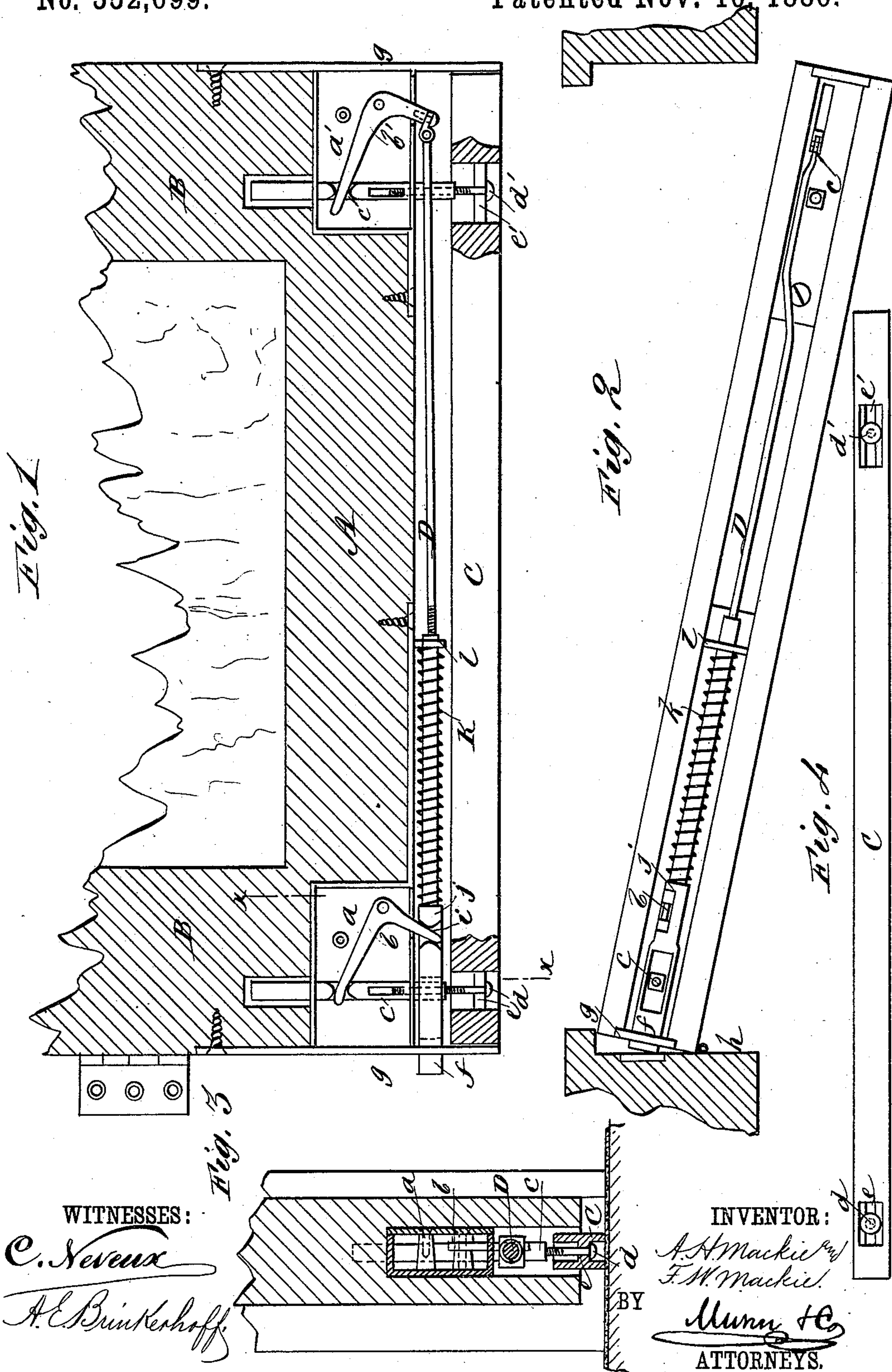


A. H. & F. W. MACKIE.
DOOR ATTACHMENT.

Patented Nov. 16, 1886.



UNITED STATES PATENT OFFICE.

ALBERT H. MACKIE AND FRED W. MACKIE, OF BROCKTON, MASS.

DOOR ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 352,699, dated November 16, 1886.

Application filed July 21, 1886. Serial No. 208,635. (No model.)

To all whom it may concern:

Be it known that we, ALBERT HENRY MACKIE and FRED WILLIAM MACKIE, of Brockton, in the county of Plymouth and State of Massachusetts, have invented a new and Improved Door Attachment, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which--

Figure 1 is a side sectional elevation of a part of a door to which our attachment has been applied. Fig. 2 is an inverted plan view of the door with the stop removed. Fig. 3 is a vertical transverse section taken on line *xx* in Fig. 1; and Fig. 4 is a detail plan view of the sliding stop.

Similar letters of reference indicate corresponding parts in the different views.

The object of our invention is to provide an attachment for doors which will close the space between the bottom of the door and the floor or carpet, and thus obviate the necessity of employing thresholds.

Our invention consists in the construction and arrangement of parts, as will be hereinafter fully described, and specifically pointed out in the claims.

The lower rail, A, and stiles B of the door are grooved in their lower edges to receive the sliding stop C and the sliding rod D. In casings *a a'*, arranged on opposite sides of the door, are pivoted bell-crank levers *b b'*, with their longer arms projecting in the same direction and passing through mortises in the bolts *c c'*, which slide vertically through the casings *a a'*. In the lower ends of the bolts *c c'* are inserted the adjusting-screws *d d'*, which pass through cross-bars *e e'* in mortises in the sliding stop C.

The rod D has an enlarged end, *f*, which projects through the flange *g* of the casing *a*, beyond the edge of the door, in position to engage the door-jamb *h* as the door is closed. The shorter arm of the bell-crank lever *b* extends through a mortise, *i*, in the rod D, and the shorter arm of the bell-crank lever *b'* is pivotally connected with the opposite end of the rod. The enlarged end *f* of the rod D is provided with the shoulder *j*, and is surrounded with a spiral spring, *k*, which abuts against the shoulder and against a guide, *l*, projecting

from a flange extending from the lower side of the casing *a*. The inner end of the enlarged part of the rod D is bored axially, and internally threaded to receive the end of the part connected with the lever *b'*. The length of the rod D is adjusted by screwing the smaller part of the rod into the larger part, or unscrewing it therefrom, according to the width of the door to which the attachment is applied.

The spring *k* has sufficient strength to project the rod D through the flange *g* and turn the bell-crank levers *b b'*, so as to lift the bolts *c c'*, and thus raise both ends of the sliding stop C simultaneously, when the rod is released by opening the door. This operation lifts the stop C from the floor as the door begins to open, so that the door may be swung freely in either direction. When the door is nearly closed, the contact of the enlarged end *f* of the rod D with the door-jamb pushes the rod in, turning the levers *b b'* on their pivots, thus pushing the bolts *c c'* downward, allowing the stop C to drop into contact with the floor. Should there be an obstruction on the floor, the stop C will remain in an elevated position while the bolts *c c'* are depressed.

Our invention permits of extending the carpet straight through a doorway, and affords a means of effectually closing the space usually left below the lower edge of the door.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is--

1. The door attachment comprising a movable stop, C, having mortises provided with cross-bars *e e'*, the casings *a a'*, having end flanges, *g g*, the bell-crank levers pivoted in said casings, the vertically-sliding bolts *c c'*, mortised between their ends and receiving the long arms of the bell-crank levers, the adjusting-screws *d d'*, extending up through the cross-bars and mortises in the stop C into the lower ends of the bolts *c c'*, and the spring-pressed rod D, having one end, *f*, extending through the flange *g*, and a mortise, *i*, into which projects the short arm of lever *b*, the short arm of lever *b'* being pivotally connected to the opposite end of said rod, substantially as set forth.

2. The combination, with the strip for closing the space below the door, provided with mortises and cross-bars within said mortises,

of the operating-rod, the bell-crank levers, the
vertically-reciprocating bolts operated by the
bell-crank levers, and the adjusting-screws ex-
tending up through the mortises in the strip
5 and engaging the lower ends of the bolts, the
heads of the screws bearing against the said
cross-pieces, whereby the distance that the
strip is to project below the door may be regu-

lated without detaching any of the operating
mechanism, substantially as set forth.

ALBERT H. MACKIE.
FRED W. MACKIE.

Witnesses:

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Mrs. ALBERT H. MACKIE.