W. B. SHAW,
DOOR SUPPORTING MEANS.
APPLICATION FILED JULY 31, 1909.

951,971.

Patented Mar. 15, 1910.

2 SHEETS-SHEET 2.

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Witnesses

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By

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Catu M. Gallopie
To all whom it may concern:  

Be it known that I, WALTER BENJAMIN SHAW, citizen of the United States, residing at Dobbs Ferry, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Door-Supporting Means, of which the following is a specification.

This invention relates to improvements in door supporting means and embraces the construction of an improved hinge whereby a door can be supported in a door way in such a manner that the door can be made to automatically close by the weight thereof on the door frame.

One of the objects of the invention is the construction of an improved door hinge consisting of two independently operated pintles adapted to be secure to the top of a door and a single pintle adapted to be secure to the bottom of a door whereby the weight of the door can be utilized in holding the door normally closed, or the door can be held in any position desired by simply operating the different pintles of the top of the door.

With the above and other objects in view the invention embraces certain constructions, combinations and arrangements of parts, clearly illustrated in the accompanying drawings, in which,

Figure 1 is a perspective view of a door mounted on a door frame, provided with my improved hinge, Fig. 2 is a detail sectional view of the upper pintle or pivot of the door, Fig. 3 is a detail sectional view of the upper pintles of the door, Fig. 4 is a detail sectional view of the upper pintles in a different position, Fig. 5 is a detail sectional view of the upper pintles, and Fig. 5 is a detail view of a portion of the door showing the slots in which the handles of pintles work.

Referring to the accompanying drawings, which are merely illustrative of the invention, 1 denotes a door frame and 2 a door.

The door 2 is provided with two right angular slots 3 and 4, which are located on the upper portion thereof near the hinged edge of the door.

On the lintel 5 of the door frame 1 a plate 6 is located, said plate being provided with recesses 6 and 7; the recess 6 being cone shaped and the recess 7 being adapted to receive the end of a plunger formed rounded with a flat end.

The door 2 is provided with guide ways 8 and 9, and in these guide ways plungers or pintles 10 and 11 slide. The pintle 10 is formed with a cone shaped upper end and is adapted to engage with the recess 6 of the plate 6', while the plunger or pintle 11 is adapted to engage with the recess 7 of said plate. Attached to the pintles are two handles 12 and 13, which project laterally through the slots 3 and 4, said pintle handles being pivotally connected to the pintles so as to bend horizontally.

On the lower side of the door 2 a pintle 15 is secured, said pintle being adapted to engage with a pintle plate 16, secured to the floor or to the lower member of the door 70 frame 1.

The pintles 11 and 15 are located on the door 2 so as to be in alinement with each other and the pintle 10 is located on the door at a point spaced apart from the pintle 11. When the pintles 11 and 15 are in engagement with the door frame the door is adapted to occupy any position it may be manually placed in. When the pintle 11 has been withdrawn from engagement with the upper plate 6' and the pintle 10 brought into engagement with said plate the weight of the door will hold the same normally closed, by reason of the staggered bearing. To bring both the pintles into engagement with the upper plate 6' the door may be locked in closed position. An additional lock or latch may be employed to hold the door closed in the usual manner. After the door has been locked in closed position by means of the two pintles any successful attempt to force the door open will tend to disconnect the door from its bearings, thereby leaving the door unattached to the frame, in which case it would fail and give an alarm.

Should it be desired the door may be provided with two fixed non-movable pintles arranged in staggered relation to each other whereby the door may be held by force of gravity normally closed.

Having described my invention I claim and desire to secure by Letters Patent:

1. In combination, a door frame, a door adapted to be supported thereon, a pintle for the lower portion of the door and independently operated pintles for the upper portion of the door.

2. In combination, a door frame, a door hingable thereon, a pintle located on the
bottom of the door and slidable pintles for the upper portion of the door.

3. In combination, a door frame, a door hingeable thereon, a fixed pintle on the lower portion of the door; a pintle on the upper portion of the door in alinement with the lower pintle and a second pintle on said upper portion of the door disposed in staggered relation to said lower pintles, said upper pintles being independently operable. 10

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

WALTER BENJAMIN SHAW.

Witnesses:

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