



# UNITED STATES PATENT OFFICE.

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### DISAPPEARING GARAGE-DOOR.

#### 1,261,686.

**Patented Apr. 2, 1918.** Specification of Letters Patent.

## Application filed April 26, 1917. Serial No. 164,736.

## To all whom it may concern:

Be it known that I, GEORGE B. BOUGHTON, a citizen of the United States, residing at the city of St. Louis, in the State of Mis-5 souri, have invented certain new and useful Improvements in Disappearing Garage-Doors; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in

10 the art to which it appertains to make and use the same.

My invention relates principally to garage doors for use in limited space, although it is to be understood that the invention could 15 well be used upon other kinds of buildings.

- The object of the invention is to provide an improved door and operating means therefor, so constructed as to position the door in the upper part of the garage or other
- 20 building when the same is opened, whereby it will be entirely out of the way and will therefore render all space in the building available for other purposes
- With the foregoing general object in view, 25 the invention resides in the novel features of construction and unique combinations of parts to be hereinafter fully described and claimed, the descriptive matter being supplemented by the accompanying drawings
- 30 which constitute a part of this application and in which: Figure 1 is a vertical section of a garage

having one of the improved doors, the latter being shown in closed position;

Figs. 2 and 3 are similar views showing 35 the door respectively in partially and completely opened positions;

Fig. 4 is a vertical transverse section on the plane of the line 4-4 of Fig. 1.

- In the drawings above briefly described, 40 the numeral 1 has reference to a garage having a door frame 2 equipped at its sides with vertical tracks 3, whereas the numeral 4 designates the door which is shown as formed
- 45 of upper and lower sections 5 and 6. respectively, hinged together at 7, the lower end of the section 6 having rollers or other shoes 8 traveling in the tracks 3.

Cables 9 and weights 10 are preferably 50 employed to assist in opening the door, said cables being secured to suitable ears 11 on the lower section 6 of the door, and passing over pulleys 12 adjacent the upper end of the door frame. Although the use of the

55 cables and weights is preferable, it is highly probable that other constructions could well

be adopted for attaining the same results and I do not therefore wish to limit my invention in this respect.

Two inclined levers 13 are fulcrumed be- 60 tween their ends to brackets or the like 14 secured to the sides of the garage, the upper ends of said levers being rigidly secured at 15 to the upper door section 5, adjacent the upper end thereof, whereas the lower ends 65 of said levers are provided with counterbalances 16 adjustable along the same and held in adjusted position by set screws or the like 17. Rigid arms 18 extend from the upper portions of the levers 13 and are rigidly 70 secured at 19 to the door section 5, adjacent the lower end of said section, said arms and levers being preferably disposed in right angular relation, although this is not altogether 75 essential.

By the construction shown and described, the door may be easily operated and as illustrated in the drawings, it will move to a horizontal position in the upper portion of the building, when opened, in which location 80 it will occupy no valuable space. The improved door is therefore of great advantage over those of the hinged type or those mounted slidably on tracks and hangers.

Since probably the best results are ob- 85 tained from the specific construction shown, this construction constitutes the preferred form of my invention. I wish it under-stood, however, that within the scope of the invention as claimed, numerous minor 90 changes may be made without sacrificing the principal advantages.

I claim:

1. The combination with a building and a door frame thereof, of a door for said 95 frame formed of horizontal hingedly connected sections, tracks at the sides of the frame and terminating at the upper end thereof, shoes on the lowermost door section engaged with said tracks, inclined levers ful- 100 crumed between their ends for movement in vertical planes at right angles to the door frame, the upper ends of said levers being rigidly secured to the uppermost door section, and counterbalances on the lower ends 105 of said levers.

2. The combination with a building and a door frame thereof, of a door for said frame formed of horizontal hingedly connected sections, tracks at the sides of the 110 frame and terminating at the upper end thereof, shoes on the lowermost door section

5 rigidly secured to the uppermost door section, adjacent the upper end thereof, arms extending laterally from said levers and secured to said uppermost section adjacent the lower end thereof, and counterbalances on

10 the lower ends of said levers.

3. The combination with a building and a door frame thereof, of a door for said frame formed of horizontal hingedly connected sections, tracks at the sides of the

15 frame and terminating at the upper end thereof, shoes on the lowermost door section engaged with said tracks, means connected with said lower section and exerting a constant upward stress thereon, inclined levers

20 fulcrumed between their ends for movement in vertical planes at right angles to the door rigidly secured to the uppermost door section, and counterbalances on the lower ends

25 of said levers.

4. The combination of a building having a vertical door frame, a door for said frame formed of an upper and a lower section

hinged together, a pair of levers fulcrumed between their ends at the sides of the build- 30 ing, said levers inclining upwardly at substantially 45 degrees to said door and having their upper ends secured to the upper end of the upper section of said door, arms extending from said levers and secured to 35 said upper section, near the lower end thereof, counterbalances on the lower ends of said levers, a pair of shoes on the lower end of the lower door section, a pair of vertical tracks at the sides of the frame and termin 40 nating at the upper end thereof, said shoes engaging said tracks slidably and pivotally, a pair of cable guides at the upper end . of the frame, a pair of cables trained over said cable guides and secured at one end to 45 the lower end of said lower door section, and counterbalancing weights on the other ends of said cables.

In testimony whereof I have hereunto set frame, the upper ends of said levers being, my hand in the presence of two subscribing <sup>5C</sup> witnesses.

## GEORGE B. BOUGHTON.

Witnesses:

CLAUD D. HALL, HERBERT G. NIEMOELLER.

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