June 24, 1924.

1,499,312

H. L. FERRIS

GARAGE DOOR HANGER

Filed Nov. 3, 1923

2 Sheets-Sheet 1

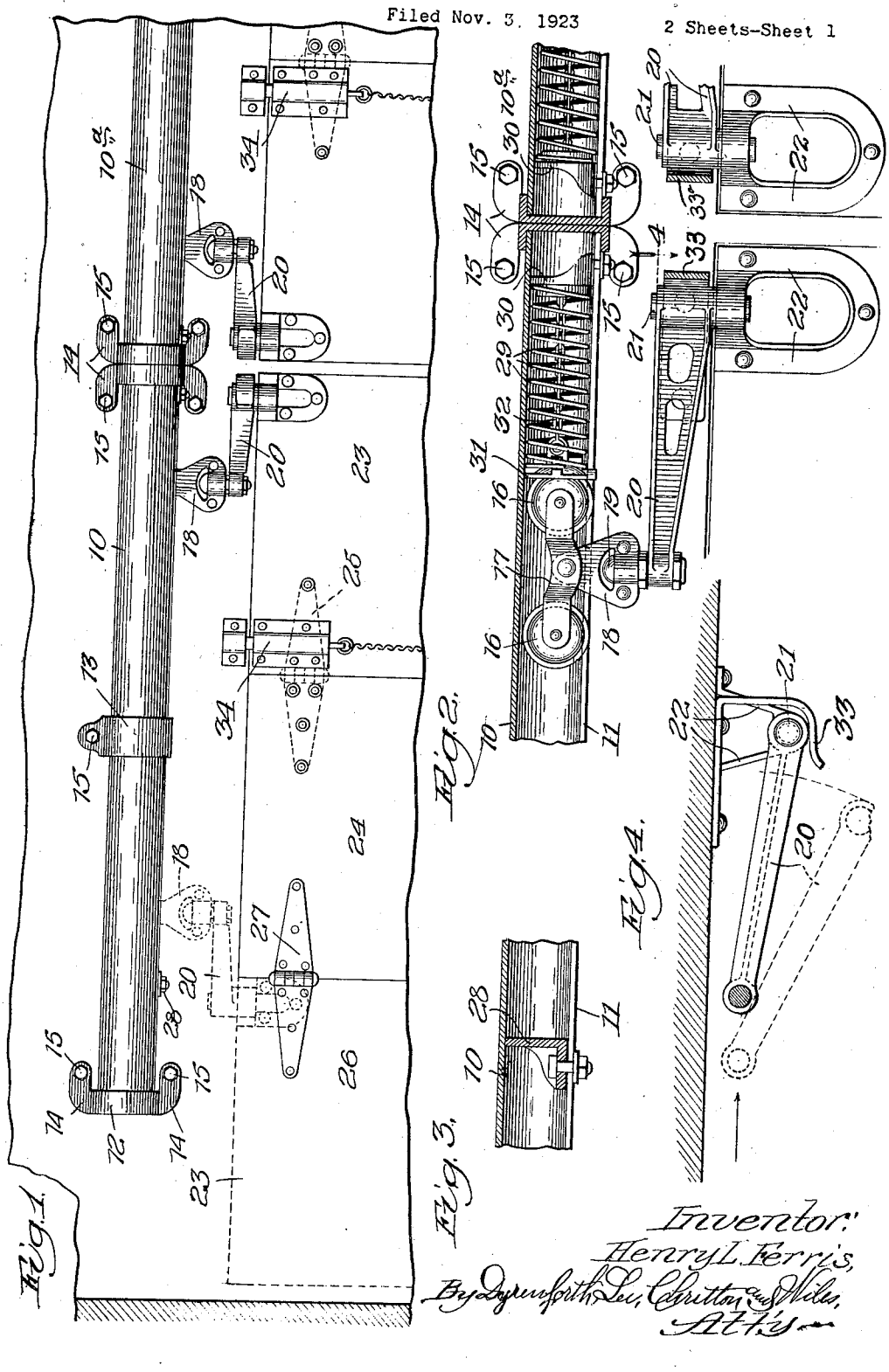


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Inventor:
Henry L. Ferris,
By Dyrenforth, Lee, Chritton & Wiles,
Atty's.

June 24, 1924.

1,499,312

H. L. FERRIS

GARAGE DOOR HANGER

Filed Nov. 3, 1923

2 Sheets-Sheet 2

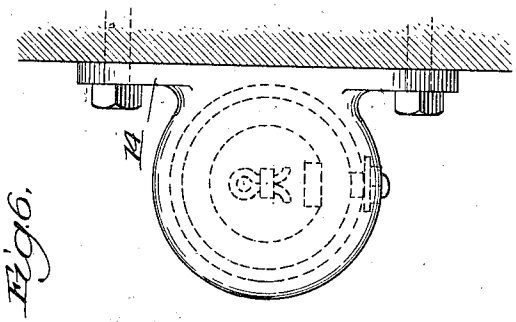


Fig. 6.

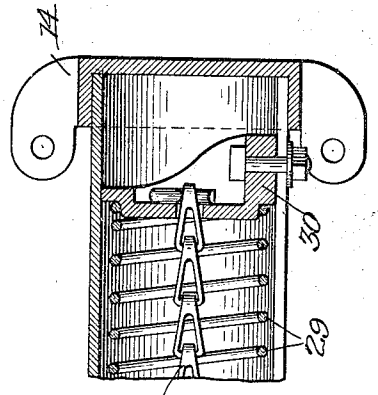


Fig. 5.

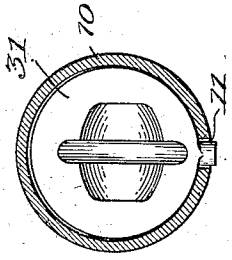
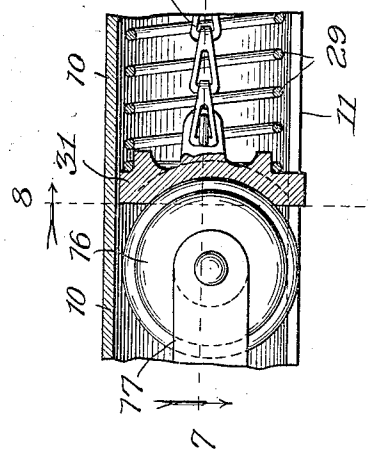


Fig. 8.



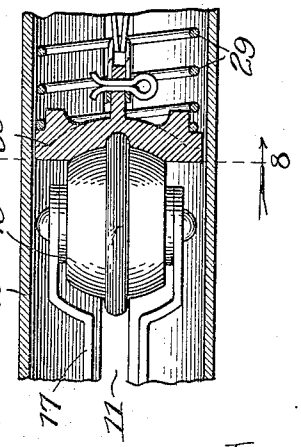


Fig. 7.

Inventor:
Henry L. Ferris,
By Dyrenforth, Lee, Chritton & Wiles,
Attys

Patented June 24, 1924. 1,499,312

UNITED STATES PATENT OFFICE.

HENRY L. FERRIS, OF HARVARD, ILLINOIS, ASSIGNOR TO HUNT-HELM-FERRIS & COMPANY, OF HARVARD, ILLINOIS, A CORPORATION OF ILLINOIS.

GARAGE-DOOR HANGER.

Application filed November 3, 1923. Serial No. 672,515.

To all whom it may concern:

Be it known that I, HENRY L. FERRIS, a citizen of the United States, residing at Harvard, in the county of McHenry and State of Illinois, have invented a new and useful Improvement in Garage-Door Hangers, of which the following is a specification.

This invention relates to garage door hangers and the like and is fully described in the following specification and shown in the accompanying drawings in which:

Figure 1 is a partial front elevation of two double garage doors with hangers embodying my invention;

Fig. 2 is an enlarged partial vertical section through the track showing the springs at the center;

Fig. 3 is a similar view showing the stop at the outer end of the track;

Fig. 4 is a horizontal elevation on the line 4 of Fig. 2;

Fig. 5 is an enlarged vertical section of the track and spring;

Fig. 6 is an end elevation of a bracket.

Fig. 7 is a horizontal section on the line 7 of Fig. 5; and

Fig. 8 is a view on the line 8—8 of Figs. 5 and 7.

The embodiment illustrated comprises a hollow cylindrical track 10 having a slot 11 at the bottom extending throughout the length thereof, said track being supported at intervals by means of brackets 12, 13 and 14, which are secured to the side of the garage by bolts 15. This track has come to be well known in the trade as has also the hanger shown in Fig. 2 which has rollers 16 which roll within the track and are carried upon a yoke 17 which has a member 18 extending through the slot 11 and pivotally mounted upon a pin 19 which is carried by an arm 20, the opposite end of which swings freely about a pin 21 which is carried by a bracket 22, the latter being fastened to the outer end of a folding door 23. This door is connected to a similar door 24 by means of hinges 25 placed upon the inside of these doors, while the door 24 is connected to the outer wall of the garage 26 by means of hinges 27 placed upon the outside.

From the foregoing it will be understood that as the hinges are moved outwardly the doors 23 and 24 are folded together back to back, and the arm 20 will swing so as to permit the two of them to be folded back into the dotted line position as shown at the left of Fig. 1, at which time the hanger 18 is moved to the outer end of the track 10. A stop 28 (Figs. 1 and 3) is provided against which the roller 16 strikes.

As the door 23 is again moved back toward closing position the arm 20 may either point forward as shown at the left of Fig. 1, or the door 23 may be swung outward to permit it to trail, but as it approaches the closing position (as shown in full lines in Fig. 1) it is necessary that this arm shall move back to a trailing position in order that the two hangers shall not interfere when two double doors are placed on a single garage as is here illustrated.

For this purpose I have provided a spring 29 which lies within the hollow track 10 and is carried near the end bracket 14, by an adjustable stop member 30. The spring 29 bears against a plate 31 which is connected by means of a flexible member as a chain 32 to the stop member 30. The plate 31 is so located that the forward wheel 16 engages it a short distance before the point at which the doors 23 and 24 are in fully closed position. Consequently when the doors are forced into closing position the spring 29 is slightly compressed, thereby insuring that all looseness in the mounting of the door is taken up.

As the door moves toward the closing position, no matter whether the arm 20 is pointed forward or backward when the roller 16 encounters the plate 31, it will readily assume the position shown in Fig. 1 when the forward end of the arm 20 may readily be guided back of the latch 33 which is secured to the front of the garage. Pressure is then applied to the doors 23 and 24 near their meeting hinged edges when they straighten out like a toggle thereby compressing the spring 29. To maintain them in this position I have provided the door 23 with a bolt 34.

This may be used on a single pair of doors as 23 and 24 covering a single opening, or it may be used on a double garage as shown. In this case, the two latches 33 and 33^a will stand back to back and the use of the stop plate 31 becomes doubly necessary as it prevents the hanger members 16 and 17 of one arm from striking the hanger members of the other arm.

Moreover with this arrangement of stops

at the two ends, the operator gives no heed to the position of the arm 20, either in opening or in closing the door. The stops prevent the hanger from going beyond a point which will permit the arm 20 from describing an arc that will let the doors freely open or close, as is shown in Fig. 4 at the latch end of the swing of the doors.

While I have shown and described certain embodiments of my invention, it is to be understood that it is capable of many modifications. Changes therefore in the construction and arrangement may be made without departing from the spirit and scope of the invention as disclosed in the appended claims, in which it is my intention to claim all novelty inherent in my invention as broadly as possible in view of the prior art.

I claim:

1. A door hanger comprising a track, a hanger member carried by said track, an arm pivotally connected to said member and adapted to be pivotally connected to a door, and a yieldable stop positioned to be engaged by said member as it approaches the closing position of the door to insure said arm assuming a trailing position as said door is closed.

2. A door hanger comprising a tubular track, a hanger member carried by said track, an arm pivotally connected to said member and adapted to be pivotally connected to a door, and a yielding stop within said tubular track positioned to be engaged by said member as it approaches the closing position of the door to insure said arm assuming a trailing position as said door is closed.

3. In combination, a garage front, an opening therein, a door hinged to swing outwardly from one side of said opening, a second door hinged to the first mentioned door and swingable in the reverse direction, a hollow track secured to said front above said door opening, a hanger member carried within said track, an arm pivotally connected to said member and pivotally connected near the free edge of said second door, and stops within said track to limit the movement of said hanger member.

4. In combination, a garage front, an opening therein, a door hinged to swing outwardly from one side of said opening, a second door hinged to the first mentioned door and swingable in the reverse direction, a track secured to said front above said door opening, a hanger member carried on said track, an arm pivotally connected to said member and pivotally connected near the free edge of said second door, a yieldable stop on the track adapted to engage the hanger at a point corresponding to the closing position of the door, and a latch secured to said front and placed so as to permit said arm to swing in front of it when said yieldable stop is not depressed, the end of said arm passing behind said catch when said stop is depressed by said hanger member.

5. In combination, a garage front, an opening therein, a door hinged to swing outwardly from one side of said opening, a second door hinged to the first mentioned door and swingable in the reverse direction, a track secured to said front above said door opening, a hanger member carried on said track, an arm pivotally connected to said member and pivotally connected near the free edge of said second door, a yieldable stop on the track adapted to engage the hanger at a point corresponding to the closing position of the door, and a latch secured to said front and placed so as to permit a part carried by said door to swing in front of said latch when said yieldable stop is not depressed, said part passing behind said catch when said stop is depressed by said hanger member.

6. In combination, a garage front, an opening therein, a door hinged to swing outwardly from one side of said opening, a second door hinged to the first mentioned door and swingable in the reverse direction, a track secured to said front above said door opening, a hanger member carried on said track, an arm pivotally connected to said member and pivotally connected near the free edge of said second door, a yieldable stop on the track adapted to engage the hanger at a point corresponding to the closing position of the door, and a latch secured to said front and placed so as to permit said arm to swing in front of it when said yieldable stop is not depressed, the end of said arm passing behind said catch when said stop is depressed by said hanger member, and means for fastening said doors in closed position.

7. A door hanger comprising a track, a hanger member adapted to be guided by said track, an arm pivotally connected to said hanger member and a yieldable stop positioned to be engaged by said member as it approaches the closing position of the door and adapted to cause the member to assume a trailing position.

HENRY L. FERRIS.