April 15 , 1924. 1,490,322

H. HOFFMAN

CURTAIN HANGER

Filed Sept. 23 , 1922

Fig.1.

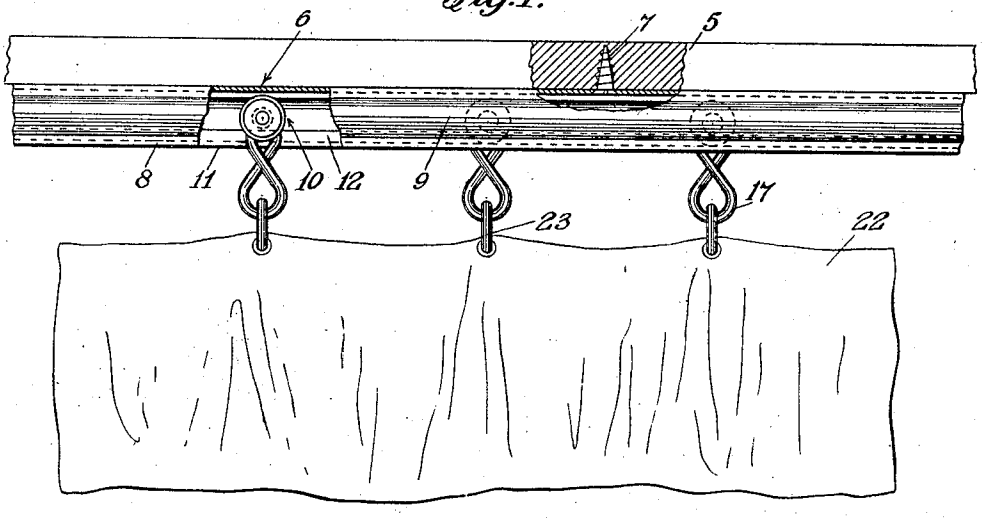


Fig.2.

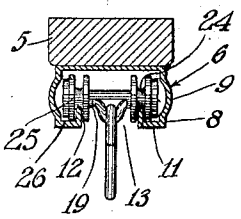


Fig.3.

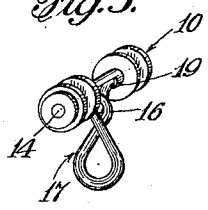
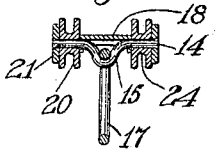


Fig.4.



Inventor

Henry Hoffman

By his Attorneys

Williams & Pritchard

Patented Apr. 15, 1924. 1,490,322

UNITED STATES PATENT OFFICE.

HENRY HOFFMAN, OF BROOKLYN, NEW YORK.

CURTAIN HANGER.

Application filed September 23, 1922. Serial No. 589,993.

To all whom it may concern:

Be it known that I, HENRY HOFFMAN, a citizen of the United States, and a resident of Brooklyn, county of Kings, State of New York, have invented certain new and useful Improvements in Curtain Hangers, of which the following is a specification.

This invention relates to curtain hangers of the type employing a carriage operating within a guide or channel track.

An important object of the invention is to so improve the carriage and also the cooperating track as to eliminate excessive friction and noise, as far as is practicable, thus rendering the carriage freely movable under all conditions.

A further object of the invention is to so construct, arrange and proportion the several cooperating elements entering into the combination as to make possible the elimination of objectionable binding or jamming of the carriage heretofore experienced in connection with curtain hangers of the general class to which my invention belongs.

A further object of the invention is to provide a device of the character mentioned which is strong, durable, simple in construction, inexpensive to manufacture, and attractive in appearance.

Other objects and certain advantages of the invention will become apparent from the following description when taken in connection with the accompanying drawings, in which—

Figure 1 is a fragmental elevation partly in section of a track having associated therewith a plurality of cooperating carriages from which the curtain is adapted to be suspended.

Figure 2 is a transverse sectional view taken on line 2—2 of Figure 1.

Figure 3 is a perspective view of a carriage.

Figure 4 is a central longitudinal sectional view through the carriage.

In the drawings wherein for the purpose of illustration is shown what I at present consider the preferred form of my invention, the numeral 5 indicates a fixed support such as a door frame, to which is suitably connected a channel track or guide member 6, as by means of screws or the like indicated by the numeral 7. This track or guide section is preferably constructed from eighteen gauge metal although it will be understood that material of gauges other than that specified may be used and that I am in no way limited to the kind of material from which the track is constructed. In forming the track the metal entering into the same is bent to provide side portions 8 which, intermediate their longitudinal edges, are slightly bilged as shown at 9 for the purpose of ornamentation and in order to provide a sufficient clearance intermediate the inner walls of the track and the opposite ends of the several carriages, one of which is clearly shown in Figure 3 and indicated as a whole by the numeral 10. While I have shown the bilged area of the side portions 8 as being arcuate shaped in cross section, it will be understood that other configurations may be employed to advantage without departing from the spirit of the invention.

The side members 8, at their lower ends, are bent into a horizontal plane thus providing ledges 11, the inner ends of which are so constructed as to provide vertically disposed parallel guide flanges 12, which are, as clearly shown in Figure 2, relatively short as compared with the width or depth of the track as a whole. It will be noted that the ledges 11 and the guide flanges 12 are spaced an appreciable distance from each other thus providing an elongated slot 13 to accommodate and within which certain element of the carriages are adapted to operate.

The carriages comprise transversely disposed spindles 14, which are bent intermediate their ends to provide yokes 15, adapted to receive the hooked ends 16 of depending links 17 which, as shown most clearly in Figure 1, are so shaped as to simulate the numeral 8. As a means for retaining the several links 17 upon their respective spindles I have provided bridge elements 18 overlying the yokes 15. These bridge members are, at opposite ends, provided with ears 19, which are so folded about the spindles 14 as to effectively lock the same in position thereupon. The bridge members not only function as a means for retaining the links 17 properly positioned upon ther respective spindles, but also function as a means for maintaining the grooved rollers 20, mounted upon opposite ends of the spindle, in properly spaced relations. As a means for preventing the rollers 20 from becoming accidentally or otherwise displaced from their

respective spindles, I have provided at opposite ends thereof locking elements 21 which may be in the form of heads either permanently or detachably secured to the spindles.

In attaching the curtain, indicated by the numeral 22, to the several carriages, any form of attaching means such as hooks 23 or the like may be employed.

A highly important feature of my invention resides in the fact that the weight of the several carriages and consequently the weight of the curtain 22 does not come wholly upon the upstanding guide flanges but is partially supported by the ledges 11 since the flanges 12 are of such lengths as to engage the hub portion 23 of the several rollers whereas the outer flanges or discs 25 thereof are of such dimensions as to rest upon the upper face of the ledges 11 intermediate the flanges 12 and walls 8 of the track 6. It will be appreciated too that since the rollers 20 are so constructed that their flanges or disc like portions 25 are arranged upon opposite sides of the guide flanges 12, the carriages 10 will be maintained in such position as to insure them against lateral twisting or displacement thus eliminating any possibility of their becoming jammed and thereby impeding their operation. Furthermore it will be observed that since the space afforded between the base portion 26 of the track and the several rollers 20 of the carriages 10 is equal only to the thickness of the metal from which the track is constructed, which thickness is considerably less than the width of the guide flanges 12, the carriages in their entirety are prevented from becoming so displaced as to leave the guide flanges 12 upon which the rollers 20 are adapted to operate. Another advantage of my invention resides in the fact that while sufficient contact area between the rollers 20 and the guide flanges 12 is provided to insure reliable operation this surface is sufficiently small, since the inner flanges or disc like portions of the rollers 20 sustain no weight whatsoever, to relieve or eliminate as far as practicable such excessive friction as would tend to impede the operation of the device.

Having thus described my invention, I claim:

1. The combination with a track having ledges and upstanding guide flanges, of a carriage comprising grooved rollers having hub and disc portions, said hub portions being adapted to engage and operate upon said guide flanges whereas said disc portions are adapted to engage and operate upon said ledges.

2. The combination with a track having ledges terminating in upstanding guide flanges, of a carriage comprising grooved rollers adapted to receive said guide flanges, the weight of said carriage being carried directly by said guide flanges and ledges respectively.

3. The combination with a track having ledges of upstanding guide flanges, of a plurality of carriages adapted to suspend a curtain, each of said carriages comprising a spindle, a pair of grooved rollers journaled upon said spindle upon opposite ends thereof, said rollers having portions thereof in engagement with said ledges and upstanding guide flanges respectively whereby the weight of said carriages and of the suspended curtain is distributed at different points upon said track.

4. The combination with a track having side portions and ledges, said ledges terminating in upstanding flanges, of a carriage comprising a spindle, grooved rollers carried by said spindle and having hub and disc portions, said hub portions being adapted to engage and operate upon said guide flanges whereas said disc portions are adapted to engage and operate upon said ledges, and locking elements carried at opposite ends of said spindle for retaining said rollers upon said spindle, said locking elements being less in width than said disc portions and adapted to cooperate with said side members and disc portions to retain said carriage against movement out of a perpendicular relation to the travel of said carriage under operating conditions.

In testimony whereof, I have affixed my signature to this specification.

HENRY HOFFMAN.