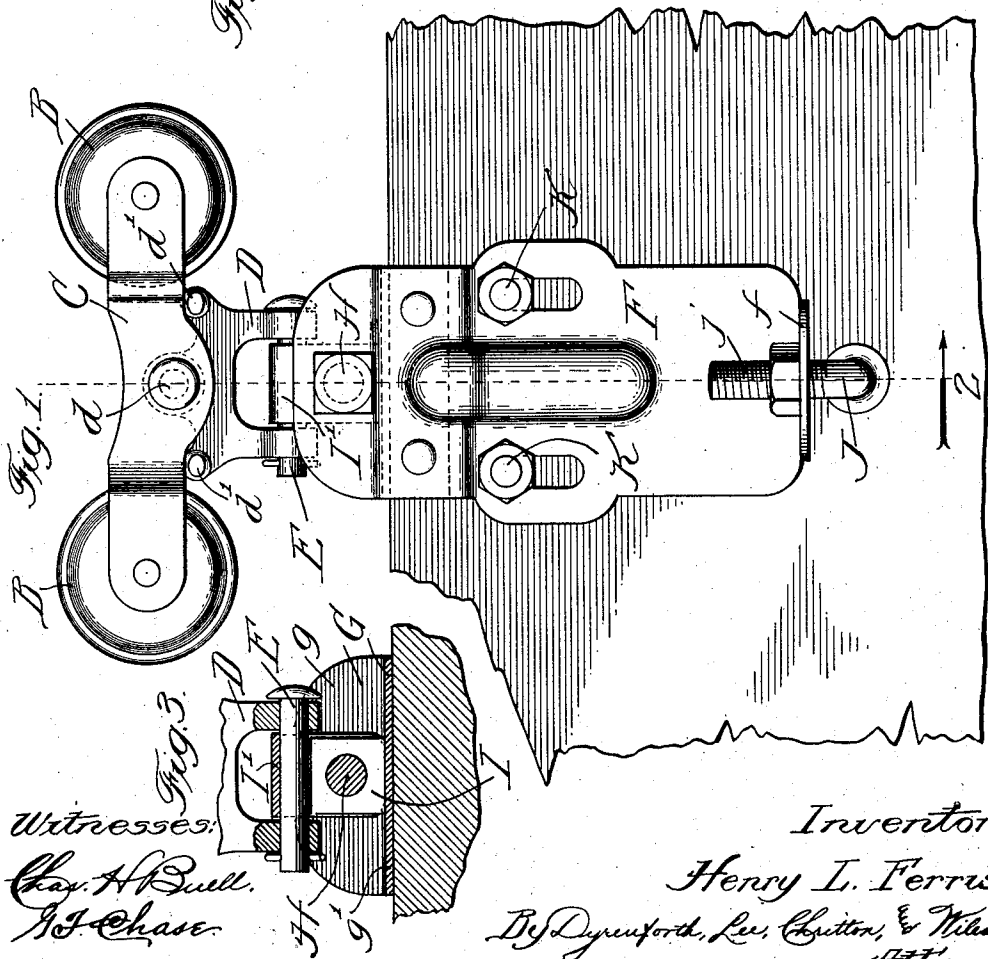
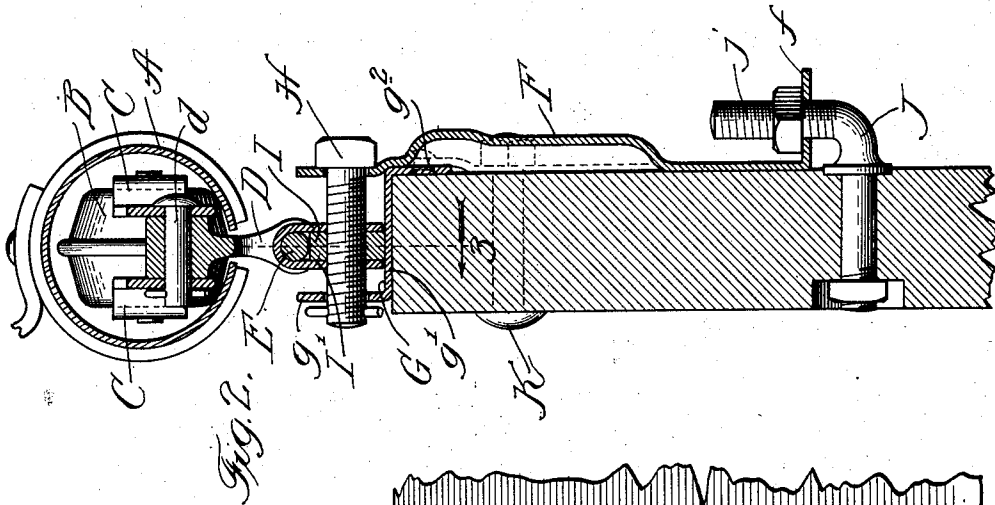


H. L. FERRIS.
DOOR HANGER.
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Witnesses:

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UNITED STATES PATENT OFFICE.

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DOOR-HANGER.

1,027,714.

Specification of Letters Patent.

Patented May 28, 1912.

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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 Door-Hangers, of which the following is a specification.

My invention relates to certain new and useful improvements in door-hangers, and is fully described and explained in the specification and shown in the accompanying drawings, in which:

Figure 1 is a front elevation of my improved device; Fig. 2 is a central vertical transverse section in the line 2 of Fig. 1, and Fig. 3 is a longitudinal section in the line 3 of Fig. 2.

Referring to the drawings, A is a track on which run rollers B. The track is shown as of the hollow type rounded at the bottom, the rollers are shown with a projecting bead which runs in the slot. The rollers are journaled between two side-plates C from the center of which depends a stirrup D hung upon a pin *d* but having its oscillatory movement limited by the engagement of studs *d'* with the side-plates. The stirrup D extends downward through the slot at the bottom of the track and is bifurcated at its lower end, a longitudinally-extending pin E being supported between its lower ends.

F indicates a plate which lies against the outer face of the door to be supported. This plate extends above the level of the door and has attached to its upper portion the top-plate G which has a vertical end *g* extending upward from the upper edge of the door near its inner face, a horizontal portion *g'* upon the upper edge of the door and a downwardly turned portion *g''* which is riveted or otherwise secured to the plate F. The upwardly extending flange of the plate G and the upwardly extending end of the plate F thus lie parallel and form between them a channel which is traversed by a screw H. Threaded upon the screw H is a block I which lies between the ends of the U-shaped clip I', said clip being perforated to be passed over the screw H and its upper end hanging upon the pin E as illustrated. By rotating the pin H, the block and clip can evidently be moved with respect to the door and the door can thus be adjusted to and from the wall of the building, without correspondingly moving the track.

For the purpose of providing a vertical adjustment the plate F is provided with a horizontal ear *f* at its lower end through which extends the vertical portion *j* of a bolt J which is bent into right angle form, the horizontal portion of said bolt passing through the body of the door and the vertical portion through the ear *f*, as illustrated. The plate F is also secured to the door by means of bolts K passing through slots in the plate so as to allow for adjustment.

After a pair of doors have been erected it is oftentimes found that when brought together their adjacent edges do not lie quite parallel so that the doors cannot be tightly closed. With my construction this is a matter of no importance because after the doors are erected the bolts K are simply left loose, the nut upon the bolt J is adjusted until the doors fit each other nicely. The bolts are then tightened up and the job is done. Adjustment to and from the barn wall is accomplished in the manner already set forth.

I am aware that, broadly speaking, it is old to provide door-hangers in which the rollers are both vertically and transversely adjustable with reference to the door, so as to accomplish the results heretofore stated. The purpose of the present invention is to provide a construction having these broad advantages in an exceedingly simple and cheap form. The provision of the clip, block and screw arrangement for transverse adjustment makes it possible to use sheet steel of high tensile strength for supporting the weight of the door while the screw and block can be an ordinary bolt and nut if desired of the cheapest possible form and thus all special machined parts can be dispensed with. The use of the carriage frame and stirrup connected therewith by a single pin, a very cheap and simple construction, is made possible by the use of the stirrup-studs which prevent pivoting upon said pin, the necessary pivoting action taking place between the clip and screw. The provision of the vertically-adjusting bolt set in the door itself and engaging the sheet-metal parts which slides on the door-face is also of manifest advantage.

Minor variations are possible in the details of construction without departing from the spirit of the improved features pointed out in the claims, and by the specific description

herein contained I do not intend to limit myself except as pointed out in the claims, wherein I have endeavored to claim all the novelty inherent in the construction described.

What I claim as new and desire to secure by Letters Patent is—

1. In combination a carriage adapted to run upon a track, a member attached to a door, a screw rotatable in the member, a block threaded on the screw, a clip having perforations passed over the screw and lying on opposite sides of the block, and a connection between the clip and carriage.

2. In combination, a frame, a stirrup connected therewith by a single pin, studs on the stirrup engaging the frame to prevent swinging of the stirrup on said pin, a door, a screw on the door, and a part carried by

the stirrup and engaging the screw so as to pivot thereon in adjustable positions.

3. In combination, a door, a bolt extending therethrough and provided with an up-turned threaded end, a nut on said end, a plate movable on the door and having an ear passing over the end of said bolt beneath said nut, a second plate carried by the top of the door and having an up-turned end, a bolt passed through the upper ends of said two plates, a door-hanger and a part swung on the door-hanger and threaded on said second bolt for lateral adjustment thereon.

HENRY L. FERRIS.

In the presence of—

G. R. JACOBS,

R. A. HEMENWAY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."