E. HEFFERNAN.

HOLDER FOR HINGE HUNG DOORS.

APPLICATION FILED OCT. 10, 1917.

1,295,747.

Patented Feb. 25, 1919.

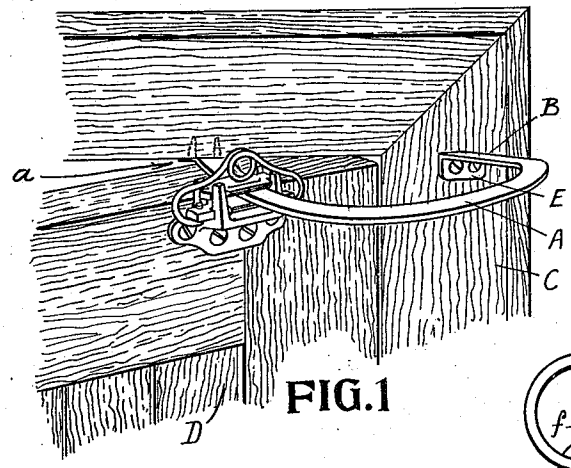


FIG.1

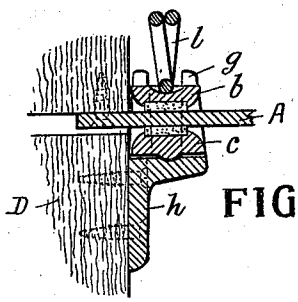


FIG.2

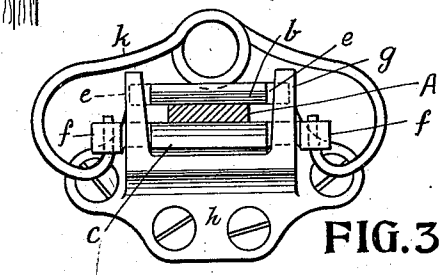


FIG.3

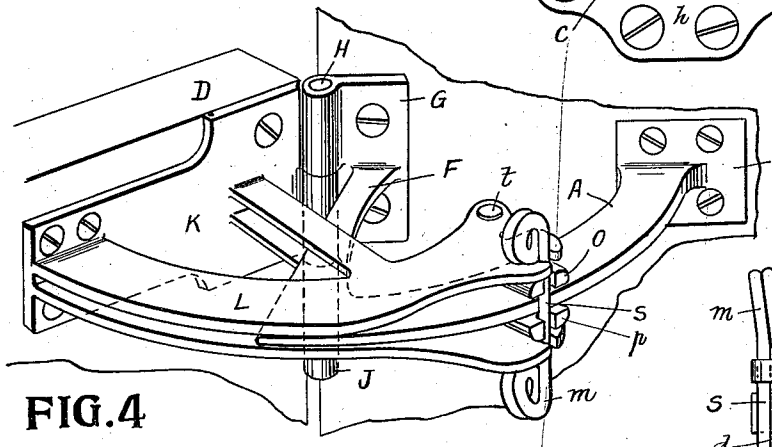


FIG.4

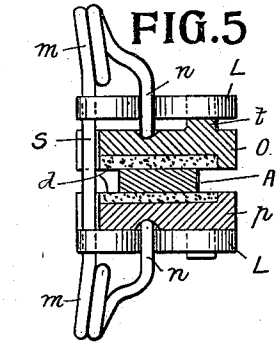
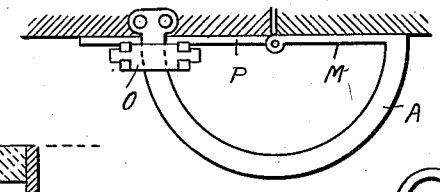


FIG.5

FIG.6



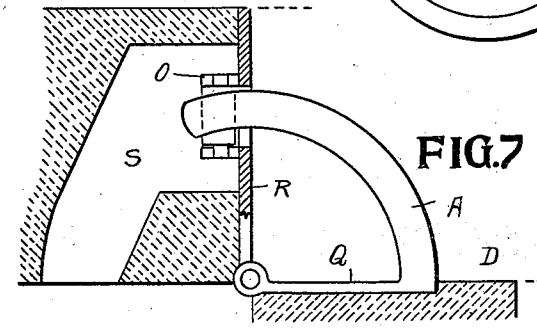


FIG.7

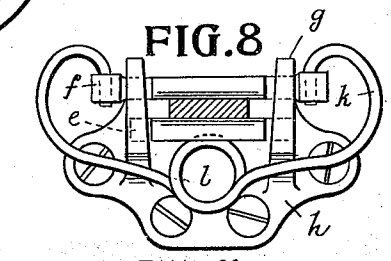


FIG.8

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HOLDER FOR HINGE-HUNG DOORS.

1,295,747. Specification of Letters Patent. Patented Feb. 25, 1919.

Application filed October 10, 1917. Serial No. 195,674.

To all whom it may concern:

Be it known that I, EDWARD HEFFERNAN, subject of the King of Great Britain and Ireland, residing at 149 Elizabeth street, Sydney, New South Wales, Australia, have invented new and useful Improvements in Improved Holders for Hinge-Hung Doors, of which the following is a specification.

This invention relates to holders of the friction grip type for retaining hinged doors in open or partly open position or in closed position as may be required and for braking the movement of such doors, thereby to prevent "slamming." It consists essentially in a curved tongue attached to the door frame and a friction grip device constructed as hereinafter described attached to the door and engaging the curved tongue. Alternatively the tongue may be attached to the door, in which case the friction grip device through which the tongue works is attached to the door frame.

In the accompanying drawing, Figure 1 is a perspective view of the fitting showing the door to which it is fitted in a partially open position; Fig. 2 is a vertical section through the friction grip device; Fig. 3 is a front elevational view of the same, showing the tongue in section held between the brake pads; Fig. 4 is a perspective view of a modified form of the fitting adapted for railway carriage and like doors, in which the door hinges are an integral part of the holder structure; Fig. 5 is a sectional elevation of the friction grip device forming part of the modified form of holder shown in Fig. 4; Fig. 6 is a plan view of another form of holder in which the door hinge is an integral part of the holder structure; Fig. 7 is a sectional plan of a combined hinge and holder in which the friction grip device is secreted behind the hinge leaf and the door frame is recessed rearward of the friction grip device to offer clearance for the tongue movement; and Fig. 8 is an elevational view of an inverted type of friction grip device which mechanically is substantially identical with the structure shown in Fig. 3.

The grippers shown in Figs. 3 and 8 may be used indifferently in the structures shown in Figs. 1, 6 and 7; in the last mentioned case (Fig. 7) the Fig. 8 type of gripper is preferred.

The tongue A is a light metal bar bent to a circular curve of which the door hinge pintle is the center. When the door is required to swing 90° or thereabout, the butt end B of the tongue A is inbent as shown in Fig. 1. It is secured to the door frame C, (or to the door D, as the case may be) by screws inserted through a stub flange E. Its outer end is stiffened by attachment at *a* to the door frame as in Fig. 1, but is free in the Fig. 7 construction. In the type of construction shown in Figs. 4 and 6 the outer end of the tongue A is connected to a leaf of the hinge. In Fig. 4 this connection is by an arm F, projecting from the hinge leaf G which carries the top end of the hinge pintle H. The lower end of the hinge pintle H is carried by the leaf J which is screwed to the butt edge of the door or to the door frame. The middle leaf K is screwed to the door frame when the leaves G and J are attached to the door, and vice-versa. This middle leaf K supports a pair of arms L, curved to the same radius as the tongue A and spread at their ends and set apart to offer sufficient clearance for the tongue A to work freely between then. The friction grip device is carried in the outer end of this bifurcated bracket.

In the arrangement shown in Fig. 6, the stub flange M of the tongue A forms one of the hinge leaves, and in this case the friction grip device O may be conveniently mounted on the other hinge leaf P.

In the arrangement shown in Fig. 7, the tongue A is of the free end type, with its stub flange Q forming one of the hinge leaves. The other hinge leaf R forms a cover for the recess S which is provided to offer working clearance for the tongue A.

The friction grip device comprises two shoes *b* and *c* of metal, preferably fitted with inserts *d* of fiber, cork, woven asbestos, or other brake face substance. Cork is the preferable material. These shoes are formed with end lugs *e* and *f* which float in the fork arms *g* which spring from the fork bracket *h* which is screwed to the door or to the door frame as the case may be. The lower shoe lugs *f* are intended to carry the upbent ends of the curled wire spring *k*, the curl *l* of which bears down on the upper shoe *b*, so that the spring operates to press the shoes tightly toward each other with the object of tightly gripping the tongue A between them. The gripper shown in Fig. 8 differs only in that the shoes and spring are set in an inverted position in

the fork bracket; in this case part of the bracket is cut out to offer clearance. Either of these gripper constructions is usable with the holder shown in Figs. 1, 6 and 7. A modification in the gripper structure is however necessary to adapt it for use with the tongue and bracket shown in Fig. 4, but the modification is not in its essentials, but rather in its form. In this case the fork bracket is not used, its function being performed by the ends of the bracket, and the spring *m* is set vertically instead of horizontally, with its ends *n* pressing the two shoes *o* and *p* toward each other so as to frictionally grip the tongue A between the brake insert pieces *d*. The shoes *o* and *p* are carried by studs *t* which are a free fit for holes in the bracket ends, and by the back *s* of the spring which sets in slots in the bracket ends and in the shoe backs.

What I claim as my invention and desire to secure by Letters Patent is:—

1. A closure holder comprising two members, one attachable to a hinge hung closure and the other attachable to a closure frame; one of such members being a flat circularly curved metal bar forming a tongue, and the other of such members being a friction gripper consisting of two shoes adapted to embrace said tongue between them, a coiled wire spring adapted to press said shoes toward each other, and a forked bracket in which the shoe ends have a floating fit.

2. A holder for hinged closures comprising a circularly curved tongue mountable by a stub flange at one end upon a closure frame, so that the center of the curve coincides with the hinge pintle, and a gripper attachable to the closure and comprising a forked bracket with two shoes floating therein and pressed toward each other so as to embrace the tongue by means of a coiled wire spring which bears on the backs of said shoes.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWARD HEFFERNAN.

Witnesses:
H. B. CAMPBELL,
W. J. DAVIS.

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