

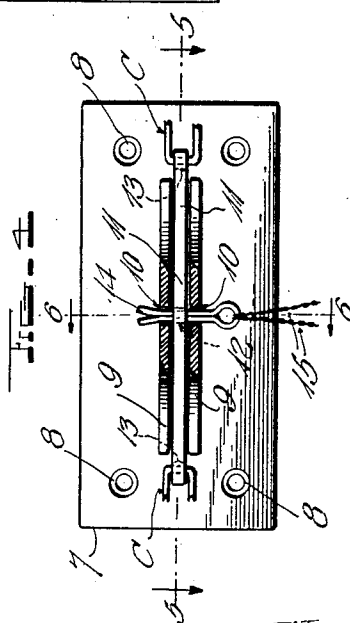
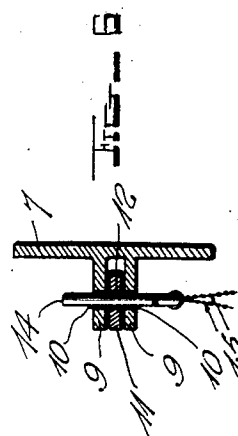
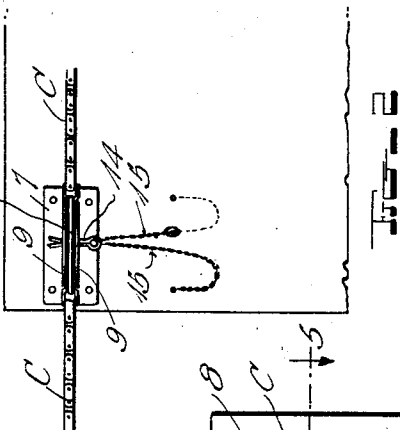
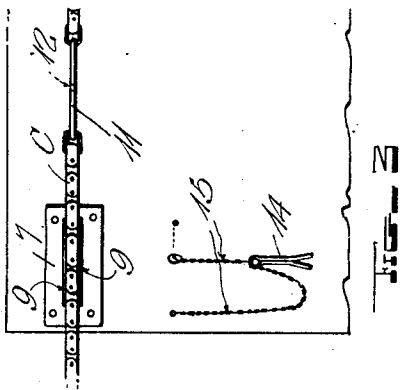
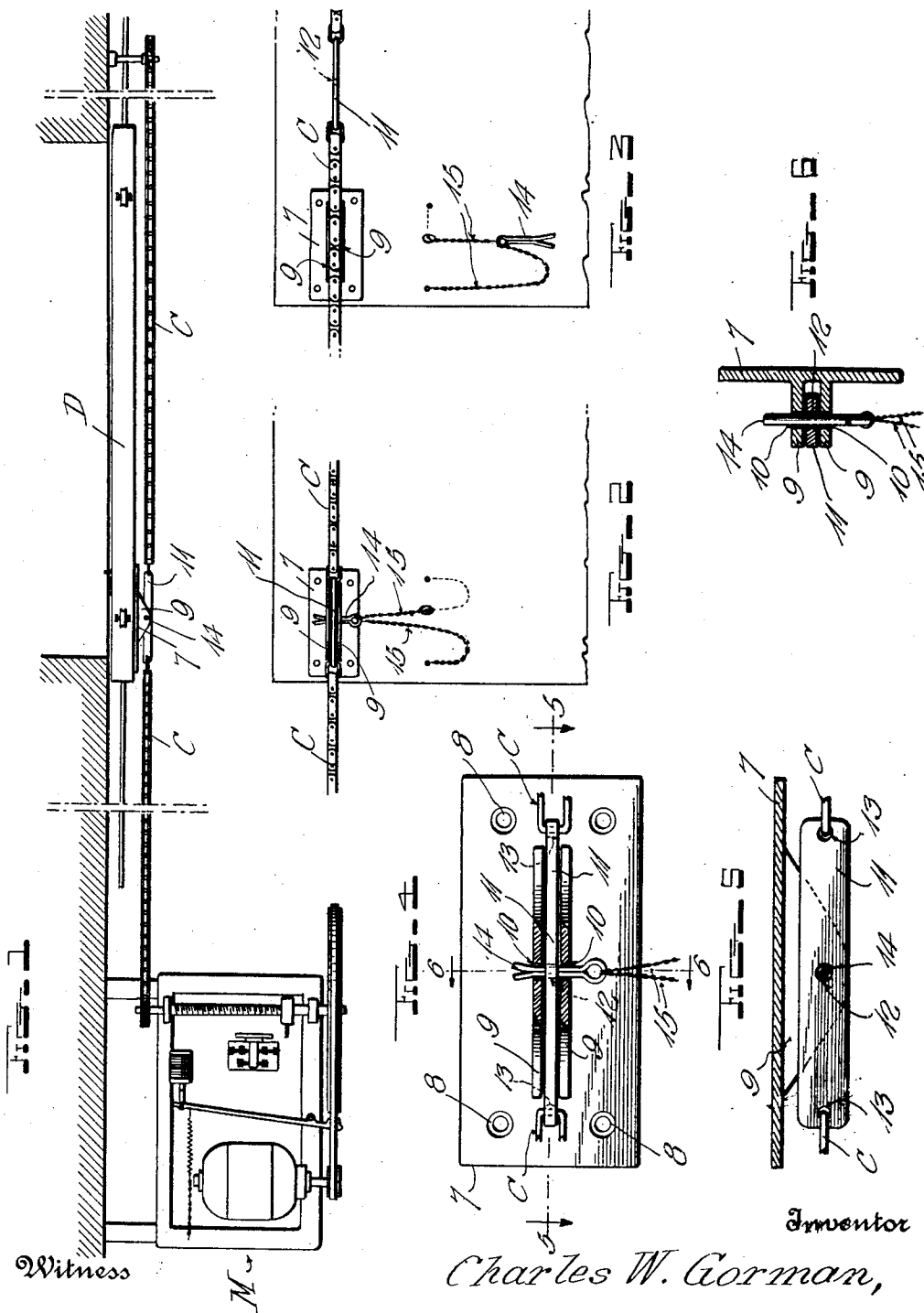
Oct. 14, 1930.

C. W. GORMAN

1,778,360

DISCONNECTER

Filed April 2, 1928



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DISCONNECTER

Application filed April 2, 1928. Serial No. 266,843.

The present disclosure of the invention relates to means for moving a shiftable member and for freeing said member for operation by hand, if advisable. The principal application of the invention is in connection with a slidable door and a chain or other operating member which is driven in one direction or the other to open or close the door, and it is the primary object of said invention, to provide novel means for normally connecting the door or the like with the chain or other operating member, yet for permitting quick and easy disconnection of the door and chain to permit manual operation of the former. This disconnecting is effected only in case of emergency, such as fire or failure of the operating means to function properly, and under such circumstances, it is often essential that the door be disconnected from its operating means without any loss of time, which end may be attained with the device of this application.

In the accompanying drawing forming part of this specification, a preferred embodiment of the invention is illustrated, and while such embodiment will be specifically described, variations may be made within the scope of the invention as claimed.

Fig. 1 is a top plan view partly in horizontal section showing the invention in connection with motor-driven door-operating means and a slidable door.

Fig. 2 is a fragmentary elevation, the door and its operating chain being connected.

Fig. 3 is a view similar to Fig. 2 but illustrating the chain and door disconnected from each other and the latter moved with respect to the chain.

Fig. 4 is an enlarged side elevation of the disconnecter partly broken away and in section.

Figs. 5 and 6 are sectional views on the correspondingly numbered lines of Fig. 4.

In the drawing above briefly described, D denotes a slidable door, C has reference to a chain, and M refers to a motor-operated mechanism for driving the chain in one direction or the other, to either open or close the door. The chain and door are connected by means of the present invention and may

be disconnected quickly and with ease to permit manual operation of the door whenever necessary.

7 denotes an attaching plate having openings 8 to receive screws or other fasteners for securing it to the door D. Integral with and projecting laterally from one side of the plate 7, are two spaced flanges or lugs 9 having alined openings 10. Loosely received between these lugs, is a metal strip 11 having a central opening 12 alined with the openings 10, the ends of said strip being formed with additional openings 13 which are instrumental in connecting the ends of the chain C with said strip. A cotter pin 14 is passed through the alined openings 10-12 and due to its expanded end, is normally held against withdrawal from said openings. A pull chain or other pull device 15, or possibly two of such devices operable from opposite sides of the door D, provides means for giving a forcible pull upon the pin 14, to withdraw it from the openings 10-13, thus instantaneously disconnecting the door from the operating means and permitting manual operation of said door.

The details of the mechanism M form no part of the present invention and may be considered of the construction shown in my pending U. S. application, Ser. No. 226,841, filed April 2, 1928. This mechanism includes a motor driven shaft having a sprocket about which the chain C passes, the other end of the chain passing around an idle sprocket wheel mounted on the opposite side of the door frame as will be seen on referring to Fig. 1.

I claim:—

1. An assemblage of the class described comprising a vertical object having an opening from one vertical side to the other, a member at one vertical side of said object near its upper end, said member having a vertical opening, a lug projecting laterally from said one side of said object and having a vertical opening alined with that of said member, a vertically disposed normally expanded cotter pin upwardly inserted into the openings of said member and said lug and held engaged therewith by its normal ex-

panded condition, a chain connected with the lower end of said pin and depending therefrom at said one side of said object, and a second chain connected with said lower end of said pin and passing through said opening of said object to the other side of the latter, whereby a pull on one chain or the other will withdraw said pin and free said object from said member.

2. A releasable connecting device comprising a flat vertical plate having fastener receiving openings and provided with two horizontal flanges projecting laterally from one of its flat sides in vertically spaced relation, a horizontal metal strip removably received between said flanges and having chain attaching openings in its ends, said flanges and strip having vertically alined openings, a vertically disposed normally expanded cotter pin upwardly inserted through said alined openings and held removably therein by its normal expanded condition, and a pull chain connected with and depending from the lower end of said pin.

In testimony whereof I have hereunto affixed my signature.

CHARLES W. GORMAN.