Sept. 15, 1964 L. A. McPHADEN 3,148,725

GATE

Filed Sept. 12, 1962

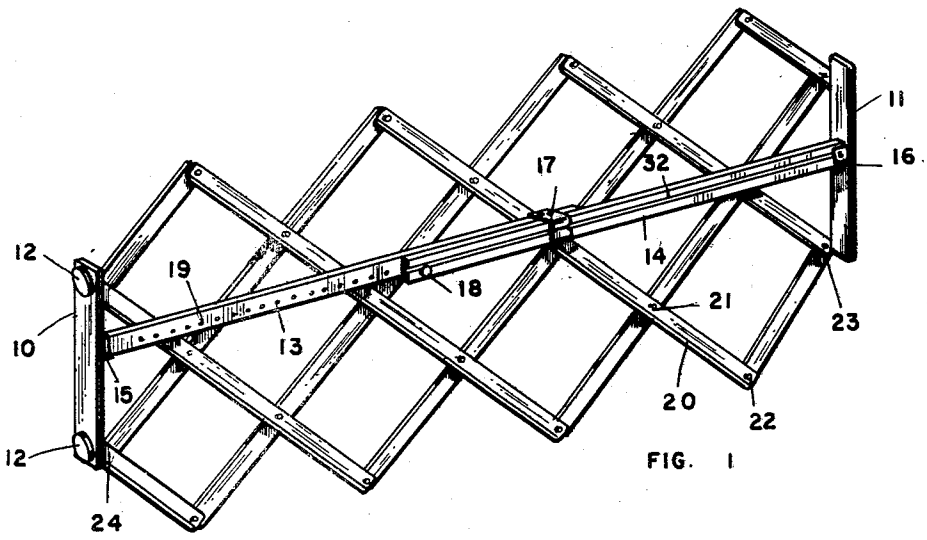


FIG. 1

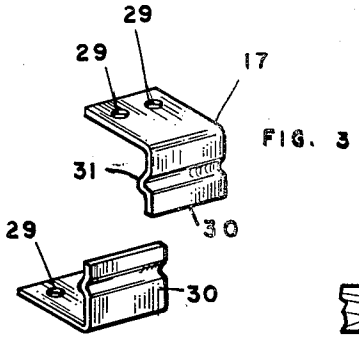


FIG. 3

FIG. 2

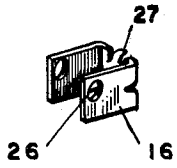


FIG. 5

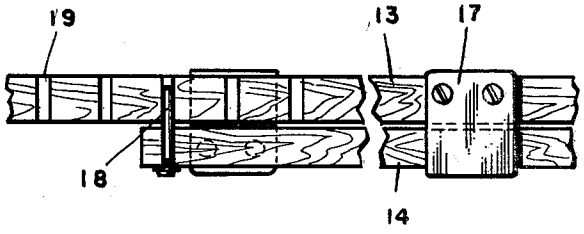


FIG. 4

LAWRENCE A. McPHADEN *INVENTOR.*

BY

Charles L Lounsbury
Attorney

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GATE

Lawrence A. McPhaden, Maple Ave., Lake City, Pa.

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This invention relates generally to gates and, more particularly, to gates suitable for insertion between the door jambs of rooms of a house and between outdoor openings to prevent children from passing therethrough.

Prior gates of the type disclosed herein had expanding linkages which were sometimes inefficient and were complicated to use.

It is, accordingly, an object of the present invention to provide an improved gate which is simple in construction, economical to manufacture, and simple and efficient in operation.

Another object of the invention is to provide an improved fastening means in combination with the gate described herein.

A further object of the invention is to provide an improved gate and fastening means therefor.

With the above and other objects in view, the present invention consists of the combination and arrangement of parts hereinafter more fully described, illustrated in the accompanying drawing and more particularly pointed out in the appended claims, it being understood that changes may be made in the form, size, proportions, and minor details of construction without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:

FIG. 1 is an isometric view of a gate according to the invention;

FIG. 2 is a side view of a bracket stop means according to the invention;

FIG. 3 is a view similar to FIG. 2 of the stop means;

FIG. 4 is an enlarged view of the fastening means for the gate; and

FIG. 5 is an isometric view of one of the clips used in the gate.

Now with more particular reference to the drawing, the gate shown has a first end member 10 and a second end member 11 spaced from each other. The end members are provided with resilient buffer parts 12 attached thereto to protect the finish of the door jambs in which the gate may be inserted.

A pantograph type linkage is made up of links 20 pivoted together at intermediate points 21 and at end points 22. The link ends are pivoted together and attached to the end members 10 and 11 at 24 and 23, respectively.

The toggle linkage made up of a first toggle link 13 and a second toggle link 14 is for holding the gate extended. The second toggle link 14 is attached to the end member 11 by means of a U-shaped bracket 16 which has holes 26 therein spaced above the center line thereof. These spaced holes 26 receive a pin which extends through the toggle link 14 through a hole above the center line thereof. The toggle link 13 is attached to the end member 10 by means of a bracket 15 attached to the end member 10 by suitable rivets. An ear 27 is forced into the material of the end member 10 to hold the bracket firmly in place. A pin extends through the link 13 and the hole 26 above the center line of the link 13.

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Spaced holes 19 in the toggle link 13 are disposed in a row below the center line of the link and they are adapted to receive a pin 18 on the distal end of the toggle link 14.

A stop 17 is fixed to the top of the link 13 by suitable fasteners in holes 29. An L-shaped leg 30 is attached to the stop 17 and it lies along the side of the link 14 and holds it in place when the link is snapped into position. The stop 17 has a corrugated portion 31 thereon which snaps into a groove 32 in the link 14 when the link is in open position.

To operate the gate, the operator may at first have the links 13 and 14 separated. He will then select a hole 19 in which to insert the pin 18 which will give the end members 10 and 11 the proper spacing. The operator will insert the pin 18 into the particular hole 19 and force the two links 13 and 14 downward to cause them to force the end members 10 and 11 apart. He will then continue to force the links downward until the stop 17 rests on the top of the link 14. At this point, the corrugated portion 31 will move into the groove 32 and thereby hold the two links against separation. They will also tend to hold the end members against separation because of the toggle action of the pins.

The foregoing specification sets forth the invention in its preferred practical forms but the structure shown is capable of modification within a range of equivalents without departing from the invention which is to be understood is broadly novel as is commensurate with the appended claims.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

In a removable gate, the combination of a pair of end members having parts engageable with the sides of an opening to be closed, an expansible and contractible barrier carried by and extending between said members, and a lengthwise adjustable toggle linkage means comprising a first link pivotally carried by one of said end members, a second link pivotally carried by the other of said end members, a clamping means including longitudinally spaced holes in said first link spaced below the center of said first link, a pivot pin in said second link in the distal end thereof extending laterally from said second link below the center line thereof and adapted to be inserted selectively in said holes, and a stop on the distal end of said first link attached to its top and extending laterally therefrom and adapted to overlie said second link, said links being adapted to swing from a position in alignment with each other to a position generally parallel to said end members, said links swinging about said pin and their pivotal connections so said end members can be moved toward each other, said stop being in the form of an L-shaped member having a downwardly extending leg adapted to lie along the side of said second link, said L-shaped member having a corrugated portion, said first link having an axially extending groove in the side thereof remote from said second link, said corrugated portion being adapted to be disposed in said groove when said gate is in open position.

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