Dec. 6, 1949 L. W. BALLARD 2,490,612

BARRIER FOR DOORWAYS OR THE LIKE

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Fig. 1

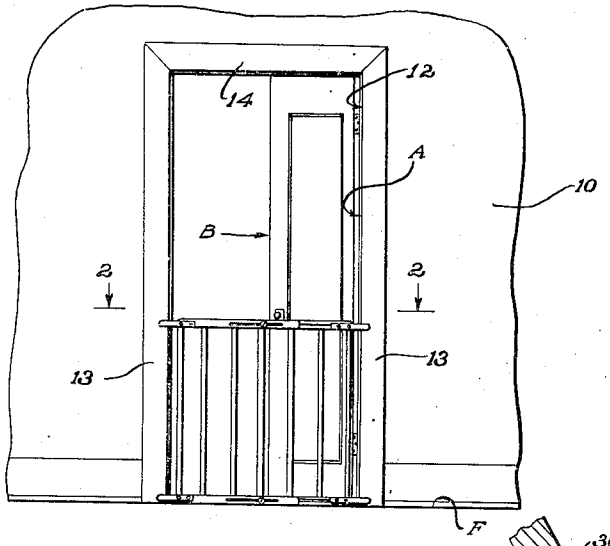


Fig 2

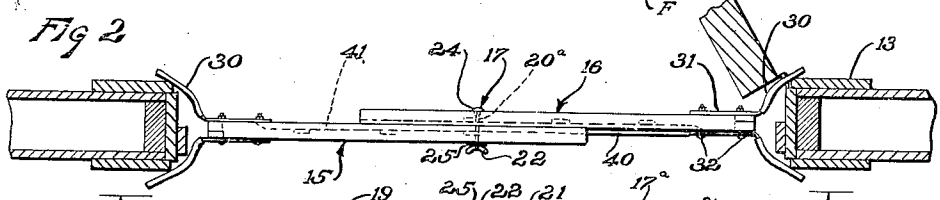
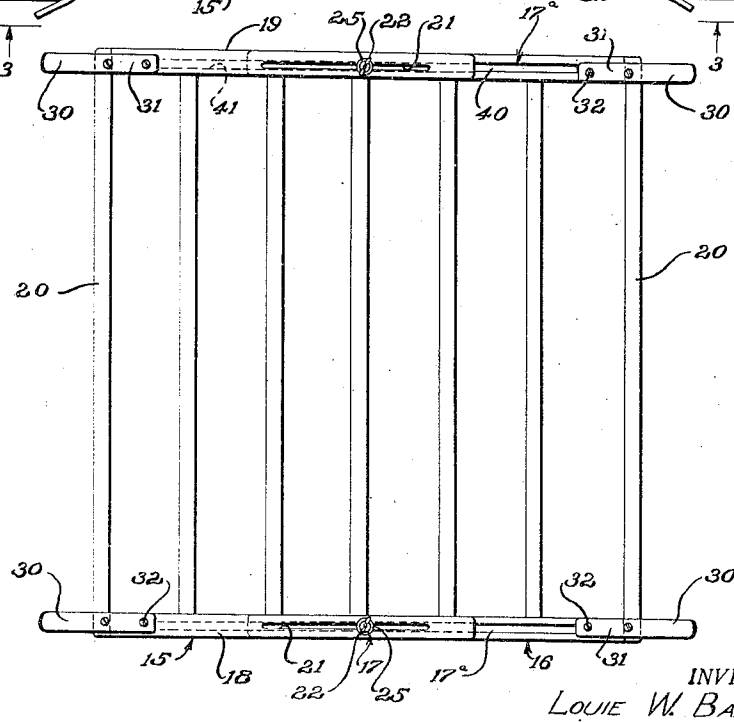


Fig. 3.



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BARRIER FOR DOORWAYS OR THE LIKE

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2 Claims. (Cl. 160—225)

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This invention relates to a barrier for doorways, or the like, and it is a general object of the present invention to provide a device in the nature of a barrier applicable to doorways, or like openings to prevent the passage of children or possibly animals.

There are many situations, particularly in and around the usual household where it is either dangerous or undesirable to have doorways open so that children or animals can pass, and yet it is not desired that such doorways or openings be kept closed by the panels or solid barriers commonly provided.

It is a general object of my present invention to provide a barrier applicable to doorways or like openings to serve as an effective, dependable protection against the passage of children or animals.

Another object of this invention is to provide a device of the general character referred to which involves but few simple parts. The structure that I have provided involves few parts simple and inexpensive of manufacture, and the parts are very simple to manipulate or handle either in the application to or removal from a doorway, or the like.

Another object of this invention is to provide an improved and simplified means for effectively retaining a barrier in a doorway, or the like. By my present invention I provide forked arms at the ends of the barrier which engage the door casing and effectively retain the barrier in position. In carrying out my invention I eliminate entirely wedges, latches, catches or working parts subject to failure or which may cause injury or which may be difficult to manipulate.

A further object of the present invention is to provide a simplified yet effective means for adjusting the barrier to accommodate it to doorways or openings of various widths. By my present invention I provide a barrier frame which is sectional and I effect adjustment of the frame by the manipulation of two simple wing nuts.

The various objects and features of my invention will be fully understood from the following detailed description of a typical preferred form and application of my invention, throughout which description reference is made to the accompanying drawings, in which:

Fig. 1 is a view illustrating a typical form of device embodying the present invention showing it in operating position in a typical doorway. Fig. 2 is an enlarged plan view taken as indicated by line 2—2 on Fig. 1 and Fig. 3 is an enlarged view of the structure that I have provided being a view taken as indicated by line 3—3 on Fig. 2.

The structure that I have provided by my present invention is applicable to various situations where it is desired to provide a barrier in an opening or doorway. For purpose of example I have illustrated and I will refer to a doorway A. However, I wish it understood that I do not limit the invention to this particular application. In the case illustrated the doorway A which is provided in a wall 10 has the usual case 12. The case has side parts or facings 13 extending vertically upward from the floor F and has a top facing 14. A door B is shown hung in the doorway A.

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The device of the present invention which is essentially a barrier involves, generally, a frame and means for mounting the frame in a doorway A, or the like.

In accordance with my invention the frame of the barrier includes two telescopically related or overlapping sections 15 and 16 and means 17 slidably connecting the sections. The structure may also include means 17a guiding the sections relative to each other.

Each section of the frame includes a base or bottom rail 18 adapted to rest on the floor F or to be located near the floor and a top rail 19 adapted to be located horizontally a suitable distance above the bottom rail. The top rail 19 is supported from or above the bottom rail 18 by a plurality of vertically disposed posts 20 which are secured to and which extend between the top and bottom rails. The posts are preferably plain smooth slat-like elements spaced close enough together to prevent the passage of the object to be retained or restrained. By providing plain smooth posts 20 I eliminate entirely the possibility of a child or animal climbing up the posts to get over the barrier.

The two frame sections 15 and 16 are made slightly longer than one half the width of the maximum opening to which the barrier is to be applied, so that when the frame is fully extended the sections overlap somewhat. It is desirable in practice to minimize the length of the frame sections as far as possible, so that the structure has a maximum range of adjustment and it is advantageous from a manufacturing point of view that the two frame sections be alike or at least of equal length.

The means 17 provided for connecting the frame sections involves bolts 20a passed through slots 21 formed longitudinally in the inner end portions of the top and bottom rails 18 and 19, and wing nuts 22 applied to the bolts. The bottom rails 18 of the two frame sections have longitudinal slots 21 which register and are adapted to receive a bolt 20a. In like manner the top rails 19 of the two sections have slots 21 which register and are adapted to receive a bolt 20a. The bolts 20a are long enough to extend completely through the overlapping rail parts so that the heads 24 of the bolts are at one side of the frame while the bolts project from the other side of the frame to receive the wing nuts 22. The wing nuts 22 may be ordinary plain wing nuts and it is preferred to arrange suitable washers 25

under the wing nuts to bear on the rails of the frame to prevent mutilation thereof and to create the desired friction. When the wing nuts are loosened on the bolts the frame sections can be freely slid relative to each other to vary the width of the frame and when it is desired to set the frame in a particular position it is a simple matter to tighten the wing nuts on the bolts, causing the frame to be set through the friction set up by the clamping action exerted by the nuts and bolts.

The means 17a for guiding the sections may include ribs 40 projecting from the base and top rails of one frame section to slidably engage or operate in complementary grooves or channels 41 in the opposed rails of the other section.

The means provided by the present invention for mounting the barrier or frame above described involves arms in forked relation to the ends of the frame to embrace a door case, or the like. In the preferred form of the invention there are two pairs of arms at each end of the frame and the arms of the two pairs are preferably located at the top and at the bottom of the frame. In the arrangement that I have illustrated the mounting arms are carried by the top and bottom rails 18 and 19 of the frame sections, there being a pair of arms carried by the outer end of each rail 19.

Each of the arms has a projecting part or arm proper 30, projecting beyond the end of its supporting rail and also laterally from the rail. The two arms 30 at the end of a rail project laterally in opposite directions to establish a V-shaped yoke or fork-like construction, as clearly illustrated in Fig. 2 of the drawings. The arms 30 may be attached to the rails in any suitable manner.

In the preferred construction each arm has a mounting flange or tab 31 and small bolts 32 passed through the mounting flanges 31 at opposite sides of the rail secure the two flanges simultaneously. In practice I prefer to form the arms and their mounting flanges or strap metal so that they are fairly rigid and I prefer to cover them with a fabric or composition coating, say for instance, a jacket of rubber, so that they will not mar or scratch wood-work such as a door casing.

In using the structure that I have provided the two sections 15 and 16 of the frame are applied to a doorway A in the manner illustrated in Figs. 1 and 2 of the drawings, the sections being moved as far apart as possible to bring the forked arms or pairs of arms at the ends of the frame into wedging engagement with the casing of the doorway.

It is to be observed that the pairs of arms are shaped and related to receive an average door case between them, and it will be apparent from the drawings how the structure can be applied to a doorway so that the frame is tight between the two sides of the case. When the frame sections have been moved apart as far as possible in a doorway the wing nuts 22 are operated or set fixing the frame against further movement until deliberately operated. As the frames are operated relative to each other the guide means prevents racking or shifting of the frame sections

such as might otherwise occur. When the barrier or frame is in place the bottom rails 18 may be resting on the floor F, as shown, in which case it will not shift vertically, and the series of posts 20 present an effective screen or barrier against the passage of children or animals as the case may be.

When it is desired to remove the barrier it is merely necessary to release the wing nuts and slide the frame sections together, thus disengaging the arms from the door case. It is to be noted that the structure is relatively simple and compact, making it easy to handle and to store.

Having described only a typical preferred form and application of my invention, I do not wish to be limited or restricted to the specific details herein set forth, but wish to reserve to myself any variations or modifications that may appear to those skilled in the art and fall within the scope of the following claims.

Having described my invention, I claim:

1. A closure applicable to the case of a doorway including, two overlapping relatively movable frame sections each including top and bottom horizontal rails and a plurality of vertical posts extending between the rails, means carried by the rails operable to set the sections against relative movement, and a V-shaped yoke at the outer end of each rail, each yoke including, like oppositely disposed arms at opposite sides of a rail at the end portion thereof and fastening means extending through the arms and rail fastening the arms to the rail, the arms having divergent thin blade-like portions in vertical planes and projecting beyond the end of the rail and related for wedging engagement with the case.

2. A closure applicable to the case of a doorway including, two overlapping relatively movable frame sections each including top and bottom horizontal rails and a plurality of vertical posts extending between the rails, means carried by the rails operable to set the sections against relative movement, and a V-shaped yoke at the outer end of each rail, each yoke including, like oppositely disposed arms attached to opposite sides of a rail at the end portion thereof, the arms having divergent thin blade-like portions in vertical planes and projecting beyond the end of the rail and related for wedging engagement with the case.

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