

Sept. 30, 1952

A. L. DILLON ET AL
PORTABLE GUARD

2,611,909

Filed April 15, 1947

3 Sheets-Sheet 1

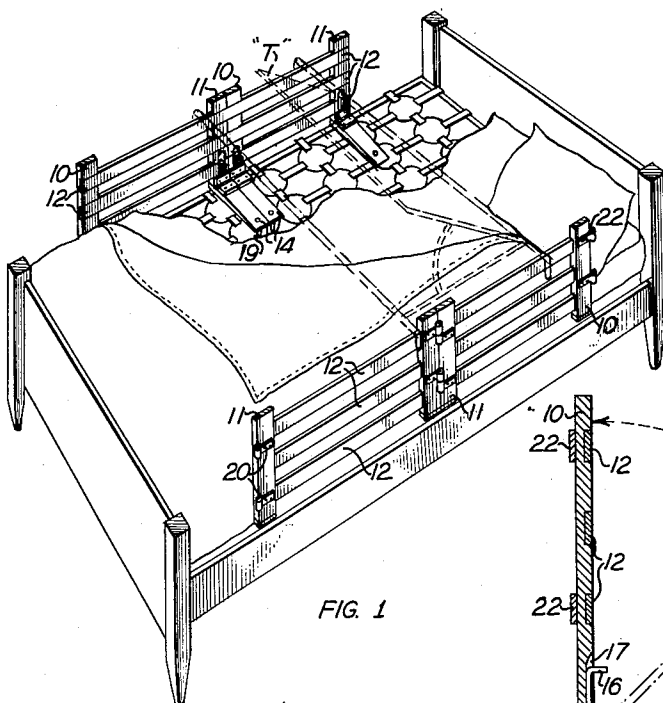


FIG. 1

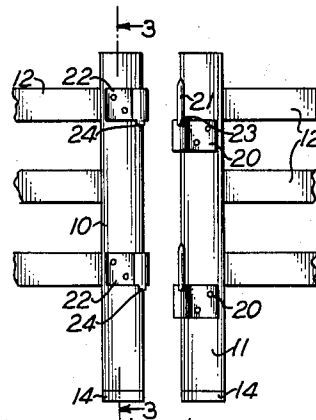


FIG. 8

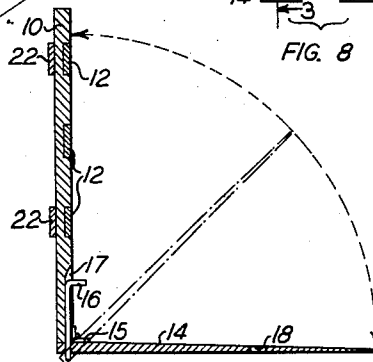


FIG. 3

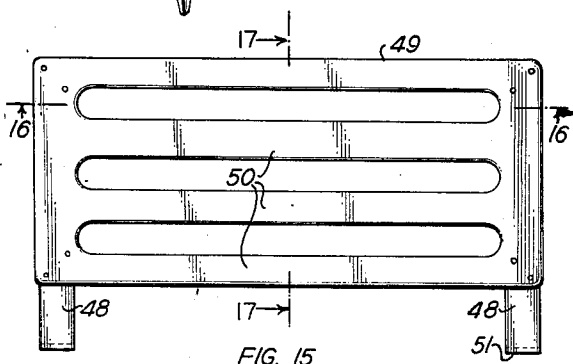


FIG. 15

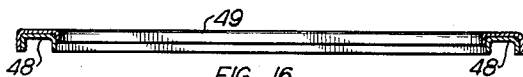


FIG. 16

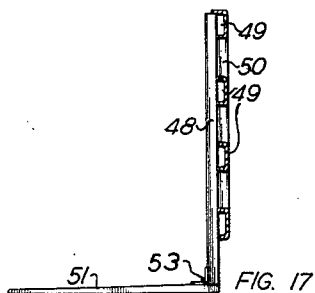


FIG. 17

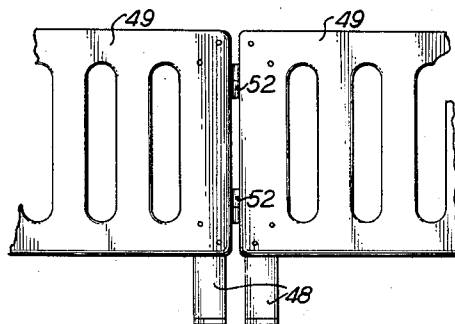


FIG. 18

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3 Sheets-Sheet 2

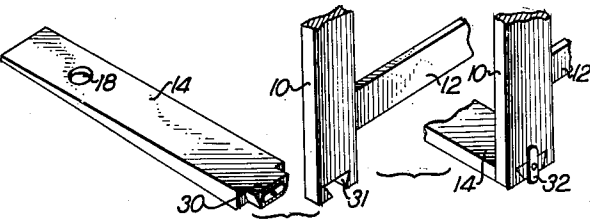


FIG. 9

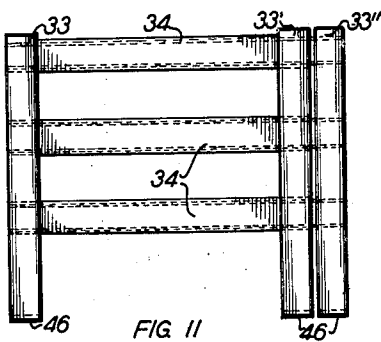


FIG. 11

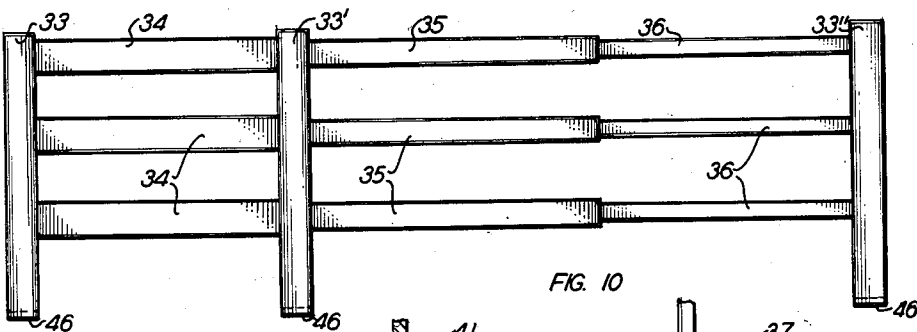


FIG. 10

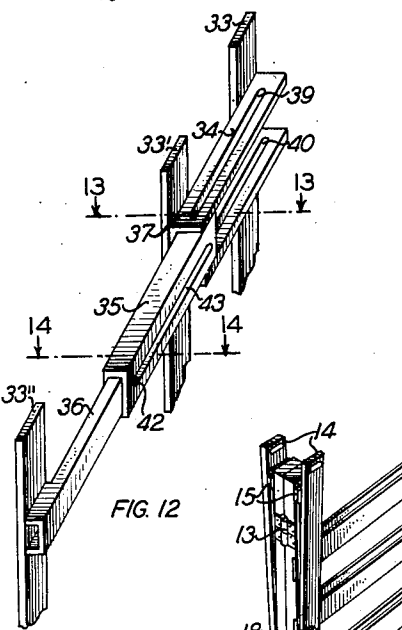


FIG. 12

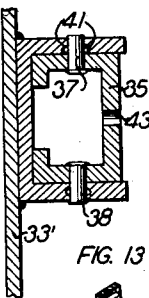


FIG. 13

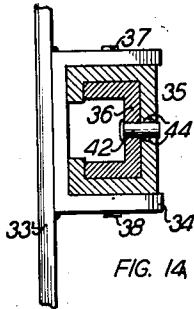


FIG. 14

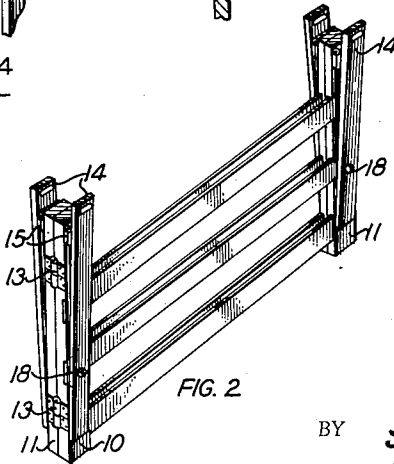


FIG. 2

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Filed April 15, 1947

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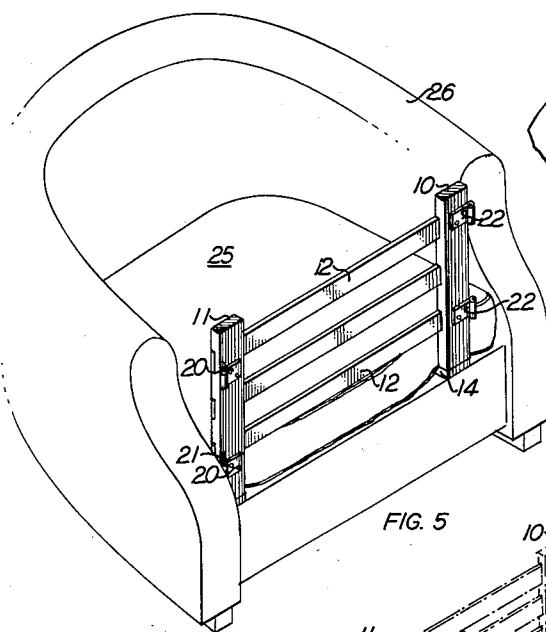


FIG. 5

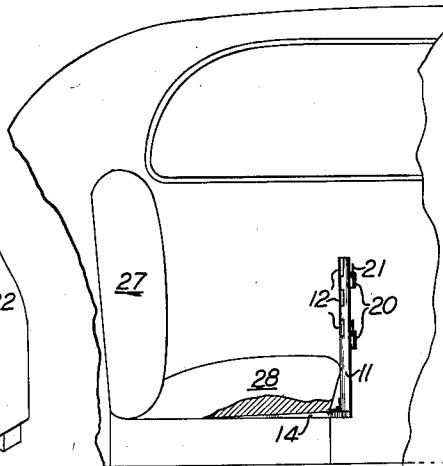


FIG. 6

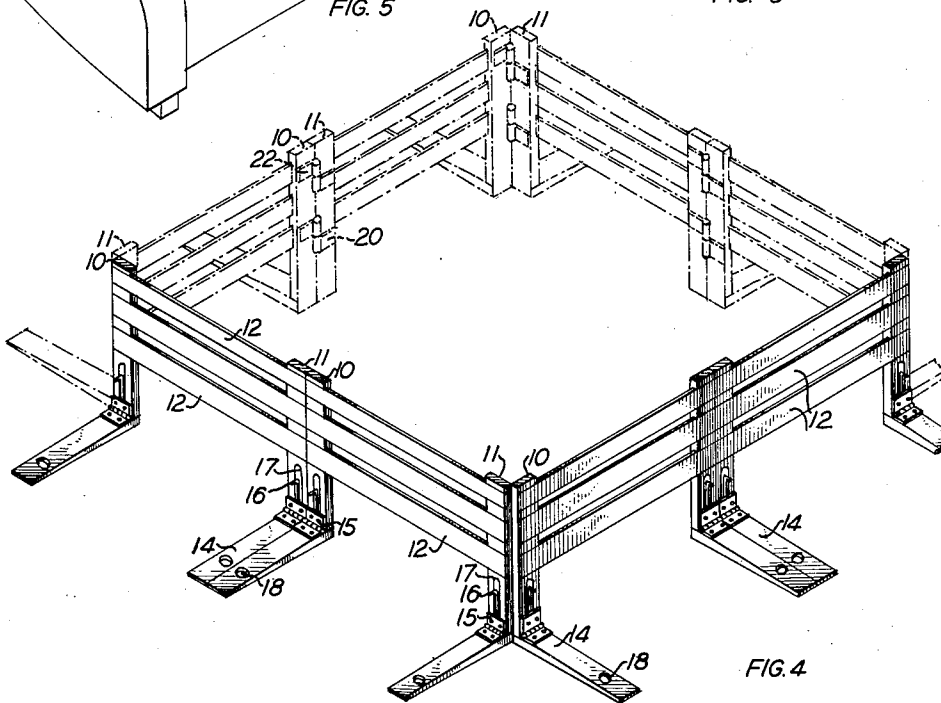


FIG. 4

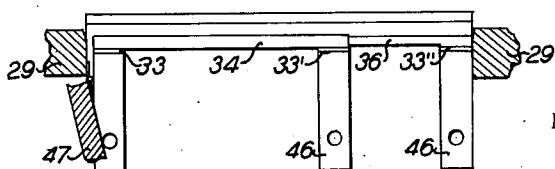


FIG. 7

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PORTABLE GUARD

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Application April 15, 1947, Serial No. 741,622

9 Claims. (Cl. 5—331)

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This invention relates to household furniture and more particularly to a collapsible bed guard for confining or limiting the movement of an individual, particularly an infant or small child, including the prevention of accidental falling from a substantially horizontal surface of an object, such as a bed, divan, seat or the like, in the home, in a vehicle or elsewhere.

Various methods have been employed in an attempt to prevent occupants falling from beds, divans, chairs, vehicle seats or other substantially horizontal surfaces. Frequently chairs or other articles of furniture have been placed against the side of the bed or other structure. However, due to the fact that the chairs or the like would slide when rolled against or contacted the desired result was not satisfactorily obtained. Other devices have been employed all of which have been subject to criticism for one reason or another.

It is an object of the invention to provide a simple, inexpensive device which can be easily manufactured, readily applied or removed and simply or compactly folded or collapsed for storage or transportation.

A further object of the invention is to provide a device which can be manufactured of wood, metal, plastic or other desired material and can be used with a bed, divan, chair, automobile or other vehicle seat, in or out of an automobile, or a device which can be used as a play pen or other confining structure.

A further object of the invention is to provide a device that can also be used as a fence in a door or passageway.

A further object of the invention is to provide a device which when used with portions in opposed relation, such portions may be employed for supporting a tray, table, or other structure.

Briefly stated, the invention comprises a frame or body which may itself consist of a plurality of parts, such as, for example, telescopic sections, or it may consist of a single body usable with others to form the complete device usable in numerous ways to restrain movement. The invention contemplates the utilization of duplicate sections, one or more of which may be used on the side of a bed or other horizontal object, limiting movement on such bed or object, particularly accidental falling from the bed, or three or more of these duplicate sections may be joined to devise a restraining area usable as a play pen or the like.

The invention further contemplates structure for anchoring the device in place while in use, a device which can be readily collapsed into a small package for transportation or storage, which for example has multiple sections hinged together and also having feet hinged thereto and such feet being adapted to be inserted between the springs and the mattress of a bed, a support

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for maintaining the main body of the device in an upright position on a horizontal surface, etc.

Further objects and advantages of my invention will be apparent from the following specification taken in conjunction with the accompanying drawings, wherein:

Fig. 1 is a perspective of a conventional bed showing the application thereto of multiple bed guard sections illustrative of the invention;

Fig. 2, a similar view of a bed guard collapsed or folded;

Fig. 3, a transverse section through an end portion of the bed guard taken substantially on the line 3—3 of Fig. 8, and with phantom lines illustrating the path taken by the foot when folded toward the standard;

Fig. 4, a perspective of several guards arranged to provide an enclosure or play pen;

Fig. 5, a perspective of a conventional chair showing the manner in which a guard may be applied thereto;

Fig. 6, a fragmentary view of the interior of an automobile illustrating the manner in which a guard may be applied to the seat thereof;

Fig. 7, a horizontal section through a doorway with the expandible type guard in operative position.

Fig. 8, an elevation of fragmentary portions of a pair of guard sections illustrating an improved hinge for operatively connecting the sections;

Fig. 9, an exploded perspective of a modified arrangement for connecting a supporting foot with the upright portion of a guard for holding the guard;

Fig. 9a, a perspective of the parts of Fig. 9 in assembled relation;

Fig. 10, an elevation of a modified form of guard in extended position;

Fig. 11, a similar view with the device of Fig. 10 in collapsed or retracted position;

Fig. 12, a perspective of a fragmentary portion of the guard device shown in Fig. 10 showing the manner in which various telescopically associated portions of a rail member cooperate to render the device extensible and contractable;

Fig. 13, an enlarged transverse section on the line 13—13 of Fig. 12;

Fig. 14, an enlarged transverse section on the line 14—14 of Fig. 12;

Fig. 15, an elevation of a further modified form of guard;

Fig. 16, a longitudinal section on the line 16—16 of Fig. 15;

Fig. 17, a transverse section on the line 17—17 of Fig. 15; and

Fig. 18, a fragmentary elevation of a pair of further modified guard sections illustrating the manner in which they are connected.

With a continued reference to the drawings and particularly to Figs. 1 to 8, inclusive, the

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device is primarily intended for use as a bed guard in which use, one guard unit may be applied to the outer edge of a bed if the other edge of the bed is near or against a wall or two similar units may be applied, one to each side of the bed, as shown in Fig. 1, if neither side of the bed is near a wall. When two similar units are used, as described, and if desired, a bed tray and table "T" may be supported on the upper edges at said units at the convenience of an occupant of the bed.

The guard may be formed of two or more sections, each of which has a pair of transverse stakes or standards, 10 for the left hand transverse standard, and 11 for the right hand standard of the same section, and a plurality of spaced substantially parallel rail members 12. The rail members 12 are rigidly connected at their ends to the stakes or standards 10 and 11 preferably by having their end portions fitted into transverse slots provided in the standards. Each pair of standards and their associated rail members constitute a rigid sectional unit which may be used in conjunction with one or more similar units or, in some instances, may be used separately, as will later appear.

For use as a bed guard two adjacent standard members are secured together by a pair of hinges 13 so that two sections may be placed in end to end operative relationship, as shown in Fig. 1, or may be folded to a substantially superimposed condition, as shown in Fig. 2. In Fig. 2 the device is shown as folded and also inverted to facilitate carrying it. Respective supporting foot members 14 are connected to the bottom ends of standards 10 and 11 by conventional hinges 15. Locking pins 16 (Fig. 3) are slidable in longitudinal grooves 17 provided in the lower end portions of the standards 10 and 11 and through apertures in the end portions of the supporting foot members adjacent their hinged connections with the standard to lock the supporting foot members in their operative position in which they are disposed substantially perpendicular to the respective standards. When the pins are withdrawn the foot members may be folded to a position alongside the corresponding standards and will be maintained in this position of their own weight when the device is inverted as shown in Fig. 2.

The supporting foot members are tapered in a manner such that their thickness decreases in a direction away from the hinge connections to facilitate inserting the members beneath a bed mattress or under a seat or chair cushion and are provided with respective apertures 18 through which pegs or pins 19 may be inserted to engage the springs of a bed to rigidly secure the guard in operative association with the bed, as shown in Fig. 1.

The hinges 13 may be conventional butt hinges, as stated above, or may be gate type hinges as illustrated in Fig. 8. In this case one of the hinge butts 20 has the corresponding end portion of the hinge pin 21 secured therein and the other hinge butt 22 has a loop or eye portion slidable over the hinge pin so that the two adjoining sections may be united by slipping the butt portions 22 over the pins carried by the butt portions 20 and may be separated by merely lifting one section relative to the other. The hinges may additionally be provided with locking means to hold the two sections in a substantially straight end to end relationship, such locking means comprising notches 23 provided in the pin receiving por-

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tion of the butt 20 and dogs 24 on the corresponding end of the pin receiving portion of the butt 22 engageable in the corresponding notches to lock the hinges in fully opened position.

If it is desired to have a small child remain in a chair, one section of a guard unit may be separated from any associated sections and the supporting foot members thereof may be inserted under the cushion 25 of a chair 26, as illustrated in Fig. 5, to form a gate across the front or open end of the chair so that an infant or small child may be placed in the chair without danger of its falling out.

A single section may also be used to provide a suitable guard for a portion of the front of an automobile seat 27, one of the supporting foot members being inserted under the seat cushion 28 to maintain the guard section in upright operative position along the open or front edge of the cushion. With this arrangement an infant or small child may be comfortably and conveniently carried in an automobile and may sleep on the cushion without danger of falling or being thrown from the seat.

A single section or a complete unit folded together may also be used as a gate for a doorway 29 as shown in Fig. 7 the expandible type guard being used for this purpose and when so used the door 47 overlies the foot 46. As doorways, however, vary in width, it may be found desirable to use for this purpose the expandible form of guard, particularly illustrated in Figs. 10 to 14, inclusive, presently to be described.

While it has been found convenient to attach the supporting foot members 14 to the corresponding standards by hinges, these members may be attached by other means without in any way exceeding the scope of the invention. For example, as shown in Fig. 9, a supporting foot member 14 may be provided at its thicker end with an extension 30 of dovetail cross sectional shape which extension may fit into a dovetail notch 31 provided in the lower end portion of the corresponding standard 10 and may be secured in the notch against accidental displacement by a pivoted button 32 which may be turned from its inoperative position shown at the left hand side of Fig. 9 to its operative position shown at the right hand side of this composite figure.

In the modified form of the invention shown in Figs. 10 to 14, inclusive, a pair of spaced standards 33 and 33' have secured thereto the corresponding ends of a series of spaced substantially parallel hollow outer rails 34. In this case the standards are preferably formed of flat rectangular bars of a light metal such as aluminum or a magnesium alloy of sufficient thickness to provide the necessary strength and rigidity, and the rails 34 are preferably in the form of channel members as is particularly shown in Fig. 12. A first inner rail extension 35 of hollow or C-shaped cross section is telescopically associated with the rail 34 and a second inner rail extension 36 of channel shaped or hollow cross section is telescopically associated with the extension 35. Pins 37 and 38 secured in the extension 35 extend through corresponding elongated slots 39 and 40 in the flanges of the rail 34 to guide the extension 35 in the rail 34 and limit sliding movements of the extension relative to the rail. These pins are provided in the portions thereof received in the slots with spring pressed detents 41 which engage in recesses provided in the slots near the ends thereof to releasably maintain the extension 35 in either its extended position relative to the

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rail 34, as shown in Figs. 10 and 12, or its retracted position, as shown in Fig. 11. A pin 42 fixed in the web portion of the extension 36 extends into an elongated slot 43 provided in the web of the first extension 35 to guide the extension 36 relative to the extension 35 and limit relatively sliding movements of these two extensions. This pin 42 is also provided with spring-pressed detents 44 which engage in recesses provided in the slot 43 near the ends thereof to hold the extension 36 in either its retracted or extended position relative to the extension 35. A third standard 33'' is secured to the outer ends of the extensions 36, and supporting foot members 46 are secured to the bottom ends of the respective standards to complete the device.

This modified guard device may be collapsed to the condition shown in Fig. 11 in which the standard 33'' lies against the standard 33' the total length of the device then being only slightly greater than the distance from the standard 33 to the standard 33' and may be pulled out or expanded to the condition shown in Fig. 10 in which extended condition it is nearly three times as long as when in its collapsed or retracted position.

As stated above, this entire device is preferably made of light metal castings or stampings to provide a strong serviceable light weight unit.

When the unit is used to provide a gateway for a door, as indicated in Fig. 7, it is placed between the door jams 29 and pulled out until it spans the space between the door jams. With the supporting foot members 46 in their operative position, the device is firmly secured in the doorway and will prevent the passage of an infant or small child through the doorway even though the door 47 is left open.

In the further modified arrangement shown in Figs. 15 to 18, inclusive, the standards 48 are preferably provided as sheet metal stampings of channel shaped cross section and may be formed of a light weight non-corrosive metal such as aluminum. These standards are secured to the opposite ends of a rail member 49 which may be conveniently formed of a rectangular piece of sheet metal having elongated spaced apertures 50 provided therein. These sections may be formed, however, as integral rail and standard portions without in any way exceeding the scope of the invention. The member 49 is preferably flanged around its marginal edges and around each of the apertures such flanges being formed by the marginal portion of the metal being turned at right angles to the body portion of the same and to therefore bring the contiguous portions of the metal together to give it adequate strength and stiffness, and to provide rounded edges therefor, and the standards are provided at their bottom ends with supporting foot members 51 as is particularly shown in Fig. 17 a hinge 53 connecting the members 48 and 51. Two standards and a rail member 49 with the two corresponding supporting foot members constitute a complete section and sections may be hinged together as shown in Fig. 18 by suitable hinges 52 to provide a guard unit of the desired length.

The modified sheet metal unit shown in Figs. 15 to 18, inclusive, is functionally similar to the wooden device shown in Figs. 1 to 9, inclusive, and is foldable in the same manner and may be used for the same purposes.

It will be obvious to those skilled in the art that various changes may be made in the invention without departing from the spirit and scope

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thereof and therefore the invention is not limited by that which is shown in the drawing and described in the specification but only as indicated in the appended claims.

What is claimed is:

1. A bed guard comprising spaced substantially parallel standards; a plurality of rail members secured to said standards, each comprising a plurality of telescopically associated units slidable between a retracted position and an extended position; means operatively connected between said telescopically associated rail units to limit the extent of relative sliding movement therebetween; and spring actuated means carried by said movement limiting means operative to releasably maintain said telescopically associated rail units in either their extended or their contracted position relative to each other.

2. A collapsible guard comprising a plurality of sections operatively associated to be disposed in extended position or in collapsed position, each of said sections comprising a substantially flat body portion, means on each section for engagement with a cooperating member on an adjoining section, supporting foot means constructed to support each section in operative position with said foot means substantially at right angles to said body, and means substantially within one of said sections for locking said foot means in such latter position.

3. A device of the character described comprising a relatively flat body adapted to be supported adjacent the edge of a horizontal surface to form a barrier, supporting foot means connected to said body and constructed to support said body in operative position with said foot means disposed substantially at right angles to said body, and locking means substantially within one of said sections for securing said foot means in operative position relative to said body.

4. A device of the character described comprising a relatively flat body adapted to be supported adjacent the edge of a horizontal surface to form a barrier, supporting foot means connected to said body and constructed to support said body in operative position with said foot means disposed substantially at right angles to said body, and locking means for securing said foot means in operative position relative to said body, said locking means being longitudinally movable relative to said body and to said foot means for locking said foot means in a definite position.

5. A device of the character described comprising a relatively flat elongated body adapted to be stood on edge adjacent a horizontal support to form a guard for preventing accidental gravitation from said support, supporting foot means pivoted to said body and movable from a position folded against the side of the body to a position substantially at right angles to the body, and means longitudinally movable associated with said body and engageable with said supporting foot means to releasably lock the latter in operative position substantially at right angles to said body.

6. A guard of the character described comprising an elongated relatively flat body, supporting feet pivoted to said body and swingable from a position folded against said body outwardly to a position at right angles thereto, said body comprising a plurality of relative flat elongated portions joined in a manner to resemble a frame in appearance, said body having hinge elements at its ends for fastening engagement with corre-

spending hinge elements whereby a plurality of said bodies may be connected in end to end relation to define an enclosure, and locking elements substantially within the confines of said body and having portions thereof in engagement with said feet for locking said feet in operative position substantially normal to the plane of said body.

7. A bed guard comprising a pair of sections operatively connected to be disposed in extended or collapsed position, each of said sections comprising substantially parallel spaced standards and rail members connecting said standards, supporting foot means hingedly connected to each standard adjacent the lower extremity thereof and movable from a superposed position against the inner face of said standard to an extended operative position substantially at right angles thereto, the extremity of said foot means underlying the associated standard when said foot means is in extended position, each underlying extremity being provided with an aperture, and pin means slidably mounted upon the inner face of each standard for engagement with said aperture when the foot means is in operative position to releasably lock said foot means in said position.

8. A collapsible portable guard comprising a substantially flat rigid body portion having at least one standard extending transversely beyond the edge of said body portion, a foot member attached to the terminal portions of said standard and having a pivotal connection therewith, and locking means substantially within the confines of said foot member, and having a portion thereof in engagement with said foot member and holding it in a position substantially normal to the plane of said body portion.

9. A collapsible portable guard having a substantially flat rigid body with standards extending transversely beyond the edge of the same, foot member attached to the terminal portions of said standards, and locking means extending through portions of said standards and foot members for holding them in a position substantially normal to the plane of said body portions.

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