

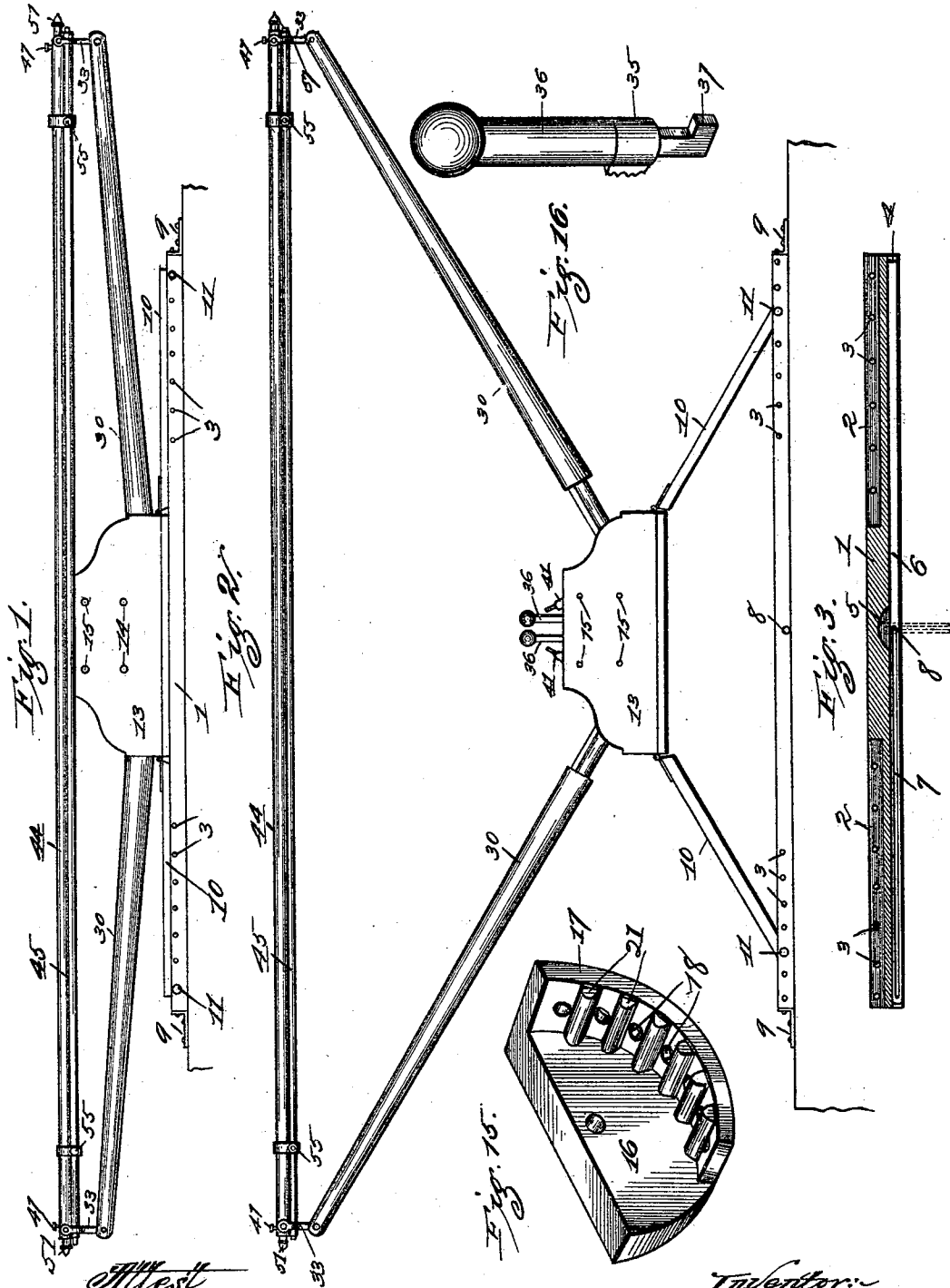
(No Model.)

3 Sheets—Sheet 1.

L. A. RUSSELL.
GUARD ATTACHMENT FOR BEDS, &c.

No. 544,381.

Patented Aug. 13, 1895.



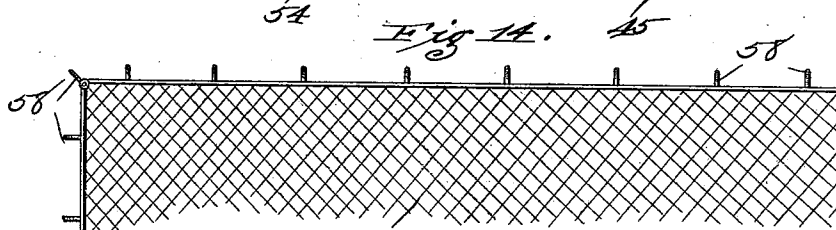
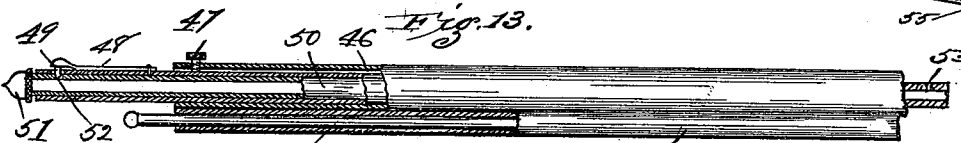
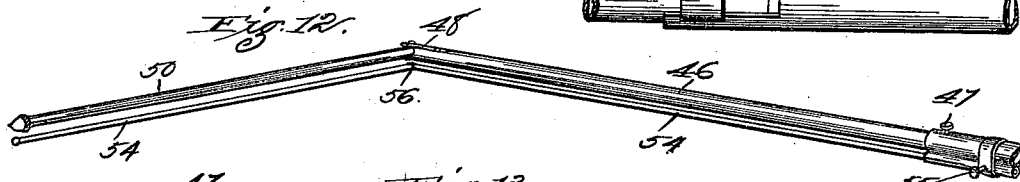
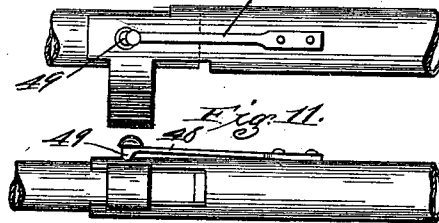
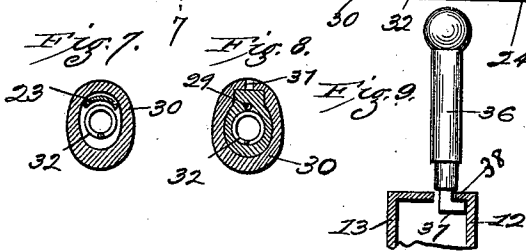
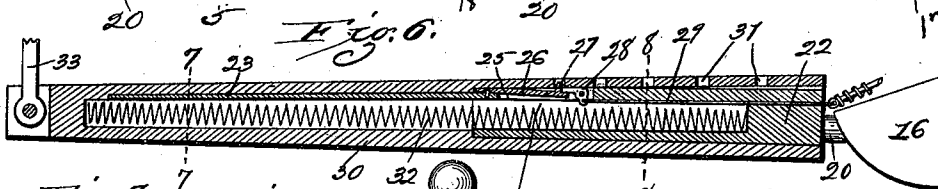
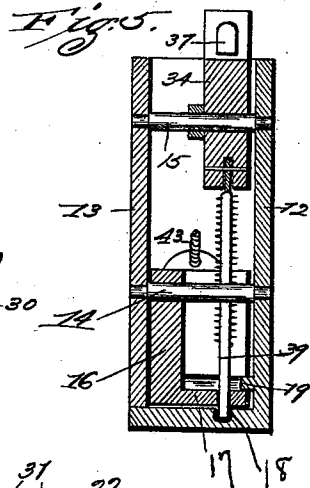
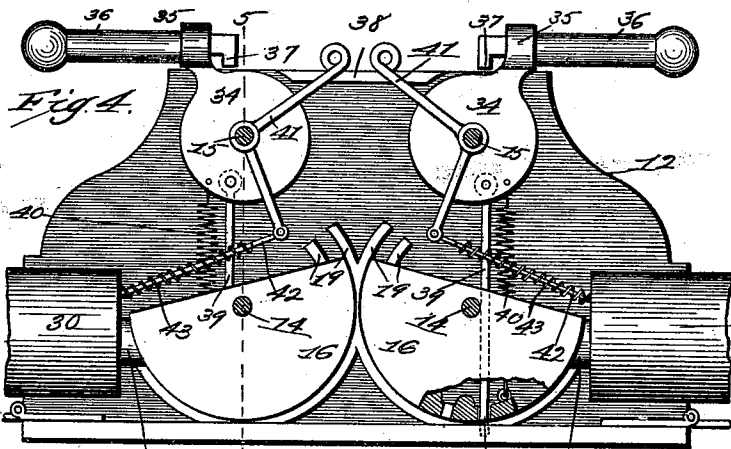
Attest
M. P. Smith
John L. Dunion.

Inventor:
Lewis A. Russell.
by Higdon & Higdon & Longan
Atty's.

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Attest:
W. Smith
John L. Emmon.

Inventor:-
Lewis H. Russell.
 by *Higdon & Higdon & Longan.*
Attys.

(No Model.)

3 Sheets—Sheet 3.

L. A. RUSSELL.
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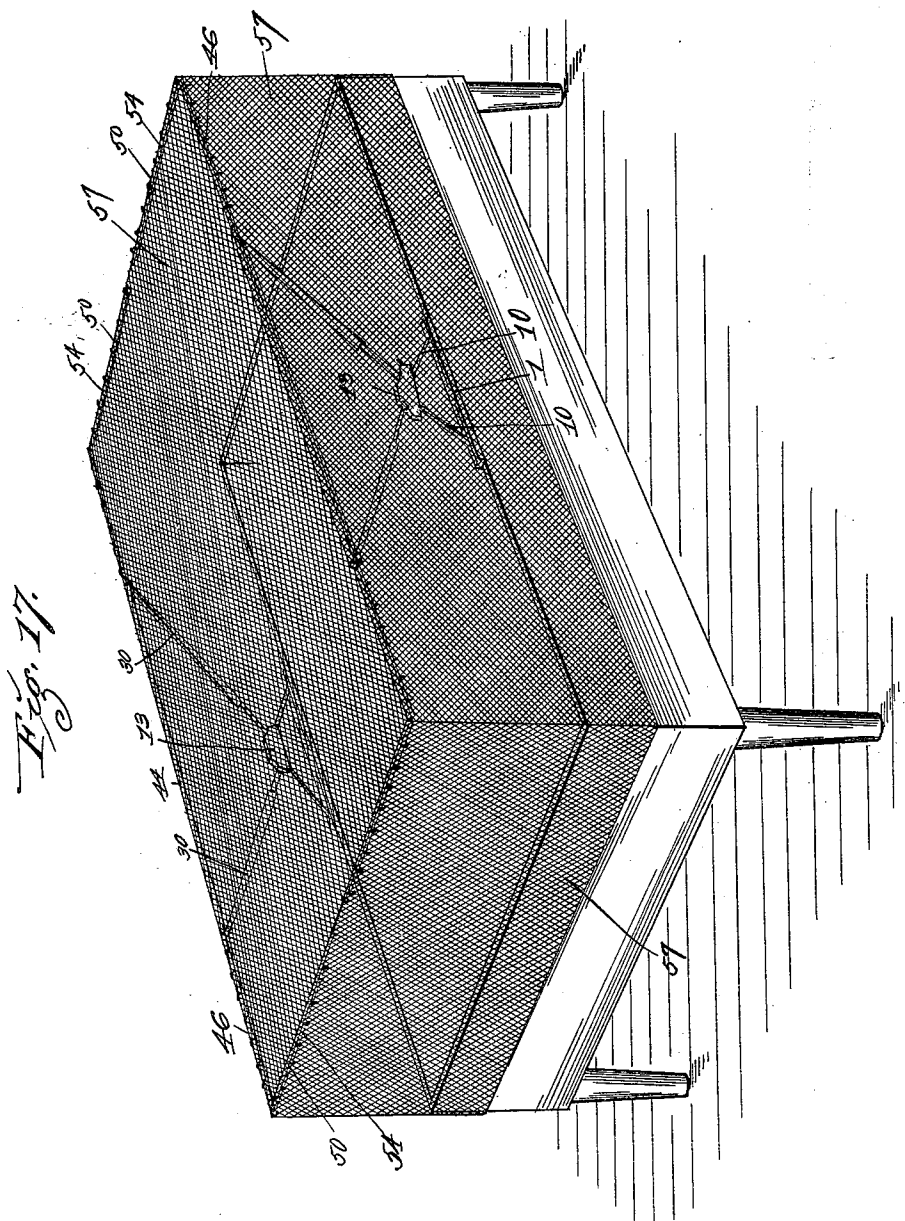


Fig. 17.

Attest
M. P. Smith,
John L. Emison.

Inventor:
Leah A. Russell:
by Higdon & Higdon & Langston,
D. M'Ally's.

UNITED STATES PATENT OFFICE.

LEWIS A. RUSSELL, OF ST. LOUIS, MISSOURI.

GUARD ATTACHMENT FOR BEDS, &c.

SPECIFICATION forming part of Letters Patent No. 544,381, dated August 13, 1895.

Application filed May 6, 1895. Serial No. 548,266. (No model.)

To all whom it may concern:

Be it known that I, LEWIS A. RUSSELL, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Guard Attachments for Beds, Cots, &c., of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to a guard attachment for beds, cots, &c.; and it consists in the novel construction, combination, and arrangement of parts hereinafter described and claimed.

My improved attachment is adapted to hold upon a bedstead, baby-carriage, or cot a guard for preventing persons rolling off of said bed, and it is also adapted to support a mosquito-net during use.

In the drawings, Figure 1 is a side elevation of my improved attachment, the same being in a closed position. Fig. 2 is a side elevation of my improved attachment, the same being open. Fig. 3 is a longitudinal central sectional view of the base-bar of which I make use in carrying out my invention. Fig. 4 is a side elevation of the casing that contains the operating mechanism of my attachment, the front plate of said casing being removed to show the mechanism therein. Fig.

5 is a vertical sectional view taken approximately on the indicated line 5 5 of Fig. 4. Fig. 6 is a longitudinal central sectional view of one of the main arms of my improved attachment. Fig. 7 is a cross-sectional view taken approximately on the indicated line 7 7 of Fig. 6. Fig. 8 is a cross-sectional view taken approximately on the indicated line 8 8 of Fig. 6. Fig. 9 is a detail sectional view of a catch or locking device I make use of at the top of

the main casing. Fig. 10 is a top plan view of the ends of a pair of telescoping tubes made use of in carrying out my invention. Fig. 11 is a side elevation of the parts seen in Fig. 10. Fig. 12 is a view in perspective of the telescoping tubes and rods extended. Fig. 13 is a side elevation, partly in section, of one of the sets of telescoping tubes and rods used in my improved attachment. Fig. 14 is a detail view of a portion of a screen used in connection with my attachment. Fig. 15 is a view in perspective of a semicircular block such as is used in the casing of my device.

Fig. 16 is a view in perspective of a catch or locking device used in the casing of my attachment. Fig. 17 is a perspective view of a bedstead having my invention applied thereto and supporting a mosquito-net.

For beds, cots, baby-carriages, &c., it is necessary that there be a pair of my attachments used—one for each side. As said attachments are identical in every detail, but one of said attachments will be described.

1 indicates a suitable base-bar, of wood or metal, the same having formed in each end and in the top rectangular grooves 2, that terminate at slight distances on each side of the center of said bar. Formed in the walls of each side of each of these grooves are horizontally-aligned apertures 3. Extending the entire length and in the under side of the bar is a groove 4. Extending upwardly from this groove 4 at the center of the bar is a recess 5. Adapted to lie in this longitudinally-extending groove 4 is a bar 6, constructed with a slot 7 extending approximately half the length of the bar. A pin 8 passes through this slot at the center of the bar 1, and thus connects the bar 6 to said bar 1. By means of straps 9, fixed to each end of the bar 1, the same is located upon the edge of the bed or wherever desired.

10 10 indicate bars of such a size as that they may be located in the longitudinal grooves 2. In the rear ends of each of these bars 10 are apertures through which and through the aligned apertures 3 pass pins 11. Hinged to the inner ends of these bars 10 are the lower outer corners of a casing 12, that is L-shaped in cross-section and provided with a face-plate 13.

Journalled in the back of the casing 12 and in the face-plate 13, in a plane below the center of said casing, is a pair of shafts 14, and directly above this pair of shafts 14 is a second pair of shafts 15, journalled in the same manner as are the shafts 14. Journalled upon the pair of shafts 14 are semicircular blocks 16, the same being provided with flanges 17, in which are located a series of apertures 18. The outer ends of these flanges 17 run in parallel tracks or guides 19, formed on the front face of the wall of the casing 12. Formed integral with the outer ends of these blocks 16 are short rods 20. Formed on the

inner faces of the flanges 17, between the apertures therein, are projections 21, the purpose of which will be presently shown. Formed on or fixed to the rods 20 are arms 22, 5 from the outer upper ends of which project segmental bars or guides 23. Formed in the ends of each of these arms 22 are spring-pockets 24. Formed in the tops of the arms 22, adjacent their outer ends, are slots 25, in which 10 operate spring-catches 26, the outer ends of which are fixed to the top surfaces of the arms 22, and said spring-catches 26 are provided at their free ends with upwardly-extending projections 27. Triggers 28 in the 15 form of bell-cranks are pivoted in the ends of the slots 25, and the free arms of said bell-crank triggers engage the free ends of the catches 26. The other arms of said bell-crank triggers have secured to them the forward 20 ends of small connecting-rods 29, that lead through the arms 22 to the ends thereof immediately above the rods 20.

30 indicates a hollow arm that is so constructed as to slide or telescope over the arms 22 and guide 23. Formed in said arm, at the rear end and in the top thereof, is a series of apertures 31, in which the upwardly-projecting portion 27 of the catch 26 engages. An expansive coil-spring 32 is located in the 30 spring-pocket 24 and the space within the hollow arm 30.

33 indicates connecting-links the lower ends of which are pivotally connected to the ends of the hollow arm 30. Journalled upon 35 each of the shafts 15 is a disk 34, from which projects an arm 35, that performs the function of a journal-bearing, and in said arm is mounted for rotation a catch or lock 36, the lower end of which is provided with a lug 37, 40 that extends at right angles to the body portion of said catch. Formed on the inner face and at the top edge of the wall of the casing 12 is a flange 38, under which these extending lugs 37 engage or catch when the bodies of 45 the catches 36 are in a vertical plane.

Pivoted to each of the disks 34, approximately opposite from the points where the arms 34 project, are vertically-arranged pins 39, that extend downwardly and pass through 50 any one of the apertures 18 in the flange 17. Retractable coil-springs 40 connect the flanges 17 with the disks 34. Bell-cranks 41 are journalled upon each of the shafts 15, and the upper ends of said bell-cranks extend above the 55 top of the casing 12. The downwardly-pending arms of these bell-cranks are connected by rods 42 to the outer ends of the rods 29, previously mentioned. Retractable coil-springs 43 are fixed to the ends of the arms 22 and at 60 their opposite ends to the rods 42 adjacent where said rods are pivoted to the bell-cranks 41.

Pivotally connected to the upper ends of the links 33 are the ends of a tube 44. Removably fixed to this tube 44 and lying immediately beneath the same is a tube 45. Mounted to slide in each end of the tube 44 is

a tube 46, and set-screws 47, passing through the ends of the tube 44, hold these tubes 46 at any point in their path of travel. Riveted 70 to the outer end of each of the tubes 46 and on top thereof is a spring-catch 48, the same being formed with an engaging-point 49, that passes downwardly through a suitable aperture formed in the end of each of the tubes 75 46. Mounted to slide in each of the tubes 46 is a tube 50, the outer end of which is provided with a suitable fancy head, such as 51. Formed in the outer ends of each of the tubes 50 are apertures 52, in which the engaging- 80 points 49 of the spring-catches 48 engage. Similar apertures 53 are formed adjacent the inner ends of each of the tubes 50. Held to slide in the tube 45 at each end thereof is a rod 54, the same being held at various points 85 along its travel by a set-screw 55, one of which is arranged adjacent each end of the tube 45. This rod 54 is made in three sections, and a hinge-joint 56, of any common construction, joins the two portions of each of said rods. 90

57 indicates a net of any common construction, the top edge and sides thereof being provided with a series of loops or eyes 58, through which the jointed rods 54 are adapted to pass. 95

The operation is as follows: When my improved guard attachment is located on a bed, crib, or baby-carriage, it occupies a position as shown in Fig. 1. When it is desired to open the attachment and bring the same into use, 100 the operator removes the pins 11 from the last pair of apertures 3 and slides the outer ends of the bars 10 along the grooves 2 toward the center of the base-bar 1. This will elevate the casing 12, and when the same has reached 105 the proper height the pins are reinserted in the pair of apertures 3 that coincide with the apertures in the ends of the bars 10. The operator now manually engages the catches 36 and throws the same into vertical positions. 110 By partially rotating said catches 36 the lower ends 37 thereof will engage beneath the flange 38. As said catches 36 are thrown into vertical positions the disks 34 will be partially rotated and the rods 39 will be with- 115 drawn from the apertures 18, in which they have been located. The arms 30 are now swung upwardly, and the operator by now moving the upper ends of the bell-cranks 41 away from each other pulls the connections 120 42 and 29 outwardly, operates the triggers 28, and causes the points 27 of the spring-catches 26 to disengage from the pair of apertures they have previously been located in. Said catches being released, the expansive coil- 125 springs 32 will move the hollow arms 30 outwardly upon the same arms 22 until the operator releases the bell-cranks 41 and allows the spring-catches 26 to re-engage in a pair of the apertures 31. This brings the guard into 130 the position as shown in Fig. 2. The operator now loosens the set-screws 47 and 55 and withdraws the tube 46 and rod 54 at each end of the tube 44. When said tubes 46 have been

withdrawn as far as desired, the set-screws 47 are tightened. The points 49 of the spring-catches 48 are now disengaged from the apertures 52 and the tubes 50 are withdrawn from
 5 the tubes 46 until said points 49 engage in the apertures at the rear ends of the tubes 50. Said tubes 50 may now be turned at right angles to the tubes 46, in order to extend partially across the foot and head of the bed or carriage. (See Fig. 17.) The rod 54 is also
 10 swung on its hinge 56 at right angles to the tube 46, and the net 57 is now hung upon said rod 54, said net 57 being long enough to extend entirely around the bed or carriage. In
 15 Fig. 17 I have shown the net extending also over the top of the bed, with its edges secured in position in the manner previously described. This net may, of course, be of coarse mesh, to prevent children and other
 20 persons from clambering or falling from the bed, or it may be of finer mesh, to exclude mosquitoes and other noxious insects.

When the device is attached to a baby-carriage, the rods 6 are slid out and thrown into
 25 vertical planes, in order to prevent the carriage from being overturned.

A guard attachment of my improved construction is very easily and expeditiously opened and closed in order to be thrown into
 30 or out of use, is very complete in operation, and possesses superior advantages in point of simplicity, durability, and general efficiency.

I claim—

1. In a guard attachment for beds, cots, &c.,
 35 a base-bar, a casing adapted to be elevated from said base-bar, arms connected to and operating from said casing, a tube having its ends fixed to the outer ends of the arms, and tubes telescoping within said tube.

40 2. In a device of the class described, a base-bar, bars adjustably fixed to said base-bar, a casing hinged to the upper ends of said adjustable bars, longitudinally and vertically adjustable arms carried by and operated from
 45 said casing, a tube having its ends fixed to the outer ends of said arms, a tube fixed to the under side of the first mentioned tube,

tubes telescoping in the ends of said first mentioned tube, and rods sliding in the ends of the second mentioned tube.

3. In a device of the class described, base-
 50 bars adapted to be attached to the sides of a bed, cot, &c., said base-bars having longitudinal slots or grooves in their upper sides, bars that are normally located and move in said
 55 grooves, slotted rods carried in the under sides of said base bars, and a casing carried by said movable bars and adjustable arms carried by the said casing.

4. In a device of the class described, a base-
 60 bar, bars adjustably fixed to said base-bar, a casing hinged to the upper ends of said adjustable bars, arms having their inner ends pivoted in said casing, hollow arms sliding
 65 upon the first mentioned arms, latching devices for said arms, a tube fixed at its ends to the outer ends of said hollow arms, tubes arranged to slide in each end of said tube, a
 70 tube carried by the first mentioned tube, rods arranged to slide in each end of said second mentioned tube, and a net adapted to be hung upon said sliding rods.

5. In a device of the class described, a base-
 75 bar, bars adjustably fixed to said base-bar, a casing hinged to the upper ends of said adjustable bars, vertically adjustable arms carried by and operated from said casing, hollow
 80 arms mounted to slide upon said vertically adjustable arms, a tube having its ends fixed to the outer ends of said arms, tubes arranged to slide in the end of said first mentioned
 85 tube, tubes arranged to slide in the first set of sliding tubes and to be turned at right angles thereto, a tube fixed to the under side of the first mentioned tube, jointed rods arranged to slide in each end of said last mentioned tube, and a net adapted to be fixed to said jointed rods.

In testimony whereof I affix my signature in presence of two witnesses.

LEWIS A. RUSSELL.

Witnesses:

EDWARD EVERETT LONGAN,
 JOHN C. HIGDON.