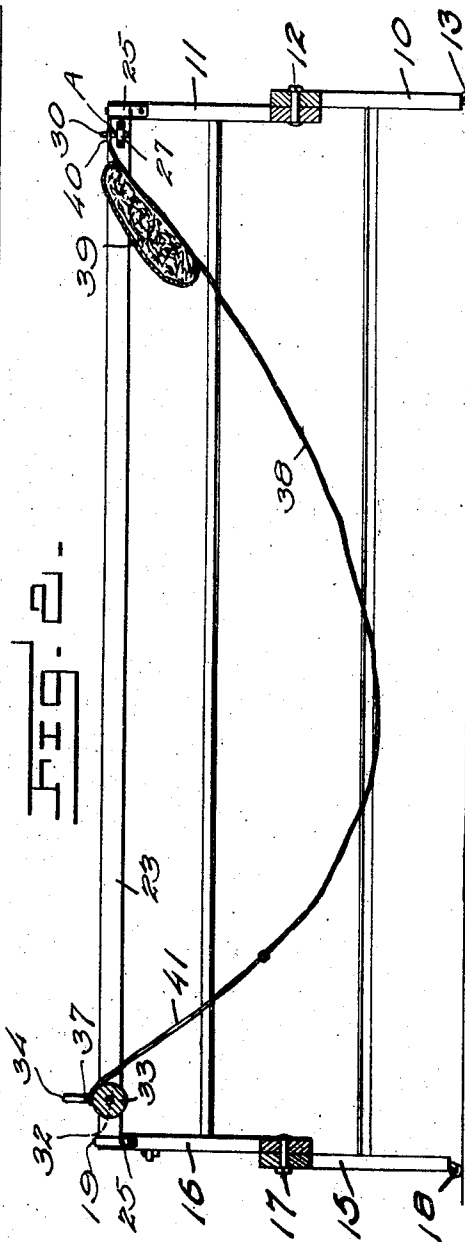
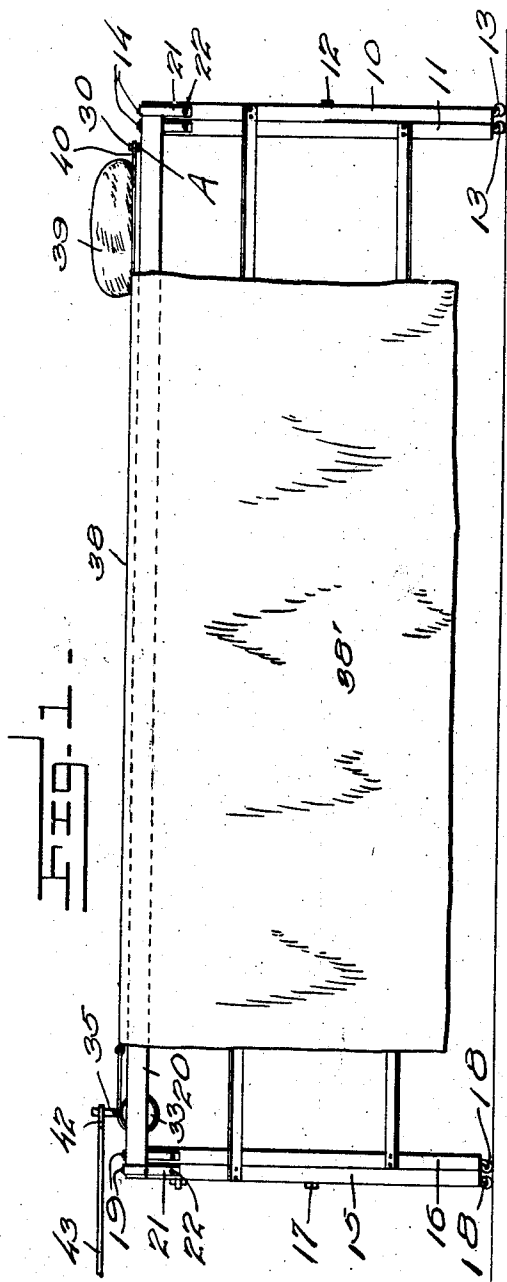


W. E. GRABENHORST.
ALARM COT.
APPLICATION FILED DEC. 28, 1911.

1,049,850.

Patented Jan. 7, 1913.

3 SHEETS—SHEET 1.



Witnesses

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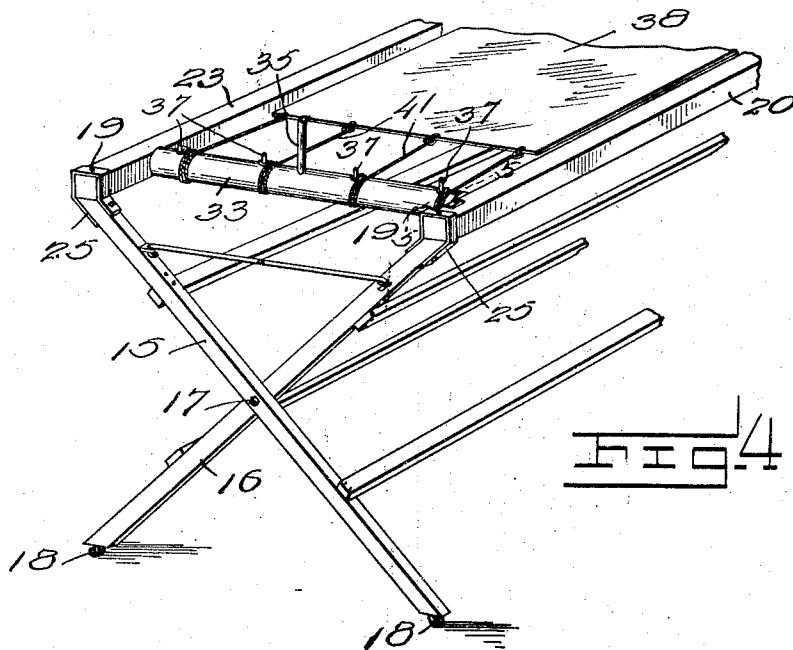
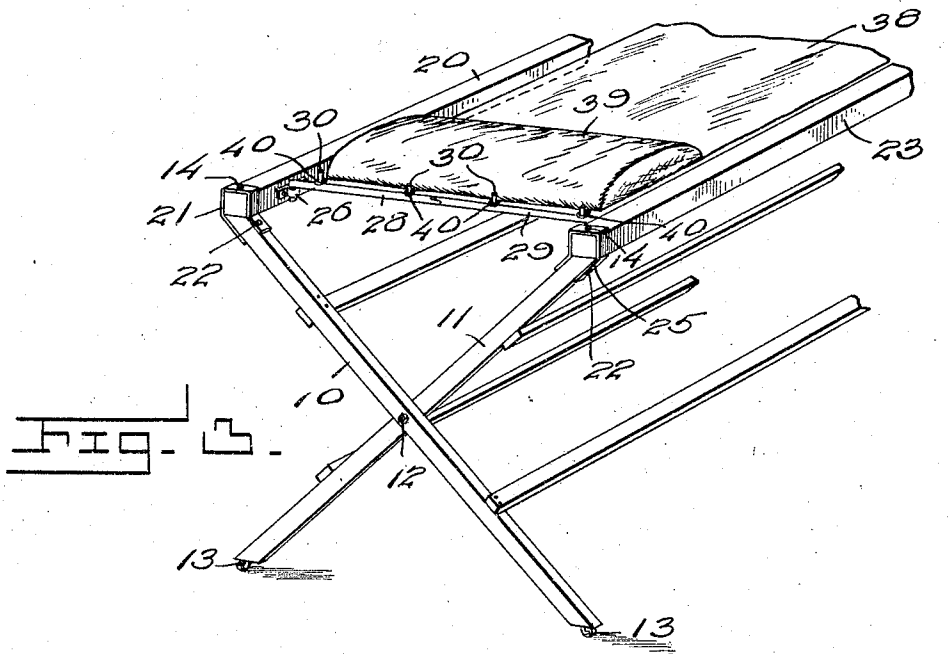
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3 SHEETS—SHEET 2.



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3 SHEETS—SHEET 3.

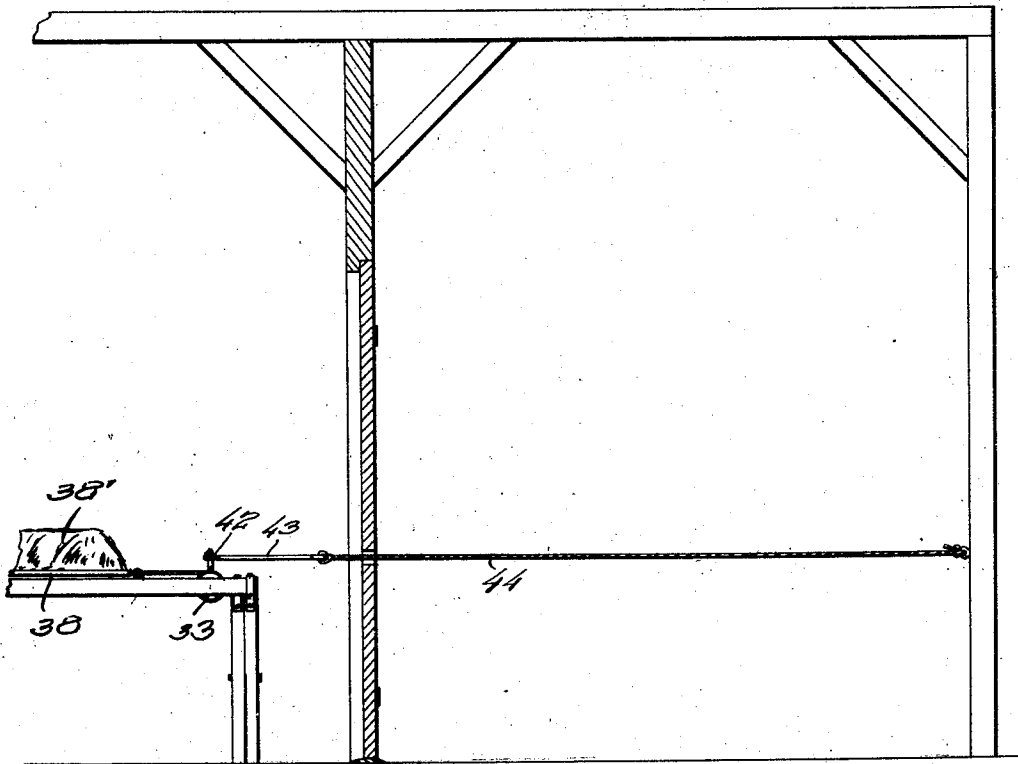
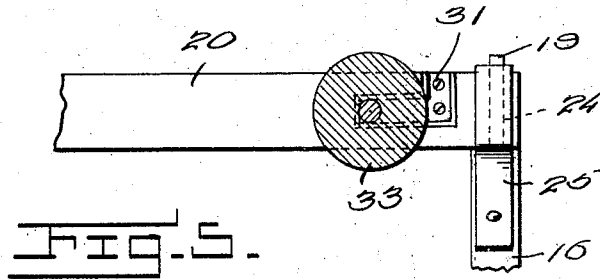


FIG. 6.

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UNITED STATES PATENT OFFICE.

WILLIAM E. GRABENHORST, OF FLASHER, NORTH DAKOTA.

ALARM-COT.

1,049,850.

Specification of Letters Patent.

Patented Jan. 7, 1913.

Application filed December 28, 1911. Serial No. 668,297.

To all whom it may concern:

Be it known that I, WILLIAM E. GRABENHORST, a citizen of the United States, residing at Flasher, in the county of Morton, State of North Dakota, have invented certain new and useful Improvements in Alarm-Cots; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to cots and particularly those commonly known as alarm cots.

15 The object of the invention resides in the provision of a cot so constructed and arranged that movement will be imparted to certain parts thereof at a predetermined time so as to awaken the occupant.

20 A further object of the invention resides in the provision of a cot of the type referred to which will be simple in construction, adapted to be folded in a compact manner for transportation and which will efficiently

25 serve the purposes for which it is intended. With the above and other objects in view, the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more

30 fully described and particularly pointed out in the appended claim. In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters of reference

35 denote corresponding parts in the several views, and in which—

Figure 1 is a side elevation of a cot constructed in accordance with the invention with the hammock element in normal position and secured against movement by the tripping rod of the trip mechanism, Fig. 2, a longitudinal section through a cot constructed in accordance with the invention showing the position of the hammock element thereof after actuation of the trip mechanism, Fig. 3, a fragmental perspective view of the head end of the cot, Fig. 4, a fragmental perspective view of the foot end of the cot, Fig. 5, a section on the line 5—5 of Fig. 4, and Fig. 6, a view showing the manner of setting the trip mechanism of the cot for actuation by the movement of an object across a predetermined point in a drive way or the like.

50 Referring to the drawings, the cot is shown as comprising head cross legs 10 and

11 pivotally connected together at their centers as at 12. These legs are provided on their lower ends with rollers 13 and on their upper ends with pin extensions 14. 60 The cot further comprises foot cross legs 15 and 16 pivotally connected together at their centers as at 17. These foot cross legs also have their lower end provided with rollers 18 and their upper ends with pin extensions 19 corresponding to the pin extensions 14 of the head cross legs. Supported on the upper ends of the head and foot cross legs 10 and 15 respectively is a side member 20 which is provided at each end with open- 70 ings to receive respectively the extension pins 14 and 19. The side member 20 is positively locked upon the upper end of the cross legs 10 and 15 by means of U-shaped strap irons 21 which embrace respective ends 75 of the side member and have their arms secured to respective cross legs 10 and 15 by bolts 22 passing through said arms and cross legs respectively. Supported upon the upper ends of the cross legs 11 and 16 is a 80 side member 23 which is also provided with openings 24 to receive the pin extensions 14 respectively. This side member 23 is also positively locked upon the upper ends of the 85 cross legs 11 and 16 by means of strap irons 25 secured to the legs 11 and 16 respectively in a manner similar to that in which the strap irons 21 are secured to respective legs 10 and 15.

The head end of the side member 20 has 90 mounted on its outer face a clip 26 while a similar clip 27 is correspondingly mounted on the head end of the side member 23. Connecting the side members 20 and 23 at their 95 head end is a cross bar A which comprises a pair of hinged sections 28 and 29 the free ends of which latter are bent at right angle and rotatably disposed in the clips 26 and 27 respectively. The hinged connection be- 100 tween the sections 28 and 29 is such that the inner ends of the sections can move outwardly or in the direction of the nearest ends of the side members 20 and 23, but can only move inwardly to an extent that will 105 dispose said sections in longitudinal alignment. The sections 28 and 29 are provided with a plurality of vertically directed pins or studs 30 for a purpose that will presently appear.

The side member 23 is provided at its 110 foot end on its inner face with an angular

slot 31 one arm of which is disposed vertically and opens through the upper side of said member while the other arm of said slot is disposed horizontally. Formed in the side member 20 at its foot end in transverse alinement with the outer end of the horizontal arm of the slot 31 is a bearing opening 32. Rotatably mounted in the opening 32 and in the horizontal arm of the slot 31 are the trunnions of a drum 33. By this construction it will be apparent that the drum can be readily removed from its bearings in the side members 20 and 23 by reason of the angular slot 31 said removal being effected after the manner of disengaging a bayonet joint.

Mounted centrally of the drum 33 is a radially disposed arm 35. The drum 33 is further provided with a plurality of radial pins 37 for a purpose that will presently appear.

The hammock element of the cot comprises a suitable flexible fabric 38 having mounted on its upper or head end a pillow section 39. Also mounted on the head end of the hammock element is a plurality of rings 40 adapted for detachable engagement with respective pins 30 to secure the head end of the fabric upon the cot frame. The foot end of the fabric 38 has secured thereto a plurality of flexible connections 41, the free ends of which are secured respectively to the pins 37 on the drum 33. By this construction it will be apparent that as the drum 33 is rotated in one direction the fabric 38 will be drawn taut, while the reverse rotation of said drum will cause the fabric to become slack and assume a concave shape.

In order to set the cot for use it is placed adjacent a suitable drive way or passage such as are present in a livery stable. The drum 33 is then rotated so as to bring the fabric to a taut condition and disposed substantially horizontal. When this condition of the fabric 38 is present the arm 35 is disposed vertically and the loop end 42 of a trip rod 43 is engaged with the outer end of said arm. This trip arm 43 is in turn secured to a suitable connection 44 which latter extends across the drive way and is suitably anchored to an adjacent fixed part. When the connection 44 is thus disposed it

will secure the drum 33 against rotation as will be apparent and the fabric 38 will then support the body of the occupant in the proper manner for sleeping. However, when a team passes along the drive way same will engage the connection 44 and as the fabric 38 and connections 41 possess a certain degree of elasticity, the drum 33 and arm 35 will be rotated so that said arm will move outwardly of the cot. This movement will at a predetermined time effect the disengagement of the trip rod 43 from the arm 35 as will be obvious. The weight of the body of the occupant will then unwind the connections 41 from the drum 33 and cause the fabric 38 to fall sharply to the position shown in Fig. 2 and thus awaken the occupant. It will be further noted that as the various parts of the cot are detachable one from the other it will permit same to be folded compactly so as to enable the easy and ready transportation thereof.

The fabric 38 is provided with a lateral flap 38' which is adapted to be returned upon the fabric so as to cover the occupant and afford the necessary warmth.

What is claimed is:

In a cot, the combination of a frame, a hammock, means for detachably securing one end of the hammock to the frame, a drum rotatably mounted in said frame, connections between the other end of the hammock and the drum whereby the rotation of the latter in one direction will draw the hammock taut, a radial arm carried by the drum, a flexible connection secured to a fixed part, and a trip rod secured to said flexible connection and detachably engaging said radial arm to lock the drum against rotation, said trip rod being releasable from engagement with the radial arm by a lateral pressure against said flexible connection whereby the weight of the occupant will rotate the drum to unwind the connections between the hammock and said drum from the latter.

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

WILLIAM E. GRABENHORST.

Witnesses:

CHAS. W. SCHLOSSER,
HUBERT LAWSON.