

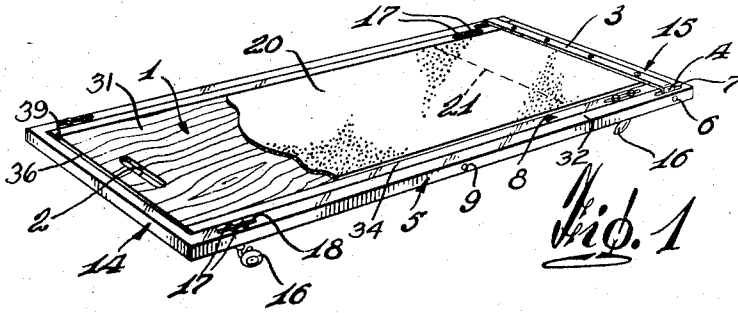
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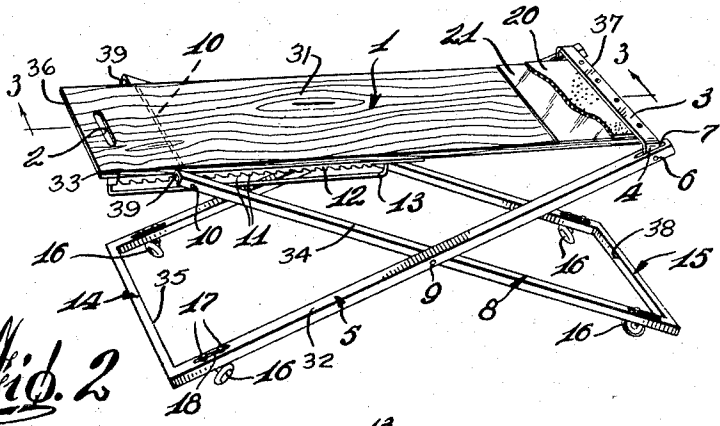
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CREEPER WITH ADJUSTABLE SUPPORTING SURFACE

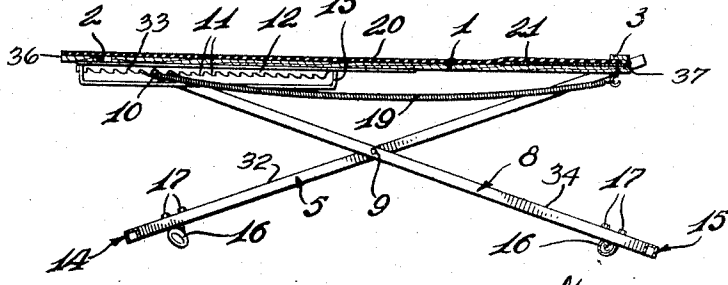
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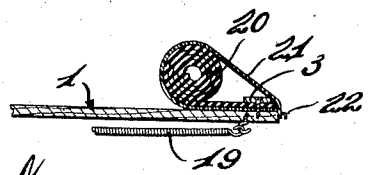
*Fig. 1*



*Fig. 2*



*Fig. 3*



*Fig. 4*

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**CREEPER WITH ADJUSTABLE SUPPORTING SURFACE**

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2 Claims. (Cl. 280—32.6)

The present invention relates to an automobile creeper device whereby mechanics or others when lying thereupon may move and support themselves comfortably beneath an automobile during the course of making repairs.

The main object of the present invention is the provision of a creeper of the character described which is adjustable in height so that, apart from the above mentioned use, it may also serve as a platform to enable mechanics to reach the top portion of the automobile being repaired.

Yet another important object of the present invention is the provision of an adjustable creeper which is stable and will not accidentally tip over in any elevated adjusted position.

Still another important object of the present invention is the provision of an adjustable creeper of the character described which has a minimum height when in its lowermost collapsed position.

The foregoing and other important objects of the present invention will become more apparent during the following disclosure and by referring to the drawings in which:

Figure 1 is a perspective view of the creeper in its collapsed lowermost position;

Figure 2 is a perspective view of the creeper in an elevated intermediate position;

Figure 3 is a longitudinal section along lines 3—3 of Figure 2; and

Figure 4 is a longitudinal partial section of the head portion of the creeper with the matting in rolled position.

Referring now more particularly to the drawings in which like reference characters indicate like elements throughout, the creeper comprises a rectangular wooden panel 1 having at one end a transverse slot 2 for manipulating the creeper. A yoke-shaped metal member 3 is rigidly secured on top of and across the panel 1 at the head end portion thereof. The yoke member 3 provides two downwardly extending lugs 4 which are spaced from the sides of the panel 1. A U-shaped frame 5 has its free legs pivotally connected to the lugs 4 as shown at 6. The frame 5 is made of straight lengths of bars of channel cross-section welded together at their ends. The lugs 4 enter slots 7 made at the free ends of said U-shaped frame to be pivotally connected by the pins 6. The axis of the pins 6 is equidistant from the top face 31 of panel 1 and from the corresponding edge 32 of U-shaped member 32, so that when the panel is completely collapsed, the edge 32 will be in the plane of the top face 31 of panel 1. A second U-shaped frame 8 having a slightly smaller width than the frame 5 so as to fit inside the latter, is pivotally connected at 9, at the middle portion of its parallel legs to the middle portion of the parallel legs of the U-shaped frame 5. The U-frame 8 is also made of straight lengths of bars of channel cross-section welded together.

The free ends of the parallel legs of the U-frame 8 are interconnected by a transverse rod 10 which is engageable with any one of a plurality of ratchet teeth 11 of a pair of rack members 12 which are rigidly se-

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cured underneath the wooden panel 1 along the side edges thereof and terminate at the foot end of the panel 1. A guard rod 13 extends parallel to each rack member 12 and is spaced from the same so as to maintain the transverse rod 10 always ready to be engaged with the ratchet teeth 11. It will be noted that the reentrant portions 33 of the ratchet teeth 11 are at the same distance from the top face 31 of panel 1, as the transverse rod 10 is from the corresponding edge 34 of the parallel legs of U-frame 8, so that when the panel is collapsed, this edge 34 will again lie in the plane of the top face 31 of the panel 1.

The size of the two U-shaped frames 5 and 8 is such that said frames will nest one into the other when the creeper is in its lowermost collapsed position as shown in Figure 1. In this position, the cross legs 14 and 15 of the frames 5 and 8 respectively, extend close to the end edges of the panel 1, and the frames 5 and 8 lie in substantially the same plane as the panel 1 so as to take up a minimum of height. To this end, the distance between the inner edge 35 of cross leg 14 and the axis of pins 6 is greater than the distance between the axis of pins 6 and the opposite end 36 of panel 1; similarly the distance between the axis of pivotal connection 9 and the edge 37 of panel 1 adjacent the yoke 4 is smaller than the distance between the axis of pivotal connection 9 and the inner edge 38 of cross leg 15. To the same end, the distance from the axis of pivotal connection 9 to the axis of pins 6, combined with the distance from the axis of pivotal connection 9 to the free end 39 of the legs of U-frame 8, is smaller than the distance from the axis of pins 6 to the opposite end 36 of panel 1.

The creeper is provided with castors 16 so that the user may conveniently move himself underneath the automobile being repaired while lying on the creeper. The castors 16 are preferably adjustably mounted on the frames 5 and 8 adjacent their respective cross legs 14 and 15. More particularly, the castors may be moved closer to or farther away from the legs 14 and 15 by loosening the nuts 17 and moving the castors within the slots 18 made in the side legs of said frames 5 and 8. Thus it will be understood that when the creeper is in a certain intermediate elevated position, the castors 16 may or may not engage the ground so that said creeper may be moved about on its castors or may be held stationary when the legs 14 and 15 engage the floor. The castors 16 are preferably of the type with an angularly directed spindle.

The creeper may be elevated to any adjusted position from its collapsed position, shown in Figure 1, by engaging the transverse rod 10 in any one pair of transversely aligned ratchet teeth 11 of the rack members 12. When returning the creeper from any elevated position to its collapsed position, the foot end of the panel is gripped by the slot 2 and lifted and the transverse rod 10 disengaged from the ratchet wheel 11 so that said transverse rod 10 may slide toward the foot end of the panel. In order to prevent said collapsing movement from being effected too rapidly, which would result in the operator's hand being hurt by the cross leg 14 of the U-shaped frame 5, the transverse rod 10 is connected to the head end of the panel 1 by means of two tension springs 19.

The creeper, according to the present invention, is also provided with a rubber matting or carpeting 20 which normally extends over the whole length of the panel 1 and is secured to the head end of said panel 1 by being inserted underneath the yoke member 3. When the creeper is used as a platform or table, the matting 20 is rolled, as shown in Figure 4, and maintained in that position by means of a sheet of fabric 21 which is also

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secured underneath the yoke member 3 and extends underneath the head portion of the carpet 20. The free end of the sheet 21 is hooked at the head end of the panel 1 by means of L-shaped hooks 22.

While a preferred embodiment according to the present invention has been illustrated and described, it is understood that various modifications may be resorted to without departing from the spirit and scope of the appended claims.

I claim:

1. A creeper comprising a rectangular panel having top and bottom faces, two U-shaped members pivotally connected at the central portions of their side legs, both side legs of one U-shaped member being disposed internally of the side legs of the other U-shaped member, a yoke member rigidly connected to the top face of said panel adjacent one end thereof with its bent portions spaced outwardly from the sides of said panel, the free ends of the side legs of the outer U-shaped member being pivotally connected to the bent portions of said yoke with the pivotal axis equidistant from the top face of the panel and the corresponding edges of the side legs of said outer U-shaped member, two racks secured to the bottom face of said panel, parallel and adjacent to the sides of said panel, extending from the end of said panel opposite said yoke member, and having ratchet teeth, a transverse rod extending between and secured to the free ends of the side legs of said inner U-shaped member, said transverse rod engaging said ratchet teeth, the re-entrant portions of said ratchet teeth being at the same distance from the top face of said panel as the transverse rod is from the corresponding edge of the side legs of said inner U-shaped member, the distance between the inner edge of the cross leg of the outer U-shaped member and the pivotal axis at the free end of its legs being

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greater than the distance between said pivotal axis and the end of the panel opposite thereto, the distance between the central pivotal connection of the side legs of said U-shaped members and the pivotal axis of the free end of the legs of the outer U-shaped member combined with the distance between said central pivotal connection and the free end of the legs of the inner U-shaped member, being smaller than the distance between the pivotal axis at the free end of the legs of the outer U-shaped member and the opposite end of the panel, the distance between said central pivotal connection and the edge of the panel adjacent the pivotal axis of the outer U-shaped member with the yoke, being smaller than the distance between said central pivotal connection and the inner edge of the cross leg of the inner U-shaped member.

2. A creeper as claimed in claim 1, comprising castors secured to the side legs of said U-shaped members, adjustably spaced from the cross legs of said U-shaped members.

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