Oct. 14, 1924. 1,511,943

J. M. BUSH

AUTOMOBILE CREEPER

Filed Nov. 19, 1923

Fig. 1.

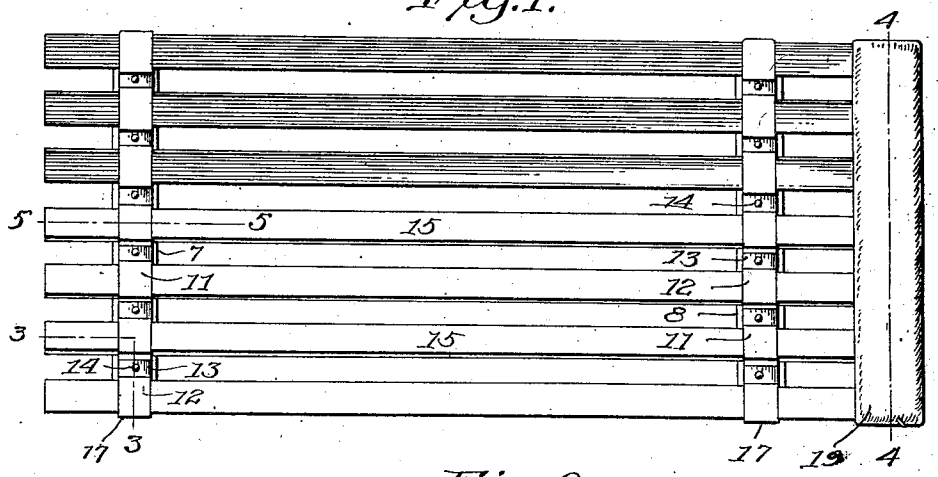


Fig. 2.

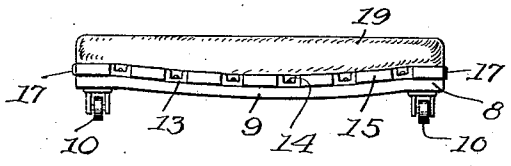


Fig. 3.

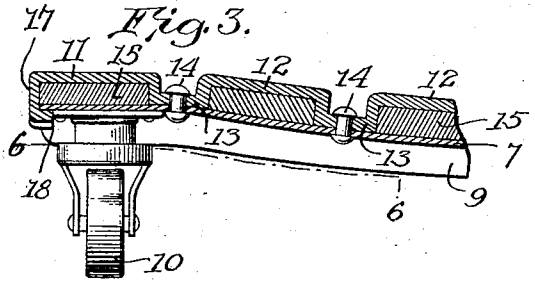


Fig. 4.

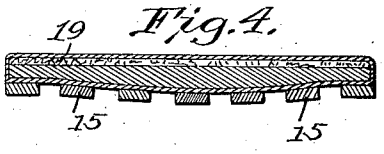


Fig. 5.

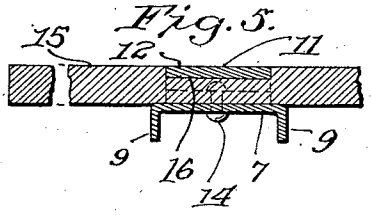
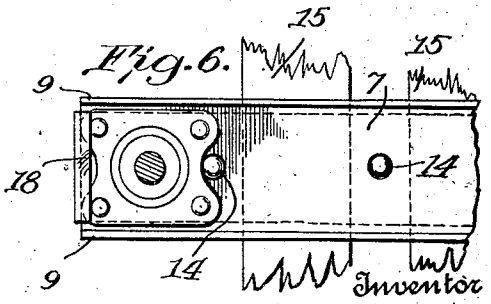


Fig. 6.



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UNITED STATES PATENT OFFICE.

JOHN M. BUSH, OF YORK, PENNSYLVANIA.

AUTOMOBILE CREEPER.

Application filed November 19, 1923. Serial No. 675,636.

To all whom it may concern:

Be it known that JOHN M. BUSH, a citizen of the United States, residing at York, in the county of York and State of Pennsylvania, has invented certain new and useful Improvements in Automobile Creepers, of which the following is a specification.

This invention relates to improvements in so-called creepers which are generally employed by automobile mechanics, garage employees and owners of automobiles to enable them to get beneath the machine for repair, greasing or other purposes.

Creepers for this purpose have become somewhat common but all that have come within my notice are of a more or less frail construction, particularly with respect to the means employed to attach the slats or bars thereto, with the result that the rough handling to which these devices are subjected causes the slats or bars to become loose so that the structure speedily breaks up.

The present invention has for its object to provide an improved construction of creeper including improved means for holding and spacing the slats thereof and for stiffening the structure in a crosswise direction.

The invention is illustrated in the accompanying drawing, wherein,—

Fig. 1 shows the improved device in top or plan view.

Fig. 2 illustrates the same in end elevation.

Fig. 3 shows an enlarged sectional detail through a portion of the creeper, as the same would appear if cut on the line 3—3 of Fig. 1.

Fig. 4 illustrates a cross-sectional detail through the head-rest end of the creeper,—the section being taken on the line 4—4 of Fig. 1.

Fig. 5 shows an enlarged cross-sectional detail through the slat-holding device of the creeper as the same would appear if cut on the line 5—5 of Fig. 1, and

Fig. 6 illustrates an end of one of the cross-bars to which the casters and slats are attached,—the view being an inverted one as looking in the direction of the darts on the line 6—6 of Fig. 3.

Referring to the drawing the numeral 7 designates one cross-bar of the creeper and 8 the other cross-bar thereof. Both of these cross-bars are of a like construction and a description of one will apply to the other.

In cross-section the bars 7 and 8 are of a channel-shape in that they have a downturned flange 9 at each side thereof, as clearly shown in Fig. 5, and each bar is flat or horizontal at each end but is concave in a longitudinal direction between said ends so that the ends of said bars are higher than the intermediate concave portion thereof.

Each high flat end of a cross-bar is provided at its under side with a caster 10.

It is common practice in creepers of this character to provide the same with a supporting element comprising a series of slats and it is very common for these slats to be nailed or screwed to underneath cross-bars of wood. This method of fastening the slats is very unsatisfactory because the users of these creepers kick them into place with their feet or catch them by one of the slats in lifting or handling them, with the result that the slats break loose and not infrequently split at the points where the nails or screws pass through them.

By means of my invention, I avoid these difficulties through the use of improved clamping means which I will now explain.

Each cross-bar 7 or 8 is formed of channel metal and is therefore exceedingly strong and free from liability to split.

With each cross-bar I provide what may be termed a combined spacer and clamping bar 11.

These bars 11 are formed with alternate raised portion 12 and depressed portions 13,—the depressed portions 13 seating on the upper surface of the cross-bar while the raised portions each form a channel or recess crosswise of the cross-bar.

Rivets or equivalent fastenings 14, are passed through the depressed portions 13 of the bars 11 and also through the cross-bar whereby to rigidly hold the bar 11 down on said cross-bar.

The raised portions 12 of the spacer and clamping-bars have a particular coaction with the slats 15 of the supporting element.

These slats are of uniform length and preferably of a uniform width and the slats are seated on the upper concave side of the cross-bars so as to extend at right angles to those bars.

Each slat 15, is provided on its upper side

with a crosswise channel 16,—that is, a channel on its upper surface and in a direction crosswise of its length, as shown in Fig. 5 of the drawing. The depth of these channels is equal to the thickness of the metal of which the spacer and clamping bars 11 are formed, and is also of a width corresponding to the width of those bars.

One of these crosswise channels 16 is provided in the upper side of each slat near each of its ends and immediately above the point where such slat rests upon the cross-bars 7 and 8.

These slats are laid upon the cross-bars and the spacer and clamping bars 11 are then laid over the slats,—that is, in a direction at right angles to the slats.

In laying the clamping-bars over the slats each of the latter is spaced so as to have position beneath the raised portion 12 and between two depressed portions 13, as clearly shown in Fig. 3 of the drawing so that when the clamping bar is lowered over the slats the under side of each raised portion of the clamping bar will seat in the recess or channel 16 in the upper face of each slat. By means of the crosswise channels in the slats, the clamping bar 11 will seat down therein until its upper surface becomes flush with the upper surface of the slats as shown in Fig. 5 so that there is a complete lacking of any projection on the upper side of the slats on which a person will lie in using the creeper.

By providing the slats with the crosswise channels or recesses 16 in their upper faces and then seating the clamping bars in those channels the slats are securely held against longitudinal displacement or movement without entering fastening devices such as bolts, screws, nails or pins into the slats themselves.

The spacer and clamping bars 11 are secured at intervals to the cross-bars 7 or 8 by means of the rivets 14 which being in the depressed portions are below the surface on which a person lies so that no projection extends above the slats.

At the opposite flat ends, the clamping bars are turned down at 17, and clinched under the cross-bar as at 18 between the side flanges 9 so as to rigidly hold the clamp-bar ends in place.

At one end of the creeper there is provided a padded headrest 19 which may be formed in any desired manner and attached in any preferred way.

By means of my construction there is no danger of the slats being pulled loose from the cross-bar because they are not individually riveted or nailed thereto but are clamped in place in a way that the upper surface is free of projections or anything that will weaken the structure, and by seating the clamping bars in the recesses or channels 16 of the slats the latter will be securely held against longitudinal displacement.

Having described my invention, I claim,—

1. In an automobile creeper the combination with a plurality of cross-bars each having a flat upper side and a caster on the under side of each end, of a clamp bar over the upper flat side of each cross-bar and each clamp-bar having a series of raised portions which are separated and spaced from one another by intervening narrower depressed portions,—the narrower depressed portions seating on the flat top surface of the said cross-bars and having means for permanently securing them down in said seated positions, and a series of horizontal slats having their lower surfaces seated on the cross-bars and extending through the raised portions of the clamp-bars,—each slat having a crosswise recess formed in its upper side of a depth equal to the thickness of the metal of which the clamp-bar is formed whereby said clamp-bar will seat in said recess with its upper surface flush with the upper surface of the slats said slat recesses also serving to receive the clamp bars so that the latter will hold the slats against either lateral or lengthwise displacement with respect to the cross-bars and avoid fastening devices in the slats themselves.

2. In a device of the character described the combination with a plurality of channel-bars which are flat at their two ends and are concave in a longitudinal direction between said flat ends said bars being open at each end between the side flanges which form the channel and the upper surface of each channel-bar being free of projections, of a series of slats laid upon the upper surface of the channel-bars and extending at right angles with respect to the latter, a spacer bar extending over each channel bar and each spacer bar having means for engaging each slat to space the slats one from the other said spacer bars also holding the slats against longitudinal movement and in a direction at right angles to the channel bars and the opposite ends of the spacer bars being clinched around and under the open ends of the channel bars between the side flanges of the latter, and casters beneath the ends of the channel bars.

In testimony whereof I affix my signature.

JOHN M. BUSH.