Aug. 23, 1955 F. O. RITTER 2,716,181

HEATED CREEPER

Filed Dec. 14, 1954 2 Sheets-Sheet 1

Fig. 1

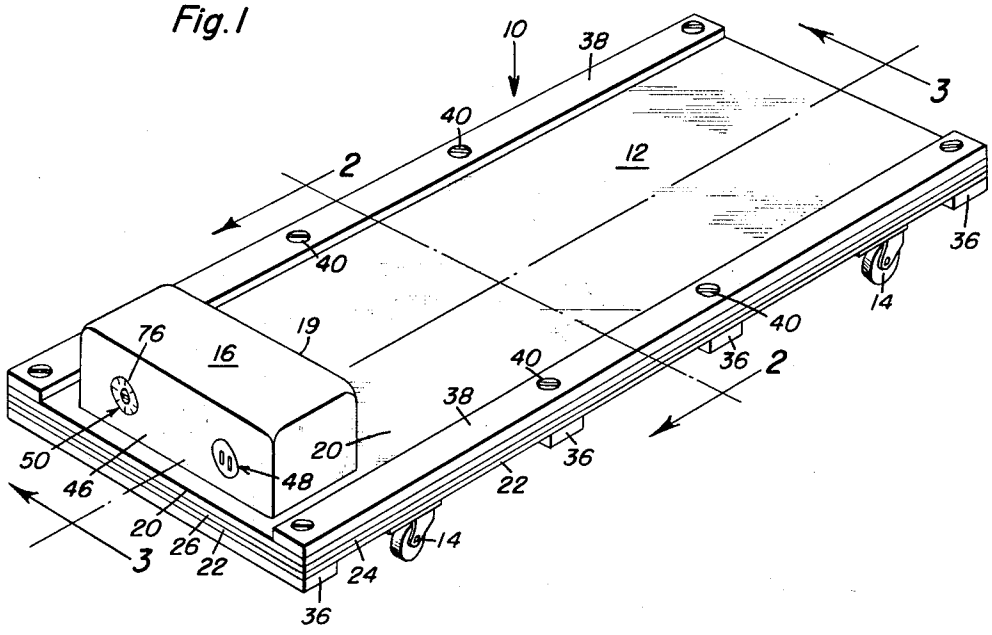
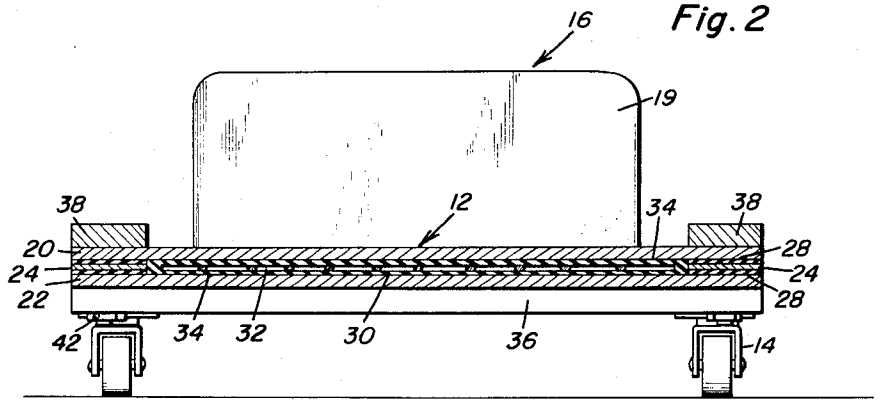


Fig. 2



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Aug. 23, 1955 F. O. RITTER 2,716,181

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Filed Dec. 14, 1954 2 Sheets-Sheet 2

Fig. 3

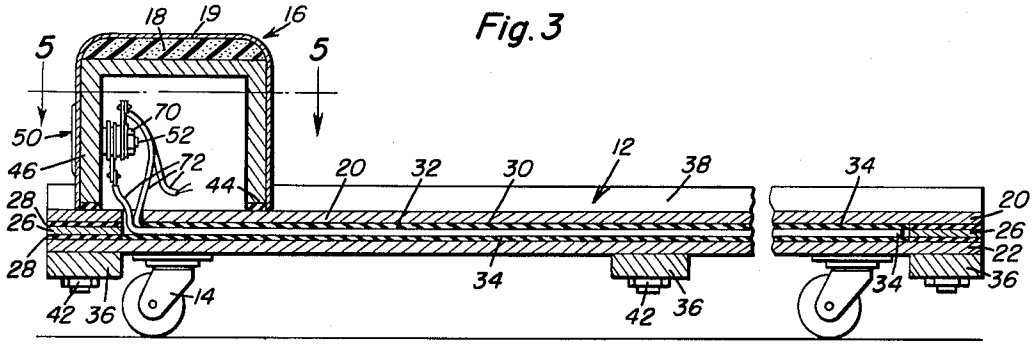
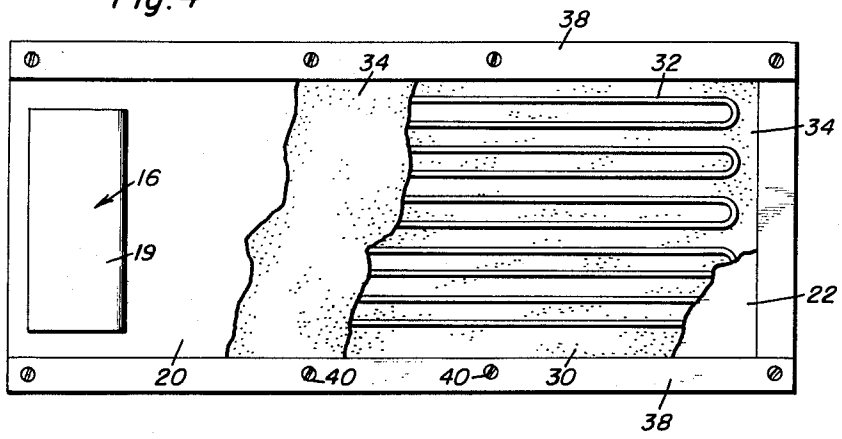


Fig. 4



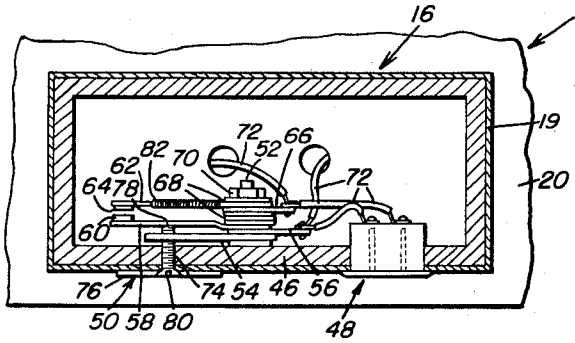


Fig. 5

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HEATED CREEPER

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4 Claims. (Cl. 219—19)

This invention relates to devices designated as "mechanics' work creepers" and is more specifically concerned with providing a heated mechanic's work creeper which makes it possible for the mechanic to be more comfortable while working in damp or frigid places, and protecting the health of the mechanic utilizing this device.

Electrically heated work creepers prior to this invention, to the best of present knowledge, had serious drawbacks, to the extent of being dangerous to the user. Generally, these work creepers were constructed of metal plates. Inasmuch as the electrically heated creeper was generally used during intemperate weather, i. e., when snow and rain would accumulate as excess water on the floor of a garage, and inasmuch as the creeper is relatively close to the ground level, the danger of the shorting out of the creeper and hence shocking the operator of the device was always present. In addition to the aforementioned danger, electrical work creepers of the past, to the best of present knowledge, required constant adjustment after they heated up or failed to provide sufficient heat. The constant necessity for manually adjusting the heat output of the electrically heated creeper provided a source of interruption to the relatively high paid mechanic as well as a constant source of irritation.

Thus, a principal object of this invention is to provide an electrically heated work creeper providing a constant and safe heat output.

A further object of this invention is to provide an electrically heated work creeper including an automatically controlled heat output minimizing danger from electrical shock to the operator or user of the device.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a perspective view of the novel work creeper;

Figure 2 is an enlarged sectional view taken on line 2—2 of Figure 1;

Figure 3 is an enlarged longitudinal sectional view taken on line 3—3 of Figure 1, the central portion of which is not being shown;

Figure 4 is a top plan view on a somewhat reduced scale, with parts broken away to show internal construction; and

Figure 5 is a sectional view taken on line 5—5 of Figure 3.

The electrically heated work creeper indicated generally by reference character **10** includes an elongated substantially rectangular body support platform **12** having pivotally secured on its underside adjacent each of the corners thereof caster wheels **14** to provide ready mobility of the device. On the upper side of platform **12** adjacent one of the ends is a raised head rest **16** which may be substantially rectangular, as shown, for

example, in Figure 3, being padded with foam rubber **18** and being covered by leather or any suitable plastic **19**, in any suitable manner. The head rest element is hollow, as seen in Figures 3 and 5, and contains therein thermostat structure and an electrical inlet plug, which will later be described in greater detail.

The body support platform **12** includes two primary upper and lower panels **20** and **22**, respectively. The panels **20** and **22** are equal to the outer dimensions of the novel creeper, and are spaced in parallel relationship by means of a plurality of longitudinal and transverse spacer strips **24** and **26**, respectively. Interposed between the spacer strips **24** and **26** adjacent the main panels **20** and **22** is a suitable sealing or gasket material **28**. The aforementioned main panels and spacers cooperate to form an internal heat chamber **30** which is substantially water-tight. Covering substantially the entire area of chamber **30** is a suitable heating element **32** which is surrounded above and below and adjacent the sides and ends of the compartment by a suitable insulating material **34**, such as fiber glass, which retains the heat of the heating element as well as preventing dampness and shorting out of the heating element. To provide suitable rigidity and strength to the work creeper, transverse reinforcing strips **36** are provided at spaced intervals along the underside of the creeper adjacent panel **22**, and longitudinal reinforcing strips **38** are provided on the outer edges of the upper panel **20**. The body supporting portion of the creeper is assembled and secured together by means of suitable fastening elements, such as bolts with countersunk heads **40** and cooperating nuts **42**. The head rest **16** is suitably secured to the portion **12** in any suitable manner, and may be provided with sealing means **44** of rubber or any suitable material to further ensure against the entrance of moisture inside the electrically heated creeper. On the rear wall **46** of the head rest are included a power inlet plug indicated generally at **48** and an adjustable heat responsive rheostat indicated generally at **50**. Although the aforementioned controls are indicated as being on the rear wall **46**, it is readily apparent that the controls might be secured to either of the end walls or in any suitable position on the work creeper. The power inlet plug is to be connected to a conventional male plug and flexible outlet cable of sufficient length to provide ready mobility of the creeper.

The adjustable heat responsive thermostat consists of a mounting bolt **52** mounted in any suitable manner on the end wall **46** and having mounted thereon an adjusting support **54** of a suitable non-conducting material, such as plastic, having adjacent thereto a first conductor plate **56** which extends toward the power inlet plug in juxtaposition with a first contact support arm **58** which has secured on its end a suitable contact element **60**. Separated from the first contact support arm is a second bimetallic heat responsive second contact support arm **62** having secured thereon, in a position to contact contact element **60**, a contact element **64**. In juxtaposition to the second contact support arm **62** is a suitable second conductor plate **66**. Suitable insulators **68** are provided between the metal conducting parts and a securing nut **70**. It is to be understood that the bolt **52** is properly insulated away from any metal conducting parts. The power inlet plug **48**, the first conductor plate and first contact support arm, second contact support arm and conductor plate and the heater element **32** are connected in series by means of suitable conducting wires **72**, as clearly seen in Figures 3 and 5. Threadedly supported by the support element **54** and extending on the outside of the head rest **16** is a thermostat adjustment screw **74** having secured thereon a suitable temperature indicating dial **76**. The screw **74** includes on its end ad-

jacent the contact support arm 58 an insulating portion 78 and at its opposite end on the exterior a screwdriver receiving slot 80. The previously mentioned second heat responsive bimetallic contact support arm, as indicated in Figure 5, includes the bimetallic portion 82 which, when subjected to excessive heat above a predetermined temperature, tends to bend away from the contact 60 separating the contact thereof from contact 64 to interrupt the flow of current to the heating element 32.

Thus, it can be seen I have provided a substantially automatically heating mechanic's work creeper which has minimized the possibility of shorting and shocks to the user thereof for the protection and comfort of the user.

Various positional directional terms, such as "front" or "rear" have only a relative connotation to aid in describing the device and are not intended to be interpreted as requiring any particular orientation with respect to any external elements.

From the foregoing, the construction and operation of the device will be readily understood and further explanation is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the appended claims.

What is claimed as new is as follows:

1. A mobile work creeper constructed substantially of non-conducting material comprising a creeper body including upper and lower panels secured at their adjacent peripheral edges in spaced relation to define an inner compartment substantially coextensive with said panels, the upper panel including on its surface adjacent its opposite side edges longitudinally extending reinforcing strips extending the length of said upper panel, the lower panel including on its lower surface a plurality of reinforcing elements extending across the width of said lower panel, transverse and longitudinally extending spacer strips extending between the inner surfaces of said panels around the entire perimeter thereof, a sealing gasket interposed between said panels and both sides

of said spacer strips around the entire perimeter of said panels, fastener elements extending through the reinforcing strips, spacer strips, sealing gasket, and panels along the longitudinal edge of said creeper, an electrical heating element comprising a plurality of longitudinally extending bends of a single heating element comprising a plurality of longitudinally extending bends of a single heating element contained in said inner compartment, insulating means substantially enclosing the entire heating element on all sides for preventing heat loss and reducing the entrance of moisture in said compartment, a head rest including a substantially hollow interior at one end on the top of the creeper body, a power inlet plug secured on said head rest, and a heat responsive thermostat connected in series to said power inlet plug and heating element.

2. A mobile work creeper as set forth in claim 1 wherein said head rest includes sealing means juxtaposed between a contacting portion of the head rest and the creeper body, and sealing means are provided between the adjacent upper and lower panels of the creeper body to substantially seal the inner portion of the head rest and inner compartment from the entrance of moisture and for retaining heat in said creeper body.

3. A mobile work creeper as set forth in claim 2 wherein said heat responsive thermostat is manually adjustable by means of a manually operable element accessible on the outside of said head rest.

4. A mobile work creeper as set forth in claim 3 wherein said heat responsive thermostat includes a heat responsive bimetallic temperature control element operable to contact an adjacent conducting element for maintaining controlled temperature in said work creeper.

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