Nov. 29, 1960 C. A. MALAMI 2,962,293

WORKSTAND

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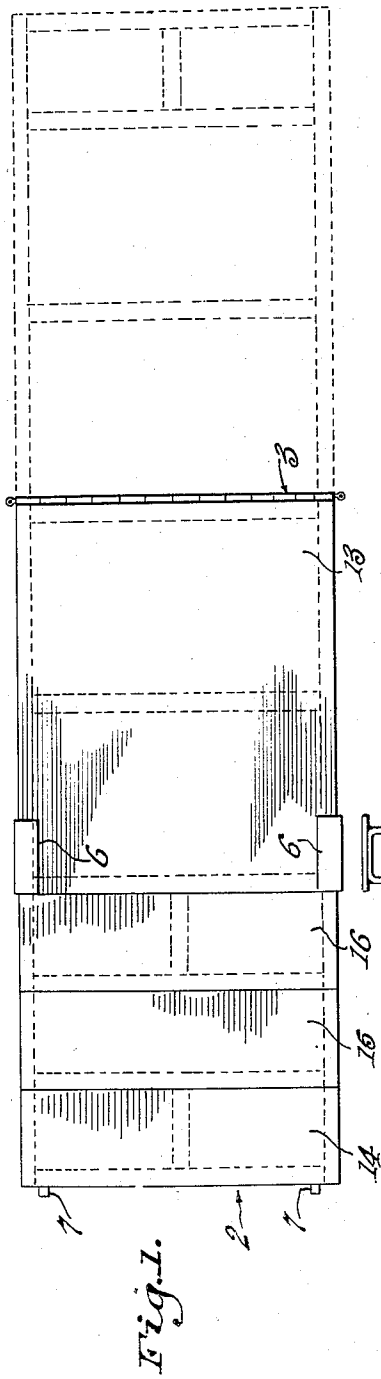


Fig. 1.

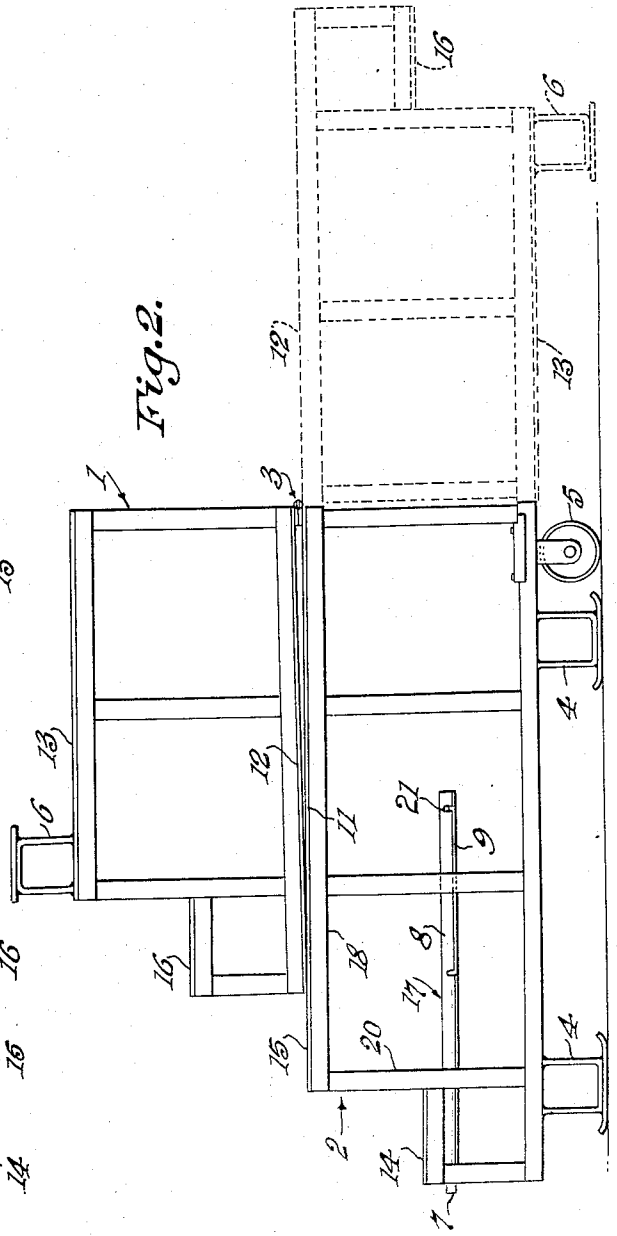


Fig. 2.

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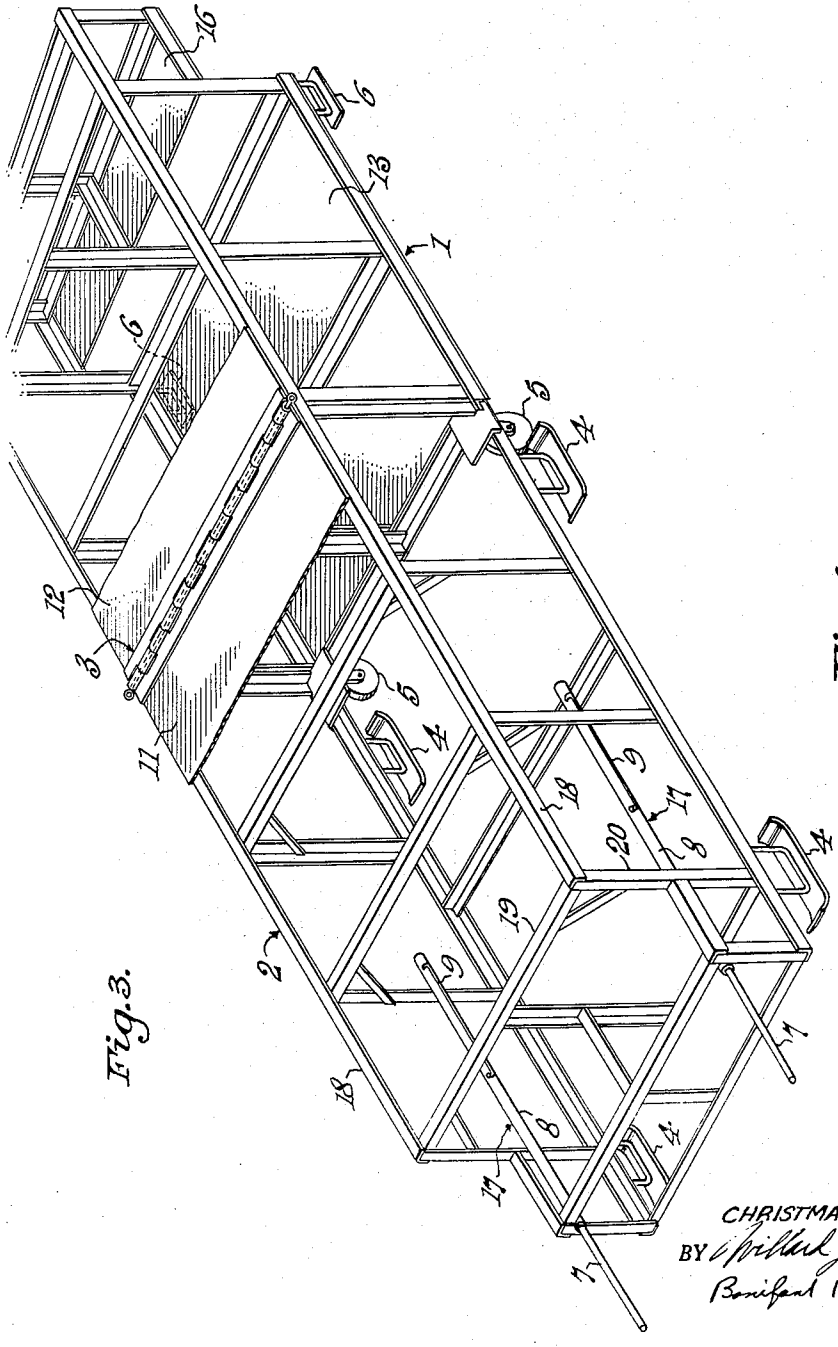


Fig. 3.

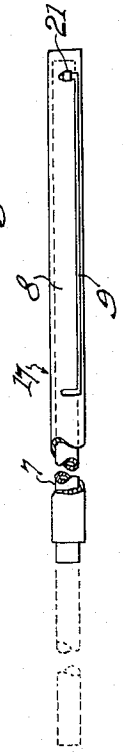


Fig. 4.

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WORKSTAND

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3 Claims. (Cl. 280—36)

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The invention described herein may be manufactured and used by or for the Government for governmental purposes without the payment of any royalty thereon.

The present invention relates to a workstand and more particularly to a low level workstand which is portable and hinged near its midlength so that the working level of the stand may be raised or lowered.

One object of the invention is to provide a simple but sturdy workstand which may be adjusted to at least two different working heights and easily movable from place to place. Although such a stand is particularly desirable and convenient for use in aircraft maintenance work, it may be used in many different capacities.

Further objects and a more complete understanding of the invention may be obtained by referring to the following description and claims taken in conjunction with the accompanying drawings which show an illustrative embodiment of the construction forming the basis of the invention and in which:

Fig. 1 is a plan view of the device;

Fig. 2 is a side elevation view of Fig. 1;

Fig. 3 is a perspective view showing the device in its lower, extended position and showing its structural details;

Fig. 4 is a detailed view of the telescoping lifting arms which are attached to the frame.

The workstand comprises essentially two framed sections generally indicated at **1** and **2**, each having a plurality of longitudinal, transverse, and vertical supporting and reinforcing members **18**, **19**, **20**, steps and cover plates which are more particularly described herein. Material may be of any type providing necessary strength; however, to enable reasonable ease of movement, light weight material, light metals such as magnesium or aluminum or alloys thereof (e.g. "magnalium"), should be used.

Referring more in detail to Fig. 2, when the workstand is in folded condition upper section **1** rests on top of lower section **2** and is hinged thereto by hinge structure **3**. Access to upper section **1** is by steps **14** and **15** on one end of section **2** and step **16** on one end of section **1**. Step **15** is part of the top of lower section **2**. Lower section **2** is supported by legs **4** presenting a broad flat surface to the ground to prevent excessive penetration by the legs if the ground is soft.

A lower working platform may be obtained by rotating upper section **1** about hinge structure **3** until upper section **1** occupies a position as a longitudinal extension of lower section **2**, as shown in dotted lines in Fig. 2 and in full lines in Fig. 3. In this position, additional support is provided by legs **6**, and an extended working area is available. Section **2** is longer than section **1** so that hinge structure **3** is located slightly past midlength location of the combined structure of sections **1** and **2** when in the relative positions shown in Fig. 3. When upper section **1** is rotated so as to rest on top of lower section **2**, step **15** presents the same surface area as steps **14** and **16**, thus making available convenient access to uppper section **1** in its raised position.

The workstand has three platform working surfaces. The working surface for lower section **2** is indicated by **11**, and **12** and **13** indicate the two working surfaces for upper section **1**. Working surface **13** is on the top of upper section **1**, and working surface **12** is on the under side of upper section **1** when the workstand is in the raised position. When upper section **1** is rotated to its lower working position, working surface **12** becomes, in effect, an extension of working surface **11** of lower section **2**.

To enable convenient movement of the workstand from place to place, wheels **5** and handles **17** including telescoping rods **7** are affixed to the frame of lower section **2**. With rods **7** in their extended position and with upper section **1** resting on top of lower section **2**, the workstand may be moved by one person in wheelbarrow fashion.

Referring to Fig. 4, handles **17** comprise tubular receiving member **8** having elongated U-shaped slot **9** and rod **7** of circular cross section slidably mounted within receiving member **8** with pin **21** affixed to rod **7** and adapted to move within slot **9**. Thus, rod **7** may be retained in its retracted or inoperative position or pulled out and retained in its extended or operative position.

Hinge structure **3** presents a substantially flat and continuous surface from working surface **11** to working surface **12** when upper section **1** is in its lower or extended position. Hinge structure **3** is of piano type hinge construction with the pin thereof being divided at its midlength so as to form two pins capable of easy removal and insertion at opposite ends of the hinge. Thus, if only the lower platform is desired for use, the upper platform may be removed temporarily.

I claim:

1. A portable workstand comprising a first framed section and a second framed section and support means for each section, said first framed section having a top cover plate and a stepped configuration at one end thereof, said second framed section having a top cover plate and a bottom cover plate and a projecting portion at one end thereof, hinge means vertically rotatably interconnecting adjacent ends of the sections so that said second framed section may be rotated in a vertical plane between a position defining a longitudinal extension of said first framed section and a folded position on top of said first framed section, said projecting portion coacting with said stepped configuration when said first and second framed sections are in folded position to provide steps joining said first and second sections, the steps for the sections being on an end of the sections opposite to the hinge means, said first framed section having at one end handles for lifting and at the other end wheels for moving said workstand.

2. A portable workstand comprising a first framed section and a second framed section and support means for each section, said first framed section having a top cover plate and a stepped configuration at one end thereof, said second framed section having a top cover plate and a bottom cover plate and a projecting portion at one end thereof, separable hinge means between said first and second framed sections being located at the upper edge of one end of said first framed section for quick detachment of said second framed section and for vertical rotation of said second framed section relative to said first framed section from a position defining a longitudinal extension of said first framed section to a folded position on top of said first framed section, said second framed section having a maximum length less than the minimum length of said first framed section by the breadth of a step and said projecting portion coacting with said stepped configuration when said first and second framed sections are in folded position to provide outwardly projecting steps joining said first and second sections, the steps being

of substantially equal width and height and successively equally indented and extending from an end of each section opposite to the hinge means.

3. A portable workstand comprising a first framed section and a second framed section, said first framed section having a top cover plate, said second framed section having a top cover plate and a bottom cover plate, separable hinge means between said first and second framed sections located at the upper edge of one end of said first framed section for quick detachment of said second framed section and for vertical rotation of said second framed section relative to said first framed section from a position defining a longitudinal extension of said first framed section to a folded position on top of said first framed section, said first framed section having the same width but slightly greater length than said second framed section, said first and second framed sections each having step projections on an end opposite to the hinge means such that when said second framed section is in its folded position a series of successively indented steps is formed from ground level to top cover plate of said second framed section folded and longitudinally extended positions, said first framed section having a pair of wheels attached adjacent to the bottom edge which is adjacent to said second framed section when said sections are in longitudinally extended position, and a pair of longitudinally projecting telescoping handles attached to said first framed section adjacent to the under surface of the lowermost step projection to permit movement of the workstand.

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