July 25, 1961 F. A. HOLLOMON 2,993,560

WORKSTAND

Filed Sept. 23, 1959

Fig. 1

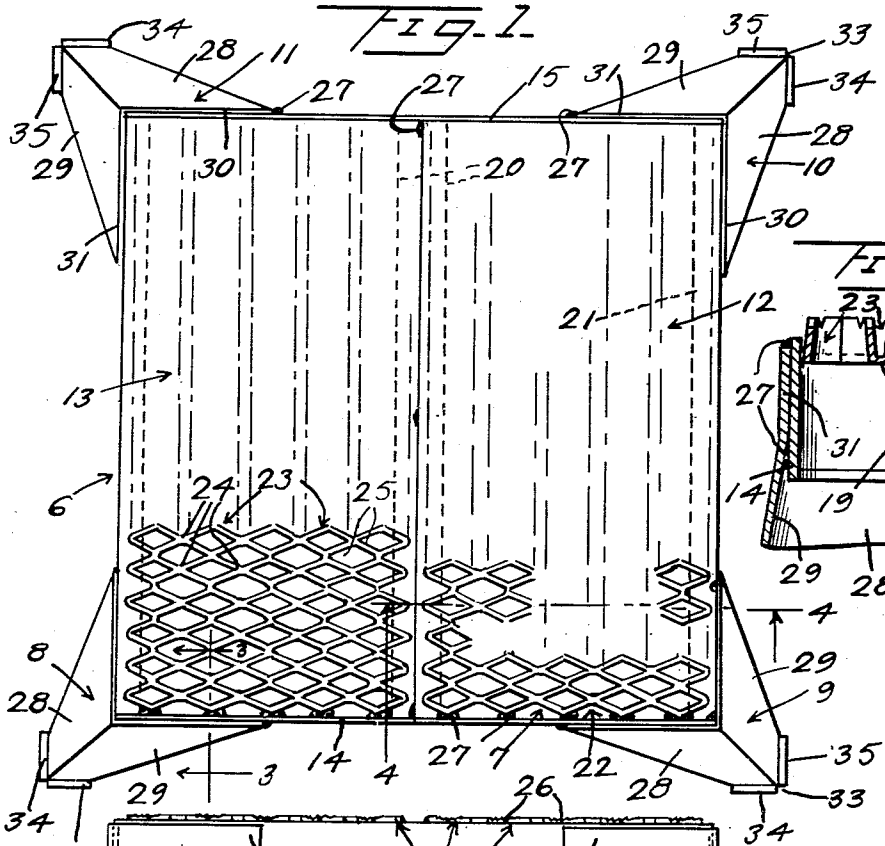


Fig. 3

Fig. 2

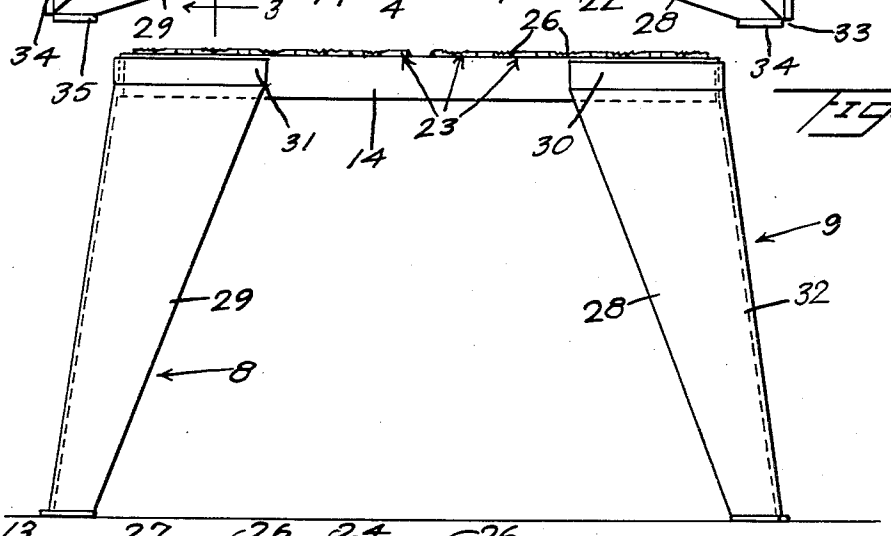
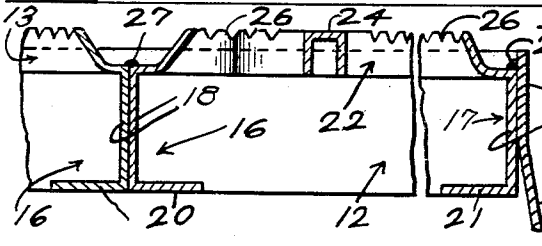


Fig. 4



INVENTOR

FRANK A. HOLLOMON

BY John N. Randolph

ATTORNEY

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WORKSTAND

Frank A. Hollomon, 1804 Myrtle Road
Silver Spring, Md.

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This invention relates to a unique workstand of extremely simple construction which is capable of supporting heavy loads yet which is sufficiently light in weight so that it can be readily carried by a workman.

A primary object of the present invention is to provide a workstand which may be utilized as a platform for supporting one or more workmen and which is primarily adapted for replacing a ladder where the work requires only that the workman be elevated from one to two feet above the ground or a floor surface.

Another object of the invention is to provide a stand which is capable of simultaneously supporting two or more workmen with a maximum of safety and which may be utilized for supporting loads up to a thousand pounds.

A further object of the invention is to provide a stand which is extremely stable and will not overturn when all of the weight supported by the stand is concentrated over an edge or corner thereof.

Still another object of the invention is to provide a stand having corner supporting legs which are so constructed that the legs and stand-top will flex to stabilize the stand, even when one of the legs is resting upon a surface which is disposed above the level of the surface supporting the other three legs, or even where two diagonally opposite legs rest upon a surface which is higher than the surface on which the other two legs rest.

Still a further and particularly unique feature of the stand resides in the fact that the stand, after having been stabilized on an uneven supporting surface by the application of a load thereto, will maintain its stabilized position, after removal of the load and until a part of the stand is lifted.

Various other objects and advantages of the invention will hereinafter become more fully apparent from the following description of the drawing, illustrating a presently preferred embodiment thereof, and wherein:

FIGURE 1 is a top plan view of the workstand;

FIGURE 2 is a side elevational view thereof;

FIGURE 3 is an enlarged fragmentary sectional view taken substantially along a plane as indicated by the line 3—3 of FIGURE 1, and

FIGURE 4 is a sectional view taken approximately at a right angle to FIGURE 3, substantially along a plane as indicated by the line 4—4 of FIGURE 1, through a part of the stand.

Referring more specifically to the drawing, the workstand in its entirety is designated generally **6** and includes a top or platform **7** which is preferably square, and which is supported in an elevated position by four corresponding supporting legs **8**, **9**, **10** and **11** which are secured to and extend downwardly and outwardly from the four corners of the top or platform **7**, in diverging relation to one another.

The top or platform **7** is composed of two sections **12** and **13** and two steel bars or strips **14** and **15**. The two sections **12** and **13** are identical and each comprises an elongated piece of sheet steel having corresponding side edge portions which are turned downwardly and inwardly to form channel portions **16** and **17** having substantially parallel bar portions **18** and **19**, respectively, and substantially coplanar bottom portions **20** and **21**, respectively, as best seen in FIGURE 4. The part of each sheet disposed between its side edge portions **16** and **17** and extending from end-to-end thereof is reticulated or expanded to form a grillwork **22**, preferably composed of a multiplicity of upwardly expanded interconnected diamond shaped parts **23** which are connected to one another by bridging portions **24** at the upper surface of the grillwork **22**, as best seen in FIGURE 4, and by bridging portions **25** at the underside of the grillwork **22**, as best seen in FIGURE 3. The bridging portions **24** and **25** are disposed in staggered rows longitudinally of the sections **12** and **13**, as seen in FIGURE 1. The upper edges of the individual diamond shaped parts **23** are serrated, as seen at **26**, to provide a roughened top surface for the table-top or platform **7** to minimize slippage of a load placed thereon.

The outer sides of the bar portions **18** of the two sections **12** and **13** are secured together in abutting engagement as by welding, as indicated at **27**, with the sections **12** and **13** disposed substantially coplanar. Thus, the two inner channel portions **16** which are thus connected together form an I-beam, as seen in FIGURE 4. The bars **14** and **15** are secured by additional welds **27** to the diamonds **23** disposed at the ends of the sections **12** and **13** and also to the ends of the channels **16** and **17** of both of said sections. Said bars **14** and **15** combine with the bar portions **19** of the outer channels **17** to form a surrounding frame of the top or platform **7**, to the corners of which the four legs **8**, **9**, **10** and **11** are secured.

Each of the legs is preferably formed of sheet steel which is creased lengthwise midway of its side edges to provide two corresponding sides **28** and **29** which are disposed approximately at a right angle to one another. The sides **28** and **29** have corresponding top portions **30** and **31**, respectively, which bear flush against the two sides of a corner of the surrounding frame of the top or platform **7** and which are secured thereto by additional welds **27**, as clearly illustrated in FIGURE 1. The sides **28** and **29** of each leg extend downwardly and outwardly at a slight incline from the upper leg portions **30** and **31**, respectively, thereof, and said leg portions **28** and **29** taper in width downwardly from the portions **30** and **31**, respectively. The leg portions **28** and **29** combine to form a ridge **32** constituting the outermost edge of each leg and which is likewise inclined downwardly and outwardly from the corner of the platform **7** to which said leg is secured. A notch **33** is cut from each leg at the lower end of the ridge **32** thereof and the lower ends of the sides **28** and **29** of each leg are turned outwardly to form coplanar foot members **34** and **35**, respectively, which are adapted to rest upon a supporting surface, and all of which foot members are normally disposed coplanar and in a plane parallel to the plane of the upper surface of the top or platform **7**.

The stand **6** may be made in various sizes. It has been found that the stand **6** having a height of approximately eighteen inches and a top or platform which is approximately two feet square will be self-stabilizing even when the foot members of one of the legs thereof is resting upon a surface which is as much as one and one-half inches above the level of the surface on which the foot members of the other three legs rest. Stabilizing of the stand on such an uneven surface is effected by a load being placed upon the platform **7**. When this occurs, a flexing of the platform **7** results, as well as a slight yielding of the legs, so that the foot members **34** and **35** of the four legs all assume positions in flush engagement with the supporting surface, even though the foot members of one of the legs is at a level of as much as one and one-half inches above the level of the foot members of the other three legs. In addition, it has been discovered that when the workstand **6** is thus deformed and has stabilized itself it will remain stabilized when the load is removed therefrom and until a part of the stand is

lifted. When this occurs, the parts spring back and resume their normal positions relative to one another.

Due to the excellent stability of the stand, the entire load supported by the stand may be located directly over any corner thereof or along any side edge of the platform 7 and the stand will not overturn, even when the stand is resting on a supporting surface which is not level and the foot members of one of the legs are above the level of the foot members of the other three legs.

The I-beam and surrounding frame provide sufficient reinforcement for the platform 7 to enable a stand 6, of the aforementioned size, to readily support a load of as much as one thousand pounds, while still permitting the platform to yield sufficiently so that the workstand will be self-stabilizing.

Various modifications and changes are contemplated and may be resorted to, without departing from the function or scope of the invention as hereinafter defined by the appended claims.

I claim as my invention:

1. A self-stabilizing workstand comprising a substantially rectangular platform formed of sheet metal having a top surface of grillwork construction, supporting legs secured to and extending downwardly and outwardly at an incline from the four corners of said platform, said platform including two sheet metal sections having adjacently disposed inwardly turned back side edge portions forming channel portions secured together in abutting engagement to form an I-beam and inwardly turned back outer side edge portions forming outer channel

portions, said sections having reticulated portions extending between said inner and outer channel portions thereof and from end-to-end of the sections and forming the grillwork top of the platform, and steel bars rigidly secured to the ends of the reticulated portions and to the inner and outer channel portions of both of said sections and combining with the outer chanel portions of the sections to form a frame of the platform, said channel portions of the sections being disposed below the grillwork top of the platform, and said platform flexing to effect self-stabilizing of the stand when a load is placed upon the platform and when the surface supporting one of the legs is disposed above the level of the surface supporting the other legs.

2. A workstand as in claim 1, said legs being connected to one another solely by the connection of the legs to the platform and each being of angular cross section and composed of two corresponding sides, each leg tapering in width toward its lower end and having an outturned bottom part forming a foot member.

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