Dec. 14, 1971 J. W. BAKER 3,626,519

STILTS

Filed Oct. 20, 1969

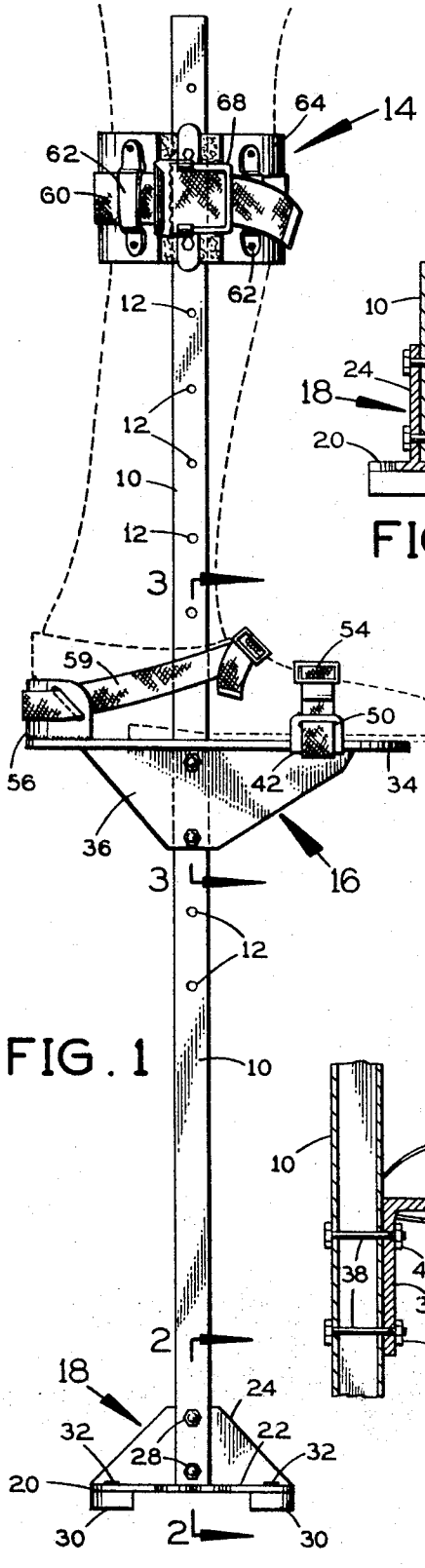


FIG. 1

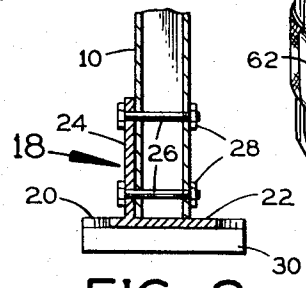


FIG. 2

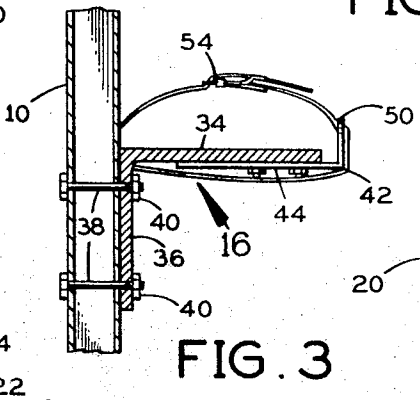


FIG. 3

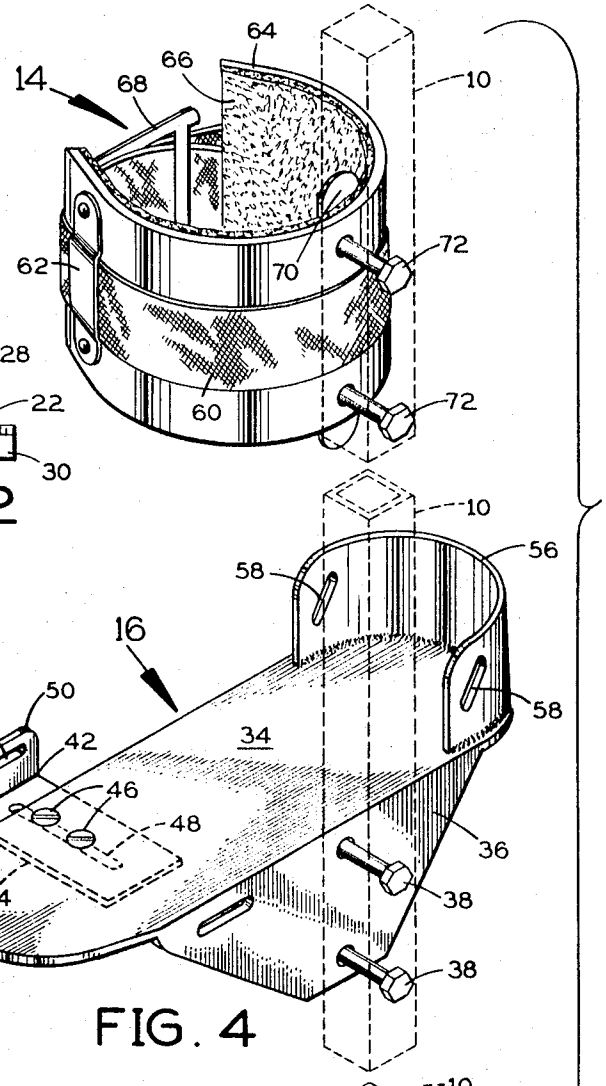
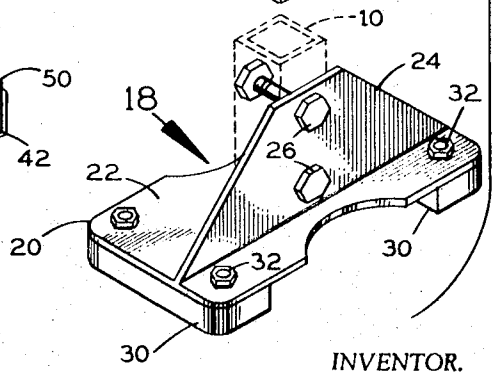


FIG. 4



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United States Patent Office 3,626,519
Patented Dec. 14, 1971

3,626,519

STILTS

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Filed Oct. 20, 1969, Ser. No. 867,624
Int. Cl. A61f 3/00
U.S. Cl. 3—4 3 Claims

ABSTRACT OF THE DISCLOSURE

A stilt for a pair of stilts including a tubular post which is square or rectangular in section, a stirrup for the post in the form of an angle extrusion fastened to the post with bolts, a foot for the post in the form of a T-shaped extrusion secured to the bottom end of the post with bolts, and a legging secured to the upper end portion of the post with bolts. The bolts for the stirrup and the legging are movable to permit adjustment of the height of the stirrup and the leging. The stirrup also includes a cleat and a heel plate with straps over the same which encircle the foot of the user.

BACKGROUND OF THE INVENTION

Stilts which are known to the present inventor utilize a round post with a stirrup, a legging and a foot all secured to the post. The fastening of the stirrup, legging and foot to the post has been accomplished with round collars and set screws. Such stilts are often used by plasterers and other workmen, and dirt and debris tend to get inside the collar making it very difficult if not impossible to adjust the position of the stirrup and the legging. The stirrup and the foot have usually been cast pieces. Such castings require considerable labor and time to manufacture, and casting defects sometimes occur which weaken the structure undesirably. Furthermore, the cast foot and stirrup tend to slip relative to the post, and if they are secured too tightly with set screws, the post may become deformed, or weakened. In general, considerable difficulty has been encountered with stilts employing round posts, cast stirrups and feet, and collar type means for attaching the stirrup and feet to the post.

SUMMARY OF THE INVENTION

In the stilt of the present invention, the post is square or rectangular in section, and the stirrup and foot are aluminum extrusions such that all parts of the metal structure of the stilt are light in weight and yet durable and strong. The stirrup is an angle extrusion having an attachment plate section and a foot plate section at right angles to each other, and the attachment plate section is fastened to a flat face of the post with bolts which extend through holes in the post. The foot is a T-shaped extrusion including a base plate section and an attaching plate section, and the attaching plate section is fastened to a flat face of the post with bolts so that the base plate section is under and butts up against the end of the post to support the post. The stirrup extrusion and the foot extrusion are not brittle and do not break easily since they tend to bend rather than break. A bent foot or stirrup can be easily repaired. The legging is also fastened to the post with bolts, and the stirrup and legging both can be moved vertically to different positions to adjust the height of these items due to a series of apertures in the post for receiving the stirrup and legging bolts. A cleat and a heel plate are also provided for the stirrup together with straps for encircling the foot of the user.

Accordingly, it is an object of the present invention to provide a stilt for a pair of stilts in which stirrup and foot components are aluminum extrusions.

Another object of the invention is to provide a stilt

with an angle shaped stirrup extrusion and a T-shaped foot extrusion.

A further object of the invention is to attach the stirrup and foot extrusions to flat surfaces of the post for the stilt, the post being square or rectangular in section.

Another object of the invention is to adjustably position a stirrup and a legging of the stilt by means of bolts which pass through openings in the post of the stilt, there being a series of openings spaced lengthwise of the post to permit repositioning of the legging and stirrup.

Another object of the invention is to provide a stilt in which a square or rectangular post provides flat faces which facilitate attachment of legging, stirrup and foot sections of the stilt.

Other objects of this invention will appear in the following description and appended claims, reference being had to the accompanying drawings forming a part of this specification wherein like reference characters designate corresponding parts in the several views.

On the drawings:

FIG. 1 is an elevational view of a stilt in accordance with a preferred embodiment of the invention;

FIG. 2 is a fragmentary sectional view taken along line 2—2 of FIG. 1 and showing a foot portion of the stilt;

FIG. 3 is a fragmentary sectional view taken along line 3—3 of FIG. 1 and showing a stirrup section of the stilt; and

FIG. 4 is a perspective view of the stilt, partly cut away, with the post being shown in dotted lines.

Before explaining the present invention in detail, it is to be understood that the invention is not limited in its application to the details of construction and arrangement of parts illustrated in the accompanying drawings, since the invention is capable of other embodiments and of being practiced or carried out in various ways. Also, it is to be understood that the phraseology or terminology employed herein is for the purpose of description and not of limitation.

As shown on the drawings:

The stilt of the invention includes a tubular aluminum post **10** which is square or rectangular in cross-section, a square post being shown in the drawings. The post **10** has a series of openings **12**, on opposite sides thereof and spaced lengthwise along the post **10** from a point slightly below the mid-point of the post toward the top end of the post. Similar openings are also provided at the bottom end of the post as will be described further. The stilt also includes a legging **14**, a stirrup **16** and a foot **18**.

The foot **18** is in the form of a T-shaped aluminum extrusion **20** which has a base plate section **22** and an attaching plate section **24** at a right angle to each other. The reason for making the foot in the form of a T-shaped extrusion is that an extrusion can be fabricated with less labor and with less time than other types of structures such as castings, and there is less chance for defects in the structure. The attaching plate section **24** is attached to the lower end of the post **10** with bolts **26** which extend through the lower openings in the post **10** and are secured in place with nuts **28**. The attaching plate **24** butts up against a flat face of the square post **10** and so is held firmly in place by the bolts **26**. This positions the base plate section **22** directly under and butting up against the bottom end of the post **10** with the base plate section **22** being perpendicular to the post **10**. Pads **30** which may be made of rubber are secured to the base plate section **22** with bolts **32**. The foot **18** may be detached and replaced with an identical but larger foot for some applications.

The stirrup **16** is in the form of an angle-shaped aluminum extrusion having a foot plate section **34** and an attachment plate section **36** at a right angle to each other. The attachment plate section **36** is fastened to the post **10**

with bolts **38** which extend through selected ones of the openings **12** and are secured in place with nuts **40**. The attachment plate section **36** butts up flat-wise against a flat face of the post **10** and therefore is also secured firmly in place. This positions the foot plate section **34** at a right angle to the post **10** so that a person can step on the foot plate section as shown in FIG. 1. The aluminum extrusion for the stirrup **16** is advantageous for the same reasons mentioned previously; that is, it is less costly and less time consuming to fabricate, and there are fewer chances for defects and less brittleness in the structure. The stirrup **16** also includes a cleat **42** which has one leg **44** secured to the foot plate section **34** with bolts **46** that are received in an elongated slot **48** in the leg **44** to permit adjustment of the position of the cleat **42**. The cleat **42** has an upwardly extending leg **50** with an opening **52** therein which receives a pull strap **54** with a buckle thereon for fastening the foot of the user to the foot plate section **34** in the manner shown in FIG. 1.

Also included in the stirrup **16** is a heel plate **56** that is welded to the rear portion of the foot plate section **34** and has slots or apertures **58** for receiving a strap **59** for encircling the foot of the user as shown in FIG. 1. The heel plate **56** is curved to conform to the heel of the user's foot, and both the heel plate **56** and the cleat **42** may be either extrusions or they may be cut from strip stock and bent to shape. Both of these items are preferably made of aluminum.

At the top of the post **10** is the legging **14**. The legging consists of a strap **60** passing through loops **62** on a leather binding **64** provided with a pile lining **66**, with the strap **60** having a buckle **68** for fastening it around the leg of a person as shown in FIG. 1. Inside the strap there is a metal strip **70** (FIG. 4) which reinforces the strap **60** and the binding **64**, and this strip **70** is attached to a post **10** along with the strap **60** and binding **64** by bolts **72** which pass through the post and also through the binding **64** and the strip **70**. Nuts are provided on the inner end of the bolts **72**. The legging **14** is on the same side of the post as the stirrup.

Both the legging and the stirrup may be moved to different positions merely by detaching the bolts **38** and **72** and moving them with the legging and stirrup to the different selected positions on the post **10** where the bolts can pass through selected ones of the holes **12**. The attachment of the stirrup and legging to the square post with straight bolts in the manner shown prevents twisting or turning of the legging and stirrup, and mounts them in a very secure fashion. Since the stirrup and the legging may be completely removed to readjust their positions, there is no problem of dirt getting into sliding collars or similar attachment devices and thus interfering with adjustment of the legging and stirrup. As previously mentioned, the extrusions for the stirrup and the foot are advantageous from a manufacturing standpoint both as to labor and time involved in manufacturing, and the extrusions are strong and durable.

Having thus described my invention, I claim:

1. A stilt comprising a rigid, unitary tubular post of squared section, a foot in the form of a unitary aluminum T extrusion secured to a bottom end of said post, said foot comprising a horizontal base plate section with a vertical plate section centrally thereof bolted to said bottom end of said post, a stirrup secured to said post in a position spaced above said foot, legging means secured to said post above said stirrup, said stirrup comprising a unitary aluminum angle extrusion having a foot plate section and an attachment plate section at a right angle to each other, said attachment plate section having bolt openings therein, said legging means having an attachment strip with bolt openings therein, said post having a series of bolt openings in pairs on opposite sides of said post spaced longitudinally thereof at which said stirrup and said legging means may be selectively positioned, bolts extending through selected pairs of said post openings and said attachment strip openings fastening said legging means to said post, bolts extending through selected pairs of said post openings and said stirrup openings and fastening said attachment plate section flatwise relative to one flat face of said post and projecting down from said foot plate section to thereby position said foot plate section at a right angle to said post in position to receive the foot of a user, said bolts being detachable to permit movement of said legging means and said stirrup to different positions whereby said bolts may be relocated in said stirrup openings, said attachment strip openings and different ones of said post openings to refasten said stirrup and said legging means to said post, said stirrup further including an L-shaped rigid cleat having one leg secured to said foot plate section and another leg projecting upward from said foot plate section with an aperture therein, a toe strap passing through said aperture for encircling the toe of a person, a curved heel plate welded to a rear portion of said foot plate section and upstanding therefrom, and a foot strap passing through apertures of said heel plate.

2. The stilt as claimed in claim **1** in which said one end of said post butts against said base plate section of said foot so that said base plate section bears the weight of the user.

3. The stilt as claimed in claim **1** in which said legging includes a metal strip bridging said bolts on inside of said strap to stiffen and reinforce said strap means where fastened by said bolts.

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U.S. Cl. X.R.

272—70.1