March 17, 1953 LE ROY D. BANNISTER 2,631,652

PORTABLE MILKING STOOL

Filed April 19, 1949

FIG 1

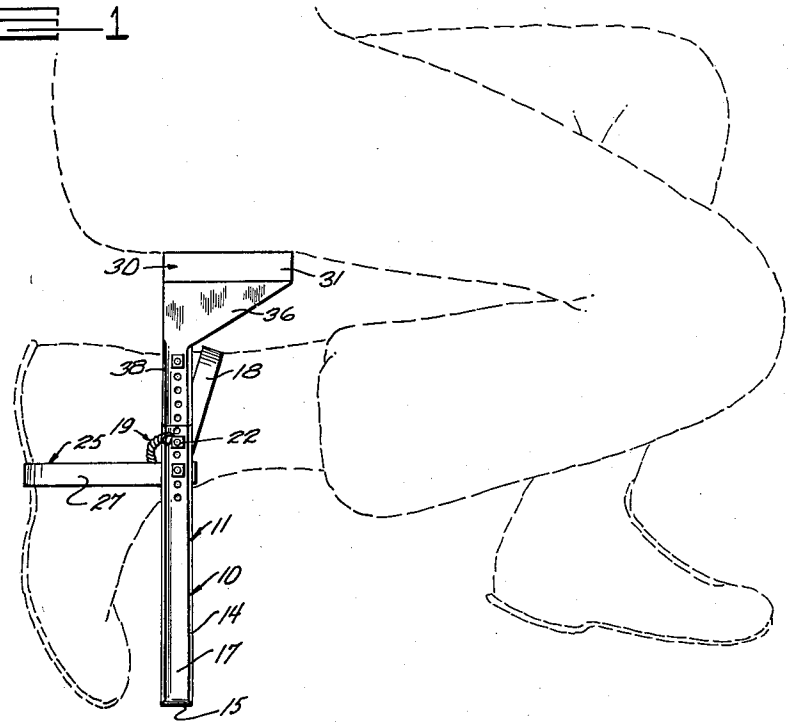


FIG 2

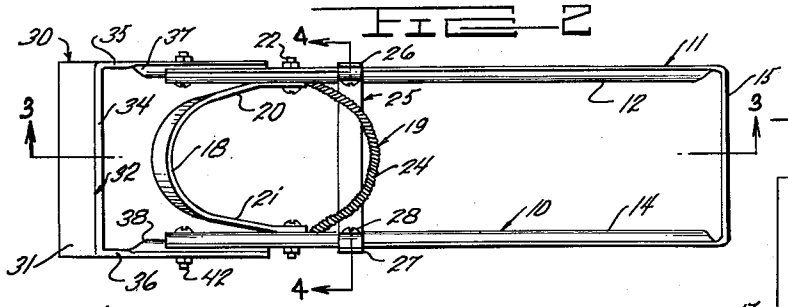


FIG 4

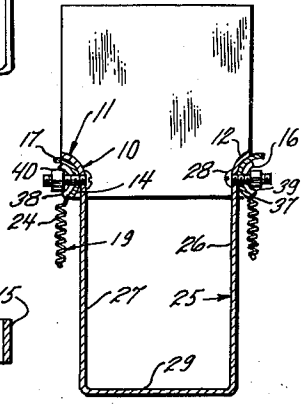
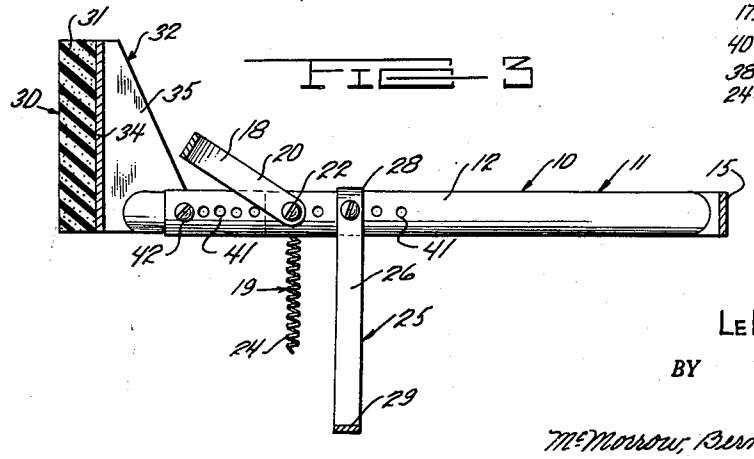


FIG 3



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PORTABLE MILKING STOOL

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3 Claims. (Cl. 155—37)

1

This invention relates to a milking stool, and more particularly to a portable, light weight stool which requires no handling during the milking routine.

It is an object of this invention to provide a portable milking stool of the kind to be more particularly described hereinafter which is adapted to be comfortably attached to the foot of the wearer to be carried about and will be positioned for supporting the user upon bending his leg at the knee in a half-kneeling position. When the user is standing erect, the stool will be positioned above the shoe in a manner to provide for the easy walking and movement of the user with the stool attached to his leg, and will be immediately positioned for supporting the user upon bending of the leg on which the stool is attached. The light weight and compact arrangement of the stool will in no manner interfere with the normal walking of the wearer to obstruct him in his normal movement about the farm or dairy.

Another object of this invention is to provide a milking stool of this kind which is light in weight and adjustable to suit the particular, desired seating height of a wearer, the use of this device being primarily for saving an appreciable amount of time during the milking operation generally required for movement of a support or stool. With the use of a stool of this kind, both hands of the user are at all times free during the milking operation and may be employed for other uses than carrying or moving a support to be used while milking.

With the above and other objects in view, my invention consists in the arrangement, combination and details of construction disclosed in the drawings and specification, and then more particularly pointed out in the appended claims.

In the drawings:

Figure 1 is a side elevation of the portable milking stool constructed according to an embodiment of my invention, shown as being positioned for seating of the user;

Figure 2 is a top plan view of the milking stool removed from the foot of the wearer;

Figure 3 is a longitudinal section taken on the line 3—3 of Figure 2;

Figure 4 is a transverse section taken on the line 4—4 of Figure 2.

Referring to the drawings, the numeral 10 designates generally a novel, portable milking stool constructed according to an embodiment of my invention. The milking stool 10 is adapted to be attached to the leg of the wearer or user

2

to be carried about thereby, and will be positioned to support the wearer in a seated position for milking upon bending of the leg upon which the stool 10 is fastened into a substantially kneeling position, as clearly shown in dotted lines in Figure 1.

The milking stool 10 is formed of an elongated supporting member or stand 11 which is substantially U-shaped in configuration, being made of light metal, as aluminum or the like. The supporting member 11 is adapted to be positioned longitudinally of the foot of the wearer in such a manner that the side arms 12 and 14 will be positioned on the opposite sides of the ankle of the wearer and the bight portion or connecting bar 15 at the forward end of the supporting member 11 will be positioned substantially above the toe of the foot over which the supporting member 11 is secured. The bight portion 15 constitutes a base or supporting bar at the forward end of the supporting member 11 which is adapted to be positioned on the ground in the erected position of the supporting member when the supporting member is positioned for supporting the wearer in a seated position. The longitudinally-extending side arms 12 and 14 are formed as channels, being arcuate in configuration or concave, opening outwardly to define a pair of longitudinally-extending channels 16 and 17 on the respective side arms 12 and 14, respectively. The side arms 12 and 14 and the respective channels 16 and 17 are free at their rear ends for attachment of the seat-supporting members, to be described more particularly hereinafter.

A pair of ankle straps 18 and 19 are carried by the rear ends of the side arms 12 and 14 for engagement about the ankle of the wearer. One of the ankle straps, as the ankle strap 19, is formed of metal or other suitable rigid material, being U-shaped in configuration having an arcuate rear end or bight portion which is engageable about the rear side of the ankle. The forward ends of the side arms 20 and 21 of the rear ankle strap 18 are adapted to be secured to the opposite side arms 12 and 14 of the longitudinally-extending supporting member 11 by bolts 22 or other suitable fastening devices. The rear ankle strap 18 is adapted to be rockably mounted on the rear end of the supporting member 11 for properly positioning this rear ankle strap in relation to the ankle of the wearer.

The forward ankle strap 19 is formed of suitable flexible material, such as the elongated coiled spring 24, shown in the drawings. The opposite ends of the spring 24, or flexible forward ankle

strap 19, are adapted to be secured to the same bolts 22 which secure the forward ends of the rear ankle strap 18 to the side bars 12 and 14 of the longitudinally-extending supporting member 11. The ankle strap 19 is adapted to be positioned about the forward side of the ankle of the wearer for securing the ankle between the front and rear straps 18 and 19. The resiliency of the strap 19 or spring 24 provides for the attachment and removal of the supporting member 11 when and as desired.

A depending supporting strap or member 25 is positioned slightly forwardly of the attaching bolts 22 which secure the ankle straps 18 and 19 to the supporting member 11. The depending strap 25 is adapted to be positioned below the instep of the foot or shoe of the wearer for vertically positioning the longitudinally-extending supporting member 11. The instep strap 25 is formed of metal or other suitable rigid material and is U-shaped in configuration for engagement about the foot or shoe of the wearer on the lower side thereof. A pair of side arms 26 and 27 are connected at their upper ends to the side arms 12 and 14, respectively, forwardly of the bolts 22 by bolts 28 or other suitable fastening devices. The lower ends of the side arms 26 and 27 are connected together by a lower strap or bight portion 29 which is fixed to or formed integrally with the extreme lower ends of the side arms 26 and 27. The seat 30 is connected to the rear end of the supporting member 11 rearwardly of the ankle strap 18 to be spaced rearwardly and above the ankle of the wearer. The seat 30 is preferably formed of a rubber or foam cushion 31 which is carried by a U-shaped bracket 32 adjustably positioned on the rear open end of the supporting member 11. The U-shaped bracket 32 includes a transverse base plate 34 having a pair of depending or forwardly-extending triangular side arms 35 and 36 secured to the opposite edges thereof. The resilient cushion 31 is fixed to the outer or upper side of the transverse plate 34 by glue, not shown in the drawings, or other suitable fastening means. A pair of forwardly-extending side arms 37 and 38 are fixed to, or formed integrally with the side arms 35 and 36, respectively. The forwardly-extending side arms 35 and 36 are formed with longitudinally-extending channels therein, as the arcuate or concave channels shown in the drawings. The channels 39 and 40 on the respective side arms 37 and 38 are adapted to be slidably engaged within the channels 16 and 17, respectively, of the side arms 12 and 14 formed on the longitudinally-extending supporting member 11. The rear ends of the side arms 12 and 14 are formed with a plurality of longitudinally-spaced-apart apertures or openings 41 along the length thereof and a bolt 42 is adapted to be extended through the side arms 37 and 38 and through a selected one of the openings 41 for positioning the seat 30 in a selected position rearwardly of the rear end of the supporting member 11 and of the rear ankle strap 18. Only one bolt 42 need be used on each of the side arms 37 and 38, as the side arms are held against rocking movement about the bolt due to the engagement of the channels 39 and 40 in the channels 37 and 38, respectively. Such engagement provides for the longitudinal adjustment of the seat 30 along the length of the supporting member 11 to suit the particular desire of a user.

In the use and operation of the milking stool 10, the seat 30 will initially be adjusted to a selected position for the particular user. The foot of the user will then be engaged between the front and rear ankle straps 18 and 19, and the lower straps 25 will be positioned below the instep of his foot. In this manner, the stool 10 will be secured to the foot of the user to be carried about thereby. When the wearer is standing erect, the longitudinally-extending supporting member will be positioned horizontally over the foot of the wearer with the seat 30 positioned behind his heel. When the user desires to position the stool 10 to be seated thereon, the leg on which the stool is attached will be bent into a substantially kneeling position, as clearly shown in Figure 1, whereupon the bight portion 15 of the supporting member 11 will be engaged with the ground at the toe of the wearer's foot, and the seat 30 will be positioned above the heel. In this position the wearer may be conveniently and comfortably seated on the seat 30 for carrying out the milking operation.

I do not mean to confine myself to the exact details of construction herein disclosed, but claim all variations falling within the purview of the appended claims.

I claim:

1. A portable milking stool for attachment to the leg of a person comprising an elongated stand adapted to extend transversely of a leg at substantially the elevation of the ankle of said leg and adapted to be disposed above the foot of the leg; a seat member secured to one end of the stand and having a supporting face disposed substantially perpendicularly to said stand and adapted to be spaced laterally of the rear side of the leg in substantially parallel relation to said leg, for supporting of the body of a person upon said seat member when the leg is folded beneath the body and said stand is substantially vertically disposed, the other end of the stand being proportioned to extend beyond the forward side of the leg to engage the ground; a generally U-shaped foot strap secured to the stand near its longitudinal center and adapted to engage about the sole of said foot to maintain the stand in spaced relation to the foot; and leg-engaging means secured to the stand and proportioned to be connected with said leg near the ankle of the leg.

2. A portable milking stool for attachment to the leg of a person, comprising an elongated stand adapted to extend substantially at right angles to a leg and adapted to be disposed near the elevation of the angle of said leg and above the foot of the leg; a seat member secured to one end of the stand and having a supporting face disposed substantially perpendicularly to said stand and adapted to be spaced laterally of the rear side of the leg in substantially parallel relation to the leg, for supporting of the body of a person upon the seat member when the leg is folded beneath the body and the stand is substantially vertically disposed, the other end of the stand being proportioned to extend beyond the forward side of the leg to engage the ground; a generally U-shaped foot strap secured to the stand near its longitudinal center and adapted to engage about the sole of the foot forwardly of the heel of the foot to hold the stand in spaced relation to the foot; a substantially U-shaped leg-engaging strap secured to the stand near its longitudinal center and adapted to surround the rear side of the leg near the ankle thereof, for maintaining the leg in spaced relation to the seat member; and a second leg-engaging strap connected with the stand and proportioned

to extend about the forward side of the leg near the ankle, said second leg-engaging strap being adapted to grip said leg releasably, for disconnection of the stool from the leg.

3. A portable milking stool for attachment to the leg of a person, comprising an elongated U-shaped stand adapted to extend transversely of a leg near the elevation of the ankle of said leg and adapted to be disposed above the foot of the leg, the U-shaped stand including opposed side bars adapted to receive the leg between them and a transverse ground-engaging bar connecting corresponding ends of the side bars and so located as to be spaced forwardly of a leg received between the side bars; a seat member secured to the other ends of the side bars and adapted to be spaced laterally and rearwardly of the leg and having a supporting face arranged substantially perpendicularly to said stand, said supporting face being adapted to extend substantially parallel to the leg, so that the seat member may support the body of a person when the leg is folded beneath the body and the stand is substantially

vertically disposed, a substantially rigid U-shaped foot strap adapted to engage about the sole of said foot and having its ends secured to the stand near the longitudinal center of the stand, the foot strap being proportioned to hold the stand in spaced relation to the foot; a substantially U-shaped leg-engaging strap secured to the stand near its longitudinal center and adapted to surround the rear side of the leg near the ankle; and a flexible leg-engaging strap connected with the stand near its longitudinal center and adapted to extend about the forward side of the leg near the ankle, for releasably securing the stool to the leg.

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REFERENCES CITED

The following references are of record in the file of this patent:

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