Nov. 8, 1955 C. E. MURCOTT 2,722,973

SELF-OPENING COLLAPSIBLE STOOL

Filed May 21, 1953

Fig. 1.

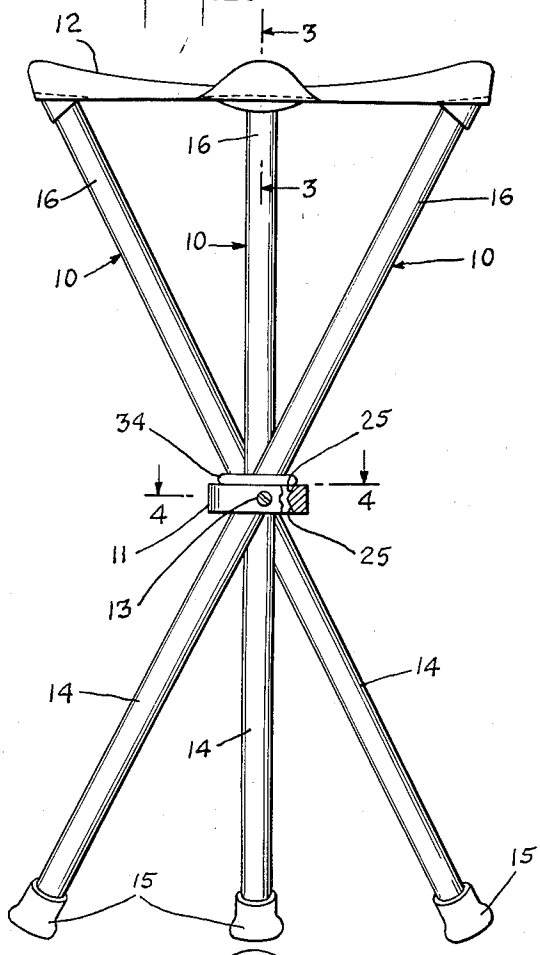


Fig. 2.

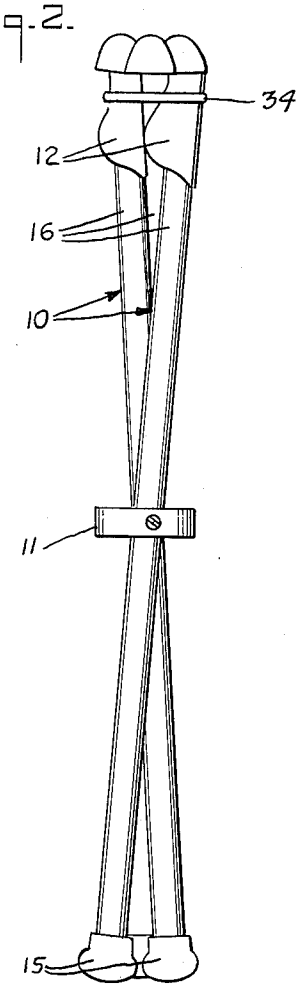


Fig. 5.

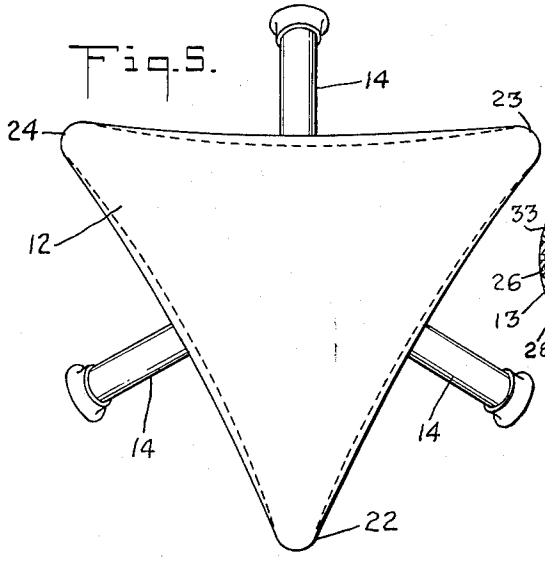


Fig. 4.

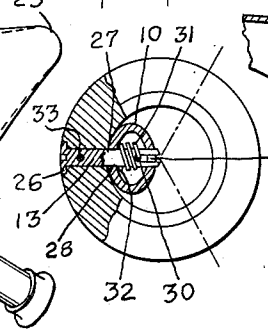
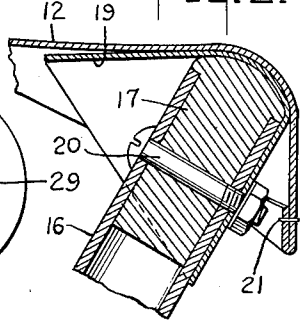


Fig. 3.



INVENTOR
CHARLES E. MURCOTT
BY
Howard E. Thompson
ATTORNEY

United States Patent Office

2,722,973

Patented Nov. 8, 1955

2,722,973

SELF-OPENING COLLAPSIBLE STOOL

Charles E. Murcott, Valley Stream, N. Y.

Application May 21, 1953, Serial No. 356,332

2 Claims. (Cl. 155—150)

This invention relates to collapsible stools which can be conveniently carried about and used periodically as a seat. For example, in playing a game of golf, the stool may be carried with a golf bag and used from time to time when a delay in the game occurs, necessitating the player to otherwise stand around.

More particularly, the invention deals with a collapsible stool which, when released from its collapsed position, will automatically move into extended position for use and, further, which can be simply and easily collapsed from the extended position.

The novel features of the invention will be best understood from the following description, when taken together with the accompanying drawing, in which certain embodiments of the invention are disclosed and, in which, the separate parts are designated by suitable reference characters in each of the views and, in which:

Fig. 1 is a front view of a stool made according to my invention in its opened position, with part of the construction broken away and in section.

Fig. 2 shows a side collapsed view of the stool turned slightly with respect to the showing in Fig. 1.

Fig. 3 is a partial section on the line 3—3 of Fig. 1 on an enlarged scale.

Fig. 4 is a broken section on the line 4—4 of Fig. 1 showing only one of the leg members for sake of clarity and simplification; and

Fig. 5 is a plan view of the stool shown in Fig. 1, illustrating the relative position of the lower ends of the rods or leg members with respect to the triangular seat.

My improved stool comprises three basic parts, namely rods **10** for forming the frame of the stool, a solid thick walled collar or ring **11** forming the pivotal mounting of the rods and a seat **12**, generally of triangular form, as shown in Fig. 5.

The rods **10** are pivotally coupled centrally thereof to the ring **11** on pivot screw pins **13**, thus dividing the rods into lower leg portions **14** having rubber cushioned feet **15** and upper seat support arms **16**, the rods being tubular in form and the upper ends of each rod or the seat supporting portions **16** thereof are closed by plugs **17**, note Fig. 3, the plugs having domed heads **18** which overlie the ends of the rods to provide smooth rounded surfaces for engagement with the seat **12**.

Engagement of the members **16** with the seat **12** is reinforced by strong canvas or similar shoes **19** which overlie the knobs **18**, as clearly seen in Fig. 3 and these shoes are held in position by bolts **20** which also pass through the plugs **17**. This construction takes up the wear and will not appreciably strain the seat **12**. It will be understood that the seat **12** will be made of a strong canvas or other material having hemmed edges, as indicated at **21** in Fig. 3.

The seat **12**, when in extended position and used as a seat, assumes a position substantially similar to that diagrammatically shown in Fig. 1 of the drawing and, in the use of the stool, the occupant arranges the upper end of one of the members **16** between the legs. Noting, in this connection Fig. 5 of the drawing, it will appear that the leg members **14** will then provide a very sturdy triangular support for the stool with no possibility of tilting. This result is accomplished by the closing of the members **10** in the ring in the manner diagrammatically illustrated in Figs. 1 and 2 of the drawing. This will further be apparent from a consideration of Fig. 5. In other words, the upper leg **14**, as appearing in Fig. 4, will extend to the front or lower corner **22** of the seat; whereas, the left leg will extend to the right corner **23** and the right leg will extend to the left corner **24**.

The ring **11** or the bore thereof has inwardly contracted or bevelled walls, as noted at **25** in section in Fig. 1 of the drawing. The apex of the bevelled walls is at the thickest portion of the ring. The angles of these inwardly contracted surfaces are preferably such as to provide support for the rods or tubes **10** on upper and lower surfaces of these contractions, thus providing a substantial bearing surface of the rods in the ring or collar.

In Fig. 4 of the drawing, one of the three rotatably adjustable pins **13**, which are employed, for pivotally coupling the rods **10**, is shown in section. However, it will be understood that all of these pivotal couplings are the same, thus the brief description of the one will apply to all.

The pin **13** has a flat head **26** which seats in the ring for alinement. The pin has an inner pivot end **27** which seats in an aperture **28** of the rod **10**. The terminal end of the end portion **27** has a transverse slot **29**, in which one end **30** of a coil spring **31** is seated. The other end **32** of the spring **31** is preferably long and extends upwardly in the tube **10** and bears on this tube to normally throw the same outwardly on the pivot **27**, in other words, to tensionally support the stool in the extended position.

In assemblage, the pin **13** is rotated to apply the required tension to the spring **31**, after which a pin **33** is passed through the collar or ring **11** into the pin **13** to key the same against rotation. It will be apparent that the head **26** maintains alinement of the pin for insertion of the key pin **33**.

Prior to assemblage of the rods **10** with the collar **11**, a holding ring **34** is arranged on the rods **10** or the upper seat supporting portions **16** thereof. In other words, the ring **34** is disposed above the collar **11**.

In movement of the stool from the extended position to the collapsed position shown in Fig. 2, the ring **34** is simply moved upwardly on the members **16** and passed over the portions of the seat **12** which will be gathered at the upper ends of the member **16** in the manner indicated, thus holding the parts in the collapsed position shown in Fig. 2. This results in providing a package which is of the length of the members **10** and substantially within boundaries of the collar **11**. This provides a very desirable package for carrying, as well as packaging or shipment.

In moving the stool into extended position, all that is necessary is to grasp one of the ends **22**, **23**, **24** and then slide the ring **34** downwardly beyond the environment of the seat portions **12**, whereupon the ring will drop automatically onto the collar and the other members **10** will automatically extend into operative position by reason of the action of the springs **31**.

From the foregoing, it will be apparent that the tension of the springs **31** is increased in the support of the stool parts in collapsed position.

Having fully described my invention what I claim as new and desire to secure by Letters Patent is:

1. A collapsible stool, comprising three rods pivotally coupled centrally to a thick walled ring for movement from a collapsed position into an extended position, the bore of the ring having upper and lower outwardly bevelled walls, the apex of which is at the thickest part of the

ring, lower portions of the rods forming three supporting legs for the stool, upper portions of the rods forming three seat supporting members, a flexible seat generally triangular in form coupled with upper ends of said seat supporting members, a ring slidably supported on the seat supporting members of said rods for moving said rods into and holding the same in collapsed position, the pivotal coupling of the rods with said first named ring comprising slotted pins adjustably supported in said ring, and springs mounted on said pins and having ends engaging the slots of the pins and said rods to tensionally support the rods in extended position.

2. A collapsible stool comprising a ring having a plurality of circumferentially spaced slotted pivot pins, said pins forming pivotal mountings for three tubular rods having downwardly extending leg ends and upwardly extending seat supporting ends, a seat of flexible material substantially triangular in form coupled with said seat supporting ends, reinforcing means between the seat and said seat supporting ends, springs mounted on said pins, within said rods, one end of the springs engaging the slots of said pins and the other end of the springs engaging the rods to tensionally support the rods in extended position,

means fixing the pins to said ring, the bore of said ring having outwardly bevelled upper and lower walls which intersect in an apex centrally of the ring, said walls checking movement of the rods into extended positions, and means movable longitudinally of said rods for supporting the same in collapsed position against the action of said springs.

References Cited in the file of this patent

UNITED STATES PATENTS

509,005	Voeltzkow	Nov. 21, 1893
615,476	Chapman	Dec. 6, 1898
641,710	Lemley	Jan. 23, 1900
664,976	Sheffy et al.	Jan. 1, 1901
705,893	Anton	July 29, 1902
1,274,973	Allen	Aug. 6, 1918
1,338,124	Dale	Apr. 27, 1920
1,355,944	Dale	Oct. 19, 1920
1,776,418	Dujardin	Sept. 23, 1930
2,103,874	Shwayder	Dec. 28, 1937
2,620,019	Merrill et al.	Dec. 2, 1952