March 21, 1967 H. BREWER ETAL 3,310,340

COMBINED WALKING CANE AND STOOL

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Fig. 1

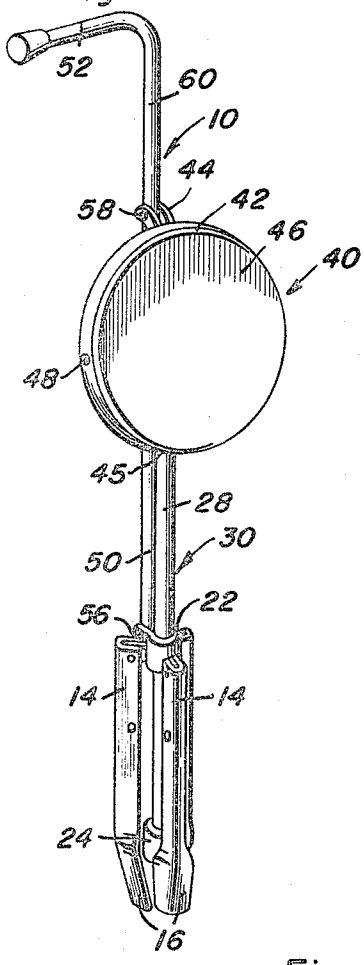


Fig. 2

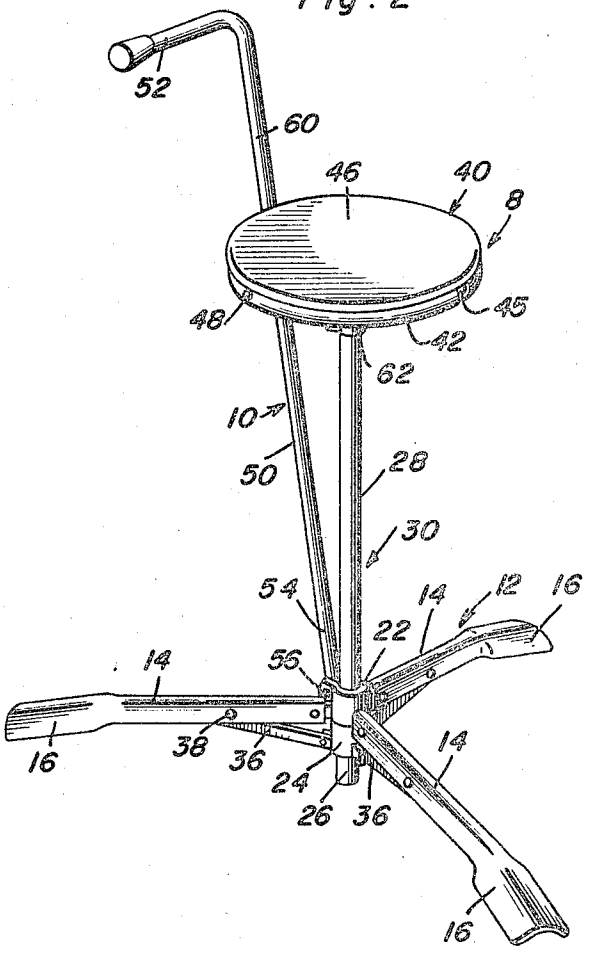
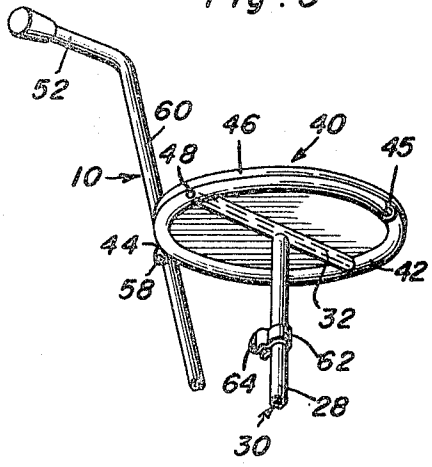


Fig. 3



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Fig. 4

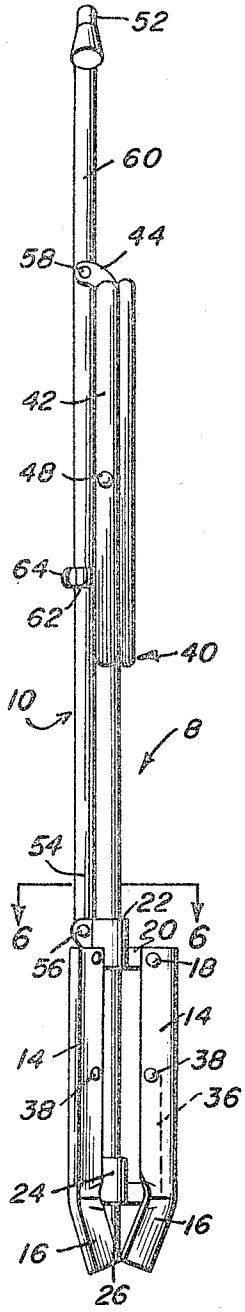


Fig. 5

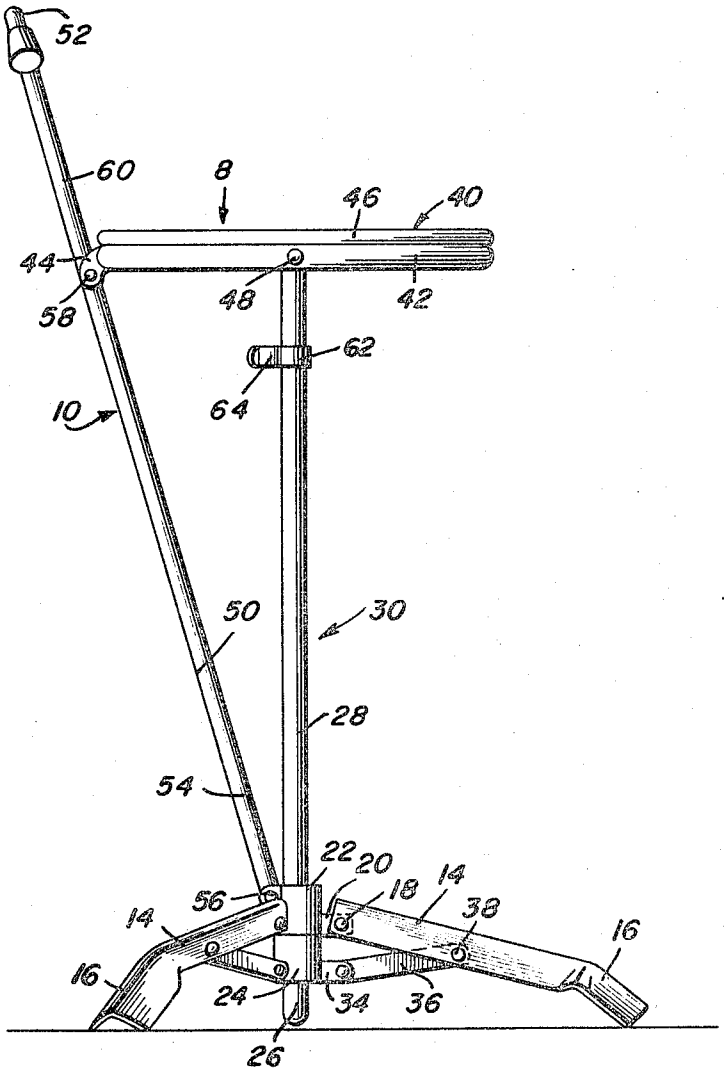
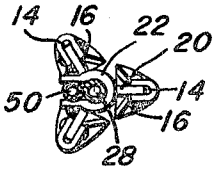


Fig. 6



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United States Patent Office 3,310,340 Patented Mar. 21, 1967

3,310,340

COMBINED WALKING CANE AND STOOL

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Filed Sept. 28, 1965, Ser. No. 490,909
8 Claims. (Cl. 297—16)

This invention relates to a dual purpose device for an individual's use and has to do, more specifically, with a readily convertible easy-to-carry walking cane and stool generally analogous to prior art adaptations but embodying significantly new and distinctive improvements.

Briefly, the invention hereinafter and more fully disclosed comprises two units; namely, a novel stool with a self-standing folding base, and a companion cane unit which is such in construction and so oriented and coordinated with coacting components of the stool that it functions not only as a walking cane but as a carrier, a rigidifying brace, and when the seat is in use, as a simple but nevertheless practical backrest for said seat.

The stool is unique in that it comprises a tripodal base; that is, a novel embodiment wherein openable and closable feet-equipped legs are hingedly joined to a sleeve or collar slidable on a standard and providing a sturdy and reliable stand which is self-standing. Secondly, when the legs are folded and collapsed the feet on the outer ends coact with and cluster around the lower end of the standard and provide a well-balanced highly efficient walking cane.

The stool unit is also novel in that the radial legs characterizing the base means are stabilized by foldable staylinks. The standard is preferably T-shaped so that a ring-like seat-covered frame can be and is pivotally and foldably mounted on the horizontal crosshead at the top of the vertical component or upright of the standard. Then, too, the thus mounted frame is desirable for the reason that it has outstanding lugs or brackets on one side which straddle and are pivotally connected with a median upper portion of the staff portion of the cane. This feature serves to provide a firm and comfortable seat when the latter, in conjunction with stand, is being used.

The cane unit features an L-shaped member whose long leg or limb provides the desired staff and whose short leg or limb provides a handgrip or handle. This properly proportioned cane unit lends itself to feasible use in that it has the capability of a brace and backrest but, and this is important, the lower end is pivoted to the aforementioned sleeve or collar and links the two units in an interconnected and cooperating relationship. Accordingly, all of the component parts contribute a proportionate and effective share in producing a structure which well serves the purposes for which it is intended.

Further, a clearance notch in the seat frame—which expedites folding—and a simple spring clip on the standard facilitate temporary connection of the two units and consequently achieve compactness and convenience so desirable in a multipurpose stool and cane combination.

The concept herein disclosed is implemented with a coordinate combination of features which serve in providing a safe and practical seat and cane for spectators at parades, sporting events, for handicapped persons and for all persons who deem it necessary to resort to comforting support and temporary rest for whatever the occasion and purpose may be.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIG. 1 is a view in perspective of the improved combination walking cane and stool showing the legs folded and the seat folded and assuming compact relationship and providing the aforementioned walking cane.

FIG. 2 is also a view in perspective showing the arrangement and cooperation of the components parts when the structure is set up to be used as a self-standing stool.

FIG. 3 is a fragmentary perspective view detailing the underneath side of the seat.

FIG. 4 is a view in side elevation of the structure folded and constituting and providing the walking cane.

FIG. 5 is a view in side elevation of the device set up to form the stool shown in FIG. 2; and

FIG. 6 is a section on the horizontal section line 6—6 of FIG. 4.

The stool unit is denoted, generally speaking, by the numeral 8 and the walking cane unit by the numeral 10. The component parts of these respective units are made of strong, lightweight tubing and sheet metal material. For example, the base means 12 comprises several circumferentially spaced equidistant foldable legs 14. Each leg is the same in construction and is of channel-shaped form with the outer end wall portions of the channel spread out and formed into a relatively wide foot 16. The side walls at the inner end of the channel are pivotally connected as at 18 to outstanding circumferentially spaced lugs 20 carried by a sleeve-like collar 22. There is a similar collar 24 which for convenience is referred to as a hub and this is mounted below the collar 22 and is fixedly secured to the lower end portion 26 of the upright or vertical member 28 of a T-shaped standard 30. The upper horizontal cross head portion of the standard is denoted at 32. The fixed collar or hub 24 is also provided with radial circumferentially spaced lugs 34 to which inner end portions of stay links 36 are pivotally connected. The outer end portions of the links are pivotally connected at 38 to the median portions of the legs thus providing suitable collapsible stay means for the several legs of the base means 12. Base means thus constructed is highly efficient in a stool construction such as that shown and described for the reason that the base is of tripodal form and provides a highly satisfactory support for the T-shaped standard.

Referring now to FIG. 3 it will be noted that the standard serves to support seat means 40 which comprises a ring-like frame 42 provided on one side with a pair of outstanding lugs 44. On the diametrically opposite side the ring is split to form a clearance notch 45. An appropriate circular cover 46 is mounted atop the ring whereby to thus provide the desired seat for the occupant. The length of the crosshead 32 is such that it fits within the inner perimeter limits of the ring 42 and the end portions are pivotally connected at diametrically opposite points as at 48 to this ring thus providing a seat which can be positioned horizontally as shown for example in FIGS. 2 and 5, in particular, or which can be folded down to an out-of-the-way and compact position as shown in FIGS. 1 and 4. This stabilized folding base and standard provides a portable and folding stand which provides the user with a well-balanced and satisfactorily supported chair or stool when the latter is in use. By making the component parts of strong, but lightweight metal it will be seen that there is no objectionable weight factor to be contended with.

With respect now to the cane unit 10, it will be seen that this is of elongated inverted L-shaped form and is fashioned from a length of tubing which is bent upon itself to provide a long limb 50 and a short limb 52. The long limb provides the staff of the cane and the lower end portion 54 is extended down and between a pair of ears provided therefor on the aforementioned sliding collar 22 where it is pivotally mounted between the ears as

denoted at **56**. The median portion of the staff is straddled by the aforementioned notch **45** and the lugs are pivotally or hingedly joined thereto as at **58**. The portion above the lugs **44** denoted at **60** provides a temporary but nevertheless significant backrest for the back portion of the seat in the manner clearly illustrated in FIG. 5.

In addition, retaining means is provided for the two units **8** and **10** and comprises a simple collar-like band **62** which is fixed on the upper portion of the standard and is provided with resilient clips **64** which are arranged to grippingly engage the staff when the units are folded as shown in FIG. 4.

Considering the structure as illustrated in FIGS. 1 and 4, it will be evident that the stand-type stool does not interfere with the functional use of the unit **10** as a walking cane. As a matter of fact, the feet-equipped legs **14** are not only folded together for compactness and convenience, they cluster around the collared lower end of the standard whereby both units contribute in providing a sturdy but nevertheless light-in-weight cane. The same is true when the structure is set up for use as a seat as illustrated in FIGS. 2 and 5. It will be noted in this connection that the staff of the cane becomes a brace and the upper portion a backrest. By providing a tripodal base there is no tendency of the same sinking or settling in the sand, turf or lawn when the stool is being used. By simply picking up the cane with one hand and pushing the seat down with the other hand the structure is collapsed and ready for cane use in the manner shown.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A portable folding stool comprising: a T-shaped member embodying a standard with a crosshead at an upper end of said standard, a first collar embracing and fixed to a lower end portion of said standard, a second collar slidingly mounted on the standard above the position of said first collar, circumferentially spaced radial folding legs having feet at their outer ends and having their inner ends pivotally joined to said second collar at equidistant circumferentially spaced points, a coordinating stay link for and cooperatively underlying each leg, said links having outer ends pivotally connected with median portions of their respectively cooperable legs and having their inner ends pivotally joined at equidistant circumferentially spaced points to said first collar, a circular seat frame provided with a seat cover, said frame encircling and having diametrically opposite inner peripheral portions pivotally connected to coordinating end portions of said crosshead, and an elongated L-shaped member constituting and providing a stool carrying and walking cane and operatively connected with said stool.

2. The structure according to claim **1**, and wherein the long limb of said L-shaped member is of a length greater than the length of said standard and constitutes and provides a staff, the short limb of said L-shaped member constituting and providing a handgrip, the latter located at the upper manually usable end of said staff, the lower end of said staff being pivotally connected to said second collar, the aforementioned frame having a pair of lugs on one side straddling and hingedly joined to an upper median portion of said staff with the upper portion of the staff and handgrip extending above the seat.

3. The structure according to claim **2**, and wherein that side of said frame diametrically opposite to said one side is provided with a clearance notch which is aligned and cooperable with said standard when the seat occupies a folded position.

4. A portable and collapsible combination stool and cane of the class described comprising: (1) a stool embodying a vertical standard, a collar conformingly but slidingly mounted on a lower end portion of said standard, tripodal base means embodying a plurality of circumferentially spaced legs disposed in a common horizontal plane at approximate right angles to the vertical axis of said standard and having their inner ends pivotally connected to said collar at equidistant circumferentially spaced points, limit stop means fixed on a lower end portion of said standard below the level of said collar and limiting the downward descent and position of said collar, rigid stay means operatively carried by said legs and operatively joined to said limit stop means and permitting said collar to slide upwardly on said standard in a manner to compactly fold the legs against vertical sides of said standard, a seat embodying a frame hingedly mounted atop said standard and having a first horizontal seating position at right angles to said standard and a second generally vertical position folded against said standard when desired and (2) a complemental walking and carrying cane comprising a vertically elongated staff positioned alongside said standard and having a lower end pivoted to said collar, having a median portion pivotally joined to an oriented coordinating marginal side of said seat frame, and also having an upper end portion projecting accessibly above the plane of said seat and provided with a laterally extending handgrip.

5. The device according to claim **4**, and wherein said standard is provided at an upper end with a rigid crosshead, and said cane is substantially L-shaped, said seat frame being ring-like and encircling said crosshead and having diametrically opposite inner peripheral portions pivotally joined to the respectively oriented and coordinating end portions of said crosshead component.

6. The structure according to claim **5**, and wherein a median portion of said standard is provided with a spring clip which is adapted to retentively but releasably grip a predetermined median portion of said staff.

7. A portable folding stool embodying a substantially T-shaped member embodying and providing a vertical standard, a first collar embracing and fixed to a lower end portion of said standard, a second collar slidingly mounted on said standard and adapted when in a down position to reside in a stationary position atop said first collar, tripodal base means embodying a plurality of circumferentially spaced legs disposed when in one manner of use in a common horizontal plane with their lengthwise axes at approximate right angles to the vertical axis of said standard and having inner ends pivotally connected to said second collar at equidistant circumferentially spaced points, a stay link for and cooperatively underlying each leg, said links having outer ends pivotally connected with median portions of their respectively cooperable legs and having inner ends pivotally joined at circumferentially spaced points to said first collar, an occupant accommodating seat embodying a frame having a seat cover, said frame having diametrically opposite inner peripheral portions pivotally connected to coordinating outer end portions of said crosshead, and an elongated L-shaped member constituting and providing a stool carrying and walking cane, said L-shaped member embodying a long limb of a length greater than the length of said standard and disposed alongside of the standard and constituting and providing a staff, and a short limb at the upper end of the long limb and providing a lateral handgrip, the lower end of said staff being pivotally connected to said second collar, and a portion of said seat frame being disposed adjacent a median portion of said long leg and having means hingedly joining the same to said median portion, whereby when said stool is being used said seat is in a horizontal position atop said T-shaped member with the upper end portion of the long limb and handgrip projecting to a plane above the plane of said seat.

8. A portable and collapsible combination stool and cane comprising a T-shaped member adapted when in

use to assume a vertical position and embodying an elongated vertical standard and a horizontal crosshead fixed atop said standard, an occupant accommodating seat embodying a ring-like seat frame provided with a seat cover, said frame encircling and having diametrically opposite inner peripheral portions pivotally connected to coacting end portions of said crosshead, a first collar embracing and fixed to the lower end portion of said standard and providing a limit stop, a second collar complemental to said first collar and slidingly mounted on the standard above the position of the first collar, tripodal base means embodying a plurality of circumferentially spaced legs having inner ends pivotally connected to said second collar at equidistant circumferentially spaced points, stay links pivotally connecting said legs to said first collar, said second collar being disposed in an elevated position on the median portion of said standard, said legs being grouped around said standard at the lower end portion thereof and being approximately parallel with the standard and having integral feet at their outer ends projecting beyond the first collar and lower end of said standard and coacting therewith in cane-forming relationship, and an L-shaped member embodying a long limb of a length greater than the length of said standard and providing a staff, said staff being proximal to and disposed alongside of said standard, the lower end portion of said staff being pivotally connected to said second collar, said seat frame

being folded partly against the upper part of the standard and partly against the median portion of the staff and being provided on one side with a pair of lugs straddling and hingedly joined to an upper median portion of the staff, the short limb of said L-shaped member constituting and providing a handgrip and being located at the upper end of said long limb.

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