

F. GRAHAM & I. E. CURTIS.
 CONVERTIBLE STOOL.

Patented June 6, 1893.

Fig. 3.

Fig. 2.

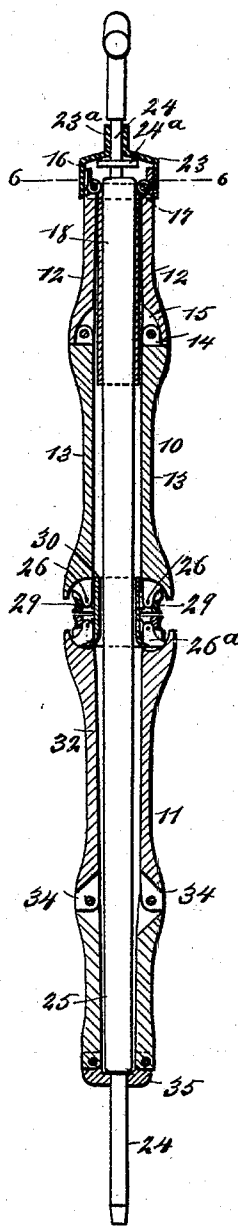
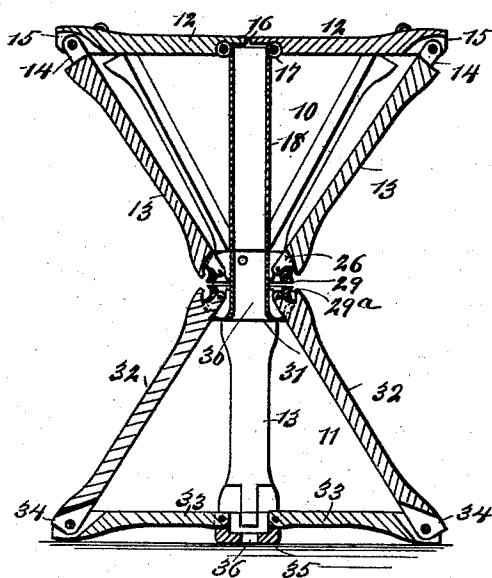
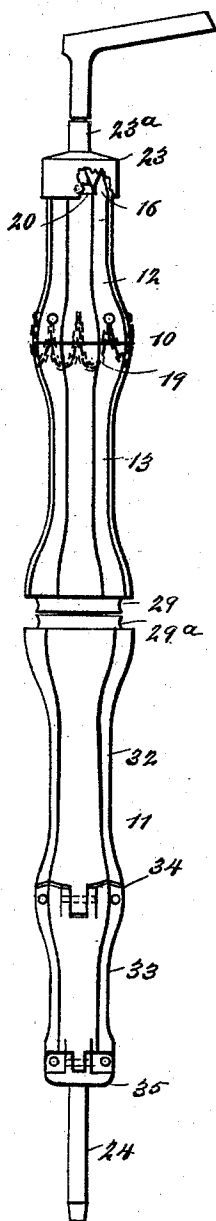


Fig. 4.

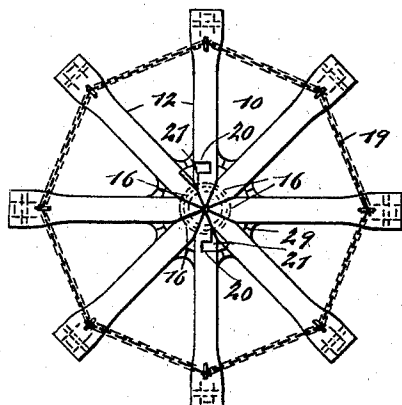


Fig. 6.

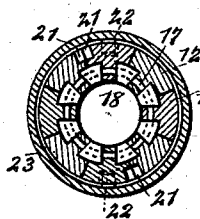
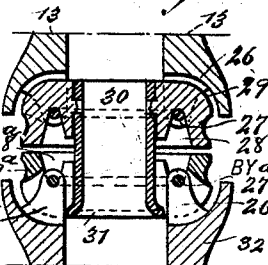


Fig. 5.



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FRANK GRAHAM AND IRVINE E. CURTIS, OF EASTON, WASHINGTON.

CONVERTIBLE STOOL

SPECIFICATION forming part of Letters Patent No. 499,104, dated June 6, 1893.

Application filed December 10, 1892. Serial No. 454,694. (No model.)

To all whom it may concern:

Be it known that we, FRANK GRAHAM and IRVINE E. CURTIS, both of Easton, in the county of Kittitas and State of Washington, have invented a new and Improved Convertible Stool, of which the following is a full, clear, and exact description.

The object of the invention is to provide a sectional stool which may be folded to incase an umbrella.

To these ends our invention consists in certain features of construction and combinations of parts, as will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a broken side elevation of the stool as applied to an umbrella. Fig. 2 is a longitudinal section of the same. Fig. 3 is a vertical section of the stool removed from the umbrella and ready for use as a seat. Fig. 4 is a plan view of the stool. Fig. 5 is an enlarged detail view of the central revoluble connection between the two main sections of the stool; and Fig. 6 is a cross section on the line 6-6 in Fig. 2.

The stool consists generally of two similar hollow sections 10 and 11 which are adapted to be placed end to end and into which an umbrella is to be placed. The section 10 is composed of two series of braces 12 and 13, the braces 12 being placed side by side and arranged circumferentially around the bore of the section, and the braces 13 are similarly arranged, and at one end each brace 13 is hinged to the end of the corresponding brace 12, the braces 13 having projecting end lugs 14 which are pivoted in recesses 15 of the braces 12. The braces 12 and 13 coact, and being hinged together as described, each brace 12 and corresponding brace 13 acts as a single jointed brace. The upper ends of the braces 12 are reduced and pointed, as shown at 16, so that when the braces 12 are thrown into a horizontal position, as in Fig. 3, to form a stool top, the ends may fit snugly together and extend radially from a common center, as shown clearly in Fig. 4. The upper ends of the braces 12 are hinged on their inner

sides to a ring 17 on the upper end of the tube 18, which is open at both ends for the passage therethrough of an umbrella and which serves as a brace to assist in sustaining the weight of a person sitting upon the stool. To prevent the braces 12 from spreading too much, when the device is formed into a stool, chains 19 are used, which are connected to the lower portions of the several braces, and the chains when the stool is folded, as in Fig. 1, will hang loosely on the exterior of the same, as shown in Fig. 1, but when the stool is removed from the umbrella and unfolded the chains will be tightened, as shown in Fig. 4.

The stool is provided near the top and on opposite sides with transverse exterior grooves 20, which merge into longitudinal grooves 21 extending to the ends of the braces 12 in which the grooves are located, and these grooves are adapted to receive pins 22, shown by dotted lines in Fig. 6, which pins are fastened to a cap 23 on the stick 24 of the umbrella 25. It will be seen that the pins and grooves form a common bayonet joint by which the folded stool when inclosing an umbrella may be locked to the cap. The cap 23 is adapted to turn on the stick 24 and it has a reduced portion 23^a which fits the stick, while it is prevented from slipping in one direction by the umbrella handle and in the opposite direction by a collar 24^a on the umbrella stick. The lower ends of the braces 13 terminate in lugs 26 which are arranged on the inner corners of the braces, and these lugs are pivoted on a ring 27 held in a groove 28 of a collar 29, which collar is secured to a sleeve 30 of the same diameter as the tube 18, with which the sleeve is adapted to abut when a stool is formed, as shown in Fig. 3. This sleeve 30 extends into the lower section 11 of the stool and to hold it in place its lower end is expanded, as shown at 31.

On the lower portion of the sleeve 30 is a collar 29^a exactly like the collar 29 described above, but it is placed in the inverted position to the collar 29 and is provided with a cup-shape groove 28^a in which is held a ring 27^a which forms the pivot of the lugs 26^a and these extend upward from the inner sides and upper ends of the braces 32 of the lower

section 11 of the cover. The braces 32 are arranged like the braces 12 described above, and at their lower ends the braces 32 are hinged to corresponding and similarly arranged braces 33, as shown at 34. The lower ends of the braces 33 are pivoted to a cap 35 which is provided with a central hole 36 adapted to receive the reduced end of the umbrella stick 24.

10 The stool is used in the following way:— If it is to be applied to an umbrella, the sections 10 and 11 are collapsed laterally and expanded longitudinally so as to form an elongated casing of a cylindrical shape, and the umbrella 25 is thrust lengthwise into the casing with the reduced end of the stick projecting through the cap 35. The cap 23 will thus be made to embrace the upper ends of the braces 12, and by locking the pins 22 of the cap 23 the cover and umbrella may be locked together. When in this condition the whole device may be used as a walking stick.

When the stool is to be used as such, the umbrella is removed, the cap 35 placed upon the ground and pressure applied to the upper end of the device, and this causes the braces 12 and 13 and 32 and 33 to swing outward at the joints 14, 15 and 34, so that the braces 33 and 12 assume a horizontal position and the braces 13 and 32 a diagonal position, thus forming the stool into the general shape of an hour glass. When in this position, the lower end of the tube 18 rests upon the upper end of the sleeve 30, thus forming a central support for the braces 12 forming the seat, the braces being held in proper relative positions by the chains 19.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

40 1. A convertible stool comprising an upper and a lower series of braces hinged at their adjacent ends to swing outwardly, each brace having an outer hinged section to swing inwardly into a horizontal position, an annular ring or cap connecting the adjacent inner ends of each series of hinged sections; whereby when the stool is folded an open ended tube

will be formed adapted to removably inclose an umbrella, substantially as set forth. 50

2. A convertible stool consisting in the central tube, the upper and lower sectional braces having a hinged connection at their adjacent ends with said tube, a tube 18 abutting at its lower end the upper end of the central tube and having a hinged connection at its upper end with the inner ends of the upper sections 12 of the upper series of braces and forming a support for the said sections 12 when a person is seated thereon, and a hinged connection between the inner ends of the lower section 33 of the lower braces 32, substantially as set forth. 55

3. A convertible stool comprising the tube 30, the ring 29 secured fixedly to the said tube, the ring 29^a secured to and turning upon the said tube, the series of sectional braces pivoted at their lower ends to the ring 29 and having their upper sections 12 extending inwardly and hinged to the upper end of a tube 18, the lower end of which rests upon the upper end of tube 30, the brace sections 32 hinged at their upper ends to the ring 29^a, and the ring or cap 35 to which the inner ends of the lower sections 33 of said lower braces are pivoted, substantially as set forth. 65 70 75

4. The combination with the umbrella having a cap 23 on its stick, of the convertible stool inclosing the umbrella and removable therefrom said stool formed of upper and lower series of sectional braces 13—12 and 32, 33, the tube 30 with which the adjacent ends of sections 13, 32 are pivotally connected and the tube 18 hinged to the braces 12 said braces having projecting extremities 16 engaged by the umbrella cap 23, and the apertured cap 35 connecting the outer ends of the sections 32 and through which the lower end of the umbrella stick projects, substantially as set forth. 80 85

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Witnesses:

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