(No Model.) 2 Sheets—Sheet 1.

# C. WALLIS & R. MADER.

## COMBINED CANE AND STOOL.

No. 482,214. Patented Sept. 6, 1892.

FIG. 1.

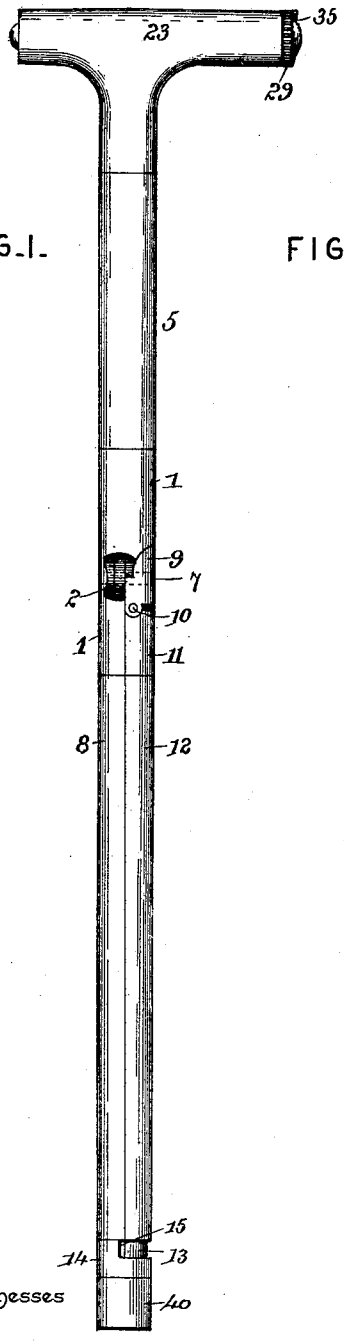



FIG. 2.

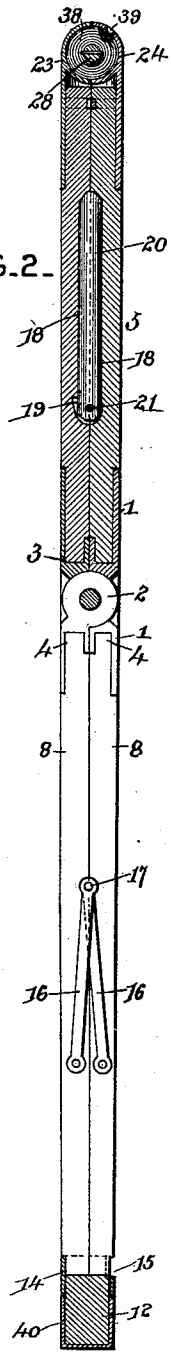
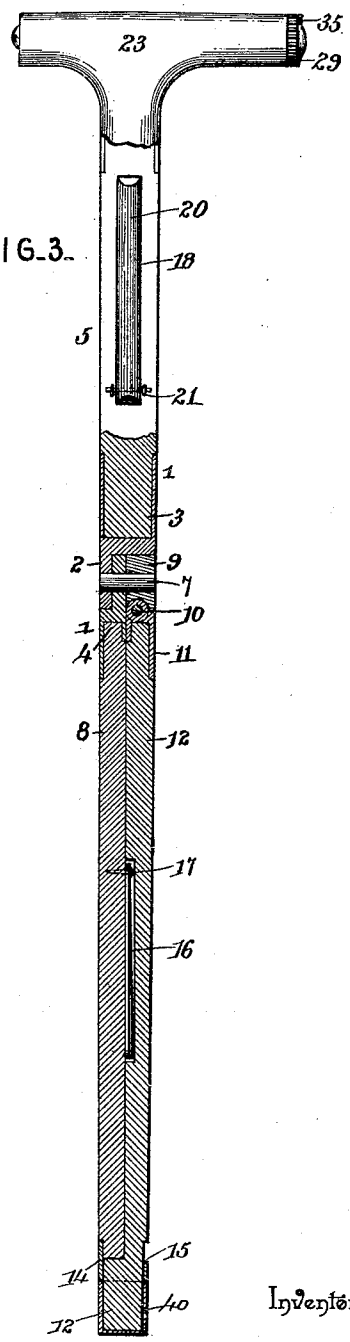



FIG. 3.




Witnesses

Jas. K. McCathran

J. K. Diggers,

By their Attorneys,

Inventors

Charles Wallis

Robert Mader

C. A. Snow & Co.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

# C. WALLIS & R. MADER.

## COMBINED CANE AND STOOL.

No. 482,214. Patented Sept. 6, 1892.

FIG_4_

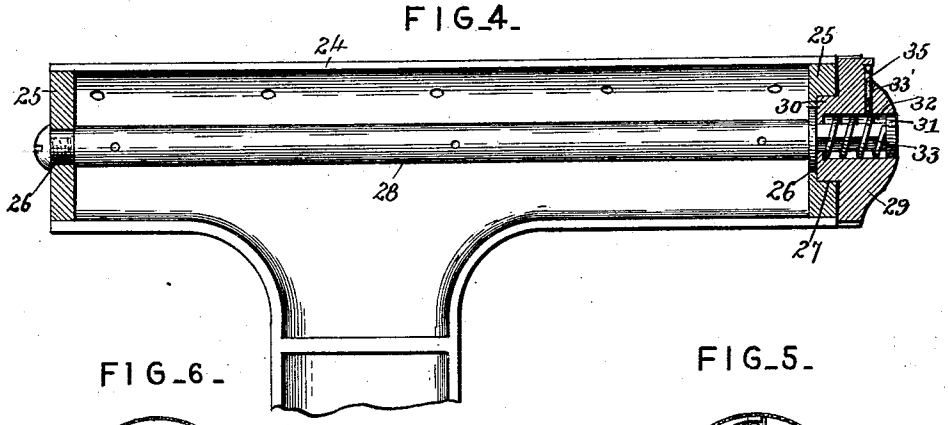



FIG_6_

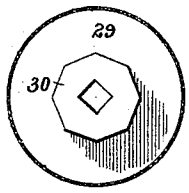



FIG_5_

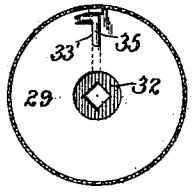
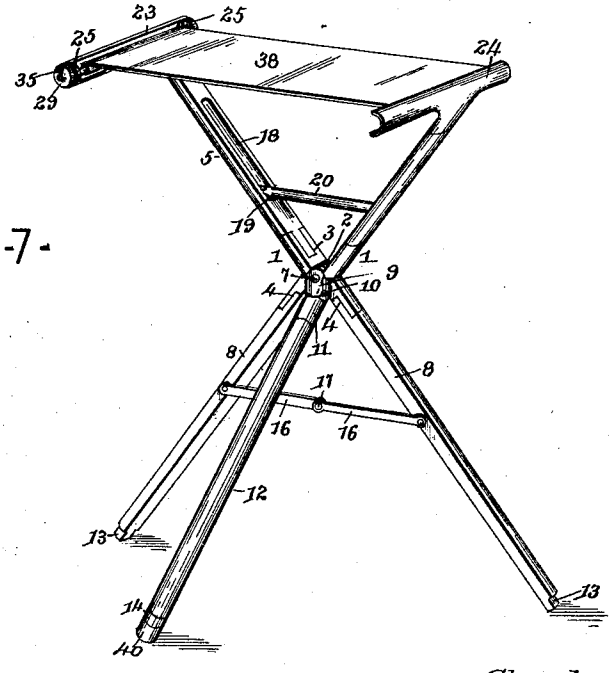



FIG_7_




Witnesses

Jas. L. McLathran

J. B. Diggers.

Inventors

Charles Wallis

Robert Mader

By their Attorneys,

C. A. Snow & Co.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

# UNITED STATES PATENT OFFICE.

CHARLES WALLIS AND ROBERT MADER, OF BAY CITY, MICHIGAN.

## COMBINED CANE AND STOOL.

SPECIFICATION forming part of Letters Patent No. 482,214, dated September 6, 1892.

Application filed April 23, 1892. Serial No. 430,387. (No model.)

*To all whom it may concern:*

Be it known that we, CHARLES WALLIS and ROBERT MADER, citizens of the United States, residing at Bay City, in the county of Bay and State of Michigan, have invented a new and useful Combined Walking-Stick and Chair, of which the following is a specification.

Our invention relates to combined camp-chairs and walking-sticks or canes.

The objects of the invention are to provide a camp-chair adapted to be converted from such into a convenient walking stick, whereby the same may be readily carried about when not in use as a chair and may be conveniently opened to form a comfortable seat when desired.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is an elevation of a combined walking-stick and stool constructed in accordance with our invention. Fig. 2 is a transverse vertical section thereof. Fig. 3 is a longitudinal vertical section, parts being shown in side elevation. Fig. 4 is a longitudinal section through the handle. Fig. 5 is an elevation of the knob or head by which the winding-shaft is turned. Fig. 6 is a rear elevation of the same. Fig. 7 is a perspective view of the invention, the same being opened to constitute a stool or chair.

Like numerals of reference indicate like parts in all the figures of the drawings.

In practicing our invention we employ a pair of metal socket-sections 1, which sections each consist of a central circular eye 2, tangentially disposed, from which at diametrically-opposite sides are upper and lower sockets, (designated as 3 and 4, respectively.) The upper sockets 3 are semicircular, while the lower sockets 4 are of quadrant shape. In the sockets 3 fit upper standard-sections 5 of the cane, the same being semicircular in cross-section, so that when closed they constitute a cylindrical cane or stick and when opened form a Y-shaped standard for supporting the seat. Through the eyes a transverse pivoting-pin 7 is passed, whereby the socket-sections are pivoted together, and by the reductions at their lower ends are capable of folding compactly. The lower sockets have fitted therein leg-standards 8, of quadrant shape in cross-section, and when closed together constitute a longitudinal half of the walking-stick. At one side of the pivoting-pin there is secured a semicircular metal block 9, the lower end of which has hinged thereto, as at 10, a third lower socket 11, the same also being semicircular in cross-section and having fitted therein a third leg-standard 12, semicircular in cross-section and forming the remaining lower longitudinal half of the walking-stick. The lower end of the leg-standard 12 is cylindrical, as at 13, though slightly reduced from the arc of the circle upon which said leg is formed, and the lower end of each of the leg-standards 8 is likewise reduced to form continuations of the lower cylindrical portion 13.

14 designates a metal ring having its upper edge cut away, forming a semicircular opening 15, the ring as a whole combining to clamp the legs 8 and 12 together. By rotating the ring so that its opening is opposite the leg-standards 8 the wide portion of the ring is brought opposite the lower ends of the leg-section 12, and thus the leg-standards 8 may have their lower ends swung outwardly to combine with the leg-standard 12 to form a tripod, as shown. A pair of limiting-straps 16 have their outer ends pivoted to the faces of the sections or legs 8 and their adjacent ends pivoted together, as indicated at 17, between said sections. These straps may fold together between the two sections 8 and the third section 12 in a recess made to receive them. The seat-standards have their inner faces provided with longitudinal recesses semicircular in cross-section and designated as 18, and one of said recesses is provided with a cavity 19 at its lower end. A brace 20, cylindrical in cross-section, is pivoted at 21 in the lower end of one of the recesses and may be swung up, so as to occupy the two recesses when the seat-standards are brought together, or lowered, so as to engage with the aforesaid cavity, and thus brace the seat-standards apart.

The seat-standards have fitted upon their upper ends hollow seat-supporting sections 23 and 24. The section 23 and the section 24 when closed together as a whole constitute and are exteriorly shaped in imitation of a

walking-stick or cane handle. The section 23 has circular end walls 25, and each is provided with a bearing-perforation 26, one of the end walls having a countersunk recess 27 formed upon its outer side and of polygonal contour. A cylindrical shaft 28 is journaled in those bearings and has one end extended beyond the before-mentioned countersunk recess. This extended end of the shaft is rectangular near its end and passes loosely through a rectangular opening formed in the center of a knob 29, said knob being provided upon its rear side with a boss 30, of polygonal contour, surrounding the opening and adapted to fit removably within the countersunk recess in the end wall of the seat-section. The outer end of the shaft (which end is cylindrical) is provided with a head 31, which takes loosely in a circular cavity 32, formed in the front face of the knob, a coiled spring 33 being inserted between the head and the rear end wall of the cavity. The tendency of this spring is to draw the knob inwardly, and thus bring the polygonal boss into locking engagement with the polygonal recess. An L-shaped recess 33′ is formed in the outer face of the knob, and the same by a perforation which forms a continuation of the recess communicates with the central perforation of the knob. This recess is occupied by a reciprocating locking-pin 35, also of L shape, which when the knob is withdrawn partially from the shaft against the tension of the spring may be slipped down over the end of the shaft, prevent the return of the knob, and thus lock the latter out of engagement with the seat-section, whereby the knob may be rotated, and being fixed upon the shaft will communicate rotatable movement to the latter.

38 designates a seat of textile material secured to the shaft and adapted to be wound thereon within the hollow seat-sections. The remaining end of the seat is clamped by a plate 39 to the opposite seat-section. This completes the construction, with the exception of a ferrule 40, located below the ring 14, serving to secure the same in rotatable position and aiding the latter in securing the seat-standards together. Taking the parts in their folded positions, as where they constitute a walking-stick or cane, in order to convert the same into a camp-stool or seat the ring 14 is given a half-rotation, as before mentioned, and the leg-standard 12 swung out from the leg-standards 8, which are themselves subsequently separated, and the limiting-straps distended or unfolded to a horizontal position, whereby further separation is prevented. The connection between the socket of the leg-standard 12 and the metal block is of a knuckle-joint style, so that the leg-standard 12 is limited thereby, and the three standards combine to form a most efficient solid tripod or support. The L-shaped bolt or pin is now rotated, so that its upper end extends outwardly and the knob drawn outwardly, so that its polygonal locking-boss disengages with the polygonal recess in the end wall of the seat or handle section, whereby the locking-pin engaging over the end of the seat-winding shaft permits of a rotation of the latter and the extension or spreading of the seat, the shaft rotating, unwinding the seat and permitting the spreading of the seat-standards. The pivoted brace for the seat-standards is now lowered and prevents a reclosing of the standards. The stool or chair is now complete and ready for occupancy. To reconvert the seat into a cane or walking-stick, the operation is simply reversed— namely, the horizontal brace between the seat-standards is first raised and the knob and its shaft rotated, so as to wind the seat upon the latter, after which when the seat is snugly wound the L-shaped pin is reciprocated or withdrawn from in front of the shaft, and a spring within the knob and before described returns the same to its normal or locking position, the polygonal boss seating itself in the polygonal seat in the end wall of the handle or seat section, and thus preventing any undesired or accidental unwinding or separation of the seat-standards. The leg-standards 8 are now brought together, and the leg-standard 12 closed upon them, after which the ring is rotated, so that its highest side will embrace the lower reduced ends of the standards 8.

Having described our invention, what we claim is—

1. In a combined walking-stick and seat, the opposite diverging and folding standards terminating at their upper ends in hollow handle-sections forming seat-supports, one of said handle-sections being provided with end walls having central bearings and one of the end walls being provided with a countersunk polygonal recess, a shaft journaled in the bearings, a head or knob mounted for reciprocation on the shaft and having at its inner side a polygonal boss designed to fit the recess, a spring for normally maintaining said boss in the recess, means for locking the boss out of engagement with the recess, and a seat secured to the shaft, adapted to be wound thereon and having its opposite end secured to the opposite handle-section, substantially as specified.

2. In a combined walking-stick and seat, the opposite diverging and folding standards terminating at their upper ends in hollow handle-sections forming seat-supports, one of said handle-sections being provided with end walls, one of which has an angular cavity, and each of said end walls having bearings, a shaft journaled in the bearings and extending beyond that end wall having the cavity, a knob mounted non-rotatably upon the extended end of the shaft and adapted for reciprocation, a projection on the inner side of the knob for engaging the cavity, means for locking the knob out of engagement with the cav-

ity, and a flexible seat wound upon the shaft and connected at its opposite end to the opposite seat-section, substantially as specified.

3. In a combined walking-stick and seat, the combination, with the upwardly-diverging seat-standards terminating in the semi-cylindrical hollow seat-sections, one of which is provided with opposite heads having bearings, the head at one end having a countersunk polygonal recess surrounding its bearing, of a shaft mounted in the bearing and extending beyond the polygonal recess, a knob mounted non-rotatably upon the extended end of the shaft and provided at its inner side with a surrounding annular boss adapted to fit the recess and at its front side with a circular recess, in which the end of the shaft terminates in a head, a coiled spring mounted on the shaft between the inner end of the recess of the knob and the head of the shaft, an L-shaped recess formed in the front face of the knob at one side of the shaft, an L-shaped pin mounted therein and adapted to be projected into the path of the shaft, and a flexible seat secured to the shaft and having its opposite end secured to the remaining seat-section, substantially as specified.

4. In a combined walking-stick and seat, the combination, with the lower base-supports and the upwardly-diverging seat-supporting standards provided with opposite semicircular grooves longitudinally disposed, one of which is provided at its lower end with a cavity, of the brace pivoted in the lower end of one of the grooves and at its free end adapted to take into the cavity, substantially as specified.

5. In a combined walking-stick and seat, the combination, with the three leg-standards pivoted together, one of which is slightly longer than the remaining two and terminates at its lower end in a lower cylindrical portion, of a ring mounted on the cylindrical end of the lower standard and provided at one side with a recess or cut-away portion adapted to be brought opposite the lower ends of the remaining standards, whereby they may be liberated, substantially as specified.

6. In a combined walking-stick and seat, the combination, with the two leg-standards 8, quadrant-shaped in cross-section, and the semicylindrical leg-standard 12, hinged together at their upper ends, and the latter standard being provided with a lower cylindrical end slightly reduced, of a ferrule and a ring mounted above the ferrule on the cylindrical end and provided with a cut-away side or upper edge, substantially as specified.

7. In a combined walking-stick and seat, the metal sections crossed and terminating in upper and lower sockets, the upper sockets being semicylindrical and the lower sockets quadrant-shaped, a metal block, a pivot-pin passed through the same, and a semicylindrical socket hinged to the lower end of the block, seat-standards mounted in the upper sockets, a seat supported thereon, and leg-standards located in the lower sockets, and means for locking the legs together, substantially as specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

CHARLES WALLIS.
ROBT. MADER.

Witnesses:
S. G. HOUGHTON,
WILLIAM WALLIS.