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H. B. GRA.

UMBRELLA AND SUNSHADE.

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NO MODEL.

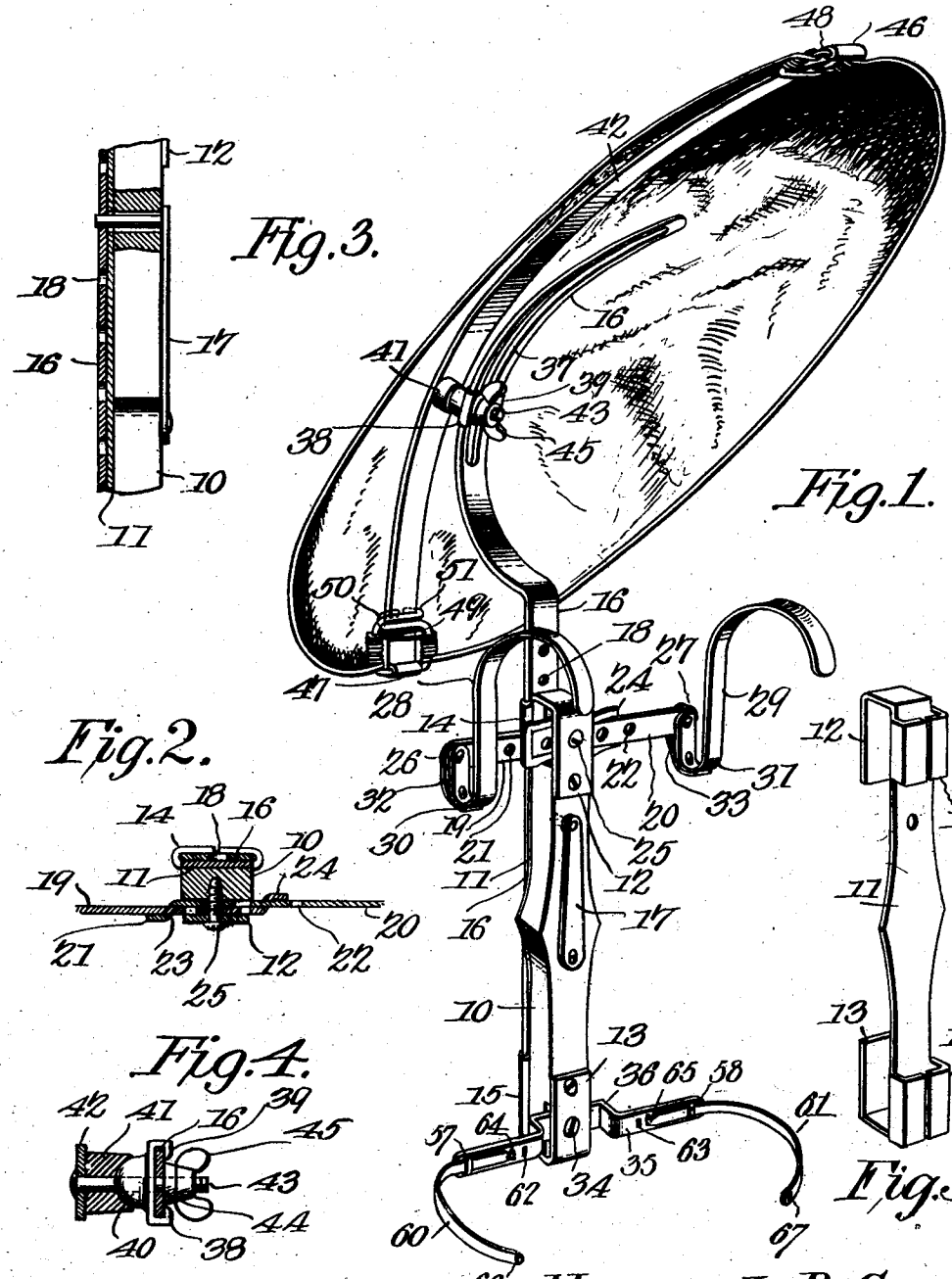


Fig. 1.



Fig. 3.



Fig. 2.



Fig. 4.



Fig. 5.

Witnesses

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No. 753,877. Patented March 8, 1904.

# UNITED STATES PATENT OFFICE.

HERNANDO B. GRA, OF ALLEYTON, TEXAS, ASSIGNOR TO GRA AND LEYSAHT, A FIRM COMPOSED OF HIMSELF AND BERTHOLD LEYSAHT, OF ALLEYTON, TEXAS.

## UMBRELLA AND SUNSHADE.

SPECIFICATION forming part of Letters Patent No. 753,877, dated March 8, 1904.

Application filed October 30, 1903. Serial No. 179,204. (No model.)

*To all whom it may concern:*

Be it known that I, HERNANDO B. GRA, a citizen of the United States, residing at Alleyton, in the county of Colorado and State of Texas, have invented a new and useful Umbrella and Sunshade, of which the following is a specification.

This invention relates to devices employed for supporting a canopy or umbrella upon a person without interfering with the free action of the limbs or impeding the movements of the body, and has for its object to improve the construction and simplify the adjustments of such devices.

The invention consists in certain novel features of construction, as hereinafter shown and described, and specified in the claims.

In the drawings illustrative of the invention, in which corresponding parts are denoted by like designating characters, Figure 1 is a perspective view of the device. Fig. 2 is a transverse section of the standard and some of its attachments. Fig. 3 is a vertical section of a portion of the standard and some of its attachments, enlarged. Fig. 4 is a sectional detail of the universal coupling of the umbrella or canopy support. Fig. 5 is a perspective view of the standard-sheathing detached.

The improved device herein described and illustrated is intended for use more particularly by farmers and other laborers who are exposed to sun and rain to protect them therefrom while working; but it may be employed by pedestrians or others, and consists in a standard 10, preferably of wood, as light as may be consistent with the strains to which it will be subjected and provided with a sheet-metal sheathing 11, covering the rear side and folded over the ends and extended partially over the front side, as shown at 12 13, and attached by screws or rivets at suitable points. The sheathing 11 is provided with integral spaced arms 14 15, folded to form sockets for a bar 16 and in which said bar is supported for vertical adjustment, as by a spring-controlled catch 17, operating through an aperture in the standard and engaging spaced apertures 18 in the bar, as shown.

Disposed between the depending end 12 and the adjacent face of the standard 10 are two arms 19 20, the inner ends overlapping and provided with spaced apertures 21 22 and interengaging loops 23 24 to provide for the extension of the arms to any required extent within the range of the apertures and loops, said arms being pivotally supported by a pin 25, as shown.

Pivotally connected at 26 27 to the free ends of the arms 19 20 are resilient curved straps 28 29, conforming to the shoulders of the wearer and preferably curved outward at the bottom, as at 30 31, to hold the members out of contact with the back of the wearer. The portions 30 31 will also be provided with supplemental clips 32 33, riveted thereto and embracing their opposite sides to strengthen the connection at these points. By this arrangement the standard 10 and its attachments will be suspended from the shoulders of the wearer and be positioned centrally of his back with the suspension-straps capable of lateral adjustment to adapt it to different-sized persons.

Centrally pivoted, as at 34, between the projecting portion 13 and the adjacent portion of the standard 10 is a resilient strap 35, having a central offset 36, corresponding to and coacting with the offsets 30 31 to maintain the standard away from the back of the wearer to prevent chafing or undue wear of the clothing. The ends of the member 35 are provided with clips or loops 57 58, with which resilient curved waist-enclasping arms 60 61 engage slidably and are adjustably connected to the member 35, as by spaced apertures 62 63, and hooks, as at 64 65, on the members 60 61. By this means the members 60 61 may be graduated to the waist of the wearer and adapted to different-sized persons, as will be obvious. The members 60 61 will preferably be provided with apertures 66 67 at their free ends for flexible supporting-straps, if required.

The metal straps are all of spring-steel of sufficient strength to support the device and sufficiently resilient to yield to the movements and not cramp or restrain them. The straps 28 and 29 will be curved in transverse section,

as shown, to hold the edges or corners out of contact with the garments and body of the wearer. The upper end of the bar 16 is curved rearwardly and then forwardly and provided with a longitudinal slot 37 therein.

Slidably disposed, as by guide-ribs 38 39, on the bar 16, opposite its slotted portion 37, is a clip constituting the ball member 40 of the canopy-coupling. The socket member 41 engages the ball member at one side and is attached to the central longitudinal rib member 42 of the canopy-frame at the other side. A clamp-bolt 43 passes through the three parts 42, 41, and 40 and also through the slot 37 and is provided with a washer 44 and wing-nut 45 for engaging the inner face of the member 16. By this means it will be obvious the member 42 and its attachments may be adjusted longitudinally of the member 16 within the range of the slot 37 and likewise adjusted laterally in all directions by the "ball-and-socket" joint formed by the members 40 41. The ends of the rib 42 are bent into transverse sockets 46 47, and supported centrally in these sockets are wire loops of peculiar construction, to which the ends of the side or circumferential ribs which support the canopy or umbrella-covering are secured, and as both of these connecting-loops are precisely alike corresponding reference characters are employed for like parts in each.

In each of the rolled ends forming sockets 46 47 a wire member is intermediately held with its sides bent into loops 48 49 parallel to the sides of the rib 42 and spaced therefrom and thence bent inwardly transversely of the rib and hooked around its opposite edges, as at 50 51. By this simple means longitudinal loop members are arranged alongside the rib member 42 at its ends and spaced therefrom, and around these loop members the terminals of the supporting ribs or wires 52 53 of the canopy or umbrella-cover 54 are coiled, as at 55 56, and with their ends carried across and hooked around the opposite edges of the rib member 42, as shown. By this means the canopy-binding rim is formed and connected firmly to the rib without rivets, brazing, soldering, or other similar fastenings, producing an inexpensive and durable fastening means without weakening the parts by forming apertures therethrough.

The whole device is simple in construction, durable and easily adjusted to fit various-sized persons, readily and quickly attached and detached, and will not interfere with or impede the movements of the wearer.

Having thus described the invention, what is claimed is—

1. In a device of the class described, a standard for position at the back of the wearer supporting an umbrella or canopy, arms pivoted to said standard and extending laterally therefrom, and resilient straps for engagement over the shoulders pivotally connected to the free ends of said arms.

2. In a device of the class described, a standard for position at the back of the wearer supporting an umbrella or canopy, arms pivoted to said standard and extending laterally therefrom, means for adjusting said arms laterally, and resilient straps for engagement over the shoulders pivotally connected to the free ends of said arms.

3. In a device of the class described, a standard for position at the back of the wearer supporting an umbrella or canopy, arms pivoted to said standard and extending laterally therefrom, resilient straps for engagement over the shoulders pivotally connected to the free ends of said arms, and a resilient strap curved to fit the waist and centrally pivoted to said standard.

4. In a device of the class described, a standard for position at the back of the wearer supporting an umbrella or canopy, two arms overlapping at their inner ends and provided with interengaging loops and spaced apertures for the reception of a clamp-bolt and resilient straps for engagement with the shoulders of a wearer and pivotally connected to the free ends of said arms.

5. In a device of the class described, a standard for position at the back of the wearer provided with a sheet-metal sheathing arranged on one side and bent over the ends thereof, an umbrella or canopy support carried by said standard, laterally-extending arms pivoted at their inner ends between said standard and one of said bent end extensions of said sheathing, and resilient straps for engagement over the shoulders pivotally connected to the free ends of said arms.

6. In a device of the class described, a standard for position at the back of the wearer provided with a sheet-metal sheathing arranged on one side and bent over the ends thereof, an umbrella or canopy support carried by said standard, and a resilient strap curved to fit the waist and centrally pivoted between said standard and one of said end extensions of said sheathing.

7. In a device of the class described, a standard for position at the back of the wearer supporting an umbrella or canopy, arms pivoted to said standard and extending laterally therefrom, and resilient straps for engagement over the shoulders and pivoted to the free ends of said arms at one side and each strap provided with a clip engaging the arm at the other side.

8. In a device of the class described, a standard for position at the back of the wearer provided with a sheet-metal sheathing arranged on one side and bent over the ends thereof and with integral arms folded to form spaced guide-sockets, a supporting-bar vertically movable in said guide-sockets and carrying an umbrella or canopy, and means carried by said stand-

ard for adjustably connecting said bar in said sockets.

9. In a device of the class described, a standard for position at the back of the wearer provided with a sheet-metal sheathing arranged on one side and bent over the ends thereof, and with integral arms folded to form spaced guide-sockets, a supporting-bar vertically movable in said guide-sockets and carrying an umbrella or canopy and provided with spaced apertures, and a spring-controlled bolt for yieldable engagement with said apertures to adjustably connect said bar and standard.

10. In a device of the class described, a standard for position at the back of the wearer, a bar adjustable vertically upon said standard and curving rearwardly and forwardly above said standard, an umbrella or canopy frame having a central longitudinal rib mounted for adjustment upon said bar and with its ends folded to form sockets, wire loops centrally engaging said sockets and with their terminals formed into hooks crossing said rib member and engaging its opposite edges, and binding-wires for the canopy-top coiled at their ends around said loops and with their terminals clenched upon said rib member.

11. In a device of the class described, a standard for position at the back of the wearer supporting an umbrella or canopy, arms pivoted to said standard and extending laterally therefrom, resilient straps for engagement over the shoulders pivotally connected to the free ends of said arms, and a resilient strap curved to fit the waist and centrally pivoted to said standard, and provided with extensions at the ends adjustable longitudinally of said waist-strap.

12. In a device of the class described, a standard for position at the back of the wearer supporting an umbrella or canopy, arms pivoted to said standard and extending laterally therefrom, resilient straps for engagement over the shoulders pivotally connected to the free ends of said arms, and a resilient strap curved to fit the waist and centrally pivoted to said standard and provided with loops at the opposite ends, extension-straps extending through said loops and means for adjustably coupling said extension-straps to said waist-strap.

13. In a device of the class described, a standard for position at the back of the wearer supporting an umbrella or canopy, arms pivoted to said standard and extending laterally therefrom, resilient straps for engagement over the shoulders pivotally connected to the free ends of said arms, and a resilient strap curved to fit the waist and centrally pivoted to said standard and provided with loops at the ends and graduated intermediate apertures, extension-strap sections slidably engaging said loops and terminating in hooks for engagement with said intermediate apertures.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

HERNANDO B. GRA.

Witnesses:
J. I. MANSFIELD,
WILLIAM HANSEN.