Nov. 26, 1940. J. H. HAMILTON 2,223,253

UMBRELLA SUPPORT

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Fig. 1.

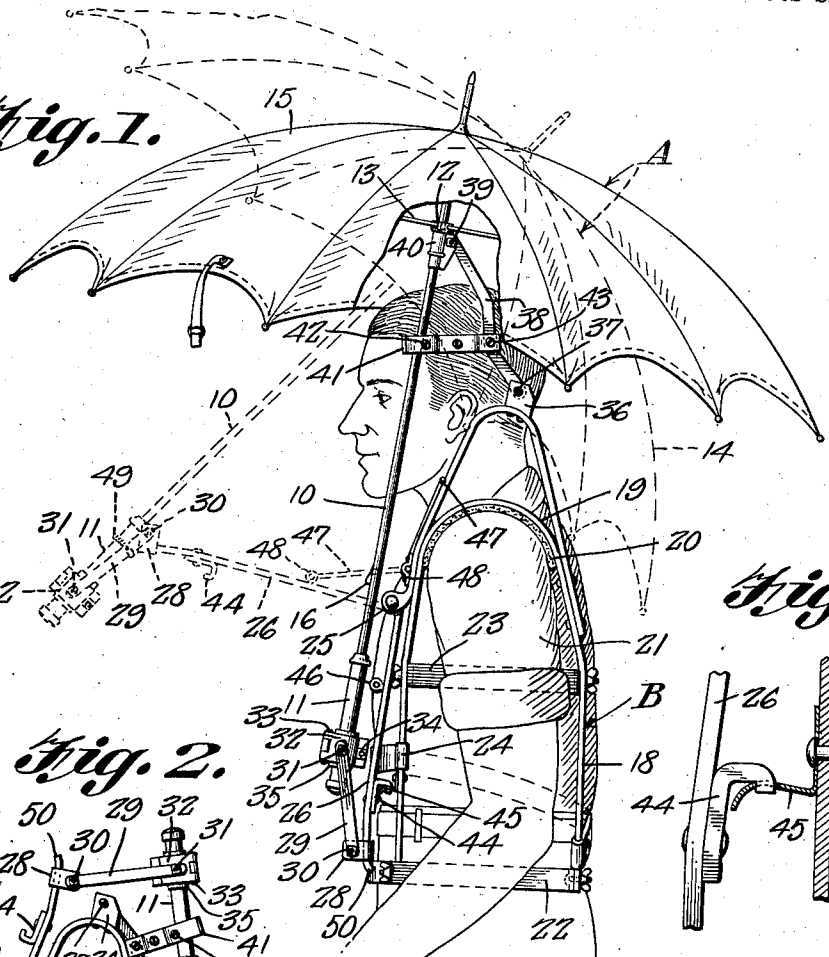


Fig. 9.

Fig. 2.

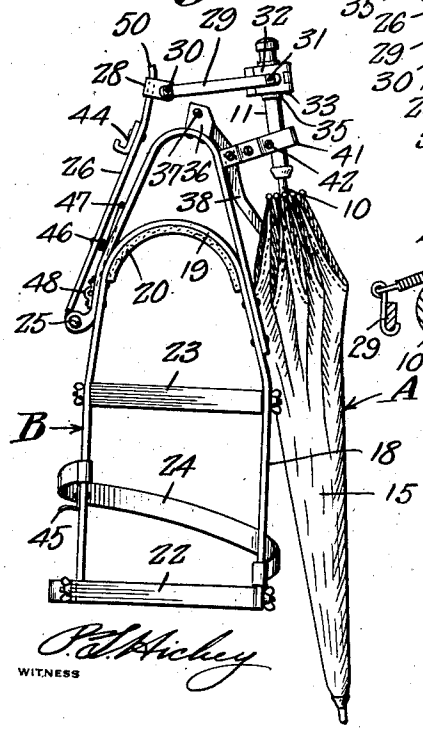


Fig. 10.

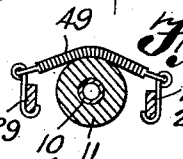
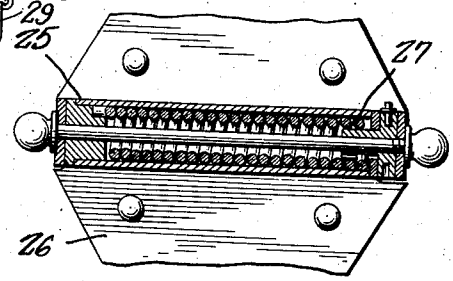


Fig. 8.



Pat Hickey
WITNESS

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Fig. 3.

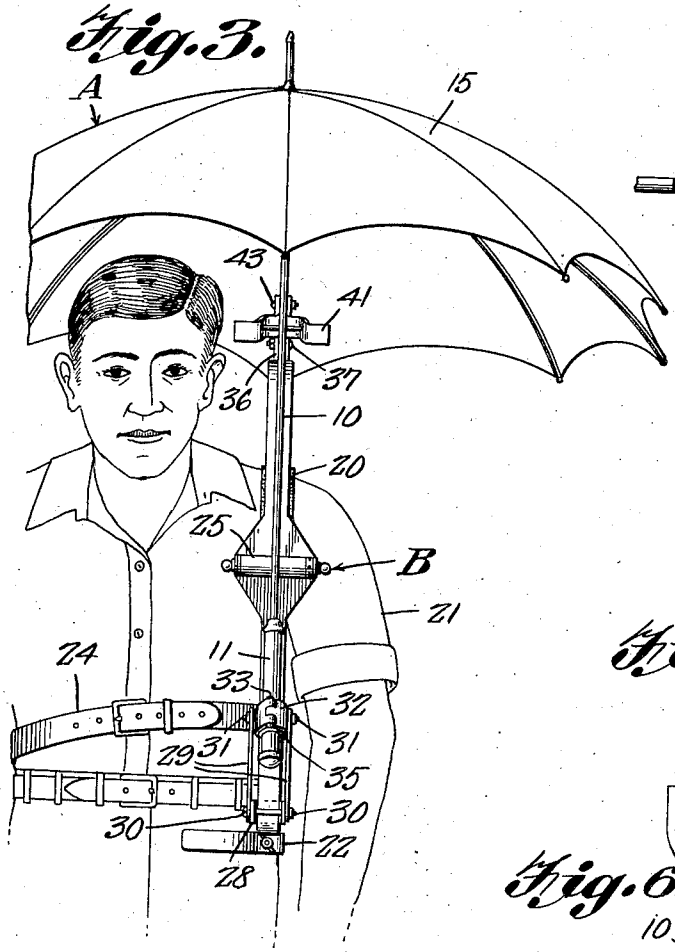


Fig. 4.

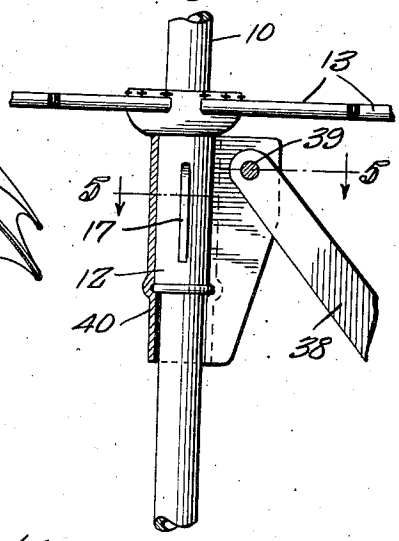


Fig. 5.

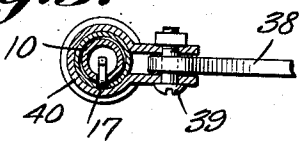


Fig. 6.

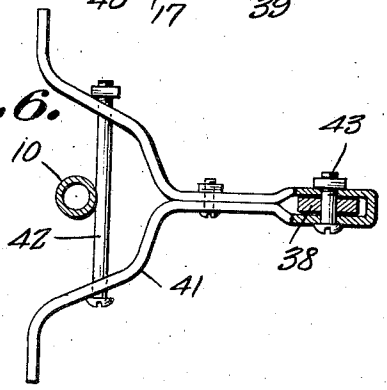
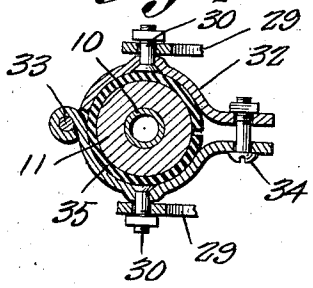


Fig. 7.



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WITNESS

Patented Nov. 26, 1940 2,223,253

UNITED STATES PATENT OFFICE

2,223,253

UMBRELLA SUPPORT

James H. Hamilton, Cumberland, Md.

Application August 30, 1939, Serial No. 292,718

4 Claims. (Cl. 224—5.1)

The invention relates to a harness and more especially to an umbrella support or carrier.

The primary object of the invention is the provision of a device of this character, wherein through the use of a shoulder saddle and a belt an umbrella can be conveniently supported and manipulated for the folding thereof or the opening or unfolding of said umbrella while supported on the person and in this way eliminating the necessity of the hand carrying of the umbrella and also when such umbrella is folded it will be out of the way at the back of the user.

Another object of the invention is the provision of a device of this character wherein the umbrella when extended or opened can be held in several adjusted positions over the head of a wearer and when folded is conveniently carried on the person leaving the hands of such wearer free and in this manner the umbrella is at all times ready for use, being worn by such wearer and will lend no discomfort in the wearing or interfere with body movements of the person and avoids the possible loss of the umbrella in the hand carrying thereof.

A further object of the invention is the provision of a device of this character, wherein the umbrella supported thereby when in a folded or unfolded position will be latched so as to avoid derangement from those positions or interfere with the activity of the wearer, the device being especially adaptable for use by mail carriers, laborers, mechanics or the like.

A still further object of the invention is the provision of a device of this character, which is simple in construction, unique in kind, thoroughly reliable and efficient in operation, readily and easily applied and removed, eliminating the hand carrying of an umbrella or the like, assuring ready folding and unfolding of the umbrella, convenient in the carrying thereof upon the person, and inexpensive to manufacture.

With these and other objects in view, the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter more fully described in detail, illustrated in the accompanying drawings, which disclose the preferred embodiment of the invention and pointed out in the claims hereunto appended.

In the accompanying drawings:

Figure 1 is a fragmentary side elevation of a device constructed in accordance with the invention, being worn by the person and illustrating by full lines the open position of the umbrella and by dotted lines an adjusted position thereof.

Figure 2 is a view similar to Figure 1 illustrating only the folded position of the umbrella.

Figure 3 is a front elevation with the umbrella open.

Figure 4 is an enlarged fragmentary vertical longitudinal sectional view.

Figure 5 is a sectional view on the line 5—5 of Figure 4 looking in the direction of the arrows.

Figure 6 is another transverse sectional view through the device.

Figure 7 is still another transverse sectional view through the device.

Figure 8 is an elevation partly in section through a hinge element of the device.

Figure 9 is a fragmentary side elevation partly in section showing in detail the latch for the holding of the umbrella in a fully raised open condition.

Figure 10 is a sectional view showing in detail a coiled spring attachment used with the umbrella when in the position as shown by dotted lines in Figure 1 of the drawings.

Similar reference characters indicate corresponding parts throughout the several views in the drawings.

Referring to the drawings in detail, A designates generally an umbrella of conventional foldable type and B generally the device constituting the present invention hereinafter fully described.

The umbrella A, as is usual, includes a staff 10 provided with a handle 11 and on which staff travels a runner 12 to which are pivoted the braces 13 connected to the ribs 14 which are swingingly connected to the said staff 10 and carry the cover 15, which is foldable or extended or opened on adjustment of the said runner 12 upon the staff 10. The staff 10 is equipped with latches 16 and 17, respectively, engaging the runner 12 to hold the same latched when the umbrella is folded or extended as is customary.

The device B comprises a shoulder saddling frame 18 having built therewith a shoulder saddle 19 fitted with a pad 20 and this padded saddle 19 rides the shoulder of a person exhibited at 21. The frame 18 at its lower end has detachably secured thereto a body yoke 22 for engaging the person adjacent to the waist line or slightly above the hip area. This frame 18 also has detachably secured thereto a cross strap 23 which makes contact with the body of the person below the arm crotch.

The frame is equipped with an adjustable belt 24 which embraces the body of a person for the fastening of the frame in place upon such person

and sustaining the frame 18 hung from the shoulder.

Connected forwardly of the frame 18 adjacent to the saddle 19 is a spring hinge 25 which is attached to a vertically swingable arm 26, the spring 27 of this hinge 25 being adapted to urge the said arm 26 upwardly and rearwardly against the upper portion of the frame 18. The arm 26 at the outer end thereof carries a U bar 28 to which are pivoted spaced links 29, the pivots being indicated at 30. These links 29 are pivoted at 31 to opposite sides of a handle clamp including the two jaw parts 32 hingedly connected at 33 and separably fastened in clamping relation to each other by a fastener 34. See Fig. 7. This clamp carries a soft lining 35 and is adapted to fixedly embrace the handle 11 of the staff 10 of the umbrella A as is shown in Figures 1, 2 and 3 of the drawings to enable articulation of the said umbrella A in the folding and unfolding thereof as well as adjustment of said umbrella in several open positions.

Fixed to the upper end of the frame 18 is a bearing 36 having pivoted thereto at 37 a vertically swingable lever 38, which is pivoted at 39 to a split clamp 40 engaged about and held fast on the runner 12. See Fig. 5. This lever 38 controls the runner when unlatched on the staff 10 on the swinging of the arm 26 for the automatic opening and closing or unfolding and folding of said umbrella A in the operation thereof.

Fitted with the lever 38 is a substantially Y-shaped prop 41 carrying a cross fulcrum member 42 against which rides the staff 10, the prop being connected at 43 to the said lever 38, Figs. 1 to 3 and 6, so that on articulation of the device and the said umbrella the staff 10 will fulcrum upon this member 42 through movements thereof.

The arm 26 has fixed thereto a latching hook 44 engageable with a springy keeper 45 on the frame 18 and such latching hook engages with the latter when the umbrella is in a raised or open position over the head of the person 21 as shown by full lines in Figure 1 of the drawings. See also Fig. 9. This arm 26 also carries a keeper eye 46 for the detachable engagement therein of an elongated latching hook 47 loosely attached at 48 to the said frame 18 and when the umbrella A is raised open or unfolded to the position as shown by dotted lines in Figure 1 of the drawings the said umbrella can be latched in such position by the engagement of the latching hook 47 in the eye 46.

When the umbrella is to be folded or closed after the raising or opening thereof and its adjustment in this condition to the two positions as above mentioned the user of such umbrella grasps the handle 11 and by upward push thereon after unlatching the arm 26 the staff 10 will arcuately swing rearwardly and through activity of the lever 38 the ribs 14 will automatically fold. The cover 15 becomes collapsed when the umbrella A has completed the arcuate rearward movement imparted thereto so that this umbrella when in a folded condition will be disposed rearwardly of the back of the user or person 21 and be held in the position exhibited in Figure 2 of the drawings, being out of the way and compact. The handle 11 of the umbrella in this position shown in Figure 2 of the drawings will rest against the member 42 of the prop 41, there being no liability of accidental forward movement of the said umbrella from this position and such forward movement will be brought about by the manual manipulation of the umbrella.

When the umbrella A is in an open condition and fully raised with the staff 10 assuming a substantially vertical position, the latter will rest on the member 42 of the prop 41. The latching hook 44 engaging the keeper 45 holds the umbrella in this position. On engaging the latching hook 47 in the eye 46 after the umbrella has been adjusted to the dotted line position shown in Figure 1, such umbrella will be held in that position. The runner 12 pivoted to the lever 38 travels on the staff 10 of the umbrella A in reverse directions for the opening and closing or unfolding and folding of the umbrella, the handle 11 of the staff 10 being pushed or pulled for the changing of the position of the umbrella in the automatic folding and unfolding operation thereof.

When the umbrella is adjusted to the position shown by dotted lines in Figure 1 of the drawings, there is disposed in bridging relation to the handle 11 of the staff 10 a coiled spring 49 which is separably attached to the links 29 so that these will be held against swinging movement and in this position shown by dotted lines in said Figure 1 of the drawings substantially in longitudinal matching relation to the handle with the said handle 11 resting in the bearing 28 and avoiding any outward and upward displacement of the staff 10.

The arm 26 is extended to provide a hand grip 50 so that a hand hold is offered for opening the umbrella and in bringing it to a raised position when folded as shown in Figure 2 of the drawings.

The umbrella construction hereinbefore set forth is especially adaptable for use by farmers and especially during sunshine or rainy weather.

What is claimed is:

1. A support for an umbrella having a staff provided with a slidable runner and handle, comprising a frame having a shoulder saddle, an arm swingingly connected to said frame forwardly thereof for vertical movement, a clamp for detachable engagement with the handle and pivotally linked with said arm, a lever for vertical swinging movement pivoted to the upper portion of the frame, a clamp engaging the runner and pivotally connected to said lever, and means on the frame and engageable with the arm for selectively holding it in one of several adjusted positions.

2. A support for an umbrella having a staff provided with a slidable runner and handle, comprising a frame having a shoulder saddle, an arm swingingly connected to said frame forwardly thereof for vertical movement, a clamp for detachable engagement with the handle and pivotally linked with said arm, a lever for vertical swinging movement pivoted to the upper portion of the frame, a clamp engaging the runner and pivotally connected to said lever, means on the frame and engageable with the arm for selectively holding it in one of several adjusted positions, and a yoke on the said lever and having a fulcrum for the staff.

3. A support for an umbrella having a staff provided with a slidable runner and handle, comprising a frame having a shoulder saddle, an arm swingingly connected to said frame forwardly thereof for vertical movement, a clamp for detachable engagement with the handle and pivotally linked with said arm, a lever for vertical swinging movement pivoted to the upper por-

tion of the frame, a clamp engaging the runner and pivotally connected to said lever, means on the frame and engageable with the arm for selectively holding it in one of several adjusted positions, a yoke on the said lever and having a fulcrum for the staff, and a tensioning spring cooperating with the pivotal connection between the arm and said frame.

4. A support for an umbrella having a staff provided with a slidable runner and handle, comprising a frame having a shoulder saddle, an arm swingingly connected to said frame forwardly thereof for vertical movement, a clamp for detachable engagement with the handle and pivotally linked with said arm, a lever for vertical swinging movement pivoted to the upper portion of the frame, a clamp engaging the runner and pivotally connected to said lever, means on the frame and engageable with the arm for selectively holding it in one of several adjusted positions, a yoke on the said lever and having a fulcrum for the staff, a tensioning spring cooperating with the pivotal connection between the arm and said frame, means for securing the frame to the body of a person and arranged below the saddle, and a yoke at the lower end of the frame for straddling the body of said person.

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