

Oct. 21, 1941.

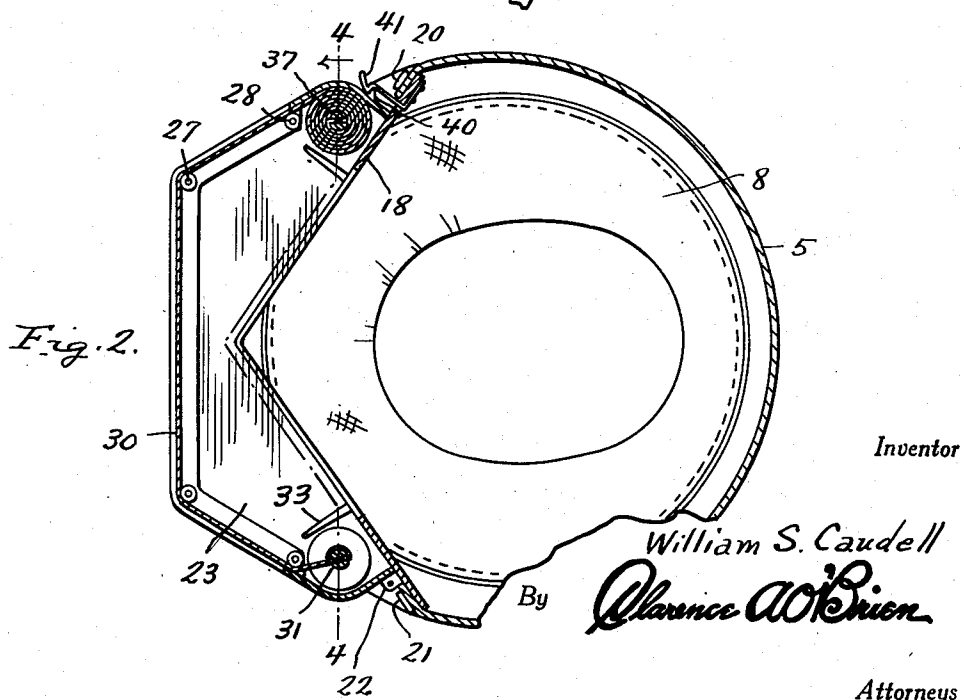
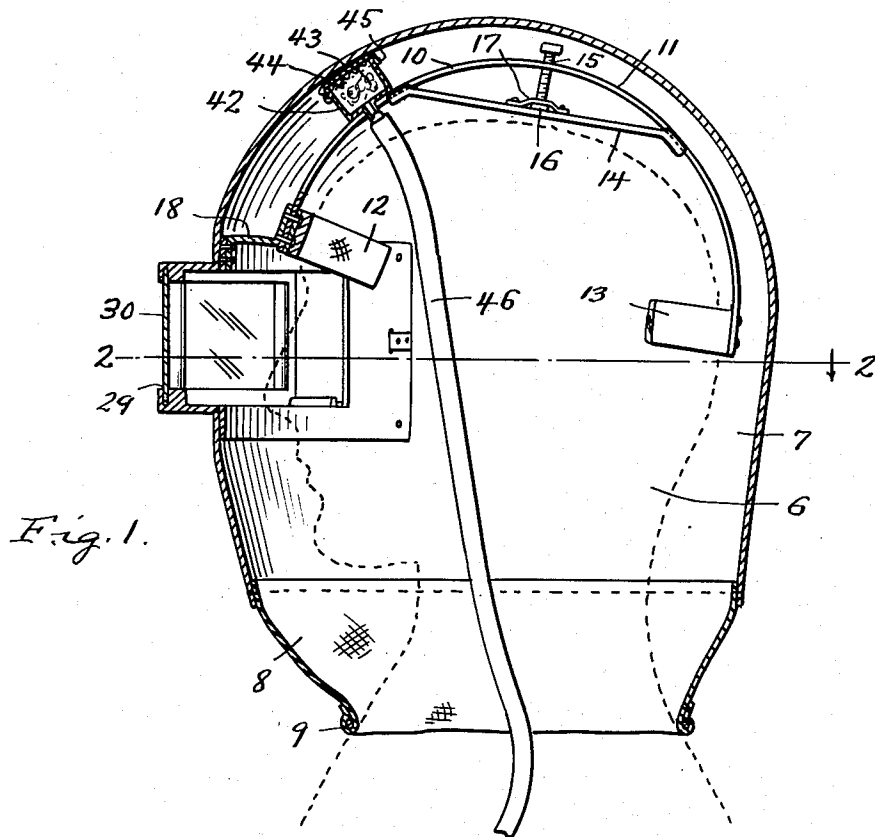
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2,259,680

WORKMAN'S PROTECTIVE HOOD

Filed May 21, 1940

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

Fig. 3.

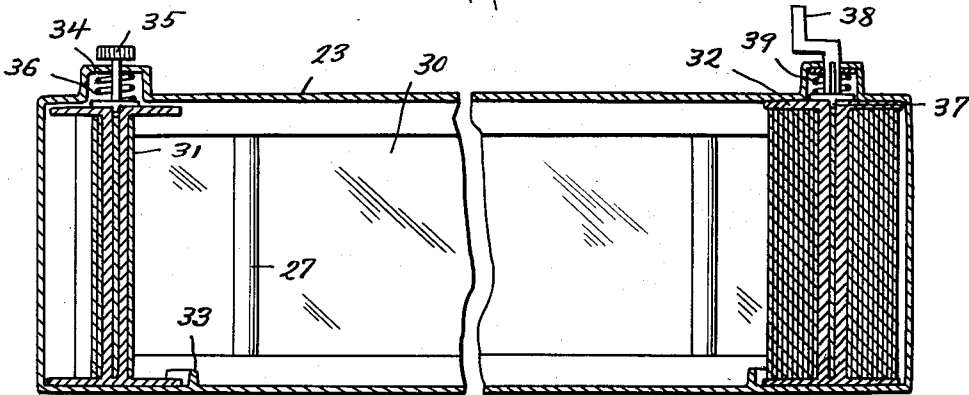
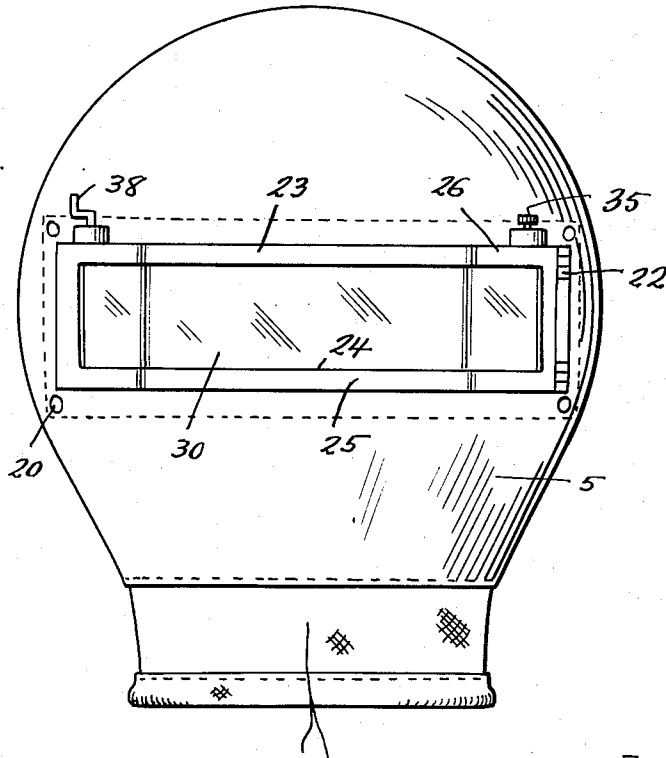


Fig. 4.

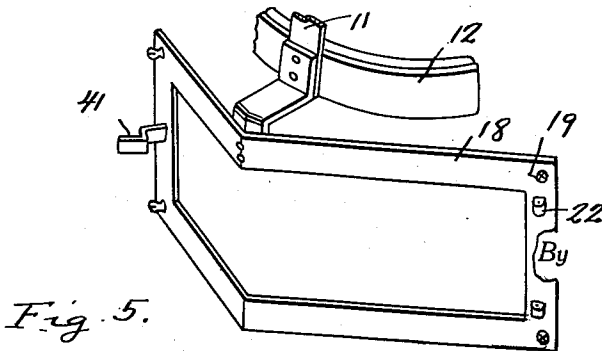


Fig. 5.

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UNITED STATES PATENT OFFICE

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WORKMAN'S PROTECTIVE HOOD

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12 Claims. (Cl. 2-8)

The present invention relates to new and useful improvements in hoods for workmen to protect the head of the workman from fine mist or spray while using a spray gun for painting purposes and has for its primary object to provide a hood structure which entirely encloses the head of the workman and having a window opening therein across which is movable a web mounted on a double reel whereby to enable the workman to move a clear section of the transparent web into position in the window when desired.

A further important object of the invention is to provide a casing for the transparent web providing means for removing the same across the window opening and also providing means for sealing the edges of the web to prevent any possibility of the paint spray from working under the helmet.

Another object is to provide a hood structure made from paper or other lightweight material and having an adjustable frame for clamping on the head of the wearer which supports the hood in position thereon.

An additional object is to provide a device of this character of simple and practical construction, which is efficient and reliable in performance, relatively inexpensive to manufacture and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which—

Figure 1 is a vertical sectional view through the hood,

Figure 2 is a horizontal sectional view taken substantially on a line 2-2 of Figure 1,

Figure 3 is a front elevational view,

Figure 4 is a sectional view through the double reel and web casing taken substantially on a line 4-4 of Figure 2, and

Figure 5 is a perspective view of the frame which is detachably connected in the window opening of the hood and forms the supporting means for the double reel and web casing.

Referring now to the drawings in detail, wherein for the purpose of illustration I have disclosed a preferred embodiment of the invention, the numeral 5 designates the hood which is of generally spherical form and of a size adapted for fitting over the head 6 of a person and to be spaced therefrom to provide an air space 7

under the hood. The bottom end of the hood is open and has attached to its lower edge a neck shield 8, the hood 5 being preferably constructed of paper or other lightweight material, while the shield 8 may be constructed of suitable cloth and has a drawstring 9 arranged in its bottom edge by means of which the shield may be drawn tightly about the neck of the wearer.

Positioned under the hood is a head clamping frame 10 including an arcuate spring metal strip 11 having arcuately shaped head clamping members 12 and 13 secured to the front and rear ends of the strip 11. Positioned within the frame, adjacent its upper portion, is a cross bar 14 having its ends slidably engaging the strip 11 and threaded through the strip is an adjusting screw 15 having a head 16 at its lower end bearing against the cross bar 14 and secured thereto by means of a bracket 17, the bracket permitting free rotation of the screw. The screw 15 produces a contracting or expanding action of the free end of the spring strip 11 whereby to adjust the size of the frame to accommodate the head of the wearer.

To the front end of the strip 11 is secured a frame member 18 of generally rectangular form at the corners of which are positioned the stud members 19 of snap fasteners adapted for engaging the companion part 20 of the snap fasteners secured at the edge portions of a window opening 21 formed in the front surface of the hood 5. The longitudinal sides of the frame member 18 are bent angularly as shown to advantage in Figures 2 and 5 of the drawings to prevent interference with the nose of the wearer.

At one end of the frame is formed a pair of outwardly projecting lugs 22 on which is hingedly connected a double reel and web casing member 23 which also is substantially in the form of a frame having a rectangular-shaped window opening 24 formed therein registering with the opening 21 of the frame 18.

The frame 23 includes a transversely extending front portion 25 and rearwardly inclined side portions 26 at the corners of which are positioned vertically extending rollers 27, and similar rollers 28 are also positioned adjacent the rear end portion of the casing. The upper and lower edges of the window opening 24 of the casing are formed with channels 29 within which are slidably received the edge portions of a Cellophane or other transparent sheet 30 which is trained over the rollers 27 and 28, one end of the Cellophane sheet being secured to a reel 31 while

the other end of the sheet is secured to a reel 32. The reels are positioned upright and the bottom flanges of each reel are retained against displacement by means of an upstanding lug 33 formed on the inside of the casing 23, the upper end of the reel 31 being engaged by a stub shaft 34 journaled in the top of the casing and having a manipulating head 35 at its outer end, a coil spring 36 surrounding the stub and arranged for exerting tension on the reel to prevent idle rotation thereof.

The upper end of the reel 32 also has engaged therewith a stud 37 on the outer end of which is formed a crank handle 38, the stud engaging a slot in the upper end of the reel to enable rotation thereof through the manipulation of the crank handle. A coil spring 39 is also arranged on the stud to likewise exert tension on the reel 32.

On the outer surface of the free end of the casing 23 is formed a lug 40 with which a spring catch 41 carried by the frame 18 is engageable for releasably securing the free end of the casing in a closed position against said frame.

Secured to the spring member 11 is a filter casing 42 having a quantity of steel wool or other filtering material 43 therein and over which is positioned a screen 44 held in position by a perforated cap 45. From the casing 42 extends a tube 46 which leads downwardly under the shield 8 to the atmosphere.

From the foregoing it will be apparent that the frame 10 may be adjusted to secure the same in proper position on the head of the wearer and thus serve to hold the hood 5 in the proper position thereon with the window opening in registry with the eyes of the person. Should the transparent web or sheet 30 become blurred or obscured by mist from the paint a fresh section of the web may be moved into position by manipulation of the crank 38.

It is believed the details of construction, advantages, and manner of use of the device will be readily understood from the foregoing without further detailed explanation.

Having thus described the invention, what I claim is:

1. A hood of the class described comprising a flexible head enclosing member having a window opening therein, a rigid frame detachably secured in position to the edges of said opening inwardly of the hood, head clamping means secured to said frame, a casing attached to the outside of the frame and having a front opening therein spaced forwardly of the frame and registering with said window opening, a double reel mounted in the casing and a transparent web attached to said reel for movement across the opening in said casing.

2. A head protector comprising a flexible head covering having a window opening therein, a rigid open frame secured to the edges of the window opening, a casing secured to the frame and projecting forwardly of the opening, said casing also having a window opening registering with the first named opening, guide channels in the upper and lower edges of the casing at the front edge thereof and a transparent cover having its edges movable in said channels across said openings.

3. A head protector comprising a flexible head covering, a head clamping member within the covering, said covering having a window opening, a rigid open frame secured to said clamping member and fitted in said window opening

and a transparent cover movable across said opening.

4. A head protector comprising a flexible head covering, a head clamping member within the covering, said covering having a window opening, a rigid open frame secured to the clamping member and detachably connected to the edges of said window opening and a transparent cover movable across said opening.

5. A head protector comprising a flexible head covering, a head clamping member within the covering, said covering having a window opening, a rigid open frame secured to said clamping member and fitted in said window opening, a casing secured to the frame and having a window opening registering with the opening of the covering and a transparent closure movable across the opening of the casing.

6. A head protector comprising a flexible head covering, a head clamping member within the covering, said covering having a window opening, a rigid open frame secured to said clamping member and fitted in said window opening, a casing secured to the frame and having a window opening registering with the opening of the covering and a flexible transparent closure movable across the opening of the casing.

7. A head protector comprising a flexible head covering, a head clamping member within the covering, said covering having a window opening, a rigid open frame secured to said clamping member and fitted in said window opening, a casing secured to the frame and having a window opening registering with the opening of the covering and a double reel and transparent web mounted in the casing, said web being movable across the opening in the casing.

8. A head protector comprising a flexible head covering, a head clamping member within the covering, said covering having a window opening, a rigid open frame secured to said clamping member and fitted in said window opening, a casing secured to the frame and having a window opening registering with the opening of the covering, said opening in the casing having guide channels in its upper and lower edges and a flexible transparent closure mounted in said channels and movable across the last named opening.

9. A head protector comprising a flexible head covering, a head clamping member within the covering, said covering having a window opening, a rigid open frame secured to said clamping member and fitted in said window opening, a casing hinged at one edge to the frame, catch means releasably securing the other edge of the casing to the frame, said casing having a window opening registering with the opening of the covering and a transparent closure movable across the opening of the casing.

10. A head protector comprising a flexible head covering, a head clamping member within the covering, said covering having a window opening, a rigid open frame secured to said clamping member and fitted in said window opening, a casing hinged at one edge to the frame, catch means releasably securing the other edge of the casing to the frame, said casing having a window opening registering with the opening of the covering, a pair of reels rotatably mounted in the casing adjacent opposite sides of the opening therein and a flexible transparent web connected to the reels for movement across said opening in the casing.

11. A head protector comprising a flexible

head covering, a head clamping member within the covering, said covering having a window opening, a rigid open frame secured to said clamping member and fitted in said window opening, an air feed tube leading upwardly into the covering and a filter at the inner end of the tube and secured to said head clamping member.

12. A head protector comprising a flexible head covering, a head clamping member within the covering, said clamping member includ-

5 ing a plurality of arcuate clamping plates and an arcuate spring strip connecting said plates, means for expanding and contracting said spring strip for adjusting the plates relative to each other, said covering having a window opening, a rigid open frame secured to said clamping member and fitted in said window opening and a transparent cover movable across said opening.

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