

April 14, 1931.

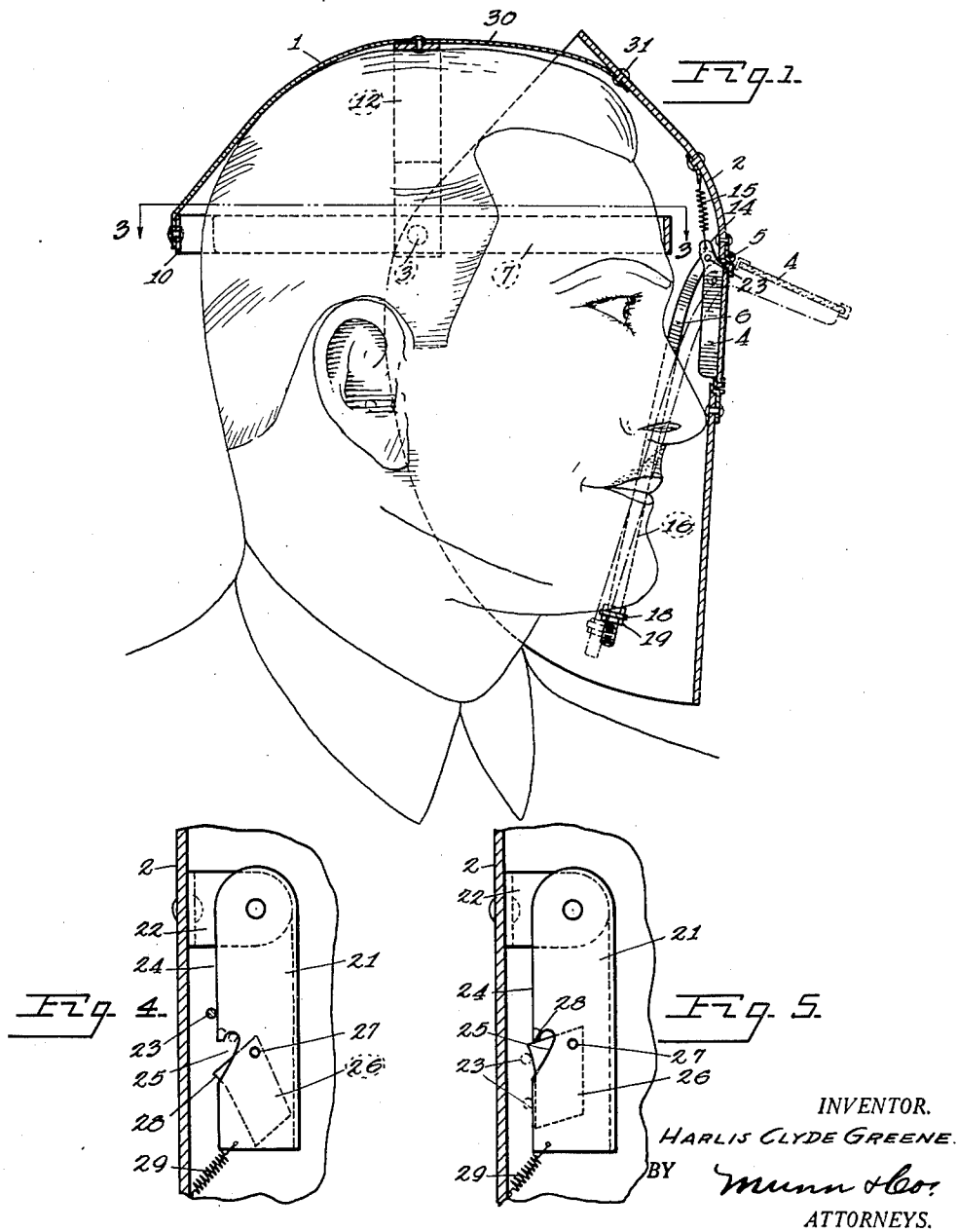
H. C. GREENE

1,800,623

WELDER'S HOOD

Filed March 27, 1930

2 Sheets-Sheet 1



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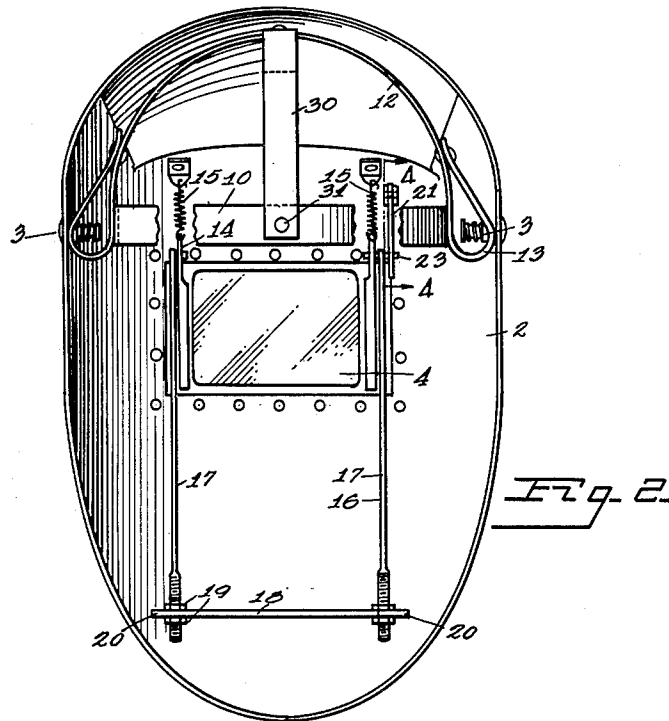
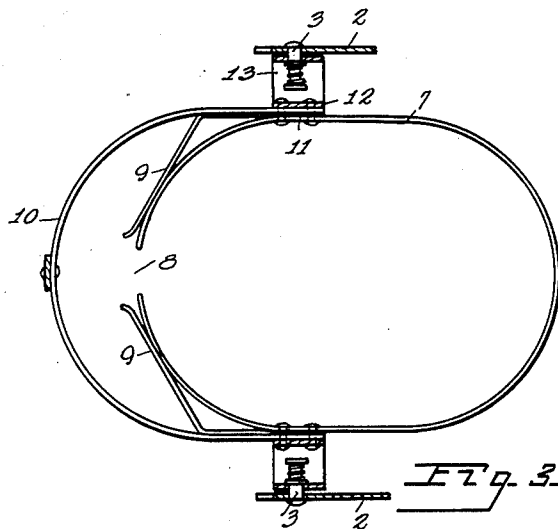
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WELDER'S HOOD

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The present invention relates to improvements in welder's hoods and its particular object is to provide means facilitating the opening of the lenses for allowing the user a clear view of the materials to be worked on. A further object of the invention is to provide means for opening the lenses that may be worked by a movement of the chin and therefore does not require the use of the hands which not only saves considerable time but leaves the hands free for other purposes.

A further object of the invention is to provide means for automatically locking the lenses in open position. A further object of the invention is to provide locking means that will yield to further chin movement for allowing the lenses to return to closed position.

Further objects and advantages of my invention will appear as the specification proceeds.

The preferred form of my invention is illustrated in the accompanying drawing, in which

Figure 1 shows a vertical section through my welder's hood, the latter being shown in its relation to a human head;

Figure 2 a rear view of the hood;

Figure 3 a horizontal section taken along line 3—3 of Figure 1;

Figure 4 an enlarged detail section taken along line 4—4 of Figure 2; and

Figure 5 a similar section showing certain elements in a different working position.

While I have shown only the preferred form of the invention, I wish to have it understood that various changes or modifications may be made within the scope of the claims hereto attached, without departing from the spirit of the invention.

In its preferred form my invention comprises a conventional head gear 1, a hood section 2 of conventional form pivoted thereto as at 3, a glass or lens 4 pivoted to the hood as at 5 for swinging motion between open and closed position, and operating means for opening and closing the lens shown at 6.

The head gear comprises a band 7 adapted to surround the head in substantially hori-

zontal position, open in the rear as shown at 8 and compressed by two spring members 9 which are supported by a second horizontal band 10 fastened to the first band as shown at 11. A vertical band 12 is arranged transversely across the bands thus far described for resting on top of the head and this band terminates in loops 13 to which the hood section is pivoted as shown at 3.

The hood section is of conventional form and the lens 4 has two spaced projections 14 extending beyond its pivot, springs 15 acting on these projections for normally closing the lens. These projections also have a yoke 16 suspended therefrom, the yoke including two legs 17 and a transverse member 18 adjustably secured to the ends thereof by means of nuts 19. The transverse member is preferably made of fiber and normally extends under the chin of the person using the hood. It is kept at a sufficient distance from the front wall of the hood by its length since it projects beyond the legs 17 as shown at 20 which in conjunction with the curved form of the hood normally holds the member 18 in the position shown in Figure 1.

It will be seen that for opening the lens it is merely necessary for the user to depress his chin, which will cause the lens to move into the dotted line position indicated in Figure 4.

In connection with the opening means, I provide means for maintaining the lens in open position illustrated particularly well in Figures 4 and 5. This means comprises a link 21 pivoted in a clip 22 extending inwardly from the hood section above one of the pins 23 by means of which the yoke is suspended from the projection 14. As this projection is swung downward and the pin 23 moves downward with it, it rides along one edge 24 of the link 21 until it enters a recess 25 which is formed to hold the pin 23 against reverse motion. This recess, however, allows of further advance motion of the pin 23 and such further advance gradually leads the pin out of the recess. The link 21 has a bridging member 26 pivoted thereto as at 27 and this bridging member normally occupies the position shown in Figure 5 so as to

present a nose 28 at the entrance to the recess which is crowded away by the pin entering the recess. As the pin travels further it swings the bridging member into a position where it does not interfere with the exit of the pin 23, and as soon as the pin 23 has cleared the recess altogether the member 26 drops back into the position shown in Figure 5 in which it forms a bridge across the recess for the pin as the latter returns. A spring 29 fastened to the lower end of the link 21 opposes the action of the pin 23.

It will be noted that when the operator depresses his chin for operating the lens there is a tendency for the hood section to swing relative to the head gear on the pivot 3, and in order to prevent this I provide a ribbon 30 which connects the upper end of the hood section as at 31 with the transverse member 12, and the horizontal band 10, so as to prevent forward tilting of the hood section relative to the head gear.

The manner in which my invention is used should be readily understood from the foregoing description. For opening the lens the operator merely depresses his chin until the pin 23 riding along the edge of the link 21 is caught in the recess 25. Now the lens is automatically held in the open position. To close the lens the operator executes a further chin movement whereby the pin 23 is made to leave the recess 25 and to pass the upper edge of the bridging member 26, which latter thereupon returns to the position shown in Figure 5, and forms a bridge for the returning pin 23, and thus allows the lens to be closed due to the action of the springs 15.

I claim:

1. In a welder's hood, a hood section pivoted thereto, chin-actuated means for swinging the section into open position, a member carried by the hood section and having a hook-shaped recess, a pin carried by the section and being receivable in the recess when said means swings said section into open position, and a gravity-actuated bridging member pivotally secured to the first member and normally leaving the recess unobstructed, said means upon further movement causing the pin to engage with the bridging member, whereby a releasing of the means will permit the closing of the section.

2. In a welder's hood, a hood section pivoted thereto, chin-actuated means for swinging the section into open position, a member pivotally carried by the hood section and having a hook-shaped recess, spring means for moving said member in one direction, a pin carried by the section and being receivable in the recess when said means swings said section into open position, and a gravity-actuated bridging member pivotally secured to the first member and normally leaving the recess unobstructed, said means upon further movement causing the pin to engage with the

bridging member, whereby a releasing of the means will permit the closing of the section.

3. In a welder's hood, a hood section pivoted thereto and having an arm extending into the hood and provided with a pin, chin actuated means for opening the section and causing the pin to move, a hook-shaped member disposed in the path of the pin for engaging with it when the section is opened for holding the section in open position, a bridging member pivotally carried by the hook-shaped member and being engaged by the pin when said means moves the pin out of engagement with the hook-shaped member, said section when released by said means moving the pin into normal position, the bridging member preventing the pin from engaging with the hook-shaped member during this movement.

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