

April 16, 1929.

C. B. AUDEL

1,709,765

SAFETY DEVICE

Filed May 28, 1925

Fig. 1.

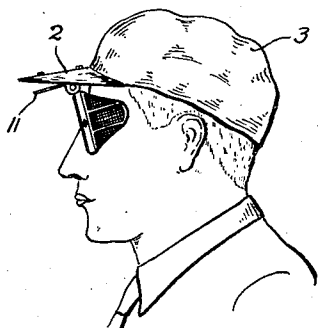


Fig. 2.

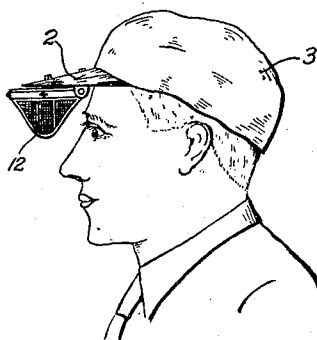


Fig. 3.

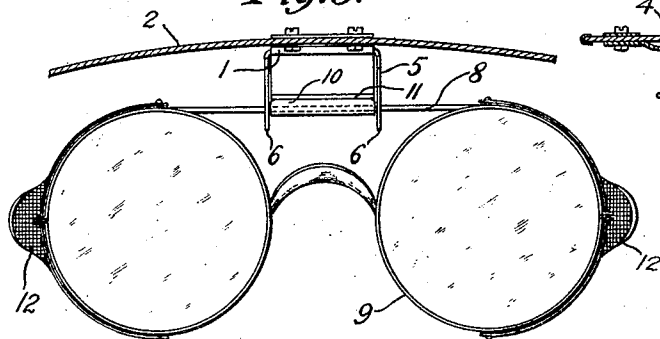


Fig. 4.

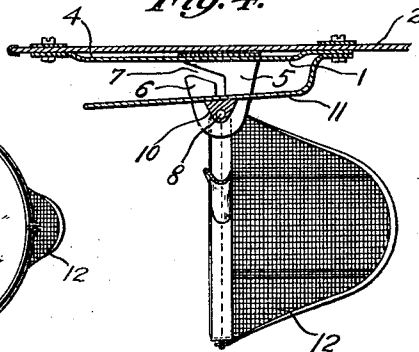


Fig. 5.

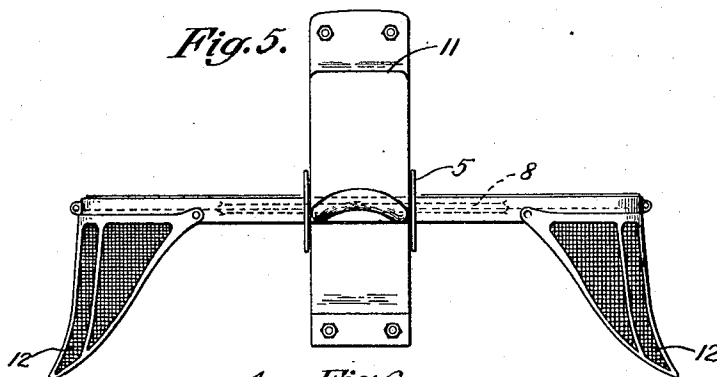
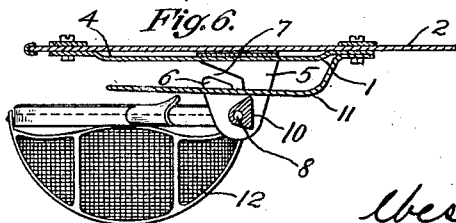


Fig. 6.



WITNESSES:

Carl J. Loew
J. P. Langley

INVENTOR
Carl B. Auel

BY

Wesley E. Gann
ATTORNEY

UNITED STATES PATENT OFFICE.

CARL B. AUDEL, OF IRWIN, PENNSYLVANIA.

SAFETY DEVICE.

Application filed May 28, 1925. Serial No. 33,338.

My invention relates to safety devices, and it has particular relation to devices for protecting the eyes of persons that are subject to danger of injury by pieces, or particles, of flying material.

My invention has for one of its objects to provide a device of the character indicated above that may be conveniently worn and adjusted to such position as to conform to the face of the wearer.

A second object of my invention is to provide a simple and convenient means for mounting spectacles, goggles or the like whereby they may be easily and quickly adjusted to operative, or inoperative, position.

In many occupations, the eyes and the face of the operator may be injured by flying particles of metal, or other materials or by intense light or heat, as in welding. Goggles, or similar protective devices, are ordinarily employed. However, by reason of the inconvenience involved in placing them upon the head of the wearer and the further inconvenience caused by elastic bands, or other devices for retaining them in position, the use of safety devices of this character is often neglected by those for whom they are intended.

It is the purpose of the present invention to provide a device that is entirely supported by the cap or other head gear worn by operators of machines or those engaged in occupations where chips of metal, or other material, or intense light or heat, might injure the face or the eyes. The goggles, or spectacles, are arranged for adjustment toward and from the eyes of the wearer in order that they may be in proper operative position or they may be moved to inoperative position and folded in such manner as not to obstruct the vision. The goggles are adjusted vertically by an appropriate movement of the cap.

The details of my invention will be described in connection with the accompanying drawing, in which

Figure 1 is a side view of a safety device embodying my invention in operative position upon the cap of an operator;

Fig. 2 is a similar view, with the goggles folded outwardly in inoperative position;

Fig. 3 is a view in elevation of a pair of goggles mounted in accordance with my invention, a portion of the supporting member being shown in section;

Fig. 4 is a transverse sectional view of the apparatus of Fig. 3;

Fig. 5 is a bottom plan view of the goggles and the supporting mechanism; and

Fig. 6 is a view, similar to Fig. 4, with the goggles folded outwardly and with the protective shield folded inwardly.

Referring to the drawing, a supporting mechanism for a pair of goggles, spectacles, or the like, comprises a bracket 1 that may be secured to any suitable portion of a head gear, such, for example, as the visor 2 of a cap 3 that may be worn by an operator. The bracket 1 is provided with an offset portion 4 to constitute a guide member for a member 5 that is slidably mounted thereon.

The member 5, which is substantially of U-shape, comprises a central portion that is adapted to slide between the visor 2 and the offset portion 4 of the bracket 1. Each of the leg portions 6 of the member 5 is provided with a slot 7 for receiving a cross-bar 8 of a pair of spectacles or goggles 9. The bar 8 has rigidly secured thereto a member 10, of substantially triangular shape, and of such length as to fit between the leg portions 6.

A blade spring 11, which has one end secured to the bracket 1, extends parallel to the latter between the leg portions 6 and in engagement with the triangular member 10 to retain the bar 8 in position against the inner ends of the slot 7. The force exerted by the spring 11 causes the member 5 to engage the bracket 1 with such force as to yieldingly retain the member 5 in any longitudinal position to which it may be adjusted. The spring 11 also coacts with the sides of the triangular member 10 to yieldingly cause the rod 8 and its connected parts to remain in either of the three angular positions to which the spectacles 9 may be adjusted.

The spectacles or goggles 9 may be of the usual or ordinary type worn by machinists, grinders or operators for the protection of their eyes. The spectacles may be provided, if desired, at each side, with shields 12, of wire gauze, or other suitable material. The spectacles 9 may be replaced by a single piece of glass or other material for use in welding, for example.

In the use of my improved safety device, the cap may be placed upon the head of the operator in substantially the position shown in Figs. 1 and 2. The spectacles 9 may be adjusted to operative position, as illustrated

in Fig. 1, by sliding the member 5 along the bracket 1 until the spectacles are in proper position with respect to the face of the operator. The position of the cap determines the vertical position of the spectacles. The weight of the spectacles is entirely supported by the visor of the cap, and they are firmly held in position by the supporting mechanism that is secured to the cap.

If, however, it is desired to adjust them to inoperative position, it is only necessary to fold the spectacles outwardly, the spring 11 yieldingly permitting this movement. The spring 11 then coacts with the triangular member 10 to retain the spectacles in their folded position wherein they do not obstruct the view of the operator. The spectacles may also be folded inwardly in case, for example, it is desired to carry the cap and the spectacles in the pocket of the operator, since the spectacles are less likely to injury in such case. The shields 12 may also be folded inwardly for the purpose of rendering the device more compact.

It will be noted that I have provided an improved safety device that may be conveniently and simply adjusted to conform with the physiognomy of the wearer. In view of the fact that it is available, when desired, without removal of the head-gear to which it is attached, its use by the operator is much more probable than if it were necessary to remove the cap and to place an elastic band, or similar device, over the head of the wearer. It will be appreciated, also, that the spectacles may be removed or assembled, if desired, by compressing the spring to such degree that the cross-bar may be removed from, or inserted in, the retaining slots. The foregoing and other advantages will be apparent to those skilled in the art relating to similar devices.

I claim as my invention:

1. A protective device comprising a guide member, a member slidable therealong, a pair of goggles rotatably mounted in said slidable member to assume a plurality of positions, and means bearing on said goggles for retaining them in both a selected position in their slidable path and a selected position in their rotatable mounting.

2. A protective device comprising a slotted guide structure, a supporting member slidable in the slot thereof, a pair of goggles rotatably mounted in said slidable member to assume a selected position with respect to the face of the wearer, and a single means bearing upon the central portion of said

goggles for retaining them in both an adjusted position in said slot and a selected position in their rotatable mounting.

3. A protective device comprising a slotted guide structure, a supporting member slidable in the slot thereof, a pair of goggles having a three-position pivotal mounting in said slidable member, and a single spring secured to said guide structure and bearing on the three-position pivot of said mounting for retaining said goggles in both an adjusted position in said slot and in one of the three positions permitted by said pivotal mounting.

4. In a device for supporting eye-protecting means, in combination, a supporting member for attaching to a cap-visor, a slide member slidably mounted on the supporting member, means on the slide member for rotatably supporting eye-protecting means, said eye-protecting means being provided with a shaft of triangular cross section, and a spring carried by the supporting member, said spring being disposed to bear upon the triangular shaft of the eye-protecting means to restrain it in one of three possible positions and to simultaneously cause the slide member to frictionally engage the supporting member to restrain it from motion relative to the supporting member.

5. A supporting mechanism for an eye-protecting device comprising a bracket member adapted to be attached to a cap-visor, an inverted U-shaped member disposed to slidably engage the bracket member, each of the depending legs of the U-shaped member being provided with an open-end slot, a cross bar rotatably disposed in said slots, the portion of the cross bar between the depending portions being of triangular cross section, an eye-protecting device carried by the cross bar, and a flat spring member carried by the bracket member, said spring member being disposed to engage the triangular portion of the cross bar in such manner that it restrains the cross bar in any one of three predetermined positions and restrains the U-shaped member from motion relative to the bracket member by virtue of the frictional engagement therebetween, the eye-protecting device being removable by depressing the spring member to permit the cross bar being disengaged from the slot in the U-shaped member.

In testimony whereof, I have hereunto subscribed my name this 25th day of May 1925.

CARL B. AUDEL.