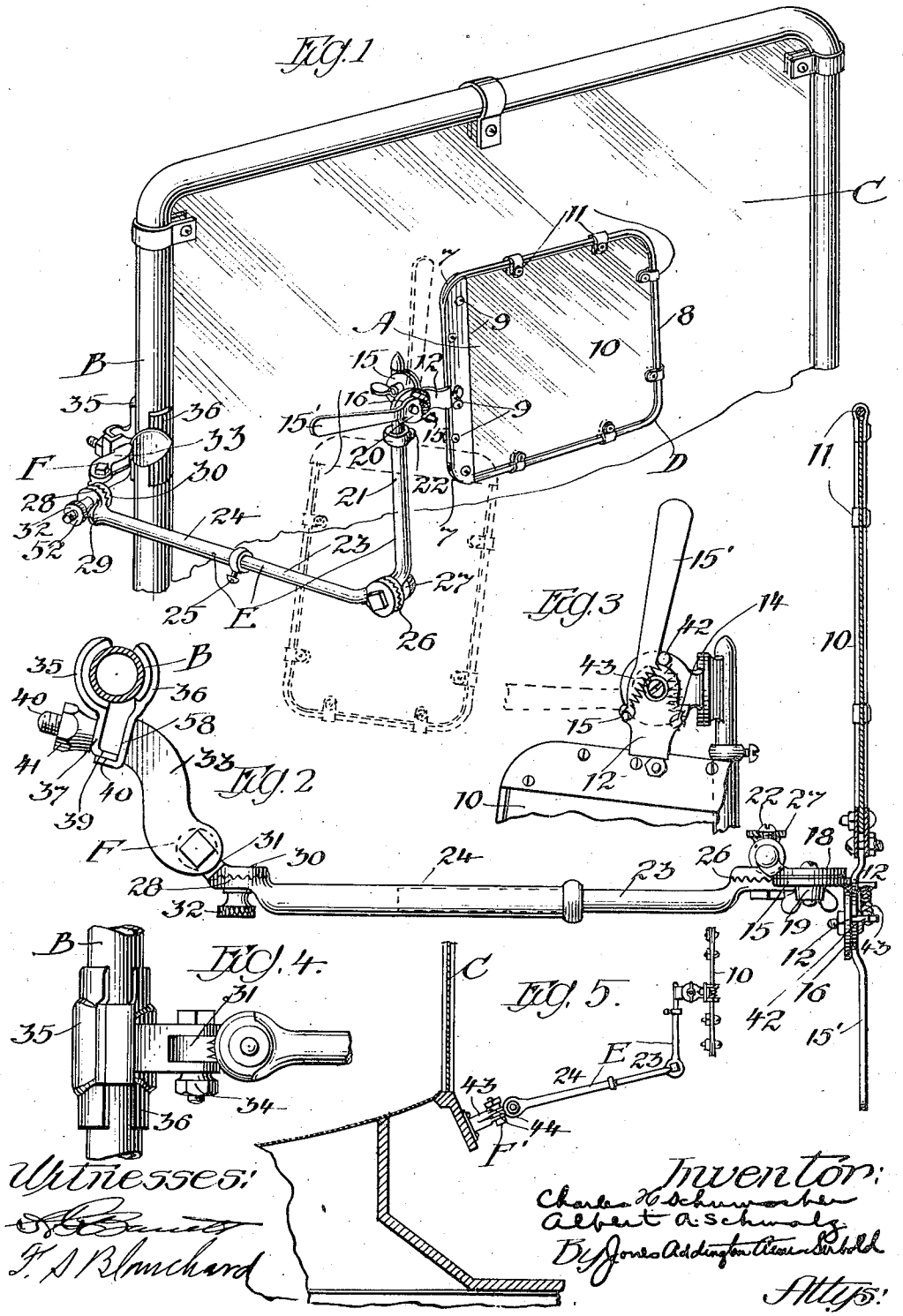
C. H. SCHUMACHER & A. A. SCHMALZ.

GLARE SHIELD.

APPLICATION FILED MAY 22, 1916.

1,275,311. Patented Aug. 13, 1918.



UNITED STATES PATENT OFFICE.

CHARLES H. SCHUMACHER AND ALBERT A. SCHMALZ, OF DUNDEE, ILLINOIS.

GLARE-SHIELD.

1,275,311. Specification of Letters Patent. Patented Aug. 13, 1918.

Application filed May 22, 1916. Serial No. 99,061.

To all whom it may concern:

Be it known that we, CHARLES H. SCHUMACHER and ALBERT A. SCHMALZ, citizens of the United States, residing at Dundee, in the county of Kane and State of Illinois, have invented new and useful Improvements in Glare-Shields, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawing, forming a part of this specification.

Our invention relates to improvements in glare shields and has for its object the production of a device that can be adjustably attached to any make of machines and the frame of which may be held rigidly in any desired position.

A further object is the production of a device in which the shield proper may be thrown into and out of operative position.

A further object is the production of a device of simple construction and not liable to get out of order.

These and such other objects as may hereinafter appear are attained by my device, in which—

Figure 1 represents a perspective view of my device attached to the wind shield of an automobile and shown in inoperative position by dotted lines;

Fig. 2 represents an enlarged top plan view of my device;

Fig. 3 represents an enlarged detail of a portion of Fig. 1;

Fig. 4 represents a side elevation of a portion of Fig. 2;

Fig. 5 represents a modified means of securing my device in position.

Like letters and numerals of reference indicate like parts in the several figures of the drawing.

Referring now to the drawing, A represents our device as a whole attached to the upright member B of the wind shield C.

Our device is separable into three main elements, viz:—the glare shield proper D, adjustable and extensible arms E and means for securing said shield and arms in position shown as F in Fig. 4 and as F′ in Fig. 5.

Taking up first the glare shield D in which 6 represents a folded plate forming one side of the shield frame and having its corners cut away as shown at 7, a wire 8 is bent into a rectangular shape forming the other three sides of the frame. The ends of the wire are bent or curved and fit within the sides of the end member 6 and are held rigidly in position by means of screw bolts 9 passing through the plate and binding the end of the wire against the closed inner edge of the plate.

The transparent sheet 10 of glass, celluloid or other suitable material is inserted in the frame, one end fitting between the sides of the members 6 and being held in position by suitable clamps 11, 11. It is understood of course that the material from which the transparent shield is made may be colored to suit the wishes of the purchaser. Extending from the side 9 of the frame is a supporting lug or ear 12 extended into an arm or latch and provided with a stop or shoulder 14 on the top of the ear, and a spring supporting boss or lug 15 projects from the face of the ear below the stop or shoulder 14.

The shield and frame are adjustably secured to the extensible arms through the medium of an integral supporting plate formed of two members, 15 and 16 disposed at right angles to each other. The ear 12 is mounted on the plate 16 and held in position by means of a bolt through the plate 15 is adjustably mounted on a supporting member 18 by means of a thumb screw and nut 19. The member 18 is mounted on the top of a vertical rod 20 sliding within a hollow rod 21, the vertical position of the rod 20 being regulated by means of a screw 22 passing through the side of the rod 21 and adapted to engage the outer periphery of the rod 20. 23 represents a rod similar to 20 adapted to slide within a hollow cylindrical rod 24 and a screw 25 regulates the relative adjustment of the two members 23 and 24. A joint 26 is provided between the members 21 and 23 shown in the shape of a pair of serrated disks, the faces of which abut and which are held in operative posi-

tion by means of a thumb nut 27. A joint similar to 26 is provided at the other end of the member 24, shown as 28, one member of which is formed from an enlargement 29 of the member 24 and the other member 30, which is provided with an extension 31 by means of which the adjustable arc is secured to the connecting member F. A thumb screw 32 is provided similar to 27 by the operation of which it becomes possible to vary the relative angular position of the two branches of the supporting arm.

The supporting member F comprises a yoke member 33 and an extension 31 fits between the arms of the yoke as shown in Fig. 4 and is held in place by means of a thumb screw 34. The entire device is adjustably mounted on the rod B through the medium of a pair of clamping plates 35, 36 adapted to engage the outer periphery of the rod B and provided with extension pins or lugs 37, 58, the angular ends 39 and 40 of which are clamped together by means of a bolt 40 passing through the members 37 and 58 and entering the end of the member 33. The nut 41 on the bolt 40 holds the clamping members rigidly together and the tightening of this bolt forces the inner end of the member 39 against the inner face of the member 58 and rigidly clamps the members 35 and 36 against the outer periphery of the rod.

The plate 16 is provided with a spring supporting lug or boss 42 to which is secured one end of the spring 43, the other end of the spring being secured to the spring supporting boss 15. As shown in Fig. 3 when the shield is turned downwardly the spring 43 is extended and as the member is swung beyond the center, the spring holds it in closed position until force is applied to the latch 15 to swing the shield up into operative position. In Fig. 5 I have shown in place of the gripping clamps 35 and 36 and the yoke member 33, a pillar 43 having a yoke 44 at its end within which the member 31 can be secured in the same manner as it is secured in the approved construction shown in Fig. 2.

In the operation of my device it is clear that by means of the extensible members 21 and 23 and the various adjustable joints described heretofore, the position of the shield may be varied in any desired manner. The members 23 and 24 permit the lengthening of the device in a horizontal direction while the manipulation of the members 20 and 21 permits the vertical extension and any desired angular change may be effected by means of the joints 26 and 28. One great advantage in our device is the ease with which the glare shield may be thrown into and out of operative position. Take, for instance, the shield shown in position in Fig. 3 which is the position that it would naturally occupy when it is not desired to shield the eyes of the driver from the headlight of any approaching automobile. As soon as the headlight of an automobile appears and the driver desires to make use of the shield to diminish the glare, it is only necessary to give a slight outward pressure to the arm 13, swinging the shield up into place as shown in Fig. 1, the spring 43 holding it in that position after the automobile has passed; when the use of the shield is no longer desired a slight upward pressure on the arm or latch 13 overcomes the tension of the spring 43 and the device is thrown back into inoperative position as shown in Fig. 3.

The frame of the shield is of simple and efficient construction rendering it possible to hold the transparent material in place, thus eliminating a great portion of the danger of breaking and at the same time having a cheap and strong frame, one end of the transparent material fitting into the space between the members 9 as shown in Fig. 1.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is:

1. As a new article of manufacture an adjustable glare shield comprising a plurality of adjustable arms, means for adjustably attaching said arms to the frame of an automobile, a shield frame adjustably mounted on the end of said adjustable arm by means of a supporting plate, one member of said supporting plate being secured to the adjustable frame and the other secured to the shield frame, means rigidly secured to said frame whereby said frame may be thrown into operative or inoperative position and spring means mounted on said shield for locking said frame in either position.

2. As a new article of manufacture an adjustable glare shield comprising a plurality of adjustable arms, means for adjustably attaching said arms to the frame of an automobile, a shield frame adjustably mounted on the end of said adjustable arm by means of a supporting plate, one member of said supporting plate being secured to the adjustable frame and the other secured to the shield frame, means rigidly secured to said frame whereby said frame may be thrown into operative or inoperative position and means for locking said frame in either position, said means including a spring, one end of which is mounted on said shield and the other end on said supporting plate.

3. As a new article of manufacture, an adjustable glare shield comprising a plurality of adjustable extensible arms, means for adjustably attaching said arms to the frame of an automobile, a shield frame adjustably mounted on the end of said adjust-

able arm by means of a supporting plate, one member of said supporting plate being secured to the adjustable frame and the other secured to the shield frame, means rigidly secured to said frame whereby said frame may be thrown into operative or inoperative position and spring means mounted on said shield for locking said frame in either position.

In witness whereof, we have hereunto subscribed our names.

CHARLES H. SCHUMACHER.
ALBERT A. SCHMALZ.