Aug. 23, 1955 G. C. COKER 2,716,041

FOLDABLE WINDSHIELD FOR SPORTS CARS

Filed April 24, 1953 2 Sheets-Sheet 1

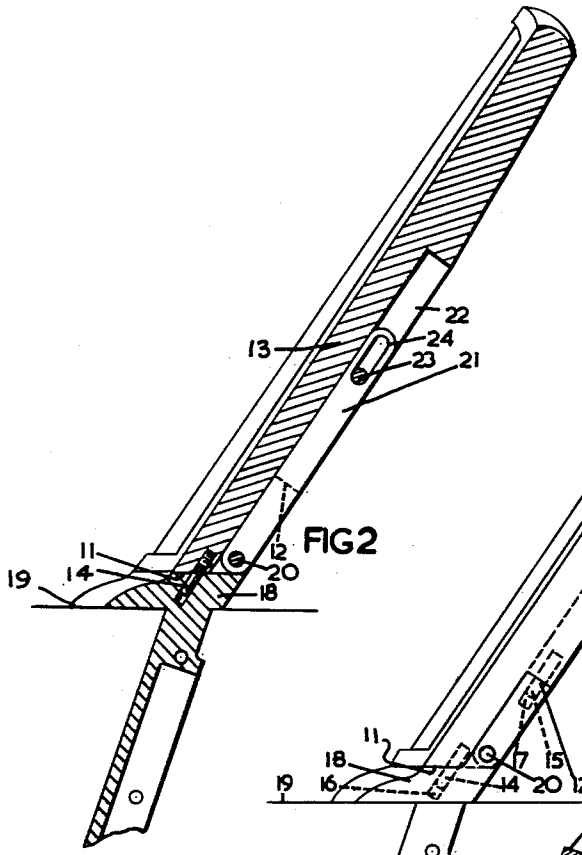


FIG2

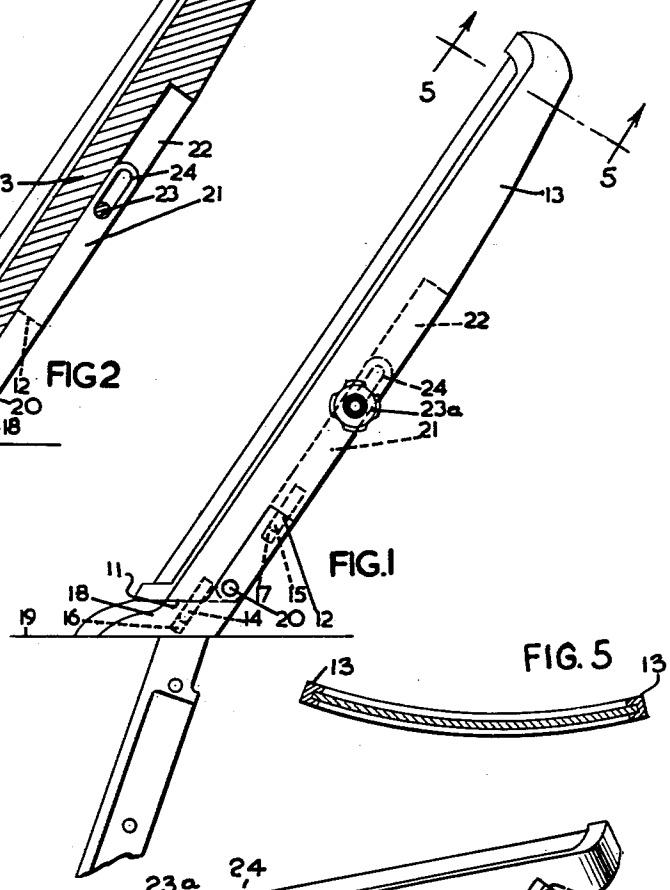


FIG.1

FIG. 5

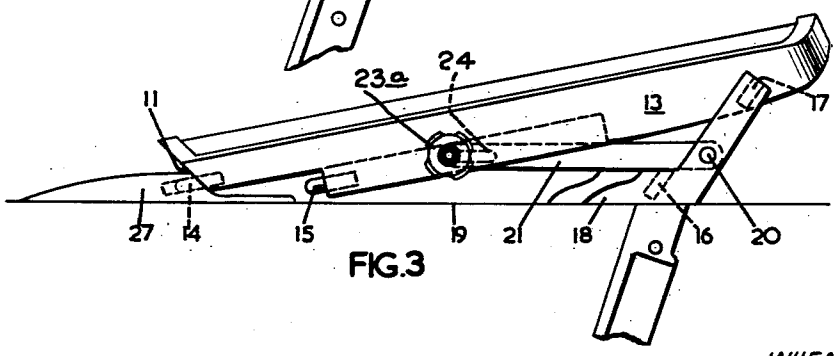


FIG.3

INVENTOR

G. C. COKER

Hawkins & Hawkins

ATTYS.

Aug. 23, 1955 G. C. COKER 2,716,041

FOLDABLE WINDSHIELD FOR SPORTS CARS

Filed April 24, 1953 2 Sheets-Sheet 2

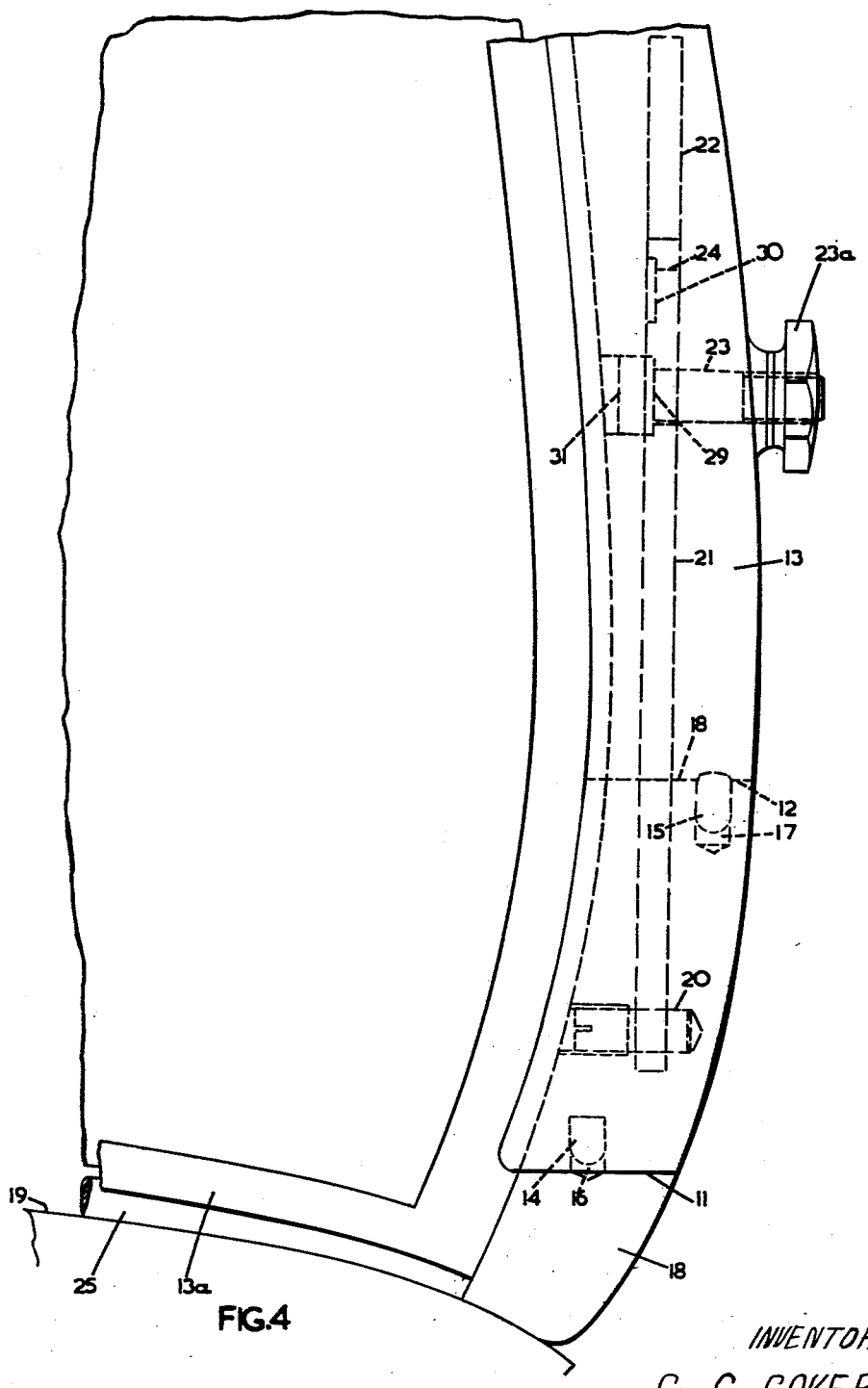


FIG.4

INVENTOR
G. C. COKER
BY Mawhinney & Mawhinney
ATTYS.

United States Patent Office 2,716,041 Patented Aug. 23, 1955

2,716,041

FOLDABLE WINDSHIELD FOR SPORTS CARS

Gerald Charles Coker, Warwick, England, assignor to Donald Healey Motor Company Limited, Warwick, England

Application April 24, 1953, Serial No. 350,888

Claims priority, application Great Britain October 15, 1952

7 Claims. (Cl. 296—84)

This invention relates to a front windscreen of a motor-car or other motor-vehicle, of the kind which can be moved from its normal erected position to a substantially horizontal position in which it extends forwardly over and against the adjacent part of the hood or scuttle of the vehicle.

In the case of a flat windscreen pivotally mounted adjacent its lower edge, its ends, when the windscreen is in the substantially horizontal position, are usually well spaced above the adjacent part of the hood or scuttle, which latter is slightly curved transversely of the vehicle, being convex upwardly. This spacing would be greater still in the case of a curved windscreen or a V-shaped windscreen if it were pivotally mounted at its lower edge.

The main object of the invention is to enable a non-planar windscreen (i. e., a curved or V-shaped windscreen) to be "folded" to a low sports position and at the same time to allow the curve of the glass substantially to match the contour of the adjacent part of the hood or scuttle upon which it rests.

The invention therefore relates to a non-planar windscreen; and, according to the invention, the erected windscreen has a locating engagement at its lower edge which does not however prevent the upward movement of the screen, the latter movement being prevented by means of pivotally-mounted arms at each end or upright edge of the screen, each of which arms has a slotted engagement at one of its pivotal points with a locking means.

Thus, to move the screen to a low sports position as aforesaid, the locking means are first released and the screen then pulled upwardly as necessary to free its lower edge from the said locating engagement, after which its lower edge can be moved forwardly whilst the two arms are swinging forwardly, the now forward edge of the screen finally having a rather similar locating engagement to that of the erected screen (but with brackets on the scuttle or hood) which is completed by the re-operation of the said locking means. The actual matching (i. e., the extent of the matching) will of course be dependent upon the transverse curvature of the scuttle and the curvature of the screen.

In the accompanying drawings:

Figure 1 is a side elevation of one of the side frame members of the windscreen, and the supporting base bracket, when the windscreen is erected;

Figure 2 is a sectional view showing the arm of that side frame member supported in a recess therein;

Figure 3 is a corresponding side elevation of the windscreen when lowered and locked in the lowered position;

Figure 4 is a fragmentary front elevation, to a larger scale, mainly of the side frame member of Figures 1 to 3, and

Figure 5 is a section to a smaller scale on the line 5—5 of Figure 1.

In the construction shown, the locating engagement of the lower edges **11**, **12** of each of the side frame members **13** at the ends of the erected windscreen **13***a* takes the form, at each end, of pins **14**, **15** carried by the lower

ends of the side frame members, the axes of the pins being substantially parallel to the general plane of the windscreen. The pins engage in corresponding holes **16**, **17** provided in supporting base brackets **18** fast with the scuttle or equivalent part **19** which is rearwardly of the hood. The upper edges of the brackets **18** are stepped to coact with the lower edges **11**, **12** of the side frame members as shown most clearly in Figure 3. In side elevation, one of the pins **14** (at each side of the screen) is forwardly of and lower than the other pin **15**.

Each of the base brackets **18** provides a pivotal connection **20** for the adjacent arm **21**, the pivotal axes being substantially horizontal and collinear and also below the higher pin **15**. In the erected position each of the arms extends upwardly according to the inclination of the screen, as clearly shown by Figures 1 and 2. Each arm **21** is mounted in a recess **22** of the adjacent side frame member.

Each of the locking means conveniently takes the form of a headed bolt **23** fast with the adjacent side frame member **13**, and a nut **23***a*. In the erected position the bolts **23** lie at the inner (lower) ends of the slots **24** in the associated arms, these slots being parallel to the pin axes.

The lower edge of the screen is provided in a well understood manner with a rubber or like sealing fillet **25** to engage the adjacent surface of the scuttle or hood, as shown in Figure 4.

To lower or "fold" the screen the two locking nuts **23***a* are released and, together with the screen, lifted to carry the bolts to the outer ends of the slots **24** in the arms, thereby disengaging the pins **14**, **15** from their locating holes. Thereupon the screen can be swung into a generally-horizontal position with its lower edge forwardly, and the arms can be swung forwardly to carry the whole screen forwardly until one or more of the pins on each side of its now forward edge (e. g., the pins **14**) engage corresponding locating holes provided for the purpose in brackets **27** fast with the adjacent portion of the scuttle or hood. Thereupon tightening the clamping nuts **23***a* will fully locate the screen in its lowered sports position, as shown by Figure 3, in which, in the case of an appropriately curved screen and hood or scuttle, the glass of the screen can match the contour of the scuttle.

For locating the locking bolts in their extreme positions, the arms are provided with recesses **29**, **30** (Figure 4) for the heads **31** of the bolts.

Obviously, the reverse movement will be necessary again to locate the screen in its erected position.

As an obvious alternative the locating engagement can be effected, if preferred, by means of stationary pins at the respective places adapted to enter into holes provided for the purpose in the frame of the windscreen.

What I claim as my invention and desire to secure by Letters Patent of the United States is:

1. A motor-vehicle with a non-planar windscreen, said windscreen when in the erected position having at its upright edges side frame members, supporting base brackets for said side frame members, axially disconnectable pin and socket means interconnecting said side frame members and said brackets for holding said windscreen in an erected position, said pin and socket means being parallel with said side frame members when the windscreen is erect, arms hinged to said base brackets and having longitudinally directed slots at their free ends, said slots extending parallel to said pins and said arms being received in recesses in said side frame members when said windscreen is in erected position, and releasable locking means engaged with the lower ends of said slots when said windscreen is in erected position, said locking means, when released, permitting disengagement of said pin and socket

means whereby the bottom edge of said windscreen and said arms can be swung forwardly for said windscreen to be substantially horizontal with its top edge in a lowered operative position, said locking means then being engaged with the other end of said slots.

2. A motor vehicle having a windscreen according to claim 1, characterized in that the slots in said arms are sufficiently long so that when the locking means are released and moved to the other ends of said slots, said pin and socket means will be disengaged thereby allowing the lower edge of the windscreen to be turned to a forward position and the windscreen as a whole to be swung, whilst the arms move about their pivots, into a flat lowered position.

3. A motor vehicle having a windscreen according to claim 2, and having fixed brackets with sockets therein located forwardly of the first mentioned brackets to coact with said pins on the lower ends of said side frame members when the windscreen is in its flat lowered position, location being completed by tightening said locking means.

4. A motor-vehicle, according to claim 1, in which the pins are fast with the side frame members and the sockets are fast with a scuttle of the vehicle, one of the pins being at the bottom of each of said side frame members, a second socket means forwardly of said sockets and for engagement by the bottom pins to hold the windscreen in its forwardly swung position.

5. A motor-vehicle having a non-planar windscreen with side frame members at its upright edges when in an erected position, base brackets for supporting the side frame members, axially disconnectable pin and socket means interconnecting the lower ends of said side frame members and said brackets for holding said windscreen

in an erected position, said pin and socket means being parallel with said side frame members when the windscreen is erect, arms interconnecting each side frame member and the adjacent base bracket by means of pivots to complete the location of the windscreen when erected, said arms having slots therein for slotted engagements with the pivots at one end of each of said arms, and locking means associated with the pivots having the slotted engagements, said locking means, when released, permitting disengagement of said pin and socket means whereby the bottom edge of said windscreen and said arms can be swung forwardly for said windscreen to be substantially horizontal with its top edge in a lowered operative position, said locking means then being engaged with the other end of said slots.

6. A motor vehicle having a windscreen according to claim 5, in which the pin and socket means includes parallel pins at the lower ends of each side frame member, one pin being forward of the other and at a lower level, the supporting base brackets providing the sockets of said pin and socket means.

7. A motor vehicle, according to claim 6, in which each of said arms when the windscreen is erected is disposed in a recess in the associated side frame member and is parallel to the axes of the pins.

References Cited in the file of this patent

UNITED STATES PATENTS

942,225	Towle	Dec. 7, 1909
1,031,020	Murphy	July 2, 1912
1,104,238	Allmand	July 21, 1914
1,596,316	Singleton	Aug. 17, 1926
1,628,879	Gillman	May 17, 1927