H. C. CRANMER.

WIND SHIELD.

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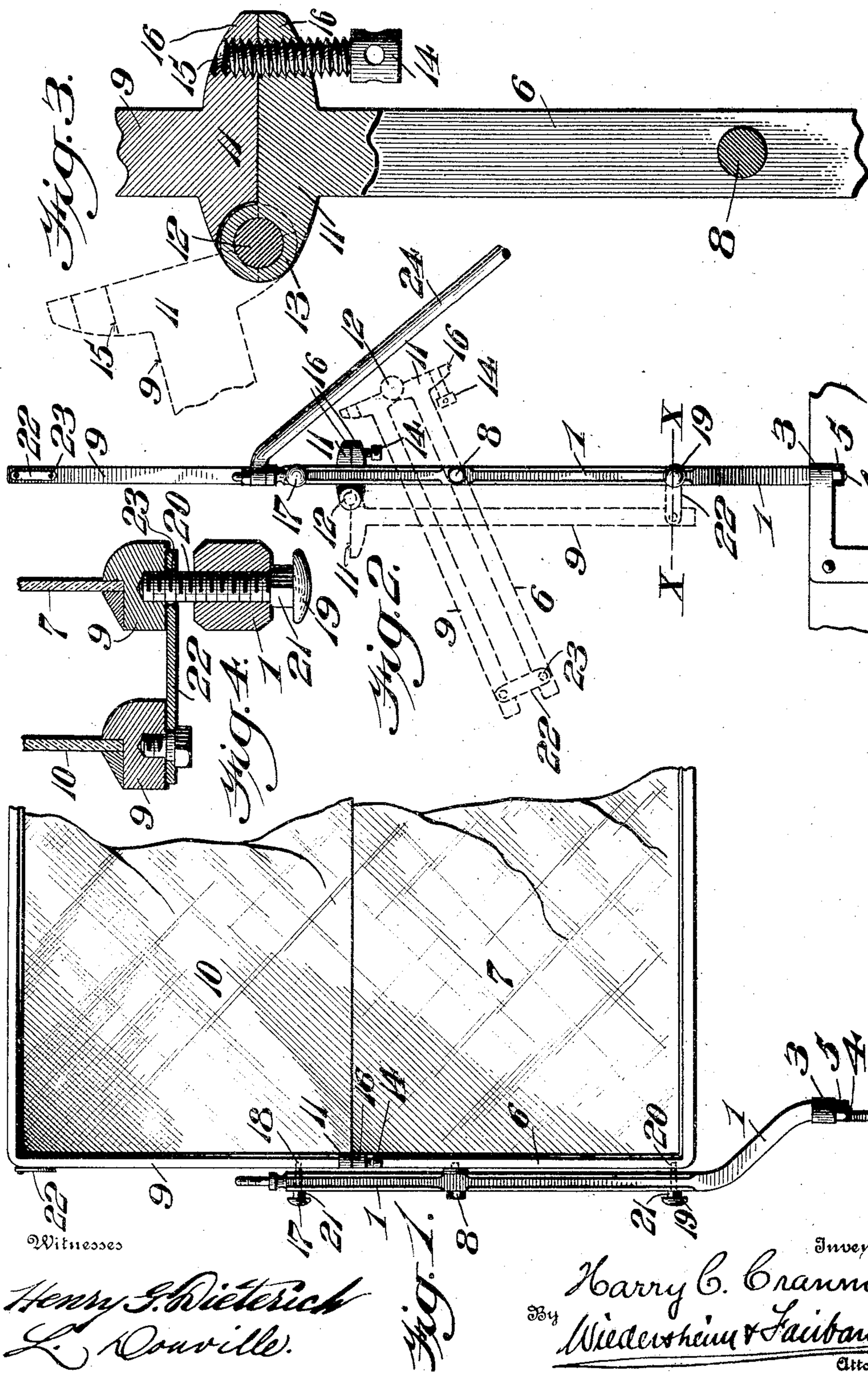
920,546. Patented May 4, 1909.



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WIND-SHIELD.

No. 920,546. Specification of Letters Patent. Patented May 4, 1909.

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To all whom it may concern:

Be it known that I, HARRY C. CRANMER, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Wind-Shield, of which the following is a specification.

This invention relates to a shield for use in connection with automobiles or like vehicles and more particularly to a collapsible type of shield.

As heretofore constructed, wind shields have been of either a complete integral construction or formed in sections to produce a collapsible structure. In the former type no means have been provided to permit of its disuse, if necessary, while in the latter type the parts are so arranged that when it is desired to bring the shield to inoperative position, various parts of the vehicle interfere and prevent the shield from assuming a completely lowered position and consequently it takes up a large amount of space and it is impossible to prevent a vibration and rattling of the shield.

In my present invention I have devised a novel construction whereby the radial swing of the shield when assuming a closed position, is reduced to a minimum, whereby the likelihood of the parts of the shield interfering with any portions of the vehicle is practically impossible and the sections may be swung freely and securely fastened by suitable locking means.

For the purpose of illustrating my invention, I have shown in the accompanying drawings one form thereof which is at present preferred by me, since the same has been found in practice to give satisfactory and reliable results, although it is to be understood that the various instrumentalities of which my invention consists can be variously arranged and organized and that my invention in not limited to the precise arrangement and organization of these instrumentalities as herein shown and described.

Figure 1 represents a front elevation of a portion of a wind shield embodying my novel support therefor. Fig. 2 represents a side elevation showing, in dotted lines, the positions of the parts of the frame when being folded. Fig. 3 represents a section through the joint of the supporting means. Fig. 4 represents a section on line x—x, Fig. 2.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings:—1 designates a standard adapted to be attached to the dash board or other suitable portion of an automobile or like vehicle, in the present instance being secured thereto by means of a bracket 2 having an eye 3 therein through which the threaded end 4 of the standard 1 is passed and locked by means of the nut 5, or similar well known means. It will of course be understood that there are two of these standards, one at either side of the dash board but for the purpose herein, the description of one will suffice for both.

6 designates the lower frame of a wind shield having mounted therein the usual glass 7 or other suitable material, the same being pivoted at each side to one of the standards 1 by means of a bolt 8, whereby the lower section may be swung relative to the standards 1, for a purpose to be hereinafter described. Particular attention is directed to this feature of pivoting the lower section to the side standards 1 at a point substantially the center of gravity of the said lower section 6. By thus pivoting the lower section so that it revolves about the axis of rotation in the plane of the standards 1 it will be apparent that the weight of this section is evenly distributed thus permitting easy manipulation in changing from one position to another and also reduces the range of swing in a folding movement.

9 designates the frame of the upper section of the wind shield carrying a similar material 10 therein and mounted on the lower section 6 in such a manner as to permit the two sections being folded together, as desired. In the present instance the meeting ends of the lower frame 6 and the upper frame 9 are each provided with a head 11, whereby a solid bearing surface is provided, which produces substantially the effect of an integral one-piece wind shield when in open position.

12 designates a bolt passing through a pair of knuckles, one formed on each head 11, whereby one member may be swung around the bolt 12 as a pivot and thereby

bring the two sections to collapsed position. When in open position, as shown in Fig. 1, it is necessary to provide a means for locking the two sections solidly together and in the present instance I disclose a bolt 14 passing through a threaded opening 15 in an extended portion 16 of each head 11 and which are in alinement when the sections are upright. It will be clear therefore when the two frame sections 6 and 9 are brought into alinement and the bolt 14 screwed into place, that the enlarged meeting faces of the heads 11 will provide a substantial foundation, which gives stability and practically an integral frame throughout. When the wind shield is in this open position, as just described, it is of course necessary to provide means to prevent the same from swinging loosely around the pivot 8 and for this purpose I have shown, in the present instance, a bolt 17 passing through the upper portion of the standard 1 and engaging a threaded opening 18 in the upper frame section 9, while at the lower portion a similar bolt 19 passes through the standard 1 and enters a threaded opening 20 of the lower section frame. Preferably I provide these bolts with a squared portion 21 so that a wrench may easily be slipped over and loosen or tighten the same, as the case may be. By the aid of these locking screws 17 and 19 all swinging of the shield relative to the standards 1 is prevented and furthermore each section is fast to the standards 1 and since the two sections are locked together by the head structure, before described, the complete shield and standards are practically a uniform structure with no loose parts to jar or rattle.

When the shield is in its folded or collapsed position, that is with the upper section turned down upon the lower, it is just as necessary to provide means to prevent the parts shaking loose or producing a disagreeable vibration and in the present instance I have provided a link 22, as here shown, pivotally secured to the upper section 9 and provided with an aperture 23, which in folded position of the shield is brought into alinement with the lower bolt 19 and thus holds all the parts rigidly together.

It will be noted that suitable brace means, as the rod 24, is located at each side of the shield, being preferably attached to the top of the standards 1 and connected to a suitable portion of the vehicle.

When it is desired to fold the shield the thumb bolts 17 and 19 are withdrawn from locking position with their respective sections 9 and 6 and the upper section 9 folded down upon the lower section 6, which latter at the same time is swung on the pivot 8 to the angular position indicated in dotted lines, Fig. 2, by which means the radial swing of the parts of the shield is reduced to a minimum. From this position the two sections are again swung on the pivot 8 to the vertical position, whereupon the link 22 is brought over and locked by the replacing of screw 19. Attention is directed particularly to this shortening of the radial swing of the shield during its folding movement, as the same is accomplished by a novel pivoting of the shield at a point somewhat remote from the attaching means between the sections of the wind shield. It is well known that in wind shield constructions especially in the type adapted for automobile use, that when the parts of the shield are swung to closed position that various parts of the vehicle, such as the steering wheel or the lamps, are located so near to the wind shield that it is impossible to bring the shield to a complete closed position and consequently the parts remain in a partially open position, which is not only unsightly but makes it impossible to fasten the same rigidly to prevent rattling and unusual vibration.

It will now be apparent that I have devised a novel and useful construction which embodies the features of advantage enumerated as desirable in the statement of the invention and the above description and while I have in the present instance shown and described the preferred embodiment thereof which has been found in practice to give satisfactory and reliable results, it is to be understood that the same is susceptible of modification in various particulars without departing from the spirit or scope of the invention or sacrificing any of its advantages.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. In a device of the character described, an upper section, a lower section pivoted thereto, standards adjacent said section and pivot means between said standards and the lower section forming an axis of rotation in the plane of said standards and passing substantially through the center of gravity of said lower section.

2. In a device of the character described, an upper section, a lower section pivoted thereto, standards adjacent said section and pivot means between said standards and the lower section forming an axis of rotation in the plane of said standards and passing substantially through the center of gravity of said lower section, and means to lock both of said sections to said standards.

3. In a device of the character described, an upper section, a lower section pivoted thereto, standards adjacent said section and pivot means between said standards and the lower section forming an axis of rotation in the plane of said standards and passing sub-

stantially through the center of gravity of said lower section, and means to lock said sections together in folded position.

4. In a device of the character described, an upper section, a lower section pivoted thereto, standards adjacent said section and pivot means between said standards and the lower section forming an axis of rotation in the plane of said standards and passing substantially through the center of gravity of said lower section, and means to lock said sections together in open position.

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