

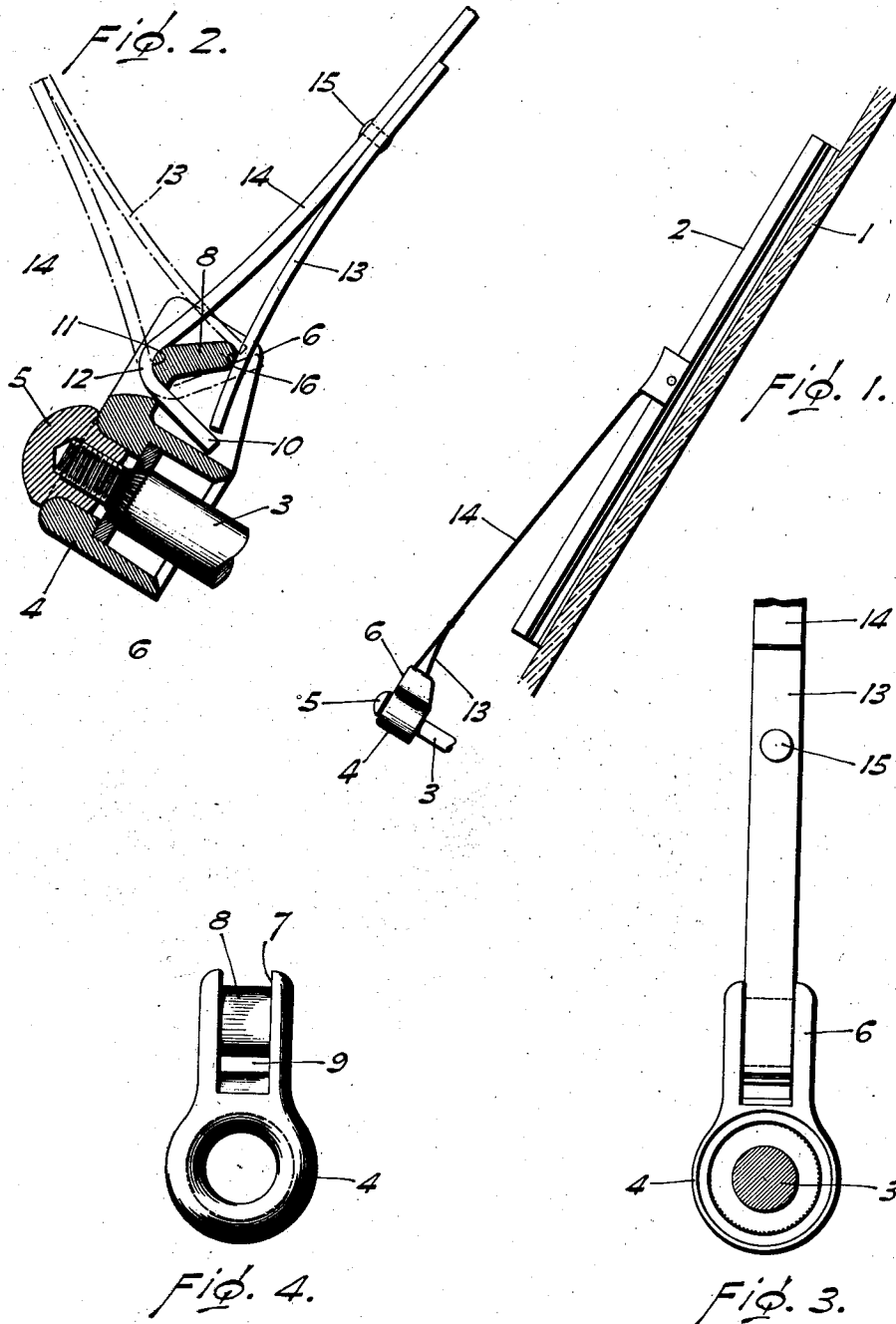
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WINDSHIELD WIPER ARM

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WINDSHIELD WIPER ARM

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3 Claims. (Cl. 15—255)

This invention relates to a windshield cleaner and more particularly to the wiper arm construction and mounting thereof.

Wiper arms have heretofore been made of leaf spring construction in which the blade carrying portion thereof was articulated to the shaft carried part by a pivot, thereby requiring a special operation of assembly in connection with the swaging or riveting of the ends of the pivot pin.

The present invention has for its primary object to simplify the arm construction so that the parts thereof may be united in a more expeditious manner. The invention also aims to provide a construction in which the arm while performing efficiently may also be swung outwardly to an inoperative position where it is supported by reason of the novel relation of parts.

In the drawing

Fig. 1 is a fragmentary view in side elevation showing the improved arm in its operative position on a windshield;

Fig. 2 is an enlarged fragmentary view partly in section, more clearly depicting the structural features of the arm;

Fig. 3 is a rear elevation of the arm in fragment, as viewed in Fig. 2; and

Fig. 4 is a front elevation of the shaft carried part of the arm.

Referring more particularly to the drawing, the numeral 1 designates the windshield or window surface of a motor vehicle on which the wiper 2 is oscillated from the actuating shaft 3 through the connecting arm. The arm construction embodies a casting 4 having an opening therethrough to receive the shaft 3 to which it is secured by a clamping nut 5. The casting is formed with a radial arm part 6 which is channeled as shown at 7, and across the channel extends a pivot forming bridge or bearing 8 which is spaced from the shaft receiving portion to form a slot 9, the defining walls thereof being flared to facilitate the entrance of the companion part of the arm. This companion part is formed with an angular terminal hook 10 which is engaged through the slot 9 with the bridge 8, the latter being provided with a fulcrum 11 on which the elbow 12 pivots. The elbow is held down on the curved fulcrum surface 11 by a leaf spring 13 which engages the opposite side of the bridge 8, the spring being carried by the blade carrying portion 14 of the arm to which it is secured as by a rivet 15. The bridge is preferably elongated from the elbow toward the spring so as to provide a lower edge 16 against which the terminal 10 will engage to restrict outward swing-

ing of the arm from the windshield, and when in such outward position the leaf spring 13 is designed to engage the opposite side of the lower edge 16 and thereby exert a pressure tending to hold the arm in its outer position as indicated by the broken lines in Fig. 2.

To assemble the component parts of the arm it is only necessary to displace the spring 13 from the hook 10 to provide sufficient clearance to pass over the bridge 8 and thereafter the spring is released to bear against the lower edge 16 so as to hold the elbow 12 for pivoting movement about the axis of the curved edge 11.

From the foregoing it will be observed that the outer section of the arm comprising the parts 13 and 14 may readily be connected and disconnected from the shaft carried part or casting 4, and that the construction of the outer arm is likewise simplified so as to require a minimum number of parts and operations.

While the foregoing disclosure has been made in detail it is obvious that it is merely illustrative of the inventive principles involved, which may be applied to other physical embodiments without departing from the scope and spirit of the invention claimed.

I claim:

1. A wiper arm for windshield cleaners comprising a shaft carried section formed of a single casting and provided with a transverse bridge defining an opening, an outer section bent at one end to form a bight portion and an angular part, the latter extending through the opening, the inner side of the bight portion engaging the bridge for pivoting action, the free end of the angular part being normally spaced from the bridge but engageable therewith to limit the extent of pivoting action, and a leaf spring carried by the outer section to resiliently hold the bight portion engaged with the bridge.

2. A windshield wiper carrying arm comprising a shaft carried part formed with spaced projecting walls connected by a bridge to provide a transverse bearing, an outer arm section bent at one end to form a bight portion and a projecting angular part, with the angular part extending through the opening and the bight portion pivoting on the bridge for movement toward and from an associated windshield, the angular part being engageable with the bridge to limit the pivoting movement of the arm section, and a leaf spring carried by the outer section with its free end extending in proximity to the angular part and engaging the opposite side of said bridge to hold the bight portion operatively related there-

to, said arm section pivoting between the spaced walls.

3. A windshield wiper arm comprising a shaft carried section formed with a transverse bridge part of elongated cross section providing a bearing along one edge portion and extending divergently from the shaft axis toward the opposite edge portion, a companion section having an angular part providing a bight portion detachably engaging the bearing edge portion for pivotal action, and a leaf spring carried by said companion section and exerting pressure on said opposite edge portion in opposition to said companion sec-

tion for securing the sections together, such opposite edge portion being defined by inner and outer side walls and so disposed as to be normally engaged on the inner side wall by the spring to hold the wiper arm operative and to be engaged on the outer side wall by the spring to hold the wiper arm in an outwardly swung position with respect to an associated windshield, the free end of the angular part being normally spaced from the bridge part but engageable therewith to determine such outwardly swung position.

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