



Application Date : March 10, 1941. No. 3195/41.

Complete Specification Accepted : July 15, 1942.

COMPLETE SPECIFICATION

Improved means for Defrosting the Windscreens of Motor Vehicles.

We, WOLSELEY MOTORS LIMITED, a Company registered under the laws of Great Britain, and HARRY CHARLES RICHARD MULLENS, a British Subject, both of the Company's Works, Drews Lane, Ward End, Birmingham, 8, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to the bonnets of motor vehicles, being of the kind in which the bonnet or a movable top portion thereof is hingedly connected at its rear end to a fixed part by means of links, so as to be adapted to be opened by lifting its front end. When a vehicle is being driven during cold weather it frequently happens that the outside surface of the windscreen of the vehicle becomes covered with a deposit of frost, snow or ice, which prevents a clear vision from being obtained through the screen, and the object of the invention is to eliminate or greatly to reduce this defect.

According to the invention manually-operated or mechanically-operated means are provided for raising and retaining in a raised position the rear end of a motor vehicle bonnet or bonnet top of the kind referred to, and comprises a plate or part connected to the rear portion of the bonnet or bonnet top by links and movable relatively to an adjacent fixed plate or part, in combination with operating means located beneath the bonnet for effecting relative movement between said plates or parts, the arrangement enabling the rear end of the bonnet or bonnet top to be raised to form a gap whereby warm air from the engine compartment may be directed against the vehicle windscreen for the purpose of preventing the deposit of, or for removing, frost, snow or ice thereon.

A screw device may be employed for causing the movable plate or part to move relatively to the fixed plate or part. For example, the said movable plate or part may be raised and lowered relatively to the fixed plate or part by a screw swivelly connected to the one plate or part and engaging a screw-threaded hole in the

other plate or part.

Figure 1 of the accompanying drawings represents a side elevation of a screw device for raising the rear end of the top of a motor vehicle bonnet in accordance with this invention, the bonnet top being shown in section in its normal closed position.

Figure 2 is a plan view of the screw device, and of the links which form the hinge connection for the bonnet top, the latter being indicated by dot and dash lines.

Figure 3 represents a vertical section through the screw device on the line *x-x*, Figure 1.

Figure 4 is a view showing the rear end of the bonnet top raised by the screw device, the latter being in section.

Referring to the drawings, the motor vehicle is provided with a bonnet having fixed sides and a movable top 1 which is hingedly connected at its rear end, so that it may be opened by raising its forward end, the hinge connection being provided, in known manner, by means of links 2 and 3 joined at their upper ends, at 4 and 5, to a plate 6 carried by a bracket 7 fixed to the inside of the bonnet top 1. In order to prevent the outer surface of the windscreen 8 of the vehicle from being covered with frost, snow or ice, whilst the vehicle is being driven during cold weather, means are provided for directing a stream of warm air from the engine compartment against the windscreen. For this purpose the rear end of the bonnet top 1 is adapted to be raised from its seating by screw 9 through a distance sufficient to leave a small gap through which the warm air from the engine compartment may pass. This screw 9, which is provided with a large head 9^a, so that it may be readily turned by hand, is swivelly connected to a plate 10, to which the links 2 and 3 attached to the bonnet top are jointed, the said screw 9 being arranged to engage a tapped hole in a bracket 11 welded or otherwise fixed to a plate 12, the latter being secured at its one end, by an angularly-bent extension 12^a, to the scuttle bulkhead 13, and being fixed at its opposite end to a bracket (not shown)

[Price 1/-]

rigidly carried by the adjacent fixed side of the bonnet, or by any other suitable support. The links 2 and 3 are jointed at their lower ends to the plate 10 at 14 and 15, and the plate 10 is formed with a laterally-projecting bracket part 10^a having a hole to receive the screw 9, the part 10^a being disposed between the head of the screw and a shoulder 9^b on the latter, thus forming a swivel connection. The part 10^a by which the screw is swivelly carried is disposed immediately above the bracket 11 on the fixed plate 12, the screw engaging the tapped hole in the said bracket in the manner illustrated in Figure 4. The two plates 10 and 12 lie close together side by side in vertical planes and when the screw 9 is operated the plate 10 is caused to be raised or lowered relatively to the plate 12, the two plates being guided during this movement by pins 16 carried by the plate 10 engaging slots 17 in the plate 12.

Normally, when the top 1 of the bonnet is closed the plates 10 and 12, and the screw and links assume the positions shown in Figure 1 of the drawings. When it is desired to defrost the windscreen the screw 9 is unscrewed from the part 11 on the fixed plate 12 thereby causing the movable plate 10 to be raised. The links 2 and 3 are likewise raised, assuming substantially the same relative positions, and the result is that the rear end of the bonnet top 1 is lifted up, as shown, for example, in Figure 4. A clearance is thus provided between the rear end of the bonnet top and its seating through which the warm air from the engine compartment may pass, the arrangement being such that it is directed against the screen 8. The size of the clearance or gap thus provided may be readily adjusted by means of the screw until it is of a size most suitable for the defrosting of the windscreen, the screw device providing a permanent and easily adjustable device whereby the rear end of the bonnet may be positively held in a raised position without in any way affecting the security of the bonnet fastenings or holding devices.

When it is desired to close the rear end of the bonnet top, or to decrease the size of the warm air aperture, the screw 9 is turned in the opposite direction, so that it is screwed down further into the hole in the bracket 11 on the fixed plate 12, thereby lowering the plate 10 and the links 2 and 3. The screw 9 and the associated parts of the raising and lowering mechanism, are enclosed within the bonnet when the top of the latter is lowered on to its seating, and the screw is rendered accessible, when necessary,

by lifting the forward end of the bonnet top.

A pair of similarly arranged links connected to the top of the bonnet is provided at each side of the latter, the screw device and the relatively slidable plates 10 and 12 being preferably duplicated, so that the links at each side may be raised substantially similar amounts, when it is desired to lift the rear end of the bonnet top.

Flexible rubber strips may be provided along the top edges of the bonnet sides to close the gaps between the said sides and the bonnet top when the latter is raised, leaving a gap at the end of the bonnet top only.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. Manually-operated means for raising and retaining in a raised position the rear end of a motor vehicle bonnet or bonnet top of the kind referred to, comprising a plate or part connected to the rear portion of the bonnet or bonnet top by links and movable relatively to an adjacent fixed plate or part, in combination with operating means located within the bonnet for effecting relative movement between said plates or parts, the arrangement enabling the rear end of the bonnet or bonnet top to be raised to form a gap whereby warm air from the engine compartment may be directed against the vehicle windscreen for the purpose of preventing the deposit of, or for removing frost, snow or ice thereon.

2. Manually-operated means for raising the rear end of a motor vehicle bonnet or bonnet top as claimed in claim 1 wherein a screw device is employed for causing the movable plate or part to move relatively to the fixed plate or part.

3. Manually-operated means for raising the rear end of a motor vehicle bonnet or bonnet top as claimed in claim 1 or 2, wherein the movable plate or part is adapted to be raised or lowered relatively to the fixed plate or part by a screw swivelly connected to the one plate or part and engaging a screw-threaded hole in the other plate or part.

4. Manually-operated means for raising the rear end of a motor vehicle bonnet or bonnet top as claimed in any one of the preceding claims, wherein the movable plate or part is slidably guided upon the fixed plate or part by means of pins and slots.

5. Manually-operated means for raising the rear end of the top of a motor vehicle bonnet substantially as and for the purpose

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herein described and as illustrated in the
accompanying drawing.

Dated this 8th day of March, 1941.
H. N. & W. S. SKERRETT,
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88-90, Chancery Lane, London, W.C.2;
Agents for Applicants.

Leamington Spa: Printed for His Majesty's Stationery Office, by the Courier Press.—1942.

[This Drawing is a reproduction of the Original on a reduced scale.]

Fig. 3.

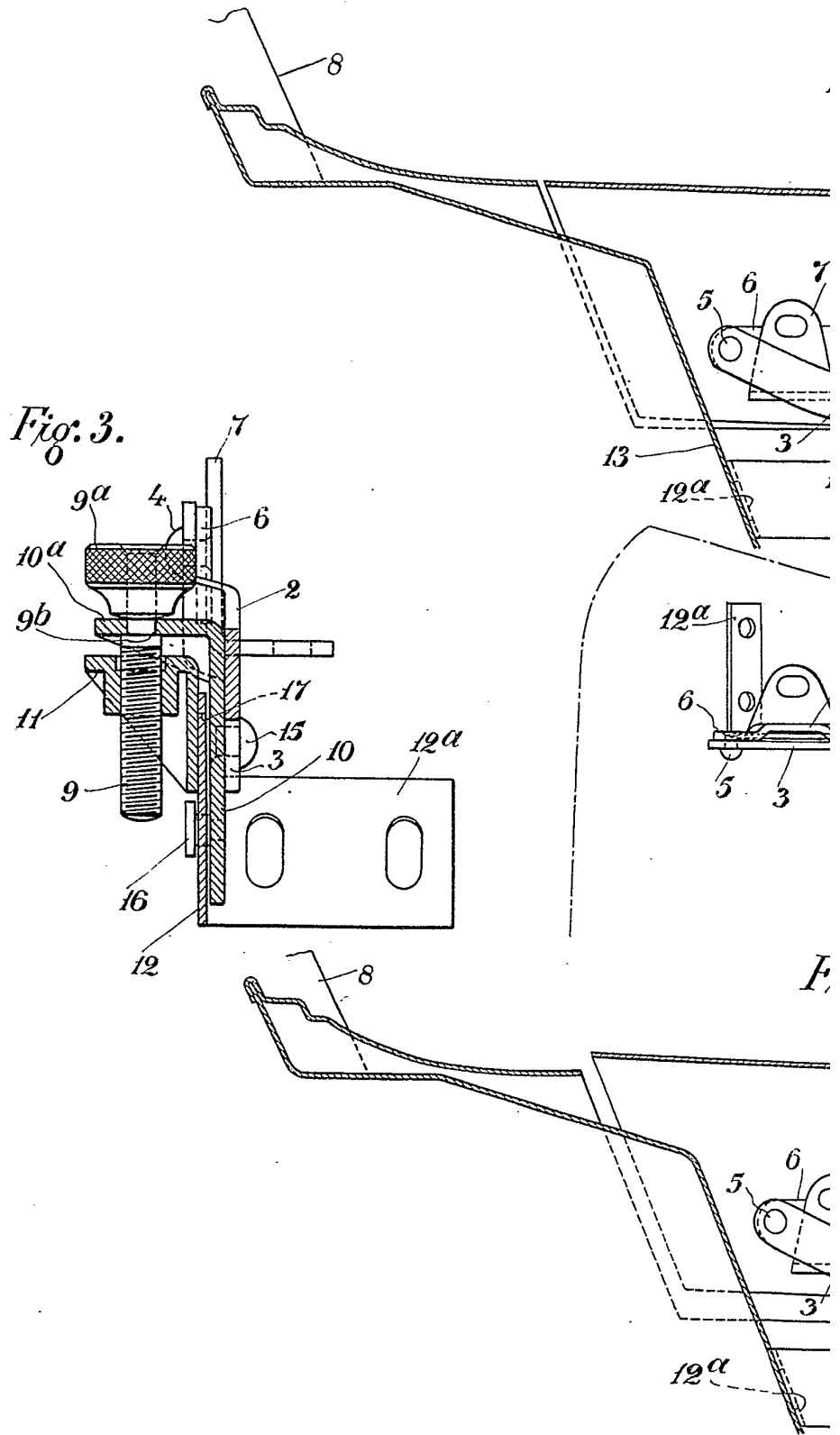


Fig. 1.

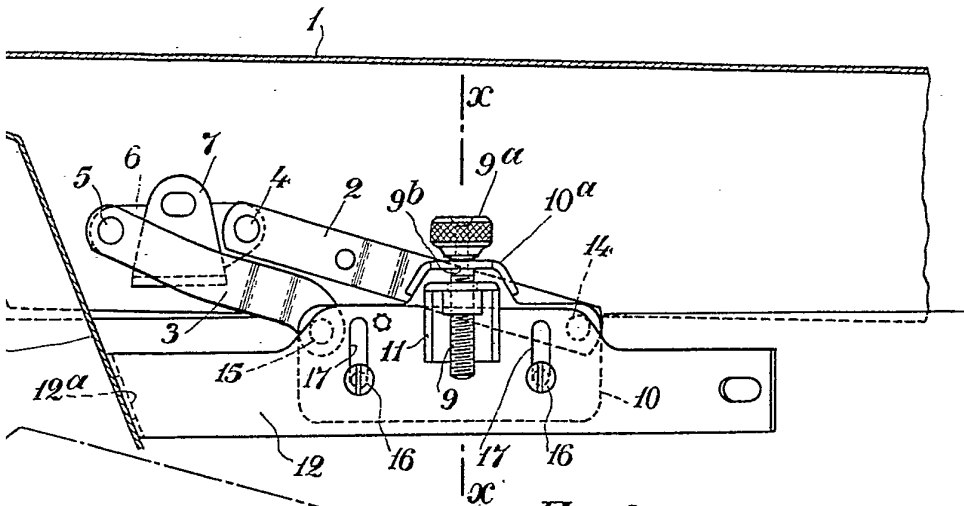


Fig. 2.

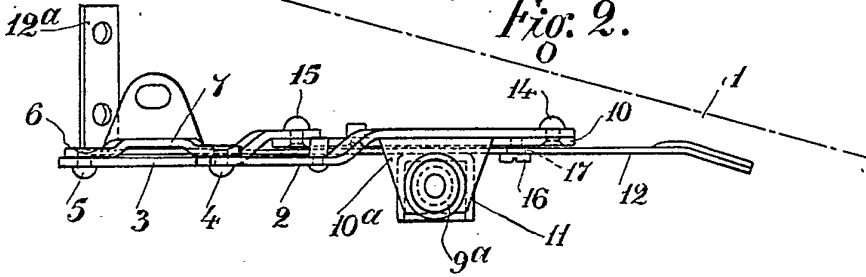
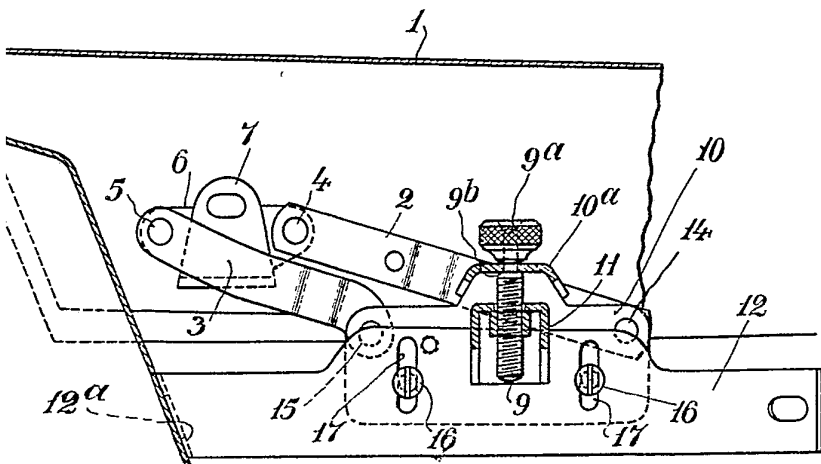


Fig. 4.



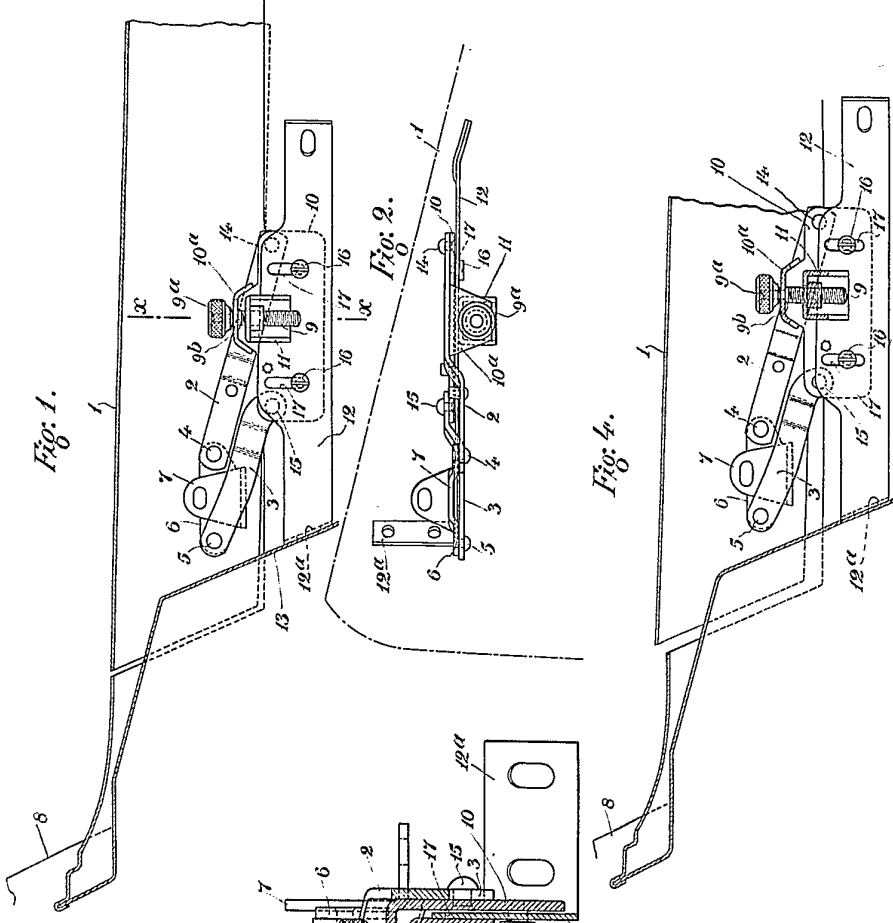


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

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