Jan. 11, 1927. 1,614,383

A. E. NIGHTINGALE

MOTOR CAR HOOD REPAIRING AND BUILDING APPARATUS

Filed Jan. 11, 1924 2 Sheets-Sheet 1

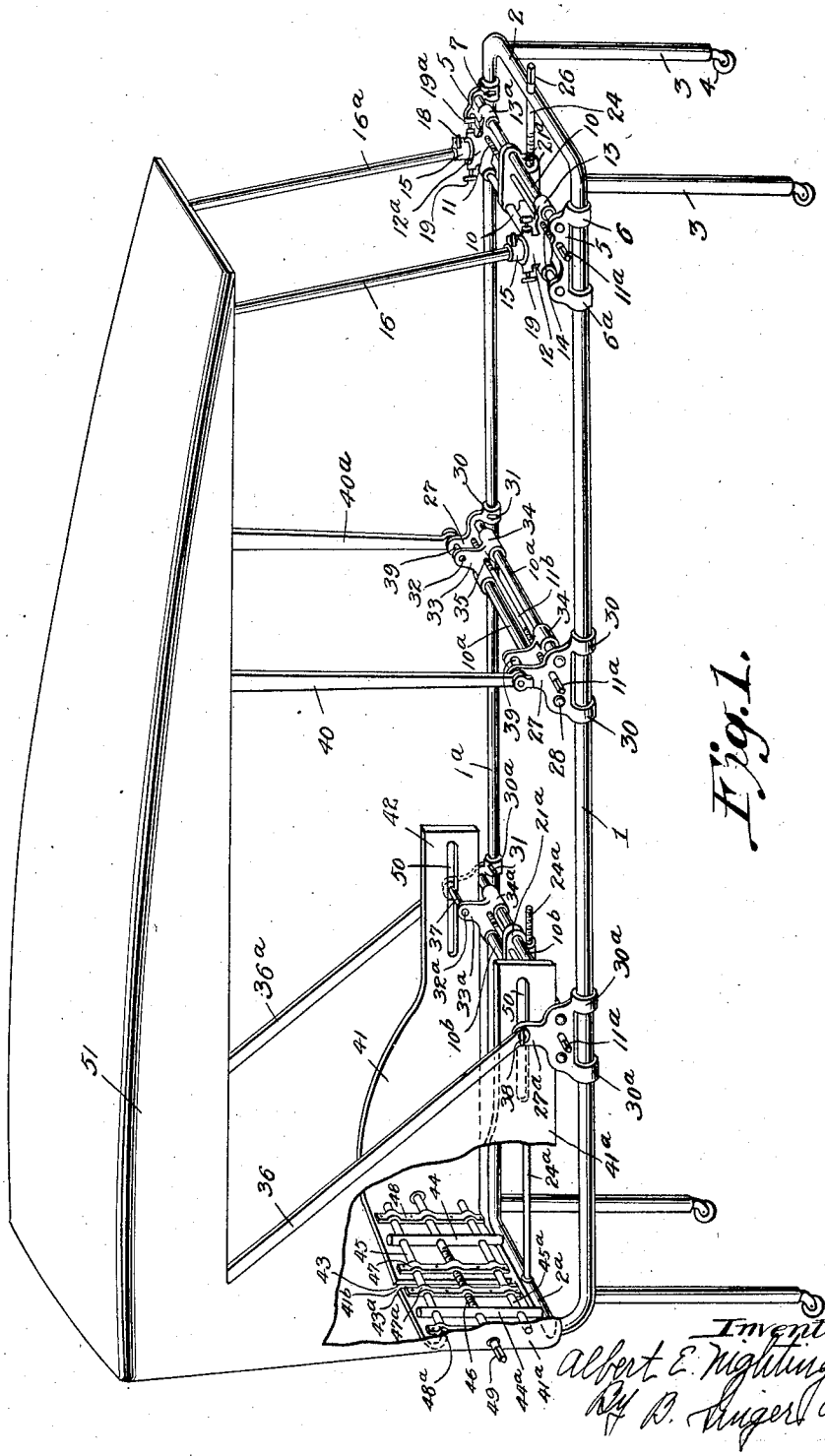


Fig. 1.

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FIG. 2.

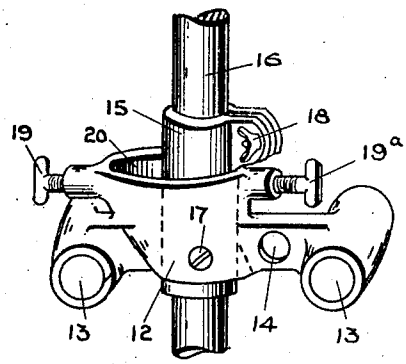


FIG. 3.

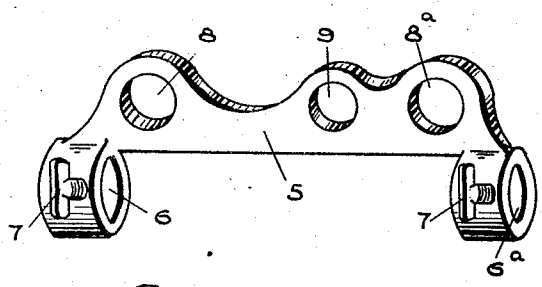


FIG. 4.

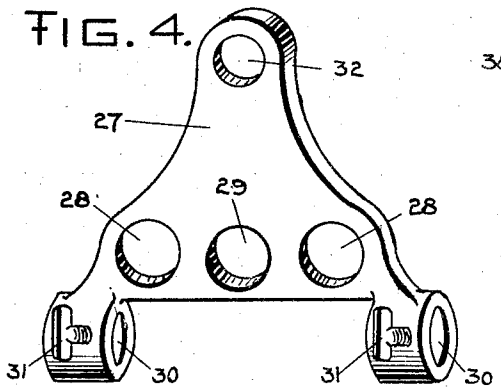


FIG. 5.

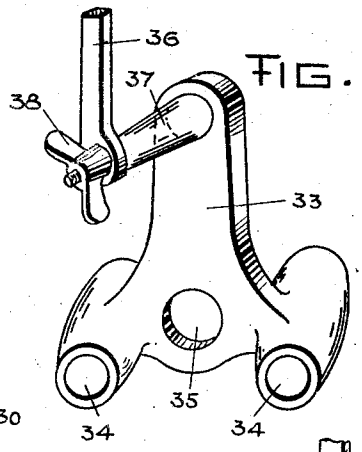
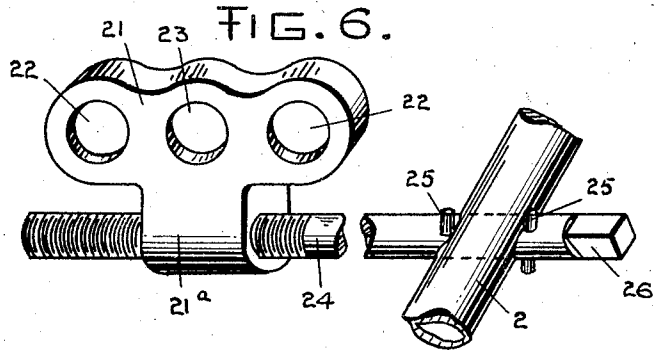


FIG. 6.



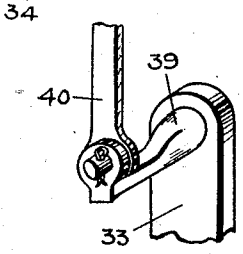


FIG. 7.

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Patented Jan. 11, 1927. 1,614,383

UNITED STATES PATENT OFFICE.

ALBERT EDWARD NIGHTINGALE, OF WHANGAREI, NEW ZEALAND.

MOTOR-CAR-HOOD REPAIRING AND BUILDING APPARATUS.

Application filed January 11, 1924, Serial No. 685,691, and in New Zealand May 25, 1923.

The object of my invention is to facilitate the building or repair of motor car hoods and such like without using the car and to overcome several difficulties at present experienced in building or repairing hoods. For instance my invention dispenses with boxes and trestles which necessitate the operator jumping up on and down off them when working on the hood on a car, and it enables the hood to be moved alongside his bench and any side to be turned round to the bench or to the light or to any position desired and the job of building or repairing can be completed much more quickly, conveniently and comfortably than heretofore and in the case of building new hoods standard work can be executed with accuracy.

The object of my invention is effected by adjustable (preferably breast high) apparatus such as is hereinafter described, with reference to the accompanying drawings in which Figure 1 is a perspective view showing the general arrangement of the apparatus according to my invention with a hood in position on it, Figure 2 is a detail in perspective of a swivel joint for the wind screen support, Figure 3 is a detail in perspective of a side bracket for the windscreen support, Figure 4 is a detail in perspective of a side bracket for intermediate and after end hood supports, Figure 5 is a detail in perspective of an adjusting bracket for the intermediate and after end hood supports, Figure 6 is a detail in perspective of a screw and bracket for front and back end adjustment, Figure 7 is a detail in perspective of a sliding arm for the intermediate support for the hood.

The apparatus comprises a substantially rectangular frame with sides 1, 1^a, and ends 2, 2^a, constructed of piping or other suitable material shaped similar to that part of the upper portion of the body of a motor car where the hood and fixings are usually attached. This frame (1) is mounted on four or more legs 3, which are fitted on castors 4 whereby the frame may be easily and speedily moved into any desired position. Across the rear end 2^a of the frame and for a short distance along the sides 1, 1^a is mounted a panel preferably separated as shown into two parts 41 and 41^a (the latter being broken away in the drawings for clearness) said panel being shaped similar to the raised back portion of a motor car body round which the hood is usually fitted. These panels with the frame constitute a dummy representing the upper part of a motor car. The panels 41, 41^a are separated by an adjusting space 41^b and are supported on two standards 44, 44^a and two guide rods 45 and 45^a one at top and one at bottom, which pass transversely through the standards 44, 44^a and the upright brackets 47, 47^a, 48, 48^a said brackets being secured to said back portion. Midway between the two guide rods 45, 45^a and parallel therewith is an adjusting screw 46 which passes freely through the standards 44, 44^a and the upright brackets 48, 48^a and screws into the upright brackets 47 and 47^a. The thread on the screw 46 is right hand in bracket 47^a and left hand in bracket 47 so as to enable the panels 41 and 41^a to be widened or closed at the passage 41^b by turning screw 46. The forward ends 42 and 42^a of panels 41 and 41^a are also adjustable transversely by means of adjustment gear fitted between frames 1 and 1^a as follows:

On each longitudinal frame 1 and 1^a is a bracket 27^a having bearings 30^a through which the frame passes and is secured in position by set screws 31. These two brackets 27^a are connected transversely by two parallel distance rods 10^b. An adjusting bracket 33^a is fitted at each end on distance rods 10^b by bearings 34^a. At the top of the bracket 33^a is secured a sliding arm 37 which passes through slot 50 in panel ends 42 and 42^a and hole 32^a in bracket 33^a. The ends of a rear hood support 36, 36^a are secured to sliding arms 37, 37^a by means of wing nuts 38 see Figure 5. An adjusting screw 11^a passes between the two side brackets 27^a parallel with the distance rods 10^b and is screwed with a right and left hand thread through the hole 35 in adjusting brackets 33 and 33^a. By turning the screw

11c with a suitable key at end 11a the brackets 33 and 33a are caused to travel along the screw 11c and thus widen or close in the inner ends 42, 42a of the panels 41 and 41a.

The intermediate supports 40, 40a for the hood 51 are adjustable by means of two side brackets 27 fitted on side frames 1 and 1a by means of bearings 30 and secured by set screws 31 see Figure 4. They are connected transversely by two parallel distance rods 10a secured in holes 28 in bracket 27. Brackets 33 one at each end, are adapted to slide on rods 10a by means of a long screw 11b (which passes between the two side brackets 27 and parallel with the distance rods 10a) being screwed with a right and left hand thread through holes 35.

The hood supports 40, 40a are attached to the end of arm 39 see Figure 7 which is secured in the top of sliding bracket 33 see Figure 5. This arm 39 is a sliding fit in hole 32 of bracket 27. By turning screw 11b with a suitable key fitted on end 11a, the brackets 33 travel along the screw 11b in opposite directions thus widening or closing the hood supports 40, 40a.

The front or windscreen end is adjustable tranversely by means of two side brackets 5 fitted on the side frames 1 and 1a by means of bearings 6 and 6a and secured by set screws 7 see Figure 3. They are connected transversely by two parallel distance rods 10 secured in holes 8 and 8a in the brackets 5. Two adjusting brackets 12 one at each end, slide on rods 10 by means of a long screw 11 (which passes between the two side brackets 5 through hole 9 and parallel with the distance rods 10) being screwed with right and left hand thread through holes 14 see Figure 2.

The lower ends of the windscreen supports 16, 16a are held in sleeves 15 by tightening screws 18, 18 see Figure 2. These sleeves 15 pass vertically down slots 20 in brackets 12 (see Figure 2) and are secured at the bottom by two pivot screws 17 on opposite sides. Each slot 20 is so arranged as to allow the supports 16 and 16a to be put at any desired angle by means of adjusting screws 19 and 19a. By turning screw 11 with a suitable key fitted on end 11a the brackets 12 travel along the screw 11 in opposite directions, thus widening and closing in the windscreen supports 16 and 16a.

The front end is adjusted longitudinally by means of a bracket 21 see Figure 6 fitted centrally on distance rods 10 and 10a through bearings 22, the screw 11 passing freely through hole 23. A long screw 24 is fitted centrally through the front end 2 of the frame and parallel with the sides 1 and 1a of the frame and screws into bracket 21 at 21a see Figure 6. The screw 24 is held in position by set pins 25 see Figure 6 passing through it one on each side of the front end 2 of the frame.

By slackening the set screws 7 of the bearing portions 6, 6a of the brackets 5, and turning the screw 24, the assembly on the front or windscreen end of the frame is enabled to be adjusted longitudinally and secured at any desired adjustment, as will be understood.

The back ends of the parts 41, 41a are adjusted longitudinally by means of long screws 24a passing through the ends 2a of the end frame and screwing into brackets 21a on distance rods 10b.

By slackening set screws 31, see Figure 4, of the bearings 30a and turning screw 24a with a suitable key fitted on end 26 the brackets 27a slide along the sides 1 and 1a of the frame and the arms 37 slide along slots 50 and the adjustment can be made either forward or backward.

Standard adjustments for new hoods are effected by means of a 3 by 1 piece with slots cut out of the edge so as to fit over the three sets of supports the back being always the starting point and a batten fastened to the windscreen posts can be put on for curtains to be fitted to buttons to be screwed on as desired.

I claim—

1. Hood repairing and building apparatus comprising a frame having standards at its rear end; a panel extending across the rear end and along the sides of said frame and comprising a pair of laterally movable members, means mounting the rear portions of said members on said standards for lateral movement, means to laterally adjust said members, an assembly comprising brackets longitudinally adjustable on the sides of said frame, a transverse rod connecting said brackets, brackets slidably mounted on said rod, means connecting the first and second named brackets and slidably connected to the side portions of said panel members for longitudinal adjustment, means to longitudinally adjust said assembly, and a rear hood support pivotally mohnted on the first named brackets.

2. Hood repairing and building apparatus comprising a frame having standards at its rear end; a panel extending across the rear end and along the sides of said frame and comprising a pair of laterally movable members, means mounting the rear portions of said members on said standards for lateral movement, means to laterally adjust said members, an assembly comprising brackets longitudinally adjustable on the sides of said frame, a transversse rod connecting said brackets, other brackets slidably mounted on said rod, rods connecting the first and second named brackets, the side portions of said panel members having longitudinal slots through which said rods pass, means to lon-

gitudinally adjust said assembly, a rear hood support pivotally mounted on the first named brackets.

3. In apparatus of the class described, a frame, and an assembly comprising brackets mounted on the frame for longitudinal adjustment, a rod connecting said brackets together, other brackets slidably mounted on said rod, means to adjust the last named brackets toward and from each other and windshield supports mounted on the last named brackets and means to adjust said assembly longitudinally of said frame, said adjusting means being connected to said frame and to said assembly.

In testimony whereof he has affixed his signature.

ALBERT EDWARD NIGHTINGALE.