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HOOD LOCK

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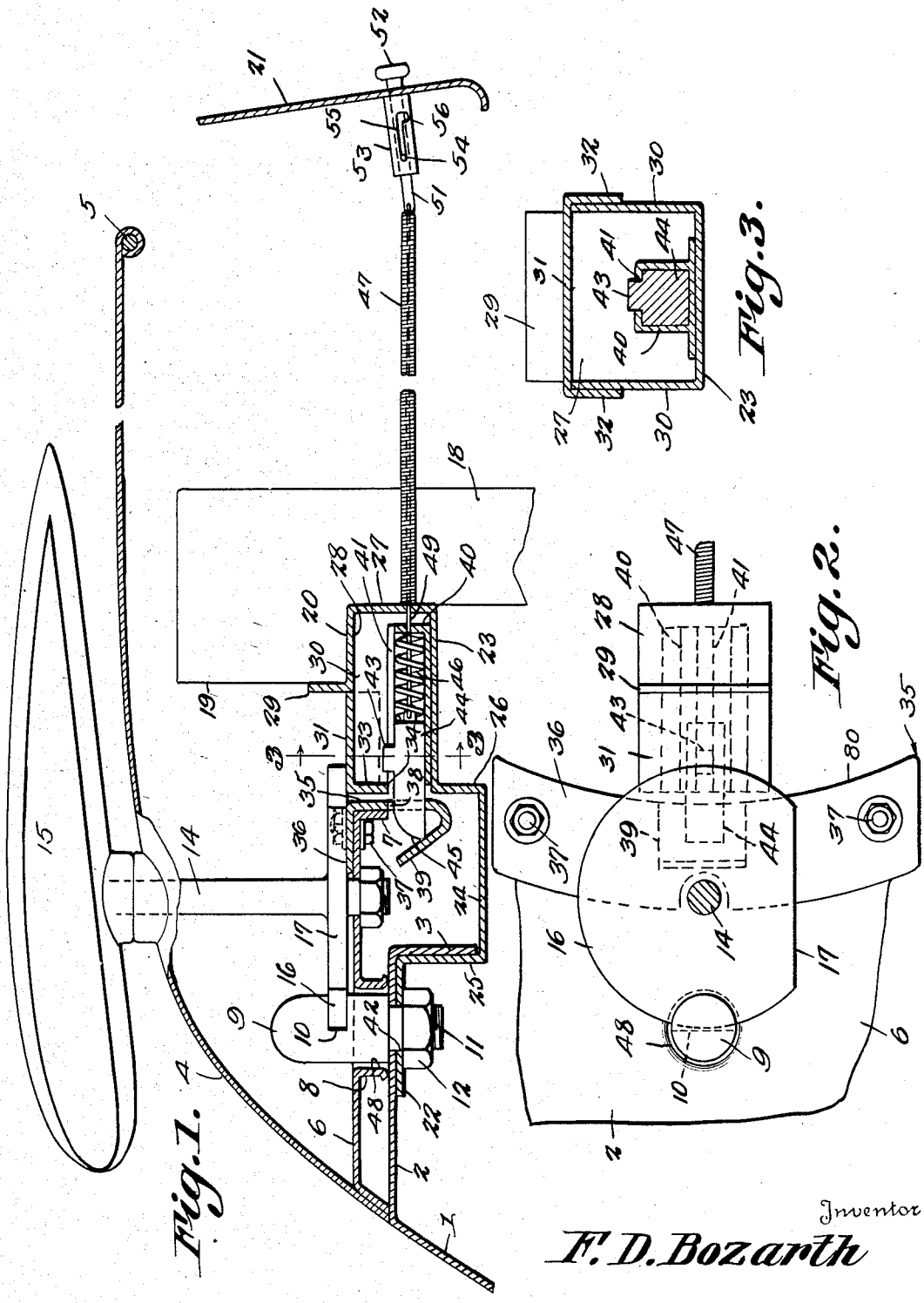


Fig. 1.

Fig. 3.

Fig. 2.

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HOOD LOCK

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1 Claim. (Cl. 292—171)

A well known type of motor car is provided with a hood, including a lid, mounted to swing upwardly and backwardly. In such a construction, access is had readily to the inside of the hood, which is desirable for many purposes, but is undesirable in view of other considerations. For instance, a battery is located in the hood, and it is a common practice to raise the lid and steal the battery.

In view of the foregoing, one object of the invention is to provide a novel mechanism for locking the lid of the hood in closed position, it being possible to unlock the lid only from a point within the car. Another object of the invention is to supply a locking mechanism of the kind mentioned which can be installed in the standard form of car, without working any changes in that form.

Another object of the invention is to furnish a locking mechanism which cannot readily be tampered with by an unauthorized person.

It is within the province of the disclosure to improve generally and to enhance the utility of devices of that type to which the present invention appertains.

With the above and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawing:

Fig. 1 shows in vertical longitudinal section, a portion of a hood of a motor car, the device forming the subject matter of this application being incorporated therein;

Fig. 2 is a top plan showing certain parts located within the hood;

Fig. 3 is a transverse section on the line 3—3 of Fig. 1.

The numeral 1 marks the body of the hood of a motor car. At the forward end of the body 1 is located a horizontal table 2, provided at its rear end with a depending flange 3. The hood includes a lid 4, hingedly mounted at 5, to swing upwardly and backwardly. At the forward end of the lid 4 is secured a bottom plate 6 provided at its rear end with a depending flange 7. Intermediate its ends, the bottom plate 6 has a depending sleeve 8, forming an opening 48 through the bottom plate 6.

The numeral 9 marks an upstanding shouldered keeper having a notch or seat 10 in its rear edge, the keeper including a depending stem 11 held by a nut 12 on the table 2 of the body 1 of the hood. A shaft 14 is journaled in the upper wall of the lid 4 and is supplied with an exposed handle 15. A foot 16 is secured to the lower end of the shaft 14 and is of disk-like form, the foot being circular throughout the major portion of its periphery, the foot, however, being supplied with a straight edge 17.

When the shaft 14 is rotated by means of the handle 15, the circular edge portion of the foot 16 may be engaged in the notch 10 of the keeper 9, as shown in Fig. 1, to hold the lid closed. When the straight edge 17 is brought around to the keeper 9, the foot 16 is freed from the keeper 9 and the lid 4 may be opened. Because the shaft 14 can be operated by means of the handle 15, any one on the outside of the car can open the lid.

A radiator is shown at 18 and has a forwardly extended upper part 19 defining a horizontal shoulder 20. The instrument board is shown at 21.

The parts above described are of standard construction. One object of this invention is to provide a locking device for the lid 4, which may be assembled with the standard construction of a hood and lid, without working changes therein. Having that consideration in mind, there is provided a bracket including a horizontal forward end portion 22 and a horizontal rear end portion 23, connected by a depending U-shaped part 24, including a forward wall 25 and a rear wall 26. The rear wall 26 is not so high as the forward wall 25 and the rear end portion 23 of the bracket is disposed a little lower than the forward end portion 22. The general form of the bracket is rectangular. At the rear end of the part 23 of the bracket there is an upstanding rectangularly shaped member 27 having a forwardly extended arm 28, arranged parallel to the part 23, the arm 28 being provided at its forward end with an upstanding lip 29.

In practical operation, so far as the mounting of the bracket is concerned, the forward end wall 25 of the bracket is placed against the depending flange 3 of the table 2 and the forward end portion 22 of the bracket abuts against the lower surface of the table 2. The stem 11 of the keeper 9 is extended downwardly through an opening 42 in the forward end portion 22 of the bracket, and the nut 12 is threaded on the stem 9, to bind the parts together, as shown in Fig. 1.

The upstanding member 27 of the bracket abuts against the forward surface of the radiator 18, below the shoulder 20 in the radiator. The arm 28 of the bracket engages beneath the shoulder 20 of the radiator. The lip 29 on the bracket engages the forward surface of the part 19 of the radiator. The general construction is such that the rear part of the bracket is interchanged with the radiator 18 in such a way that the rear end of the bracket is securely mounted, and cannot be pulled upwardly.

The rear end portion 23 of the bracket has upstanding side walls 30. In front of the lip 29, the box-like casing formed by the parts 23, 27 and 28 is open, but is bridged over by a cover 31 having depending wings 32 secured to the side walls 30. At its forward end, the cover 31 has a depending flange 33, there being an opening 34 in the casing, below the flange 33.

Disposed in parallel relation to the flange 33 is a keeper 35 provided at its top with a forwardly projecting flange 36 which overlaps the rear end of the bottom plate 6 of the lid 4. Securing elements 37 connect the flange 36 with the bottom plate 6. The keeper 35 is curved forwardly, as shown at 80 in Fig. 2. There is an opening 38 in the keeper 35. At its lower end, the keeper 35 is provided with an upwardly extended and forwardly inclined guard and stop 39.

An elongated bolt housing 40 is located within the casing hereinbefore defined and is secured to the part 23. In the top of the bolt housing 40 there is an elongated slot 41. The slot 41 receives an upstanding lug 43 on a latch bolt 44 mounted for reciprocation in the housing 40. The bolt 44 has a beveled forward end 45. A compression spring 46 is located within the bolt housing 40 and abuts at its rear end against the rear end of the housing, the forward end of the spring abutting against the rear end of the bolt. A tubular sheath 47 extends backwardly from the part 27 of the bracket. An actuating member 49, preferably a wire, extends through the sheath 47, through the rear end wall of the bolt housing 40 and through the spring 46, the forward end of the operating member being connected to the rear end of the bolt 44. The rear end of the actuating member 49 is connected to an operating member 51, preferably a plunger, provided at its rear end with a handle 52. The plunger 51 slides in a tubular guide 53 secured to the instrument board 21, the handle 52 being accessible from behind the instrument board. The plunger 51 has a laterally extended finger 54, mounted to move in the elongated part of a bayonet slot 55 formed in the tubular guide 53, the bayonet slot terminating at its rear end in a seat 56.

The operation of the device is simple. When the bolt 44 is in the position shown in Fig. 1, the lid 4 may be closed, and the keeper 35 will engage automatically with the bolt. Then, a person outside of the car cannot open the lid 4. The lid 4, however, can be freed from within the car, by retracting the plunger 51, the actuating member or wire 49 drawing the bolt 44 backwardly, out of engagement with the keeper 35, against the effort of the spring 46. When the backward pull on the handle 52 of the plunger 51 is relieved, the latch bolt 44 assumes the position of Fig. 1, under the impulse of the spring 46. It may happen that it is desired to hold the latch bolt 44 retracted. Under such circumstances, the handle 52 of the plunger 51 is given a slight turn, and the finger 54 on the plunger 51 is engaged in the seat 56 of the bayonet slot 55, to hold the latch bolt 44 retracted.

The device is simple in construction, but it accomplishes many ends, one of which is to lock the lid 4 in closed position, it being possible to unlock the lid from within the car, another end accomplished being that the device forming the subject matter of this application may be assembled readily with known hood and lid parts, without working any changes in them.

Having thus described the invention, what is claimed is:

In a locking device for use in connection with an automobile structure embodying a hood comprising a body having a rearwardly-extended table and a hinged lid supplied with a bottom piece, the automobile structure embodying a radiator within the hood and having an overhang defining a forwardly-extended shoulder: novel parts including a bracket comprising a forward end portion, a rear end portion and a U-shaped depending part connecting the forward and rear end portions of the bracket, means for securing the forward end portion of the bracket to the table, the bracket being of such length that it will engage beneath the said shoulder, the U-shaped part of the bracket being adapted to receive a keeper secured to the bottom piece of the lid, and a keeper-engaging locking member under the control of an operator and movably mounted on the rear portion of the bracket.

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