

May 21, 1929.

E. L. DAYTON

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AUTOMOBILE LOCKING MECHANISM

Filed April 13, 1927

2 Sheets-Sheet 1

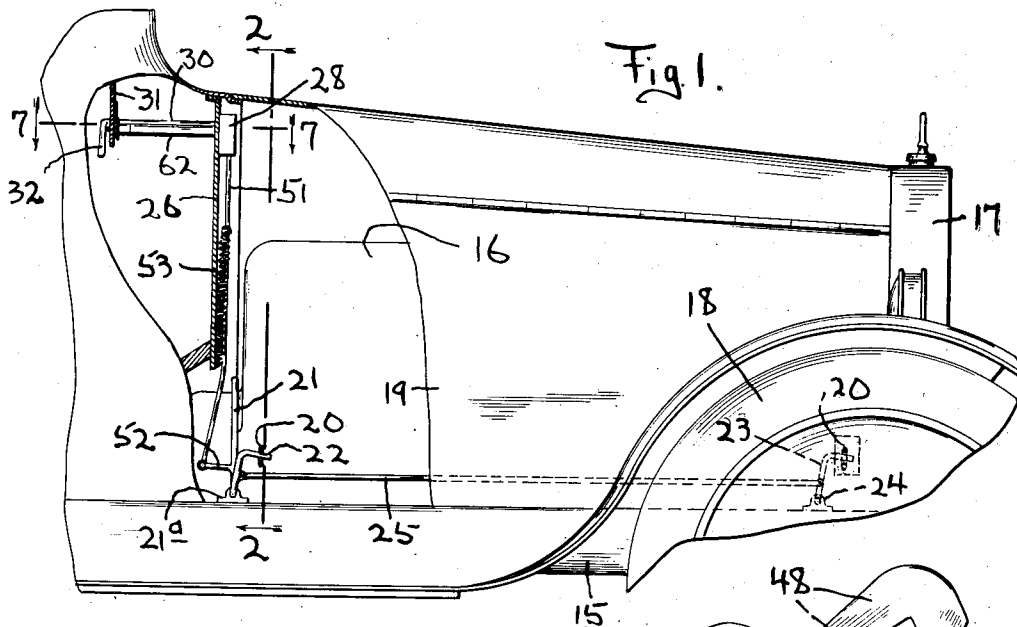


Fig. 2.

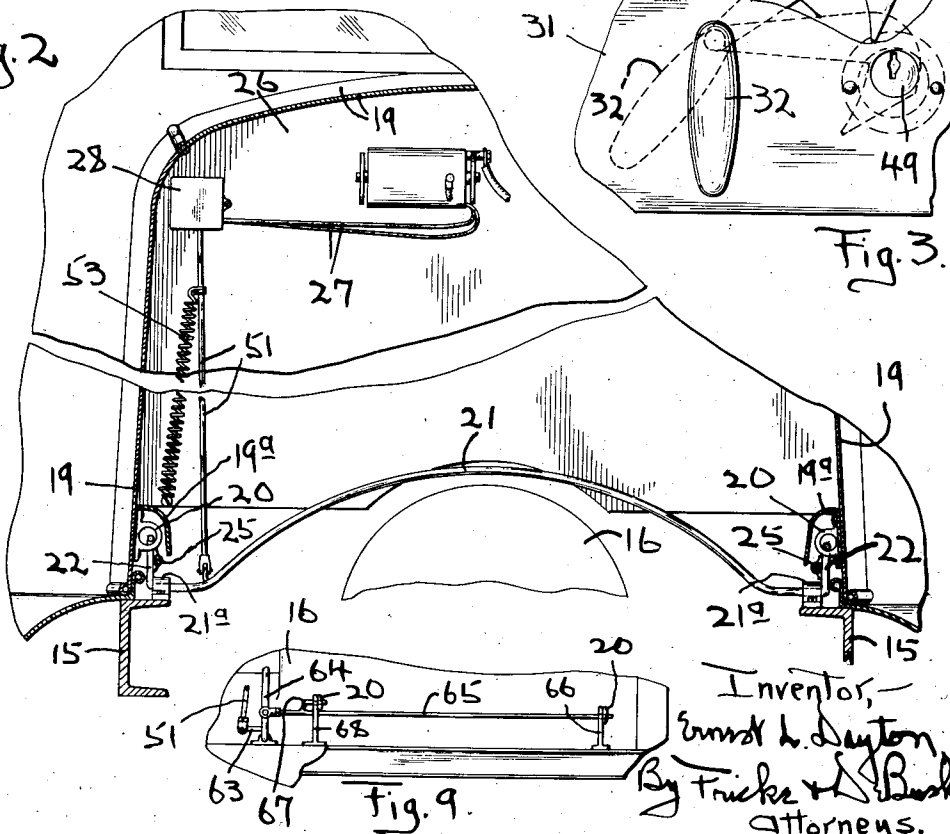


Fig. 3.

Fig. 9.

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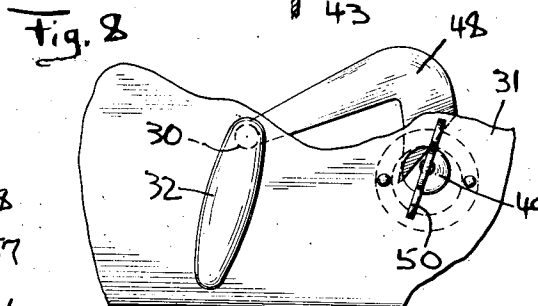
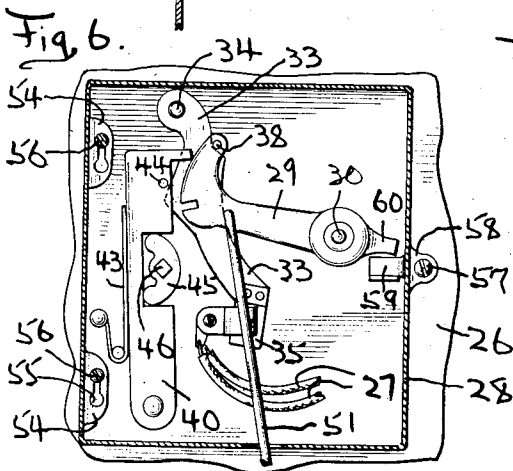
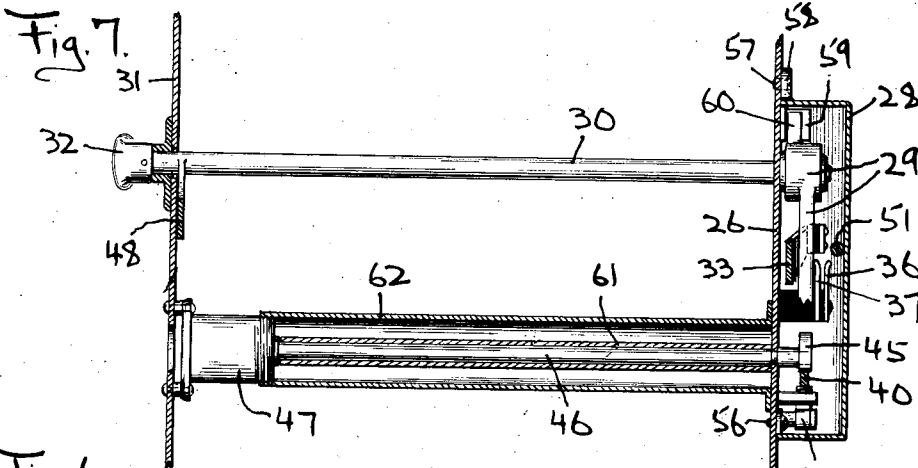
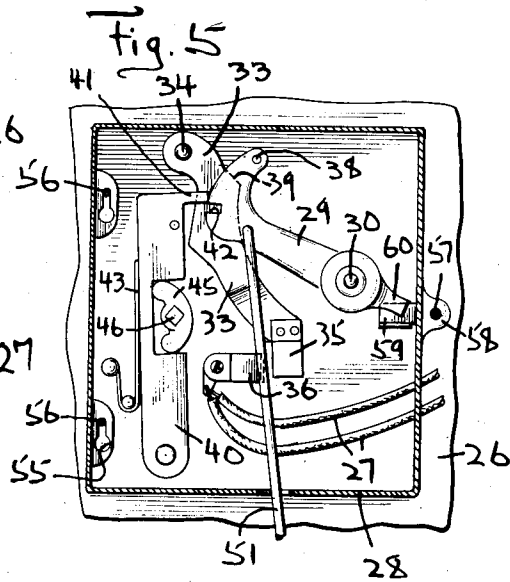
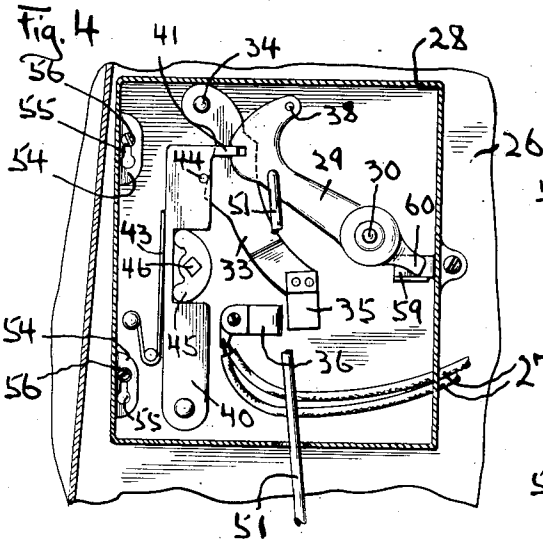
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AUTOMOBILE LOCKING MECHANISM

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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE.

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AUTOMOBILE LOCKING MECHANISM.

Application filed April 13, 1927. Serial No. 183,417.

My invention relates to locks, and particularly to automobile locking mechanisms of the type in which the ignition circuit of a car is broken and the hood is locked down for preventing access to said circuit, and it is the object of my invention to provide a new and improved form and arrangement of parts by which these and other advantages may be attained.

It is one of the objects of my invention to provide a device of this type in which the locking mechanism is controlled by a key which must be withdrawn from operative position before the switch in the ignition circuit of the car is closed for permitting the engine to start, means being provided preferably for opening the switch for stopping the engine without the use of the key. It is another object of my invention to provide a construction of this type so organized and arranged that there shall be no danger of operation of any of the parts by reason of the vibration or swinging motion of the car, so that the movement of the locking devices into operative locking position shall be positive, and so that the disposition of the parts is such that they shall be subject to very little if any distortion when operated under tension. To this end, it is one of the objects of my invention to provide for the positive support of the main locking lever at both end portions, with the connection of the locking devices thereto at a point between such supported ends.

It is another object of my invention to provide a construction of this type in connection with means for locking down the hood of the car, such hood locking means being automatically actuated for locking the hood in closed position when the ignition switch is opened, the hood clamping or locking means being preferably released at the time when the switch is closed for operating the car.

It is another object of my invention to provide a construction in which a separate handle or lever is provided for manual operation independently of the key for moving the operative parts into and out of locking position so that it is not necessary to apply heavy pressure through the medium of the key. It is another object of my invention to provide a mechanism of the type set forth in which a fairly heavy spring is utilized for moving the switch into closed position when the key is operated for releasing the parts, and in

which the switch is opened and the parts are moved to locking position by the use of the manually operated handle or lever against the action of the spring and without the necessity for employing the key.

It is another object of my invention to provide improved locking means applicable to any situation in which the movement of some part necessary for a complete unlocking operation shall depend on the removal of the key from the lock.

It is another object of my invention to improve mechanisms of this type in sundry details hereinafter pointed out. The preferred means by which I have accomplished my several objects are illustrated in the drawings and are hereinafter specifically described.

What I consider as new and desire to cover by Letters Patent is set forth in the claims.

In the drawings,—

Fig. 1 is a side view of a portion of an automobile, partly in section, showing my improved locking means.

Fig. 2 is a vertical cross section taken at line 2—2 of Fig. 1.

Fig. 3 is a face view of a fragmentary portion of the dash of the automobile as seen from the left in Fig. 1, showing in solid lines the position of the parts when the car is locked, and showing in dotted lines the position of the parts when the car is unlocked.

Fig. 4 is a vertical section through a portion of the operating means located under the hood of the car, showing the position of the parts when the car is locked.

Fig. 5 is a view similar to Fig. 4, showing the position of the parts when the key has been inserted and turned for unlocking the car but with the parts held from their completely unlocked position by their engagement with the key before its removal.

Fig. 6 is another view similar to Fig. 4 but showing the position of the parts when the key has been removed so as to permit the closing of the switch for the operation of the car.

Fig. 7 is a horizontal sectional view taken substantially at line 7—7 of Fig. 1.

Fig. 8 is a view similar to Fig. 3 but showing the position of the parts corresponding to that illustrated in Fig. 5; and

Fig. 9 is a view similar to a portion of Fig. 1, but showing a modified form of construction.

Referring now to Figs. 1 to 8 inclusive,

in which corresponding parts are indicated by the same reference characters, 15 indicates the longitudinally extending frame bars of the chassis of an automobile, having mounted thereon a motor 16, a radiator 17 and wheels 18, all of such parts being indicated diagrammatically. A hood 19 of the ordinary type made of sheet metal in sections pivotally connected together is mounted in usual position above the motor 16, the arrangement being such that the lower section at each side can be raised for access to the motor. The means provided for clamping the hood sections 19 down firmly upon the frame-work of the car comprises rings 20 secured by means of suitable brackets upon the inner faces of the sections of the hood near their lower edges, two of such rings being provided at each side of the car, as is clearly indicated from Figs. 1 and 2. 21 indicates a bowed link of stiff heavy metal extending over the rear end portion of the motor 16 and journaled in brackets 21^a mounted upon the frame bars 15, the end portions of the link 21 being turned upwardly in the form of hooks or latches 22 in position to engage cooperating latches in the form of rings 20 on the hood when the link is moved forwardly into the position as shown in Fig. 1. When, however, the link 21 is swung backwardly toward the left in Fig. 1, the hooks 22 are moved backwardly out of engagement with the rings 20 so as to permit the hood to be raised. Additional hooks 23 of similar type are pivotally mounted upon the frame-work by means of brackets 24 near the forward end of the hood, the hooks 23 being pivotally connected with the hooks 22 by means of a link 25 at each side of the machine. The arrangement is such that the hooks 23 are adapted to engage the rings 20 at the front end of the hood, the four hooks 22 and 23 serving to clamp the hood 19 very securely in its closed position when the link 21 is in its forward position as shown in Fig. 1.

Upon the front face of the front wall 26 of the body of the car, I have provided a switch of the type now to be described, such switch being interposed between the wires 27 of the ignition circuit of the car, the same being a portion of the primary circuit preferably. The switch as hereinafter described is enclosed within a housing 28 formed of sheet metal and securely locked in position upon the wall 26, being located underneath the hood 19. As will be readily understood, when the hood 19 is locked down, it is impossible for an unauthorized person to have access to the switch or to the ignition circuit under any ordinary conditions.

Within the box or housing 28, I have provided a main operating lever 29 which is fixed upon the front end of a heavy rod 30 extending forwardly from the rear face of the instrument board 31, such rod 30 being provided

on its rear end portion with a handle 32 by which the rod 30 and the lever 29 can be rotated as hereinafter described. Within the box 28 adjacent to the lever 29 I have mounted a switch lever 33 so as to swing laterally about a pivot pin 34, such switch lever 33 being provided upon its lower end with a bridging plate or armature 35 which is insulated with respect to the lever 33. The bridging plate 35 is in position to swing between the switch blades 36 and 37 which are mounted upon the wall 26 within the box 28, being suitably insulated from the wall and from each other and being connected with the respective wires 27 of the ignition circuit. The blades 36 and 37 are so disposed that when the bridging piece or armature 35 is moved toward the left in Fig. 4 into position therebetween, a close contact is made so as to complete the electrical circuit through the wires 27 and the switch.

The main operating lever 29 is provided at its upper end portion with a pin 38 which is adapted by engagement with a diagonally disposed portion 39 of the switch lever 33 to move the switch lever toward the left in Fig. 6 about the pivot 34 for closing the switch as shown in said Fig. 6, such closing movement of the switch lever 33 being effected at about the limit of the downward movement of the lever 29.

At the lower end portion of the box 28, I have pivotally mounted a latch lever 40 which extends upwardly opposite the main lever 29, the lever 40 being provided at its upper end with a projecting lug 41 adapted by engagement with a notch 42 in the main lever 29 to hold such lever 29 in raised position as shown in Fig. 4. The face of the lever 29 above the notch 42 is so disposed that the lever 29 is free to move upwardly with respect to the lug 41 with the lug camming along the face of the lever until it is brought into position opposite the notch, when the lever 40 is moved toward the right in Fig. 4 for causing the lug to engage the notch, such movement of the latch lever being effected by a spring 43 of any suitable type. The latch lever 40 is provided with a pin 44 projecting from its face adapted by engagement with the switch lever 33 to carry the switch lever toward the right in Fig. 4 for opening the switch when the lug 41 moves into engagement with the notch 42, the spring 43 being of sufficient strength to effect this action.

Means is provided for moving the latch lever 40 toward the left in Fig. 4 against the action of the spring 43. Such means comprises a head 45 mounted upon a circular rod 46 extending at its front end into the box 28 and connected at its rear end with the rotary barrel portion of a lock 47 mounted in spaced relation with respect to the front face of the instrument board 31. The head 45 is mounted in a notch in one side portion of the

latch lever 40, the arrangement being such that when the rod 46 and the head 45 are rotated slightly in either direction the head 45 is brought into engagement with the latch lever serving to move it toward the left as shown in Fig. 5, for carrying the lug 41 out of engagement with the notch 42 of the main operating lever 29 so as to permit the lever 29 and the rod 30 to rotate in counter-clockwise direction in said Fig. 5. Upon the rear end of the rod 30, there is mounted a plate 48 in position to swing past the rear end of the locking barrel 49 (see Figs. 3 and 8). When the lever 29 is held in its uppermost position as shown in Fig. 4, the plate 48 is in the position shown in solid lines in Fig. 3. When the lever 29 has rotated in counter-clockwise direction into the position shown in Fig. 5, the plate 48 is held in the position as illustrated in Fig. 8, with the end of the plate 48 in contact with the key 50 in position in the barrel 49, being held by the key from further rotation in clockwise direction in said Fig. 8. When, however, the key 50 is withdrawn from the barrel 49, the plate 48 is permitted to move farther in clockwise direction in said Fig. 8 into the position shown in dotted lines in Fig. 3, such position corresponding with the position of the lever 29 as shown in Fig. 6.

For operating the hood clamping means from the lever 29, I have provided a link 51 pivotally connected at its upper end with said lever 29 and pivotally connected at its lower end with an arm 52 projecting rearwardly from the bowed link 21 which controls the position of the hooks 22 and 23. As will appear from an inspection of Fig. 1, when the link 51 is moved downwardly by the lever 29, the arm 52 is likewise moved downwardly, serving to carry the bowed link 21 toward the rear for releasing the hooks 22 and 23 from the rings 20 carried by the hood. When thereafter the link 51 is moved upwardly by the lever 29, the hooks 22 and 23 are again moved forwardly into engagement with the rings 20 for locking the hood in its closed position. A heavy spring 53 is connected with the link 51 and with a suitable portion of the wall 26 serving normally to hold the rod 51 in its lowermost position, the spring 53 being of considerably greater effective strength than the spring 43.

With the parts in the position as shown in Fig. 6, the spring 53 by its downward pull upon the link 51 serves to hold the arm 52 in its lowermost position for holding the hooks 22 and 23 in their unlocked positions, and serving to hold the arm 29 in its lowermost position in which the pin 38 by its engagement with the switch lever 33 holds the switch in closed position as shown in Fig. 6. With the parts in this condition the car is in condition for operation, the arrangement being such that the hood can be opened

whenever desired by loosening the clips of the ordinary type employed as usual for holding the hood releasably in position. When it is desired to stop the engine in the ordinary way by breaking the ignition circuit, this is effected by grasping the handle or lever 32 which is standing in the position as shown in dotted lines in Fig. 3, such lever being moved manually toward the right in Fig. 3 into the position as shown in solid lines in said figure. This movement of the lever 32 and the corresponding movement of the rod 30 serves to raise the lever 29 into the position as shown in Fig. 4, the lug 41 of the latch lever 40 being adapted to ride along the curved end of the lever 29 until it is brought into position opposite the notch 42. When the lever 29 reaches its uppermost position as shown in Fig. 4, the latch lever 40 moves toward the right in Figs. 4 and 6, serving by engagement with the lever 29 to hold the lever releasably in its raised position. In the movement of the latch lever 40 toward the right in Fig. 4, the pin 44 by engagement with the switch lever 33 serves to open the switch, serving thus to stop the operation of the engine. The movement of the lever 32 toward the right in Fig. 3 and the upward movement of the lever 29 are, of course, effected against the action of the spring 53.

When it is desired again to start the engine, the key 50 is inserted into the opening in the barrel 49 for releasing the barrel and is turned slightly for moving the latch lever 40 toward the left into the position as shown in Fig. 5 for releasing the main operating lever 29 which is then free to move downwardly under the influence of the spring 53 until the plate 48 is brought into contact with the key 50, the parts being then in the condition as shown in Fig. 5, with the switch still open. When thereafter the key 50 is withdrawn from the barrel 49, the plate 48 is permitted to move downwardly into the position as shown in dotted lines in Fig. 3, permitting the lever 29 to move also to its lowermost position as shown in Fig. 6, serving to close the switch and to unlock the hood as above described.

In the use of my construction as above described, the plate 48 normally standing in position opposite the barrel 49 prevents the driver from thoughtlessly inserting the key before opening the switch for breaking the ignition circuit. Since it had theretofore been necessary to withdraw the key for starting the engine, the driver is thus protected from inadvertently leaving the key in the lock, there being no occasion for inserting the key when stopping the engine and locking the car, and he is protected against any liability of forgetting to lock the car when the engine is stopped since this is effected automatically. The housing 28 is provided as an additional element of protection for increasing the diffi-

culties in connection with unauthorized driving of the car. As is clearly shown in Figs. 4, 5 and 6, the box 28 is mounted in position by means of ears 54 extending inwardly from the side wall of the box, such ears 54 being provided with openings 55 which are adapted to be slid downwardly into engagement with screws or bolts 56 carried by the wall 26. At its opposite side, the box 28 is held in position by a screw 57 passing through a lug 58. Auxiliary means for holding that side of the box 28 in position is provided, comprising a lug 59 extending inwardly from the side wall of the box, the lever 29 being provided with an arm 60 which is clear of the lug 59 when the parts are in the position as shown in Fig. 6 but being in position directly opposite the lug when the parts are in locked position as shown in Fig. 4.

The lower sections of the hood 19 are preferably provided with guards or shields 19^a extending inwardly and downwardly about the links 25 and the hooks 22 and 23 for preventing access to such parts through the ventilator openings in the hood.

As is best shown in Fig. 7, the rod 46 is protected by the provision of a sleeve 61 revolvably mounted thereon and extending from the wall 26 to the lock 47, a second sleeve 62 being secured rigidly in position about the sleeve 61. In case one seeking to steal the car should saw through the wall of the sleeve 62, when the saw came into contact with the loosely mounted sleeve 61 the sleeve would rotate and the saw would be ineffective.

Referring particularly to Fig. 4 in which the arrangement is best shown, it will be seen that the main operating lever 29 in the position there shown is supported at one end portion by the rod or shaft 30 and is rigidly supported in position at its other end by the latch lever 40. The link 51 is accordingly held very rigidly in position for resisting downward movement. The link 51 has a substantially straight-line connection between the main operating lever 29 and the arm 52 so as to give very little opportunity for any lost motion or yielding in the connections between the operating lever 29 and the hood locking parts.

In case the lock 47 should be loosened from the plate 31 or heavy pressure should be applied to the plate 31 for carrying the rod 46 either backwardly or forwardly with respect to the plate 26 and the parts carried thereby within the box 28, the head 45 might be moved out of operative engagement with the edge of the lever 40. In case the lever 40 should be moved by the spring 43 into engagement with the face of the head 45 instead of its edge as shown, or in case the lever should slip into position between the end portions of the head by reason of the head being tilted from its normal position, in that event the rotation of the head would not serve to operate

the lever 40 for releasing the operating lever 29 and it would be impossible to readjust the parts except by access to the interior of the box 28.

In the use of my improved construction, the complete unlocking of the hood is made dependent on the movement of the lever 29 and the plate 48, the movement of which to the extent necessary for effecting such complete unlocking is in turn dependent on the removal of the key from the lock. My invention is not to be restricted with respect to the result obtainable by reason of the movement made possible by the removal of the key, except so far as certain of the claims are specifically so limited. So far as I am aware, I am the first in the art to provide a construction in which complete unlocking is attainable only on the movement of some part made possible by the removal of the key from the lock after the operative movement of the key.

Referring now to Fig. 9, in which a modified form of locking means for the hood is shown, it will be seen that the link 51 is connected at its lower end with an arm 63 corresponding with the arm 52 of the construction first described, the arm 63, however, being mounted upon a modified form of bowed link 64. The link 64 is connected at a point a short distance above the axis with a slide rod 65, the forward end of which is supported by a bracket 66 in position to engage directly with the ring 20 of the hood. A short arm 67 at the rear end of the rod 65 is likewise slidably mounted in a bracket 68, the end portion of the arm 67 being movable into engagement with the other one of the rings 20 of the hood. The construction is preferably the same at the opposite side of the car. It will be understood that the operation of this device is the same as that above described in connection with the structure shown in Fig. 1. Still other forms of mechanism might well be provided for connecting the locking means at one side for operation with the locking means at the opposite side of the car.

While I prefer to employ the form of construction as shown in my drawings and as above described, I desire to have it understood that my invention is not limited to the form of device shown, except so far as certain of the claims are specifically so limited, it being understood that changes might well be made in the form of the device without departing from the spirit of my invention.

I claim:—

1. An automobile locking mechanism, comprising in combination a switch in the ignition circuit of a car, yielding means, means actuated by said yielding means serving normally to hold said switch closed, manually operable means for moving said yielding means out of effective engagement with said switch, and latch means

adapted by an operative stroke to open the switch and serving to hold said yielding-actuated means releasably out of effective engagement with the switch.

2. An automobile locking mechanism, comprising in combination a switch in the ignition circuit of a car, yielding means, means actuated by said yielding means serving normally to hold said switch closed, manually operable means for moving said yielding-actuated means out of effective engagement with said switch, and a second yielding means serving to open said switch when the pressure of said first named yielding means is relieved from the switch.

3. An automobile locking mechanism, comprising in combination a switch in the ignition circuit of a car, yielding means, means actuated by said yielding means serving normally to hold said switch closed, manually operable means for moving said yielding-actuated means out of effective engagement with said switch, latch means serving to hold said yielding-actuated means releasably out of effective engagement with the switch, and a second yielding means serving to open said switch when the pressure of said first named yielding means is relieved from the switch.

4. An automobile locking mechanism, comprising in combination a switch in the ignition circuit of a car, yielding means, means actuated by said yielding means serving normally to hold said switch closed, manually operable means for moving said yielding-actuated means out of effective engagement with said switch, latch means serving to hold said yielding-actuated means releasably out of effective engagement with the switch, and a second yielding means serving to swing said latch means into operative engagement with said yielding-actuated means and serving thereby to open said switch.

5. An automobile locking mechanism, comprising in combination a switch in the ignition circuit of a car, an operating lever by a stroke of which in one direction said switch is closed, yielding means serving normally to swing said operating lever for closing the switch, manually operable means for moving said operating lever in the opposite direction against the action of said yielding means, and latch means adapted by an operative stroke to open the switch and serving to hold said operating lever releasably against movement by said yielding means.

6. An automobile locking mechanism, comprising in combination a switch in the ignition circuit of a car, an operating lever by a stroke of which in one direction said switch is closed, yielding means serving normally to swing said operating lever for closing the switch, manually operable means for moving said operating lever in the opposite direction against the action of said yielding means,

and a second yielding means serving to open said switch when the pressure of said first named yielding means is relieved from the switch.

7. An automobile locking mechanism, comprising in combination a switch in the ignition circuit of a car, an operating lever by a stroke of which in one direction said switch is closed, yielding means serving normally to swing said operating lever for closing the switch, manually operable means for moving said operating lever in the opposite direction against the action of said yielding means, latch means serving to hold said operating lever releasably out of operative engagement with the switch, and a second yielding means serving to open said switch when the pressure on said first named yielding means is relieved from the switch.

8. An automobile locking mechanism, comprising in combination a switch in the ignition circuit of a car, an operating lever by a stroke of which in one direction said switch is closed, yielding means serving normally to swing said operating lever for closing the switch, manually operable means for moving said operating lever in the opposite direction against the action of said yielding means, and latch means adapted by engagement with said operating lever when the lever is swung in the opposite direction from that by which the switch is closed to hold said operating lever releasably against movement by said yielding means and adapted by movement into operative holding engagement with said operating lever to open said switch.

9. An automobile locking mechanism, comprising in combination a switch in the ignition circuit of a car, an operating lever by a stroke of which in one direction said switch is closed, yielding means serving normally to swing said operating lever for closing the switch, manually operable means for moving said operating lever in the opposite direction against the action of said yielding means, latch means adapted by engagement with a notch in said operating lever when the lever is swung in the opposite direction from that by which the switch is closed to hold said operating lever releasably against movement by said yielding means and adapted by movement into said notch to open said switch, and a second yielding means adapted to swing said latch means into operative holding engagement with said operating lever and serving also to open said switch.

10. An automobile locking mechanism, comprising in combination a switch in the ignition circuit of a car, manually operable means for opening said switch, latch means carried by the hood of the car, cooperating latch means carried by the frame of the car adapted upon the switch opening stroke of said manually operated means to engage said first named latch means and thereby to clamp

down the hood of the car, and key-controlled means serving automatically at the end of the switch opening movement to lock said switch against closing movement and to hold said hood clamping means in operative position.

11. An automobile locking mechanism, comprising in combination a switch in the ignition circuit of a car, clamping means for holding the hood of the car securely closed, yielding means serving normally to close said switch and to move the clamping means out of operative position, latching means for holding said switch open and holding said clamping means in operative holding position against the action of said yielding means, and key-controlled means for moving said latching means out of operative holding position.

12. An automobile locking mechanism, comprising in combination a switch in the ignition circuit of a car, clamping means for holding the hood of the car securely closed, yielding means serving normally to close said switch and to move the clamping means out of operative position, key-controlled latching means for holding said switch open and holding said clamping means in operative holding position against the action of said yielding means, and means adapted by engagement with the key at the initial portion of the closing movement of the switch to prevent an effective closing movement until after the key has been removed.

13. An automobile locking mechanism, comprising in combination a switch in the ignition circuit of a car, clamping means for holding the hood of the car securely closed, yielding means serving normally to close said switch and to move the clamping means out of operative position, manually operable means for relieving the pressure of the yielding means from said switch, latching means for holding said switch open and holding said clamping means in operative holding position against the action of said yielding means, and key-controlled means for moving said latching means out of operative holding position.

14. An automobile locking mechanism, comprising in combination a switch in the ignition circuit of a car, clamping means for holding the hood of the car securely closed, yielding means serving normally to close said switch and to move the clamping means out of operative position, manually operable means for relieving the pressure of the yielding means from said switch, key-controlled latching means for holding said switch open and holding said clamping means in operative holding position against the action of said yielding means, and means adapted by engagement with the key at the initial portion of the closing movement of the switch to prevent an effective closing movement until after the key has been removed.

15. An automobile locking mechanism, comprising in combination a switch in the

ignition circuit of a car, a lever adapted by a stroke in one direction to close said switch, means adapted upon a stroke of the lever in the opposite direction to open said switch, latch means carried by the hood of the car on its inner face, cooperating latch means carried by the frame of the car adapted upon a movement of the lever in the direction for opening the switch to engage said first named latch means serving to lock said hood in closed position, key-controlled means for preventing movement of the lever in the direction for closing said switch, and means adapted by engagement with the key at the initial portion of the movement of the lever in the direction for closing the switch to prevent the further movement of the lever in that direction until after the key has been withdrawn.

16. An automobile locking mechanism, comprising in combination a switch in the ignition circuit of a car, a lever adapted by a stroke in one direction to close said switch, means adapted upon a stroke of the lever in the opposite direction to open said switch, latch means carried by the hood of the car on its inner face, cooperating latch means carried by the frame of the car adapted upon a movement of the lever in the direction for opening the switch to engage said first named latch means serving to lock said hood in closed position, key-controlled means for preventing movement of the lever in the direction for closing said switch, means adapted by engagement with the key at the initial portion of the movement of the lever in the direction for closing the switch to prevent the further movement of the lever in that direction until after the key has been withdrawn, and manually operable means adapted for giving the lever a movement in the opposite direction for opening the switch independently of the key.

17. An automobile locking mechanism, comprising in combination a switch in the ignition circuit of a car, a lever adapted by a stroke in one direction to close said switch, yielding means adapted normally to give said lever an operative stroke for closing the switch, means adapted upon a stroke of the lever in the opposite direction to open said switch, latch means carried by the hood of the car, cooperating latch means carried by the frame of the car adapted upon a movement of the lever in the direction for opening the switch to engage said first named latch means serving to lock said hood in closed position, key-controlled means for preventing movement of the lever in the direction for closing said switch, means adapted by engagement with the key at the initial portion of the movement of the lever in the direction for closing the switch to prevent the further movement of the lever in that direction until after the key has been withdrawn, said yielding means serving upon the removal of the

key to complete the closure of the switch, and manually operable means adapted for giving the lever a movement in the opposite direction for opening the switch independently of the key.

18. An automobile locking mechanism, comprising in combination a plurality of hooks pivotally mounted on the frame-work of a car and movable into and out of operative holding engagement with the lower sections of the hood of the car, a switch in the ignition circuit of the car, means for opening and closing the switch, means adapted upon the opening of the switch to move the hooks to operative holding position and upon the closing of the switch to move the hooks out of operative position, key-controlled means for holding the switch open, and means adapted by engagement with the key when in operative position to prevent an effective closing movement of the switch until after the key has been removed.

19. An automobile locking mechanism, comprising in combination a switch in the ignition circuit of a car, a housing surrounding the switch and the ignition circuit, means for opening said switch and serving also to lock said housing in position about the switch and the circuit, and key-controlled means for closing the switch and unlocking the housing.

20. An automobile locking mechanism, comprising in combination a switch in the ignition circuit of a car, yielding means adapted normally to close said switch, latch means for holding the switch open against the action of the yielding means, and a head adapted by edge engagement with said latch means to move the latch means out of operative holding position upon swinging movement of the head, said latch means being movable beyond normal position toward the axis of the head when by distortion of the parts the head and latch means are moved out of edge engagement with each other whereby the subsequent swinging movement of the head fails to effect operative movement of the latch means.

21. An automobile locking mechanism, comprising in combination a switch in the ignition circuit of a car, operating means serving normally to close said switch, key-controlled locking means serving in normal locked condition to prevent effective movement of the operating means in the direction for closing said switch, and means adapted by engagement with the key when in said locking means after an unlocking operation to limit the movement of the parts and adapted thereby to prevent the effective closing of the switch until the key has been withdrawn.

22. An automobile locking mechanism, comprising in combination clamping means for holding the hood of a car in closed posi-

tion, operating means serving normally to release said clamping means, key-controlled locking means serving in normal locked condition to prevent effective movement of said operating means in the direction for releasing said clamping means, and means adapted by engagement with the key when in said locking means after an unlocking operation to limit the movement of the parts and adapted thereby to prevent the unclamping of the hood until the key has been removed.

23. An automobile locking mechanism, comprising in combination a switch lever, switch means adapted upon a stroke of said lever in one direction to close the ignition circuit of a car, an operating lever swingingly mounted adjacent to said switch lever and adapted upon an operative stroke by contact with said switch lever to move it into switch closing position, yielding means adapted normally to give the operating lever an operative stroke for closing said switch, manually operable means for moving said operating lever out of effective engagement with said switch lever, and latch means adapted by engagement with said operating lever to hold it against the action of said yielding means out of effective engagement with said switch lever.

24. An automobile locking mechanism, comprising in combination a switch lever, switch means adapted upon a stroke of said lever in one direction to close the ignition circuit of a car, an operating lever swingingly mounted adjacent to said switch lever and adapted upon an operative stroke by contact with said switch lever to move it into switch closing position, yielding means adapted normally to give the operating lever an operative stroke for closing said switch, manually operable means for moving said operating lever out of effective engagement with said switch lever, key-controlled locking means for preventing movement of the operating lever in the direction for closing said switch, and means adapted by engagement with the key when in said locking means after an unlocking operation to limit the movement of the parts and adapted thereby to prevent the effective closing of the switch until the key has been withdrawn.

25. An automobile locking mechanism, comprising in combination a switch in the ignition circuit of a car, operating means serving normally to close said switch, releasable latch means serving in operative holding position to prevent effective movement of the operating means in the direction for closing said switch, means controlled by a key-operated lock for moving said latch means into and out of operative holding position, and means adapted by engagement with the key when in said lock after an unlocking operation to limit the movement of

the parts and adapted thereby to prevent the effective closing of the switch until the key has been withdrawn.

26. An automobile locking mechanism, comprising in combination a switch in the ignition circuit of a car, operating means serving normally to close said switch, releasable latch means serving in operative holding position to prevent effective movement of the operating means in the direction for closing said switch, and means controlled by a key-operated lock adapted by rotary movement to move said latch out of operative holding position for permitting the closing movement of the switch.

27. An automobile locking mechanism, comprising in combination a switch in the ignition circuit of a car, operating means serving normally to close said switch, releasable latch means serving in operative holding position to prevent effective movement of the operating means in the direction for closing

said switch, and other means adapted by an operative stroke to move said operating means in the direction for opening said switch.

28. An automobile locking mechanism, comprising in combination clamping means for holding the hood of a car in closed position, operating means serving normally to release said clamping means, key-controlled locking means serving in normal locked condition to prevent effective movement of said operating means in the direction for releasing said clamping means, a switch in the ignition circuit of said car normally held closed by said operating means, and means adapted by engagement with the key when in said locking means after an unlocking operation to limit the movement of the parts and adapted thereby to prevent the unclamping of the hood and the closing of the switch until the key has been removed.

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