March 12, 1940. A. E. PETERSON 2,193,112

HOOD LATCH

Original Filed July 9, 1938 2 Sheets-Sheet 1

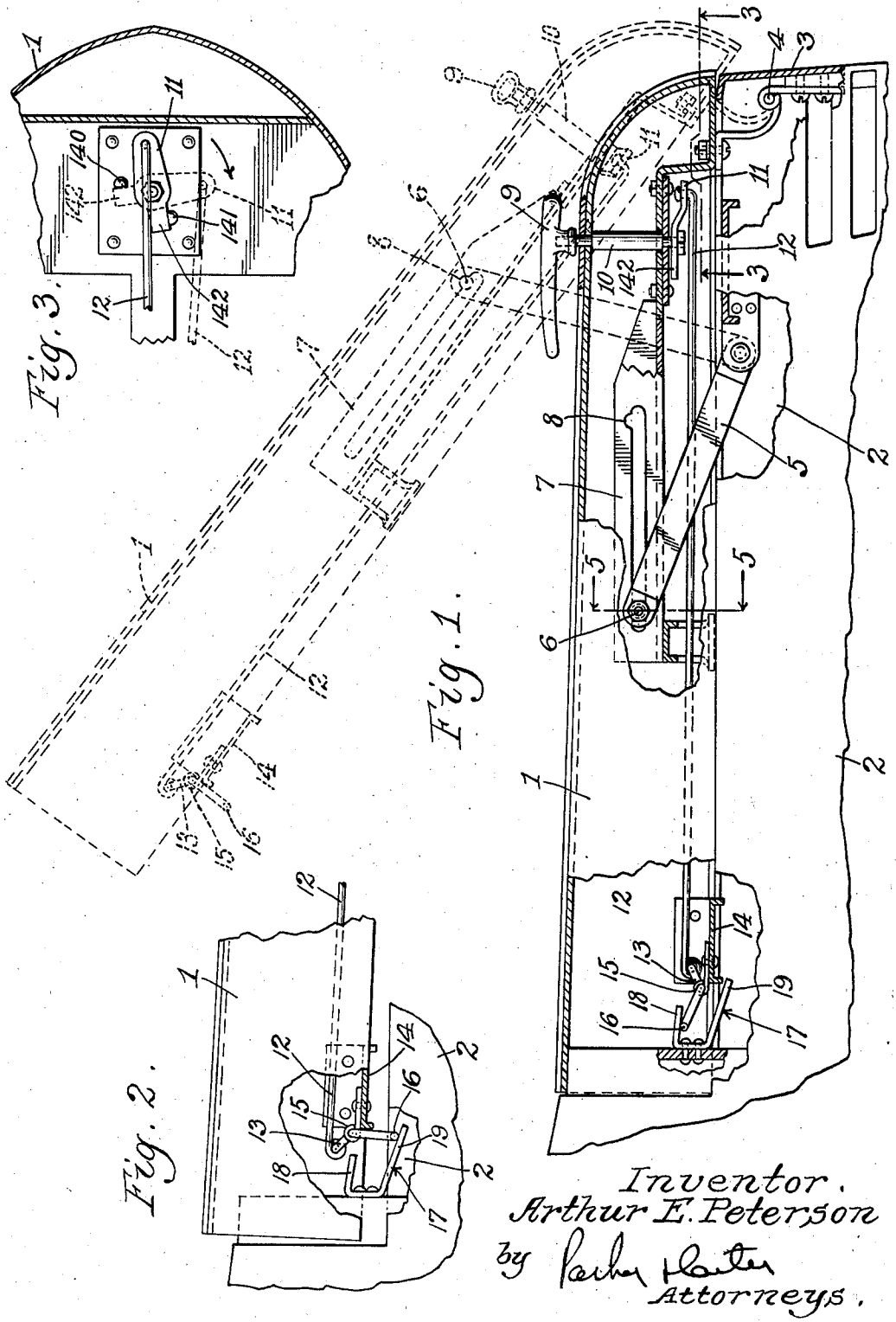


Fig. 1.

Fig. 3.

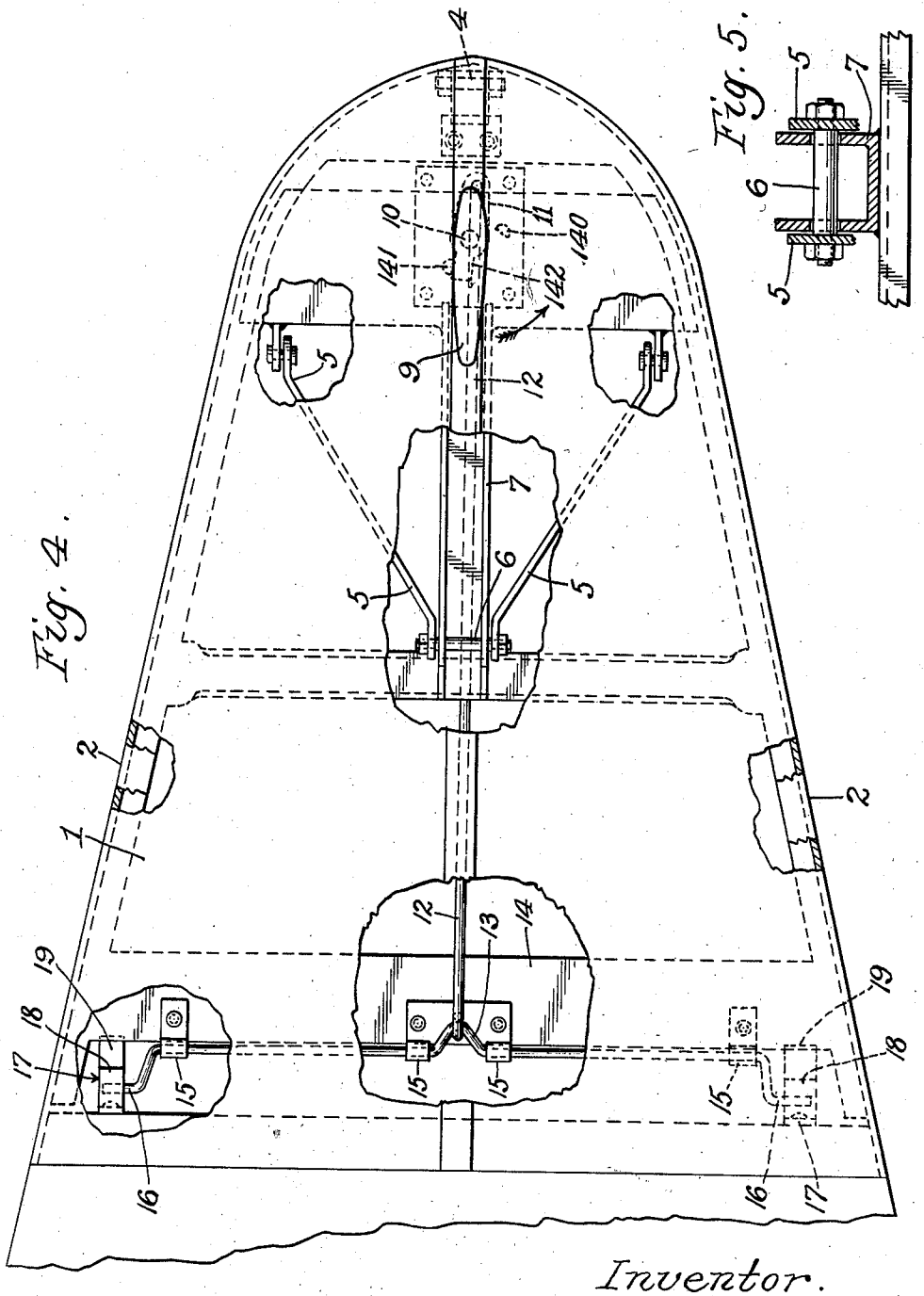
Fig. 2.

Inventor.
Arthur E. Peterson
by Parker Hunter
Attorneys.

March 12, 1940. A. E. PETERSON 2,193,112

HOOD LATCH

Original Filed July 9, 1938 2 Sheets-Sheet 2



Inventor.
Arthur E. Peterson
by Parker Plante
Attorneys.

Patented Mar. 12, 1940

2,193,112

UNITED STATES PATENT OFFICE

2,193,112

HOOD LATCH

Arthur E. Peterson, Chicago, Ill., assignor to Chicago Forging & Manufacturing Company, Chicago, Ill., a corporation of Illinois

Original application July 9, 1938, Serial No. 218,374. Divided and this application December 24, 1938, Serial No. 247,670

8 Claims. (Cl. 292—214)

My invention relates to improvements in automobile hood latches and especially relates to that type of hood latch which is used in connection with automobile hoods wherein the upper portion of the hood only is raised, and wherein the hood is pivoted at the front end of the vehicle.

One object of the invention is to provide a single hood latch which will tighten both sides of a hood.

Another object is to provide a hood latch which will, when the latch is disengaged, initially start the opening movement of the hood.

Another object is to provide a hood latch wherein the latch controlling lever forms a part of the decorative aspect of the car, being substituted, for instance, for the well-known type of radiator emblem.

Other objects will appear from time to time in the course of the specification and claims.

The present application is a division of my copending application Serial No. 218,374, filed in the United States Patent Office on July 9, 1938.

My invention is illustrated more or less diagrammatically in the accompanying drawings wherein:

Fig. 1 is a longitudinal section showing the hood closed;

Fig. 2 is a detail section showing the hood in the partially raised position;

Fig. 3 is a section along the line 3—3 of Fig. 1;

Fig. 4 is a plan view with parts broken away; and

Fig. 5 is an enlarged section taken on the line 5—5 of Fig. 1.

Like parts are indicated by like characters in the specification and drawings.

Referring to the drawings, 1 is the engine hood. 2, 2 are the side members and 3 is the front member of the engine housing. The hood is pivoted at its front end on a hinge 4 on the front end 3 of the vehicle housing. 5 are pivoted brackets on the side members 2, having a cross member 6 slidable in a track 7, provided with a notch 8, whereby when the hood is raised, the side members engage the notch to hold the hood in the open or in upper position. The hood may be released and lowered by raising it slightly to release the cross member from the notch and then moving the bracket rearwardly to permit the hood to close.

9 is a hand lever projecting above the hood in the same general position as the usual well-known type of radiator ornament. This hand lever is rigidly mounted on a rotating shaft, which shaft carries a crank 11, the crank being associated with a connecting rod 12, which rod is attached to a latch crank 13, which is rotatably mounted on a cross bar 14, by means of bearings 15. The latch crank terminates at each end in latch members 16, one at each side of the hood, the crank extending perpendicularly of the hood and across the axis of the body.

17, 17 are latch brackets. In this case, they are on the vehicle dash though they might, of course, be mounted on the side panels 2 if desired. The latch brackets 17 are identical, and one is associated with each of the latch members 16. These latch brackets comprise preferably two parallel arms 18, 19, both forwardly and downwardly inclined, the upper arm 18 being shorter than the arm 19.

The relationship of the parts is such that when the hand lever 9 is moved to the latch disengaging position, the latch members 16 are rotated down into a generally vertical position, their downward movement being limited by their engagement with the cross bar 14, and more positively by the stops 140 and 141 which limit the motion of the crank 11 by engagement with the extension 142 on the crank 11. It will be understood that in the locking position the crank is moved slightly beyond dead center so that the tension in the rod 12 holds the member 142 against the stop 141 to prevent unlocking.

Under these circumstances, the latch members rest upon the lower latch arms 19 and hold the rear end of the hood slightly above its normal position. When the hand lever 9 is rotated toward the locking position, the latch members are rotated toward the rear and upwardly to bring them under the upper shorter latch brackets 18 whereby they lock the hood in closed position. Upon opening the hood, opposite movement takes place and at first the movement of the hand lever releases the latch, then further movement raises the rear end of the hood so that the operator can go to the rear end, get his fingers beneath it, and lift it up.

It will be realized that whereas I have described and illustrated a practical and operative device, nevertheless many changes may be made in the size, shape, number and disposition of parts without departing from the spirit of my invention. I therefore wish my description and drawings to be taken as in a broad sense illustrative and diagrammatic, rather than as limiting me to my precise showing.

The use and operation of my invention are as follows:

Because of the fact that modern hoods enclos-

ing automobile engines now in many instances are hinged above the engine and on axes perpendicular to the axis of the automobile, and so are stiffer and more rigid than those of the past, it has become of the utmost importance to so mount the hood that it will be held in the closed position in rigid locked relationship with the remainder of the housing.

Therefore, the hood which I have designed is, so to speak, a three-point supported hood. It is pivoted at the front end and adapted to move up and down about that pivot. It is locked at the rear end at two widely spaced points on opposite sides of the vehicle body, so that a three-point support or lock is provided, which insures that the hood will be positively and firmly seated.

In the form I have here illustrated, the hood is locked by manually operated means. The operator is located, when he manipulates the lock, at a position where he cannot effectively open the hood by using the locking means as a hood opening handle. Therefore, I have associated with the locking means automatic wedging or camming means which initially open the hood and hold it open so that the operator, after he has unlatched the hood, can go to a point where he can put his fingers under the edge of the hood, while it is held open, and so lift it finally to the open position.

The arrangement whereby a single control member operates the latch on both sides of the vehicle body is of the utmost importance because, by such an arrangement, only one manipulation is necessary and the operator does not have to go from side to side of the vehicle to lock or to unlock the hood.

I claim:

1. A latch for automobile hoods and the like wherein the hood is pivoted at the front end for movement about a horizontal axis, comprising latch members at the rear end, a manually controlled member at the front end, and a connection between them.

2. A latch for automobile hoods and the like wherein the hood is pivoted at the front end for movement about a horizontal axis, comprising latch members at the rear end, a manually controlled member at the front end, including a hand lever in the same general position as the conventional type of radiator emblem, and a connection between them.

3. A latch for vehicle hoods and the like wherein the hood is pivoted at its front end for movement about a horizontal axis, including a latch rod extending horizontally and transversely across the rear of the vehicle and carrying latch cranks adjacent each end thereof, a manually controlled member at the front end of the hood and an actuating connection between said manually controlled member and the latch rod.

4. A latch for vehicle hoods and the like wherein the hood is pivoted at its front end for movement about a horizontal axis, including a latch rod extending horizontally and transversely across the rear of the vehicle and carrying latch cranks adjacent each end thereof, a manually controlled member at the front end of the hood and an actuating connection between said manually controlled member and the latch rod, said manually controlled member including a hand lever in the same general position as the conventional type of radiator emblem.

5. A latch for vehicle hoods and the like wherein the hood is pivoted at its front end for movement about a horizontal axis, comprising a latch rod rotatably mounted on the rear end of the hood and extending substantially from side to side of the vehicle, one or more latch cranks carried by said rod, a manually controlled member at the front end of the hood, and an actuating connection between said manually controlled member and the latch rod.

6. A latch for vehicle hoods and the like wherein the hood is pivoted at its front end for movement about a horizontal axis, comprising a latch element rotatably mounted on and movable with the hood and located at the rear end of the hood, an exterior control handle for said latch element, mounted at the forward end of the hood in the same general position as the conventional type of radiator emblem, and an actuating connection between said exterior handle and said latch element.

7. A latch for vehicle hoods and the like wherein the hood is pivoted at its front end for movement about a horizontal axis, comprising a latch element rotatably mounted on and movable with the hood and located at the rear end of the hood, an exterior control handle for said latch element, mounted at the forward end of the hood in the same general position as the conventional type of radiator emblem, and an actuating connection between said exterior handle and said latch element, said latch element including a rock shaft rotatably mounted at the rear end of the hood, and a latch crank extending therefrom.

8. A latch for vehicle hoods and the like wherein the hood is pivoted at its front end for movement about a horizontal axis, comprising a latch element rotatably mounted on and movable with the hood and located at the rear end of the hood, an exterior control handle for said latch element, mounted at the forward end of the hood in the same general position as the conventional type of radiator emblem, and an actuating connection between said exterior handle and said latch element, said latch element including a rock shaft rotatably mounted at the rear end of the hood and extending generally transversely and horizontally, and latch cranks extending therefrom adjacent each end thereof.

ARTHUR E. PETERSON.