

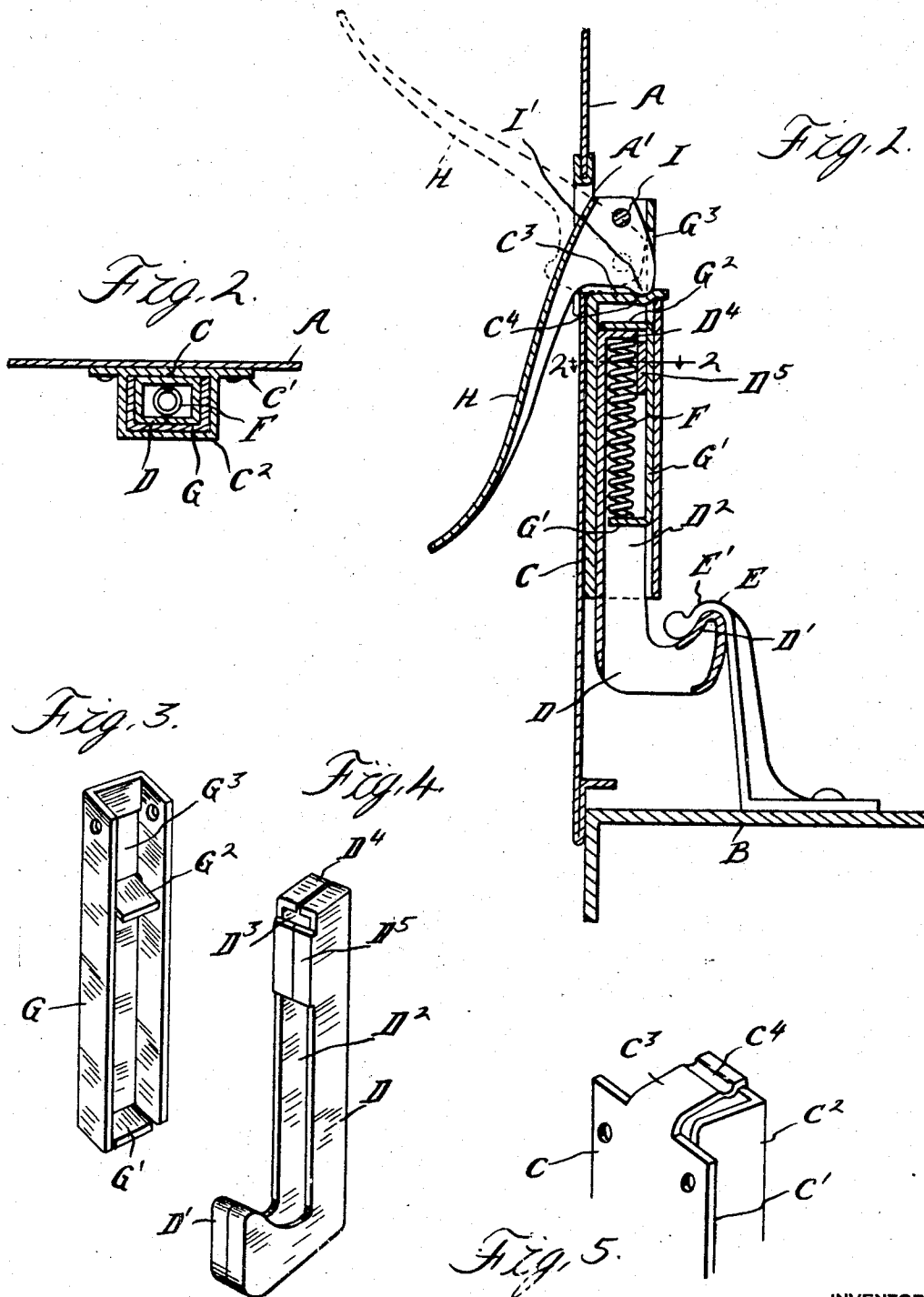
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HOOD LATCH

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## UNITED STATES PATENT OFFICE

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## HOOD LATCH

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It is the object of the invention to obtain a construction of hood latch which, with the exception of the operating handle, is concealed within the hood. It is a further object to hold the hood cover tight against its frame so as to eliminate possibility of rattles. Still further it is an object to obtain a simple and durable construction as hereinafter set forth.

10 In the drawings:

Figure 1 is a vertical central section through the latch showing the same in position for locking the hood cover;

15 Figure 2 is a cross section on line 2—2 of Figure 1;

Figures 3, 4 and 5 are perspective views of various parts of the construction designated by reference letters.

20 A designates the hood cover and B the sill or other part against which the cover closes. On the inner side of the cover A is attached a bearing member C for receiving a slidable hook latch member D. The lower or hook end of this member D is adapted to engage with a keeper member E secured to the sill and the engaging faces D' 25 E' of these members are so inclined that drawing upward on the hook will pull the cover A both downward and inward.

30 The member D is preferably struck up of sheet metal so as to have a hollow shank D<sup>2</sup> with a closed end formed by the flange D<sup>3</sup> bent from the back portion of the shank and the reinforcing flanges D<sup>4</sup> bent from the side 35 portions thereof. Together these flanges form a rigid abutment for a spring F which is housed within the hollow shank. There are preferably inturned flanges D<sup>5</sup> which complete the enclosure of the end portion of the spring and hold the same from accidental displacement. G is a member preferably struck up from sheet metal which is of a U-shaped cross section to receive telescopically the shank D<sup>2</sup> of the member D and 45 which, together with the member D slidably engages the bearing member C. The member G is provided with an inturned flange G' adapted to engage the hollow shank D<sup>2</sup> and form an abutment for the spring F at 50 the opposite end thereof from the abutment

formed by the flange D<sup>3</sup>. At the opposite end of the member G a portion of the web thereof is struck inward to form a flange G<sup>2</sup>, leaving an opening G<sup>3</sup>. H is an operating lever which is pivoted at I in the bifurcated upper end of the member G. This lever is provided with a hooked nose portion I' which in the swinging of the lever forms a cam for lifting the members D and G as will be hereinafter explained. 60

The member C has a plate portion C' which is bolted, riveted or otherwise secured to the cover member A and a rectangular portion C<sup>2</sup> which surrounds the member G. There is also a flange portion C<sup>3</sup> struck inward from the plate portion C over the end of the rectangular portion C<sup>2</sup> but of a width limited so as to fit between the furcations of the member G. In assembling the parts the spring F is first placed within the hollow shank D<sup>2</sup>. The member G is then engaged with said shank so that the flange or tongue portion G' extends within the hollow of the shank D<sup>2</sup> and engages the end of the spring F. Also the flange G<sup>2</sup> will form an abutment which limits the movement of the shank member D<sup>2</sup> under the actuation of the spring. Thus by selecting a spring of proper size it will be tensioned by the assembly of the parts just mentioned so as 80 to yieldably hold the members D and G from telescopic expansion. To engage the assembled members D and G with the bearing member C the flange C<sup>3</sup> is originally left in a position to clear the end of the member G so as to permit the latter to be slid through the bearing. The flange C<sup>3</sup> is then bent downward to extend through the aperture G<sup>3</sup> in the member G and to rest upon the end of the rectangular bearing portion C<sup>2</sup>. 85 The flange C<sup>3</sup> is also formed with a depression or notch C<sup>4</sup> for engaging the end of the nose I'.

In use, when the bearing member C' is properly secured to the cover member A, the handle or lever H will project through an aperture A' in said cover member so as to be on the outside thereof while the rest of the assembly is on the inside. When the parts are in the position indicated in dotted lines, 90 100

Figure 1, the hook D' will be in a position for latching engagement with the keeper E when the cover A is closed. The lever H then can be depressed into the position shown in full lines, Figure 1, which will cause the nose or cam portion I' to slide over the flange C<sup>3</sup>, thereby lifting the member G and sliding the same in its bearing C<sup>2</sup>. The movement of the member G will be communicated through the spring F to the member D which will also be lifted, but on account of the engagement of the hook D' with the keeper E the upward movement of the member D is limited. Further upward movement of the member G will then compress the spring F, the tension of which will draw the inclined face D' of the hook opposite the engaging inclined face E' of the keeper E thereby not only drawing the cover A downward but also inward into firm contact with its supporting frame. The movement of the handle H is sufficient to carry the nose portion I beyond the center of its pivot I and into engagement with the notch C<sup>4</sup> in the member C, into which position the handle will be locked from accidental disengagement.

The construction above described is one which can be cheaply manufactured, as the various parts can be struck up from sheet metal. It is also a construction which, when assembled, is free from loose or rattling parts and which, when in locking position, firmly holds the hood cover from rattling.

What we claim as our invention is:

1. A hood latch comprising a hook member having a hollow shank, a member telescopically engaging said shank, a spring within said hollow shank engaging abutments on the same and said telescopic member to yieldably resist relative extension of said members, a bearing in which the telescopically engaged members are slidably mounted on the inside of the hood cover, a keeper for engaging the hook, a lever pivotally connected to said telescopic extension and projecting through an aperture in the hood cover to the outside thereof, and a cam portion on said lever for engaging said bearing whereby the operation of the lever will lift said telescopic extension and place a tension on the hook for drawing the same into its keeper.

2. A hood latch comprising a hook member having a hollow shank closed at its end and open on one side, a spring member in said hollow shank, a member of U-shaped cross section telescopically engaging said hollow shank and having a flange projecting inward therein to engage one end of said spring, the opposite end of which abuts against said closed end, a bearing secured to the inner side of the hood cover in which said telescopically engaged members are slidably mounted, a keeper for engaging the hook, a lever pivotally connected to said U-shaped member

and extending outward through an aperture in the hood cover, a cam portion on said lever and a portion on said bearing for engaging said cam whereby the operation of said lever will lift said telescopically engaged member and yieldably draw said hook into engagement with its keeper.

3. A hood latch comprising a hook member struck up from sheet metal and formed with a hollow shank closed at one end and open on one side, a spring within said hollow shank abutting against said closed end, a member of U-shaped cross section telescopically engaging said shank and having an inwardly projecting flange for engaging the opposite end of said spring, a bearing member mounted on the inner side of the hood cover in which said telescopically engaged members are slidably secured, said bearing member being provided with a portion projecting inwardly over the end of the shank of said hook member and through an aperture in the web of said U-shaped member, a keeper for engaging said hook member, a lever pivoted between the furcations of said U-shaped member and extending outward through an aperture in said hood cover, and a cam portion on said lever for engaging the inwardly projecting portion of said bearing whereby the manipulation of said lever will raise said U-shaped member and through the spring will yieldably draw said hook member into engagement with its keeper.

4. A hood latch comprising a hook member having a hollow shank closed at its end and open on one side, a member of U-shaped cross section telescopically engaging said hollow shank and provided with a tongue extending inward into the hollow of the shank, a spring within said hollow shank between said tongue and the closed end of the shank, a bearing member in which said telescopically engaged members are slidable, said bearing member having a tongue portion projecting inward over the end of said shank between the furcations of said U-shaped member, and a lever pivoted to said U-shaped member and having a cam portion for engaging the inwardly projecting tongue portion of said bearing whereby the movement of said lever will lift said U-shaped portion in said bearing.

In testimony whereof we affix our signatures.

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