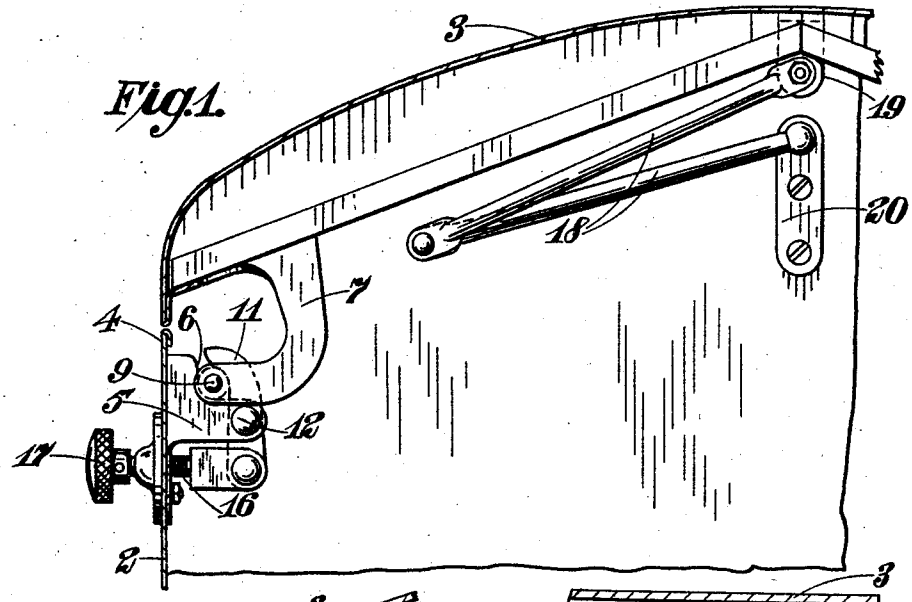
July 21, 1931. J. P. BLACK ET AL 1,815,540

FASTENING DEVICE

Filed Aug. 12, 1929

Fig. 1.



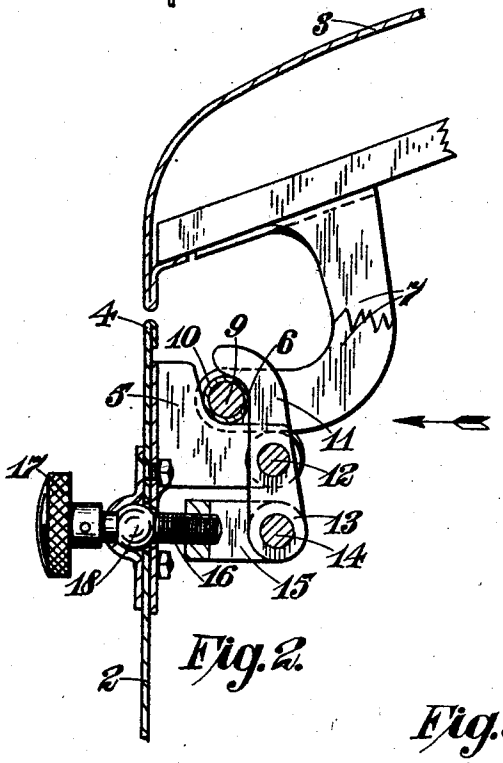


Fig. 2.

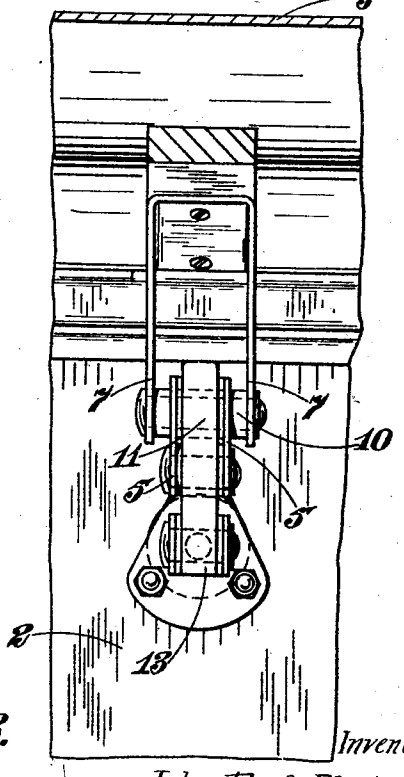


Fig. 3.

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UNITED STATES PATENT OFFICE

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FASTENING DEVICE

Application filed August 12, 1929, Serial No. 385,127, and in Great Britain January 17, 1929.

This invention relates to fastening devices for use, for example, with lids of receptacles, or bonnet or body parts of motor vehicles, and its object is to provide a simple construction of the kind which can function as a hinge as well as a lock, and will not involve loose parts.

In the accompanying drawings,

Figure 1 illustrates in transverse section part of half of the bonnet of a motor vehicle to which this invention has been applied,

Figure 2 is a similar view on a larger scale and on a slightly different section line, and

Figure 3 is a view in the direction of the arrow in Figure 2.

Like numerals indicate like parts throughout the drawings.

The motor car bonnet to which the invention is here shown as applied is formed in three separate pieces, comprising two vertical side panels, of which one is shown at 2, and a top panel 3. Each side panel has fixed to one side of it and near its top edge 4 an inwardly projecting bracket 5 consisting of a pair of spaced vertical plates, the top edges of which are cut away at 6.

At corresponding positions on the top panel 3 are attached depending brackets, each consisting of two spaced vertical side members 7, the spacing of which is greater than the overall width of the corresponding bracket 5 on the side panel. Through the lower extremities of the side members 7 extends a pin 9 with a bush 10 freely mounted thereon and located between these members. This bush is adapted to engage the cut away parts 6 in the side panel bracket 5, and, when all the bushes are thus engaged, the top panel is located in respect of the side panels.

A vertically disposed clamping finger 11 having an upper part bent to engage the bush 10 is pivoted at 12 between the plates 5 of each side panel bracket and is extended downwardly at 13 beyond this pivot, where it is pivoted at 14 between the jaws 15 of a horizontally disposed member extending towards the side panel. This jaw member is tapped and engaged by a correspondingly threaded stem 16 extending through the side panel 2 and provided with an external operating knob 17. A part-spherical portion 18 formed on this screw-threaded stem, intermediate the knob and thread, co-acts with similar surfaces provided on the side panel to enable the stem 16 to adapt itself to any position occupied by the horizontal jaw member.

Thus it will be seen that when the bushes carried by the top panel brackets are in the positions shown and the pivoted fingers 11 moved in the direction towards the bushes by rotation of the operating knobs, a gripping action takes place which locks the bushes in the cut-away parts 6, and consequently the top panel to the sides. By unscrewing the operating knobs, the pivoted fingers can be completely freed from the bushes, and the top panel can be thus removed entirely without detaching any other parts. On the other hand, if it is only desired to swing the top panel about either side panel, all that is necessary is to free the clamping means at the opposite side, when, by virtue of the remaining bushes being freely mounted on their pins, the top panel of the bonnet can then be hinged about these bushes without freeing them from the clamping fingers.

A pair of links 18 hinged together are attached at their free ends, one to a depending lug 19 in the centre of the top panel and the other to a part 20 on the vehicle, which is preferably detachable from the vehicle to enable the panel to be removed. This link arrangement, therefore, provides a stop for limiting the opening movement of the top panel of the bonnet in either direction.

The invention can equally well be applied to lids of containers, adjustable seats of vehicles, and in fact to any parts where it is desired to provide a combined hinge and lock.

Obviously, the bushes on the pins are not essential, but by their employment a better hinging of the top panel is possible, as the clamping finger does not directly engage the pin and there is consequently no friction between these parts.

From the foregoing it will be seen that the invention provides in a simple manner a fastening device which also acts as a hinge with-

out involving loose parts which are liable to become lost, which is particularly applicable to panel members, such as the parts of motor car bonnets.

What we claim as our invention and desire to secure by Letters Patent of the United States is:—

1. A fastening device, for two transverse panels for the hood of an automobile, comprising a hinge pin fixed on one panel, a bush on said hinge pin, a bracket fixed on the other panel, a finger pivoted on said bracket, said finger and bracket being adapted to clamp said bush between them, a threaded stem screwing into said finger, said stem extending through said other panel and being universally pivoted therein, such that rotation of said stem operates said finger into and out of clamping position.

2. A fastening device, for two transverse panels for the hood of an automobile, comprising a bracket attached to one panel, a finger pivoted to said bracket, a hinge pin attached to the other panel, a bush freely mounted on said pin, said finger and bracket being adopted to clamp said bush between them, and threaded means co-operating with said finger whereby it is adapted to be held positively in and out of clamping position.

In testimony whereof we have signed our names to this specification.

JOHN PAUL BLACK.
EDWARD ARTHUR GREEN.