Aug. 12, 1952 G. J. MORGENTHALER 2,606,469

AUTOMOBILE BODY REPAIR JACK

Filed Dec. 22, 1949 2 SHEETS—SHEET 1

Fig. 1.

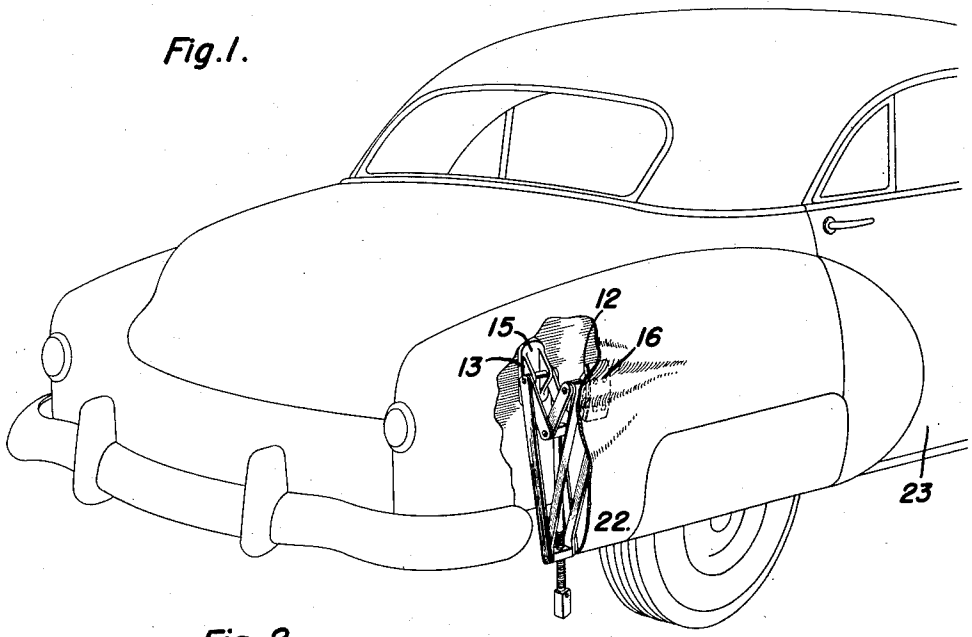


Fig. 2.

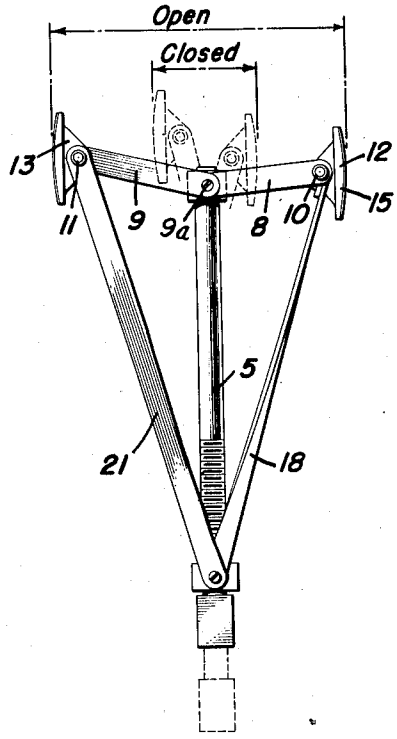


Fig. 5.

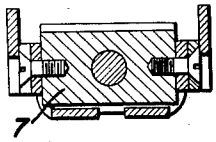
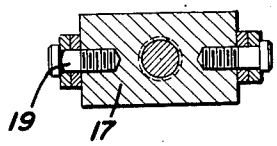


Fig. 6.



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Fig. 3.

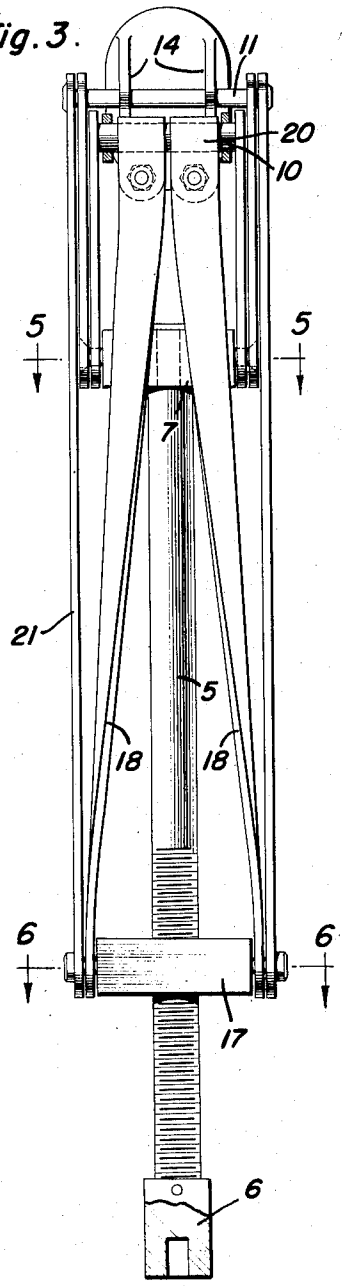
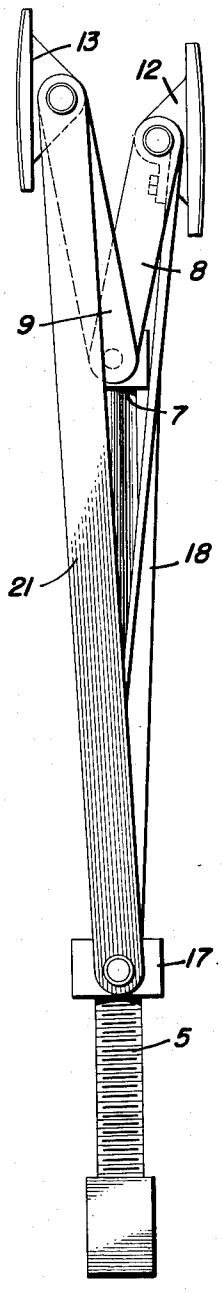


Fig. 4.



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AUTOMOBILE BODY REPAIR JACK

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2 Claims. (Cl. 81—15)

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The present invention relates to new and useful improvements in automobile body repair jacks to straighten dents, depressions and similar damage to the fender and body panels of an automobile.

An important object of the invention is to provide a repair jack of this character which straightens the dent or other irregularity by outward pressure subjected by the jack placed internally of the panel.

Another object of the invention is to provide a repair jack of this character capable of working in close quarters, such as the hollow door panels of an automobile as well as in the body panels or rear wheel housing panels and which are usually inaccessible to the hand of a mechanic for holding body repair anvils or other tools usually employed for this purpose.

A further object of the invention is to provide a repair jack provided with self-adjusting pads or pressure plates carried at the outer ends of swingable arms and actuated by a traveler working on a screw to subject the pads to a spreading action without danger of slipping of the pads on the work.

A still further object is to provide a device of this character of simple and practical construction, which is strong and durable, efficient and reliable in operation, relatively inexpensive to manufacture and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a perspective view of an automobile showing the jack in position behind the rear wheel housing panel;

Figure 2 is a side elevational view of the jack;

Figure 3 is a similar view on an enlarged scale and showing the jack in closed position;

Figure 4 is a similar view taken at right angles to Figure 3; and

Figures 5 and 6 are transverse sectional views taken respectively on the lines 5—5 and 6—6 of Figure 3.

Referring now to the drawings in detail, wherein for the purpose of illustration I have disclosed a preferred embodiment of the invention, the numeral 5 designates a screw having a wrench engaging socket 6 at one end. A block 7 is suitably held at the other end of screw 5 against sliding movement on the scew while the screw rotates in the block and to opposite sides of the block arms

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8 and 9 are pivoted by screws or other suitable fasteners 9a. Pins 10 and 11 are carried at the outer ends of arms 8 and 9 and on which pressure plates 12 and 13 are pivotally mounted by apertures lugs 14 at the rear of the plates. Pads 15 are secured to the outer surface of the plates by screws 16.

A traveler block 17 is threadedly connected to screw 5 for traveling thereon and a pair of rigid metal straps 18 are pivoted to the opposite sides of traveler 17 by means of screws or the like 19 and are formed with eyes 20 at their opposite ends for pivotally mounting on pin 10 of pressure plate 12. Similar metal straps 21 are also pivoted at one end on the screws 19 and pivoted at their opposite ends on the pin 11 for pressure plate 13.

The tool is designed primarily for use in close quarters, such as behind the rear wheel housing panel 22, the hollow door panel 23, or similar normally inaccessible parts of an automobile body. As shown in Figure 1 of the drawings, the jack is inserted upwardly behind or under the panel 22 and pressure plates 12 and 13 positioned against the opposed inner surfaces of the panel. Screw 5 is then turned by a wrench engaged in socket 6 which thus causes traveler 17 to move downwardly on the screw pulling straps 18 and 21 with the traveler and thus causing arms 8 and 9 and the pressure plates 12 and 13 at the outer ends of the arms to swing outwardly to thus subject the panel 22 to outward pressure to remove dents or other irregularities therefrom.

The pressure plates 12 and 13 are self-adjusting on the pins 10 and 11 to thus hold the pressure plates firmly against the work without danger of slipping.

Pads 15 of suitable shape are interchangeably attached to the pressure plates 12 and 13 by the screws 16.

In view of the foregoing description taken in conjunction with the accompanying drawings it is believed that a clear understanding of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a preferred embodiment of the invention the same is susceptible to certain changes fully comprehended by the spirit of the invention as herein described and the scope of the appended claims.

Having described the invention, what is claimed as new is:

1. An automobile body repair jack comprising

a feed screw, a block carried at one end of the screw and held against longitudinal movement thereon while the screw is rotated in the block, arms pivoted at one end to the block and projecting outwardly therefrom, pins at the outer ends of the arms, pressure plates pivoted on the pins for self-adjusting movement with work engaged by the plates, a traveler on the screw, and metal straps pivoted at one end to the opposite sides of the traveler and pivoted at their other ends to the respective pivot pins for the pressure plates to swing the arms outwardly by a pulling force subjected to the straps when the screw is turned in a predetermined direction.

2. An automobile body repair jack comprising a feed screw, a pair of arms swingably carried at one end of the screw, a traveler on the screw, metal straps pivoted at one end to the traveler, a pair of pressure plates, and a single pivot

connecting each of the pressure plates to the free end portion of one of the arms as well as to the free end portion of one of the straps for outward swinging self-adjusting movement of the plates at opposite sides of the screw by the turning of the screw in a predetermined direction.

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