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LE ROY V. JACOBSEN ET AL

2,547,757

ADJUSTABLE ABUTMENT FOR AUTOMOBILE FRAME PRESSES

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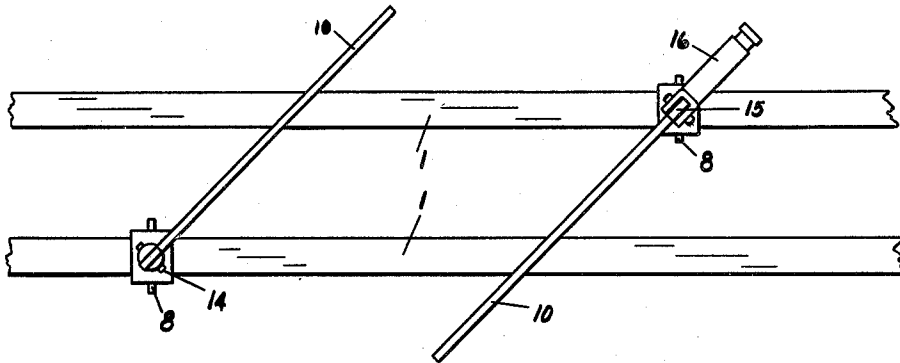


FIG-1

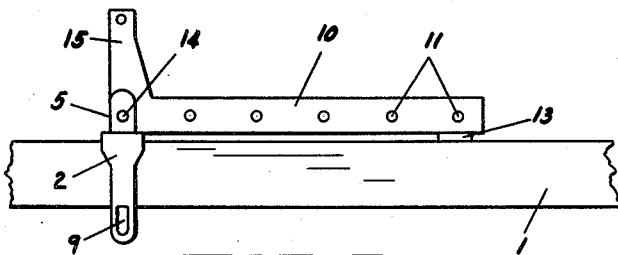


FIG-2

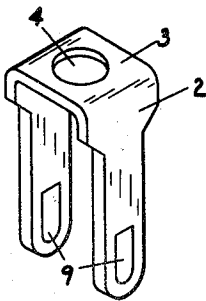


FIG-3

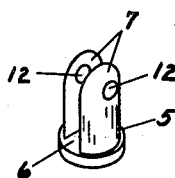


FIG-4

INVENTOR.

L. V. JACOBSEN

BY G. G. GOSLINE

Merrill M. Blackburn
Atty

UNITED STATES PATENT OFFICE

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ADJUSTABLE ABUTMENT FOR AUTOMOBILE
FRAME PRESSES

Le Roy V. Jacobsen, Durant, Iowa, and Gilbert G.
Gosline, Rock Island, Ill., assignors to Bee-Line
Company, Davenport, Iowa, a copartnership

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3 Claims. (Cl. 153—32)

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Our present invention relates to means for use in operating upon automobile vehicle frames for straightening the frame members or correcting defects of form, due, for example, to accidents. Generally speaking, devices for this purpose operate in a vertical or transverse direction, but not diagonally. Oftentimes, however, it is necessary that force be applied in a diagonal direction to make needed corrections of form. It is therefore an object of our invention to provide a mechanism by means of which pressure may be applied to the motor vehicle frame in a horizontal direction, diagonally of the press, rather than merely transversely or longitudinally of the frame. Our invention comprises such further objects, advantages, and capabilities as will hereafter appear and as are inherent in the construction disclosed herein.

In the drawings annexed hereto and forming a part hereof,

Fig. 1 represents a fragmentary plan view of a press with a pair of our new constructions applied to the abutment-carrying frame members of the press;

Fig. 2 represents a fragmentary elevational view of one of the frame members of the press with one of our abutment units secured thereto and shown in side elevation;

Fig. 3 represents a perspective view of a clevis-like clamping member to be attached to one of the side frame members of a press for holding an abutment member in place; and

Fig. 4 represents a perspective view of a pivot member for use in combination with the structure of Fig. 3.

Reference will now be made in greater detail to the annexed drawings for a more complete description of this invention. The press is represented in Fig. 1 by a pair of frame members 1, preferably of angular cross-section. The general nature of this press is indicated in Figs. 4 and 5 of Smith Patent No. 1,993,387, issued March 5, 1935, although we prefer that the press beams be rectangular in cross-section, since the holding means 2 will be better held in position on an angular structure than on a structure which is circular in cross-section. The holding means 2 is in the form, roughly, of a clevis which is wide in the middle portion 3 and provided with a hole 4 for the reception of a pivot member 5. This pivot member has a head 6 which bears against the inside face of the clevis member. The legs 7 of the pivot are inserted through the hole 4, and the member 2 is then made to straddle the beam or frame member 1. A tapered pin 8 is

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then inserted through holes 9 and driven in tightly. This pulls the head 6 of the pivot member 5 down into tight engagement with the upper face of the beam 1, holding the clevis member 2 tightly in place.

As shown in Fig. 2, an abutment member 10, provided with a plurality of holes 11, is inserted between the legs 7 of the pivot member, and a pivot pin 14 is passed through the holes 12 to hold the abutment member 10 in place. A suitable blocking member 13 may be placed on the beam 1 to hold the abutment 10 parallel to the beam. Pivot pin 14 connects the members 5 and 10, pivotally, and the abutment member 10 may be used to turn the pivot pin 5 in the hole 4 so as to arrange the abutment member 10 in any desired position with relation to the frame members 1.

The member 10 has an upstanding abutment 15 against which a jack 16 may push when force is being applied in a horizontal direction. It will be understood that the abutment member 10 may be turned so that the force may be exerted transversely of the vehicle frame member, or diagonally thereto, as desired. It is believed that the use of this construction in the application of force to vehicle frame members will be obvious from the foregoing description taken in conjunction with the annexed drawings and that it will not be necessary to show the jack 16 in the act of exerting pressure on a frame member.

It is of course understood that various changes in the form and detail of construction may be made without departing from the spirit of this invention or the scope of the appended claims.

Having now described our invention, we claim:

1. In a structure for the purpose indicated, making use of a pair of strain-resisting, elongated units; the combination of a clevis-like attaching means having a pivot-receiving opening in its central part and a pair of elongated openings in the end portions of the arms of said attaching means, a pivot member in the pivot-receiving opening turnable to various positions about the axis of the pivot member, and an abutment member pivotally connected to the pivot member to turn about an axis making substantially a right angle with relation to the first pivot member.

2. In a press for working on automotive vehicles; a pair of elongated, strain-resisting beams, angular in cross-section, clevis-like attaching means for connection to said beams, tapered pins extending through the ends of said attaching means to fixedly attach the attaching means to

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the beams, said attaching means having a hole in its central part, a pivot member pivotally connected to said means for rotation in said hole, the axis of said pivot member extending in the same direction as the arms of the clevis-like attaching means, and abutment means pivotally mounted in said pivot member for turning movement in a plane at right angles to the axis of the pivot member.

3. A structure as defined by claim 2 in which 10 an attaching means is attached to each of said beams, and each attaching means has a pivot

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member secured thereto and an abutment member is pivotally mounted in each pivot member.

LE ROY V. JACOBSEN.
GILBERT G. GOSLINE.

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The following references are of record in the file of this patent:

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