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W. E. RYBAK

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BODY AND FENDER PICKUP TOOL

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Fig. 1

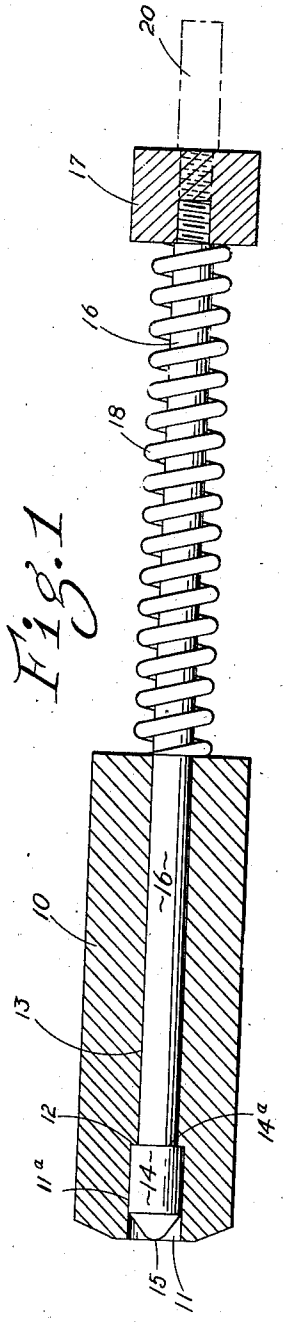
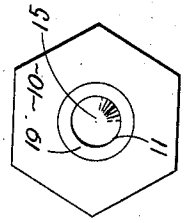


Fig. 2



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BODY AND FENDER PICKUP TOOL

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1 Claim. (Cl. 81—15)

This invention relates to tools, and more particularly to tools that are referred to in the trade as body and fender "pick-up" tools, the same being employed for the purpose of straightening out small inwardly projecting indentations or protuberances that are left in fenders and bodies after the conclusion of the ordinary straightening operations to which these parts are subjected following injury thereto. Difficulty has been encountered in accurately locating these small protuberances and in accurately positioning with reference thereto the straightening tools that have been used for the purpose of effecting their removal.

The general purpose and object of my invention is to enable these inwardly projecting protuberances or "high spots" to be easily located by the tool and also to enable the operating portion of the tool to be accurately positioned with reference to the said protuberances, whereby they may be conveniently hammered into alignment with the external surfaces from which they project.

A further and more limited object is to provide a tool of this character which is compact and economical of production and which will enable the straightening or hammering operations to be conveniently and efficiently performed.

I accomplish the foregoing objects in and through the construction and arrangement of parts shown in the accompanying drawing wherein Fig. 1 represents a sectional side elevational view of a tool constructed in accordance with my invention; and Fig. 2 an end elevational view of the said tool.

The tool shown herein comprises generally a body member, in which the impact portion of the tool is mounted and guided for reciprocation and which body member may also provide a hand grip for the operator as well as a means for aligning a protuberance with the operating end of the impact device; it also includes a member to which power may be applied for driving the impact device; also a spring operatively interposed between the body member and the power receiving member for retracting the impact device after the latter has been driven against a protuberance.

Describing by reference characters the parts illustrated in the drawing, 10 denotes the body member, the same being preferably made of metal and of a size to render it capable of being conveniently grasped by the operator, the said body member having a chamber 11 extending thereinto from the operating front end thereof, there being an annular shoulder 12 extending inwardly from the rear end of the wall 11a of said chamber. From the inner periphery of said shoulder a bore 13, of smaller diameter than the chamber 11, extends rearwardly through the said body member.

14 denotes the enlarged operating head of an impact device, the said head preferably fitting snugly within the chamber 11 and being provided with a tapered conical front end 15 and with a shoulder 14a at the base thereof adapted to engage the shoulder 12 when the head is seated within the chamber. The head 14 of the impact device is carried by an elongated shank 16 of said device, said shank extending rearwardly through the guide bore 13, of which the chamber 11 constitutes an enlarged extension, to a point remote from the body member 10 where it is connected to a power-receiving member 17, a helical spring 18 being interposed between the body member 10 and the power receiving member 17. Owing to the length of the body member and to the fact that the guide bore extends entirely throughout the same, the said bore provides an elongated bearing for the shank 16 which insures the accurate centering of the conical end of the head 14 with respect to the outer and surrounding end of the chamber 11. The shank 16 may be connected to the power receiving member 17 by being threaded thereinto, as shown. The operating end of the body member 10 is preferably provided with a plane annular surface 19 surrounding the chamber 11 and extending inwardly to the outlet therefrom and at right angles to the axis of the bore of the body member. The front operating end of the body 10 is rearwardly tapered from the periphery of the said annular surface to the junction of such front operating end with the side of the body member.

The operating head 14, including the tapered or conical end 15, is of such length that, when seated within the bore 11, the tip of said head will be substantially flush with the end of the bore 11 and the plane surface 19.

With the parts constructed and arranged as described, the operation can be readily understood. The operator, grasping the body member with one hand, moves it along the inner surface of the body or fender, and a protuberance projecting from such surface will be received within the outer, front end of the chamber 11 and will be contacted by the end 15 of the head. The operator then holds the body member with one hand and, by striking the power receiving mem-

ber 17 with a hammer, can readily eliminate a protuberance that has been thus centered by the operating end of the tool. The spring 18 operates to return the head and shank to the positions shown in Fig. 1 after the element 17 has been struck by the hammer. It frequently happens that the protuberances are so located as to prevent the portion of the operating end of the body member which surrounds the outer end of the chamber 11 from engaging the entire surface of the metal surrounding such protuberances when the latter project into said chamber. Due to the tapered shape of the operating end of the body member, there can be a considerable tilting of the body member without bringing the line of junction between the said operating end and the side of the body member into contact with the metal which is being operated upon; this will enable the operator to remove such protuberances without cutting or producing a dent in the metal adjacent to the latter, as might occur if the edge formed at the junction of the side of the body member and the operating end of the tool should be brought into contact with this portion of the metal. Furthermore, when operating upon a protuberance which can be received within the outer end of the chamber, with the annular surface 19 in engagement with the metal surrounding the protuberance, it is possible to strike a sharp blow upon the impact member without danger of rupturing the metal surrounding the protuberance.

It is within the purview of my invention to use my tool with other power means, such as can be supplied by the pneumatic hammer. For this purpose, an extension 20 of the shank 16 may be threaded into the member 17, as shown in dot-and-dash lines in Fig. 2, said extension being of such dimensions as to adapt the same to be inserted readily into the bore or chuck of a pneumatic hammer and to enable the member 17 to constitute an abutment for engagement with the end of the hammer, whereby the end of the shank extension 20 will be properly positioned in said bore for impact by the piston of the said hammer.

It will be evident that a tool made in accordance with my invention is particularly adapted for the purpose for which it is designed and that it is simple in construction, economical of production, and convenient of operation.

Having thus described my invention, what I claim is:

A tool for removing indentations or protuberances from fenders and bodies of vehicles, the same comprising an elongated body member of a size to be conveniently grasped by the operator and provided with a bore extending longitudinally therethrough, the said bore being enlarged to provide a chamber extending through the front, operating end of the said body member, with an annular shoulder provided between the said chamber and the remainder of said bore, an impact device comprising an elongated shank having at one end thereof a head adapted to be received within said chamber and having at its inner, rear end a radially extending shoulder adapted to engage the first mentioned shoulder, the said head having a tapered operating front end and the head being of such length that the tapered operating end thereof is normally located within said chamber and substantially in a plane extending transversely of the outer end of said chamber when the shoulder of said head is in engagement with the said annular shoulder, the body of the shank being mounted within and guided by said bore and extending rearwardly beyond said body member, a power receiving member with which the rear end of said shank is connected, a helical spring surrounding said shank between the body member and the power receiving member, the front end of said body having a plane annular surface extending outwardly at right angles to the axis thereof from the periphery of the outlet from said chamber and surrounding said outlet and the said operating front end of said body member being outwardly and rearwardly tapered from the periphery of said annular surface to the junction of the operating end of said body member with the side thereof.

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