Dec. 20, 1932. H. WOCHNER 1,891,490

AUTOMOBILE FRAME STRAIGHTENING MACHINE

Filed Sept. 23, 1931

FIG I

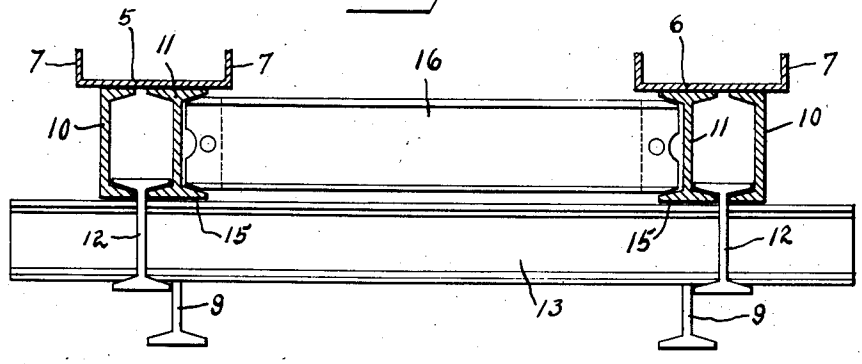
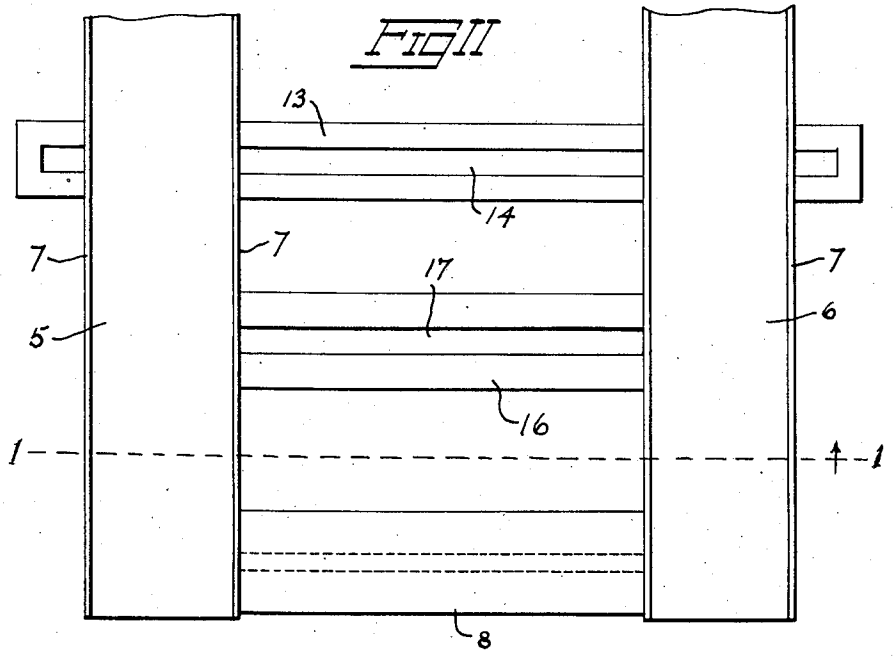


FIG II



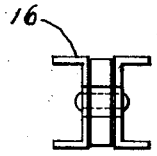


FIG III

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Patented Dec. 20, 1932 1,891,490

UNITED STATES PATENT OFFICE

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AUTOMOBILE FRAME STRAIGHTENING MACHINE

Application filed September 23, 1931. Serial No. 564,577.

My invention pertains to an automobile frame straightening machine, and has more special reference to an improvement on a similar machine of that type for which application for Letters Patent of the United States was filed by myself May 4, 1931, Serial No. 534,889. By means of the present improvement the scope and usefulness of the machine are greatly enlarged.

The chief purpose of a machine of the kind named is to provide means for support of a motor vehicle in convenient position for the straightening of the frame thereof, or for other operations thereon, and in connection therewith to provide a substantial support or anchorage for instruments or tools that are to be used in connection with the straightening operations. Such means are shown in said former application, and the present invention relates chiefly to auxiliary supporting means, which can be conveniently used either alone, or in conjunction with the original supporting devices of the machine.

On account of the heavy character of the work to be done by machines of this class the supports must be of a rigid type, and as set forth herein they consist of angle-plates or I-beams, with longitudinal spaces to accommodate bolts or other fastening devices.

In the accompanying drawing,—

Fig. I is a cross-section of a machine embodying the invention, on the broken line 1—1 of Fig. II.

Fig. II is a fragmentary plan view thereof.

Fig. III is an end view of the beam 16.

A pair of tracks of an automobile runway is indicated at 5 and 6, each provided with side flanges 7, and supported at their ends on cross-beams 8, mounted on angle-blocks 9. Fixed to the lower faces of the tracks 5 and 6 are channel-plates 10, with their flanges turned inwardly, and spaced therefrom are I-beams 11, also attached to the lower faces of the tracks 5 and 6. The adjacent lower flanges of said angle-plates 10 and I-beams 11 are spaced and provide supports for hangers 12, in which are supported cross-beams 13, provided with longitudinal openings 14. That part of the mechanism hereinbefore described is substantially the same as that set forth in said former application, with the exception that the flanges 15 of the I-beams 11 provide supports for the ends of a relatively short beam 16, having a longtudinal space 17 for the passage of bolts and the like.

The hangers 12 are capable of adjustment longitudinally of their supports, and the beam 16 can also be moved to any desired position between the eye-beams 11. By turning the same at an angle with the I-beams the beam 16 can be readily removed or replaced. Any desired number of said beams may be employed at different points in the machine, the purpose thereof being similar to that of the beams 13, namely, to support mechanical jacks, straightening frames, grapples, or other tools used in the frame straightening operations. Such tools can be supported thereon at a greater height than on the beams 13, and in many cases the work can be performed by employing the beams 16 alone. In other cases it will be convenient to use one of each of said beams, and desired adjustments in the relative positions of said beams to or from each other can be made. By removing the beam 16 from the machine it can be used with the beams 13 alone, as originally designed.

What I claim as my invention, and desire to secure by Letters Patent, is:

1. An automobile frame straightening machine, comprising a pair of tracks and means for support thereof, a pair of angle-plates supported from said tracks in parallel spaced relation with each other, I-beams supported from said tracks in parallel spaced relation with each other, and in parallel spaced relation with said angle-plates, to form run-ways for cross-beam supports, and one or more cross-beams supported at their ends by said I-beams.

2. In a device of the class described, a pair of longitudinal supports, a pair of plates suspended from each of said supports, provided with coacting flanges forming tracks for a hanger mechanism, hangers supported on said tracks and oppositely disposed flanges on the innermost of said plates forming a beam support.

3. In a device of the class described, a

pair of longitudinal supports, a pair of plates suspended from each of said supports in parallel spaced relation with each other, and provided with coacting flanges forming runways for hangers, hangers movable in said runways, cross-beams carried by said hangers, coacting flanges on the inner faces of the innermost plates forming a beam support, and a cross-beam mounted on said last-named flanges.

4. In a device of the class described, a pair of tracks and supports therefor, hanger runways supported from said tracks, hangers supported in said runways and movable longitudinally thereof, cross-beams mounted in said hangers, beam supporting means between said runways, and one or more beams mounted in said last-named means, and adjustable therein, longitudinally of said tracks.

In testimony whereof, I affix my signature.

HENRY WOCHNER.