My invention has reference to a fender and body straightening tool for automobiles, and has for its purpose to provide an apparatus for manual operation which can be readily applied to a fender for the purpose of applying pressure thereto for the removal of bumps, dents, and other irregularities in the fender.

Another purpose of the invention is the provision of a frame formed of hinged parts, so that the same can be readily opened for the purpose of positioning the same on opposite faces of a fender, and which frame will have an unobstructed clearance which will permit of its use with standard types of fenders of the greatest width.

Another purpose of the invention is to form the frame of parts which can be entirely disconnected from each other, so that one of the same can be employed as a separate hand tool for smoothing out bends or bruises in fenders or in the bodies of cars.

Another purpose thereof is to provide the other part of said frame with special bending jaws for use in straightening the rim of a fender or similar part, which jaws also afford a small anvil or striking iron to be supported against a part to which blows are being applied.

Another feature of the invention consists in forming one of the parts of the frame with a pounding member, so that the same can be used as a hammer when the last-named tool is absent.

The above named, and other features and advantages of the invention will more fully appear from the following specification, reference being had to the accompanying drawings in which:

Fig. 1 is a plan view of the invention.

Fig. 2 is a left end view thereof.

The main part of the tool is formed of two frames 1 and 2, united at one end by means of bifurcated extensions 3 of the frame 1 at a right angle therewith, receiving a tongue 4 on the end of the frame 2, also at a right angle therewith. Said parts are secured together by means of a bolt 5 passing through openings in one of the ends thereof, provided with a nut 6, and a bolt 7 in the other ends thereof, fitted with a wing-nut 8. By removing the bolt 7 the frames are permitted a hinge action with relation to each other on the bolt 5.

In the other end of the frame 1 is slidably mounted a pair of rods 10, united by a cross-piece 11, with which is connected a screw 12, having a threaded connection with an opening in the frame 1, and provided with a head 13, in which is slidable a handle 14. By turning the screw 12 the rods 10 are moved laterally of the frame 1 in one direction or the other. In the inner ends of the rods 10 is a shaft 15, carrying a roller 16.

The frame 2 is formed with a bent portion 17 at the end of which is a small frame 18, in which is supported a shaft 19, on which is carried a roller 20, preferably of less length than the roller 16, and adapted to cooperate therewith in rolling out bends and other inequalities in a piece of sheet metal. At the corner of the frame 1 is a diagonal portion 21 from which is projected a pair of spaced jaws or plates 22 and 23, at an angle with the plane of the frame. On the frame 2, near the corner thereof is a block 24, which can be used as a hammer under some conditions.

The overlapping parts of the frames 1 and 2, when fastened together, give the requisite rigidity to the frame when in use, so that there will be no tendency of the rollers 16 and 20 to separate when in operation, such as might occur with a simple form of hinge for said frames. Said frames are also preferably constructed of metal possessing a maximum degree of rigidity, to give added strength to the instrument. Said overlapping parts, with the frame parts from which they are projected, also form a connection for the frames 1 and 2 of considerable length, giving ample spread to said frames, and affording plenty of clearance between the same when working on a fender or other sheet metal part. It will also be noted that by the construction of said frames and the overlapping connections thereof, there is no necessity for any obstructing parts within or between the frames.

In carrying out the principal purpose of the invention, that of smoothing out bends...
and distortions in an automobile fender, the rollers 16 and 20 are spaced by moving the roller 16 away from the roller 20 until the space is sufficient to accommodate the damaged part of the fender. The bolt 7 is then removed and the frames 1 and 2 separated enough to permit the tool to be positioned with the frames and rollers on opposite sides of the fender. The frames are then fastened together again, and the roller 16 moved toward the roller 20 until the rollers are in close engagement with the sheet metal. The frame 1 is then grasped by one hand and the frame 2 with the other, and by working the rollers back and forth the fault in the fender is gradually reduced. As the work progresses the space between the rollers is decreased, until the indentation is completely removed.

In some cases, and particularly in reducing bends in the body of a car, it is found to be better to work with a single roller, and for this purpose the frames 1 and 2 are entirely separated, and the roller 20 applied to the projecting side of the bumped portion, the frame 2 being grasped by both hands as a handle for adding force to the operation. When thus disconnected, the frame 2, with the enlargement 24 thereon, can also be used as a hammer, as before mentioned.

When it is found necessary to straighten some parts of the edge of a fender this can be quickly done by the use of the jaws 22 and 23, which are positioned on the frame so that they can be readily applied to any part of a rim, so as to use the full length of the jaws, or one of the corners thereof, as desired. The usefulness of said jaws is increased by setting them at an angle with the frame, as shown herein. The jaws can be engaged with a rim in a vertical position with the frame projected outwardly for convenient use. By inverting the frame 1 the outer face of the jaw 23 can be used for a support for a piece of metal that is being hammered by the head 24, or by other tools.

It will be observed that by the use of the invention all of the faults in a fender or other sheet metal part of a car can be corrected without removing the same from the vehicle. It is also to be noted that there are no obstructions within the frame, such as might call for an extension of the length of the frame, and consequent weakness thereof.

Changes can be made in the form and arrangement of the various parts of the invention without departing from the general scope and purpose thereof.

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

A device of the class described, comprising a pair of frames having overlapping bar portions, pivotally connected at one end of the overlap, fastening means at the other end of said overlapping portions to hold the same from pivotal action, a roller carried by one of said frames, a roller support in the other of said frames, means for adjustment of said roller support to or from the opposite frame, and a roller mounted in said support in opposition to the first-named roller, and adapted to cooperate therewith in correcting faults in sheet metal, said overlapping portions providing a rigid support for the frames when fully connected.

In testimony whereof I affix my signature.

GEORGE B. BUCK.