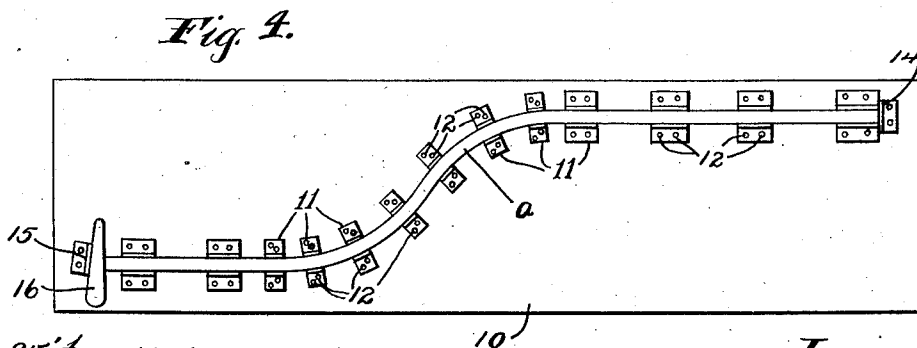
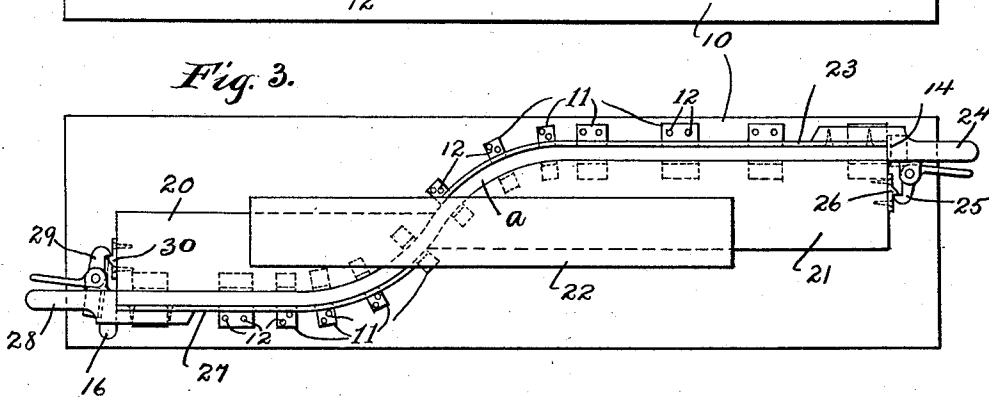
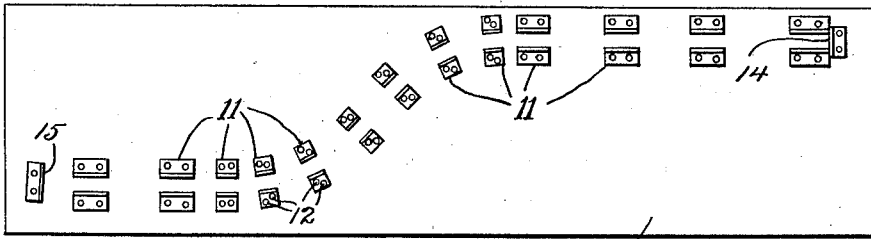
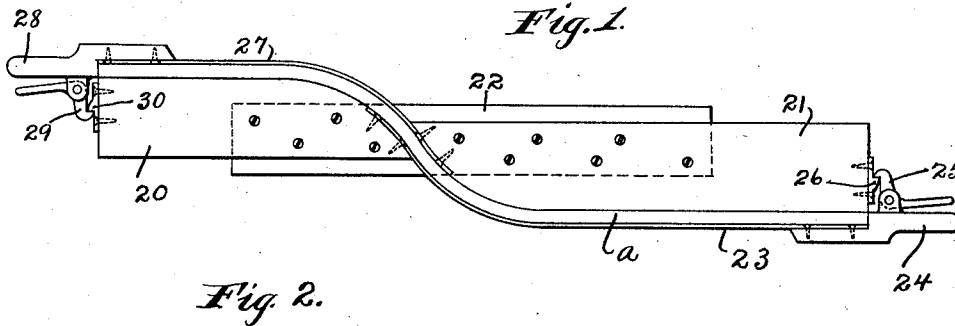


S. E. WALKER.
WOOD BENDING DEVICE.
APPLICATION FILED MAY 7, 1910.

1,016,721.

Patented Feb. 6, 1912.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 5.

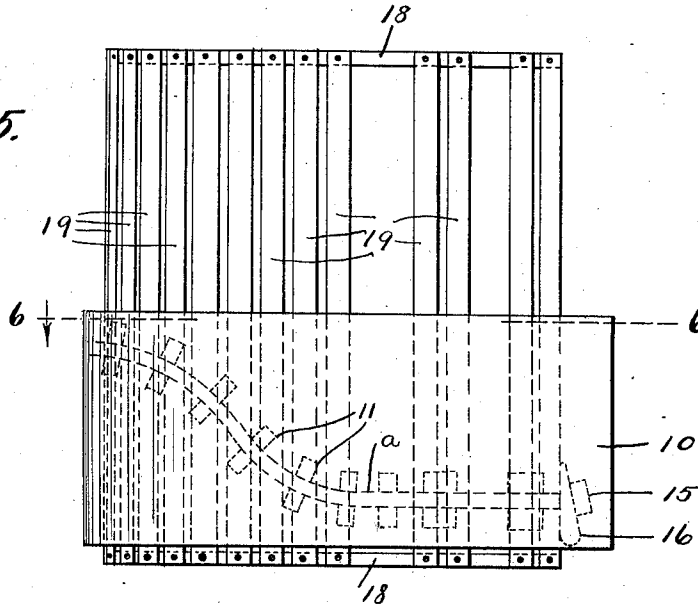
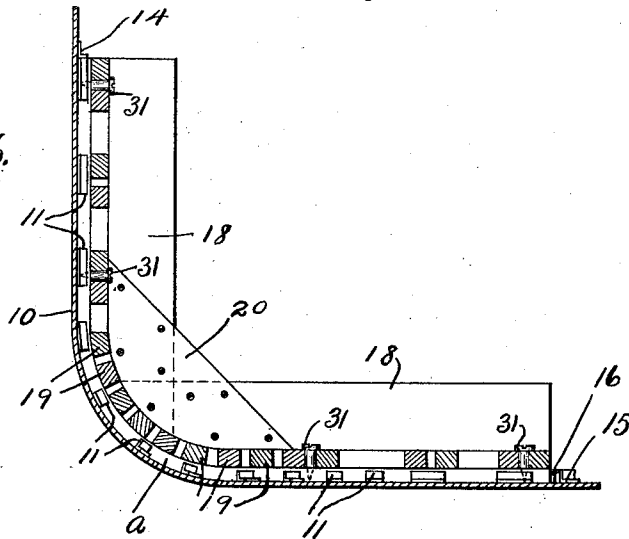


Fig. 6.



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UNITED STATES PATENT OFFICE.

SANFORD E. WALKE, OF AMESBURY, MASSACHUSETTS.

WOOD-BENDING DEVICE.

1,016,721.

Specification of Letters Patent.

Patented Feb. 6, 1912.

Application filed May 7, 1910. Serial No. 560,014.

To all whom it may concern:

Be it known that I, SANFORD E. WALKE, a citizen of the United States of America, residing at Amesbury, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Wood-Bending Devices; and I hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

This invention relates to new and useful improvements in wood bending devices.

The object of this invention is to provide a device of this character which is particularly adapted for forming arm rails for automobile bodies.

My invention, therefore, consists in the features of construction and combination of parts described in the specification, pointed out in the claims and illustrated in the accompanying drawings.

In constructing automobile bodies it is customary to fasten a molding around the top edge thereof which is known as the arm rail. This molding extends along the top edge of the back of the body and is then curved around the sides and extends along the top edges of the sides of the body. Therefore in order to make the molding conform to the curvature of the automobile body it has been customary to form the molding in at least three sections; one section extending along the top edge of the back of the body and one section extending down along each side. There are, therefore, two joints in the arm rail and these joints are in a very prominent position.

By the use of my invention it is possible to form the entire rail in two sections, each section being arranged to extend along one side and half of the back so that the joint of the arm rail comes at the center of the back in a very inconspicuous position.

In general my device consists of a flexible plate having secured thereto a series of retaining devices. These devices are spaced and arranged on the plate so as to conform to the curvature of the rail after it has received its initial curvature which adapts it to conform to the curvature of the top edge of one side of the body portion. This initial curvature is given to the rail by a bending device of the usual construction and forms no part of my invention. After the rail has been secured on the flexible plate the plate and

rail together are bent over and around a form which has the same shape and curvature as the body of the automobile where the back and sides merge together. Screws or the like are then passed through the form and into the rail so as to secure the rail to the form after which the flexible plate is removed and the rail is left on the form to dry.

Referring to the drawings Figure 1 shows the rail in the bending device which gives it its initial bend. Fig. 2 is a top plan of the flexible plate. Fig. 3 shows the initial bending device superimposed on the flexible plate in order to transfer the rail to the plate. Fig. 4 is a top plan of the plate with the rail thereon. Fig. 5 is a side elevation of the form with the flexible plate and rail arranged thereon. Fig. 6 is a section on line 6-6, Fig. 5.

Again referring to the drawings, and particularly to Figs. 2, 3 and 4, 10 represents a flexible sheet or plate, preferably of metal. On the face of the plate 10 are arranged a series of retaining devices 11 which are preferably angle-shaped and are secured to the plate by rivets 12. These retaining devices are arranged in pairs, the devices forming the pairs being spaced apart the thickness or width of the rail and the pairs of devices are disposed on the plate so as to conform to the curve which the rail must have in order to fit the top edge of a side of the body of the automobile. An abutment or stop 14 is arranged close to the last pair of the said retaining devices at one end of the plate and a similar abutment or stop 15 is arranged at the opposite end of the plate but spaced a slight distance from the last pair of retaining devices, the object of which will appear later.

In Figs. 5 and 6 is shown the form for giving to the rail the curvature which corresponds to the curvature of the automobile body where the back and sides merge together. This form comprises side members 18 which have the same curvature as the curvature which is to be imparted to the rail. These side members are spaced apart any suitable distance depending on the number of rails which the form is to hold at any one time, and to the said side members are secured cross slats 19, a greater or less distance being left between the slats according to their position on the form. The form is suitably reinforced by braces 20.

In using my device the procedure is as

follows,—The strip of wood which is to form the arm rail is steamed or otherwise treated to give it the required pliability after which it is placed in the initial bending device. This device is of the usual construction and consists of two members 20 and 21 which are rigidly secured together by a binding strip 22 and the adjacent ends of the said members are spaced apart the width of the rail and the said ends are curved corresponding to the initial curve which is to be given to the rail. A flexible strip 23 is secured to the member 20 and is then carried along the side of the member 21. This flexible strip 23 is provided at its free end with a handle 24 which carries a latch 25 adapted to engage a projection 26 on the member 21, and likewise a flexible strip 27 is secured to the member 21 and is then carried along the side of the member 20. This flexible strip 27 is provided at its free end with a handle 28 which carries a latch 29 adapted to engage a projection 30 on the member 20. The strip which is to receive its initial curve is inserted between the adjacent ends of the members 20 and 21 and the flexible strips 23 and 27 are then locked to the members 20 and 21 respectively so that the said strip is securely bound along the sides of said members 20 and 21. After the strip has been fastened in place in the initial bending device the device is turned over on top of the flexible plate 10 and the strip is forced out of the initial bending device and down between the retaining devices 11 after which the initial bending device is removed. A wedge 15 is then inserted between the abutment or stop 15 and the end of the strip. This wedge locks the strip to the plate and also produces the necessary end pressure for causing the wood to upset during the bending operation. The plate 10 is then bent over and around the form with the strip next to the form and small screws 31 are passed up between the slats of the form and into the strip so as to secure the strip to the form after which the plate 10 is removed and the strip is left on the form to dry.

What I claim is,—

1. In a device of the character described, a plate rigid in its own plane and flexible transversely thereto having a series of re-

taining devices arranged thereon in a line of distortion lying in a plane parallel to that of said plate and adapted to receive a strip of wood having a predetermined curvature corresponding to the line of distortion formed by said retaining devices, a stop arranged on said plate at each end of said series, a wedge adapted to be inserted between the end of the strip held by said retaining devices and one of said stops and a form having a predetermined curved surface adapted to receive said plate and means for securing the strip of wood carried by said plate to said form.

2. In a device of the character described, a plate rigid in its own plane and flexible transversely thereto having a series of retaining devices arranged thereon in a line of distortion lying in a plane parallel to that of said plate and adapted to receive a strip of wood having a predetermined curvature corresponding to the line of distortion formed by said retaining devices, and a form having a predetermined curved surface adapted to receive said plate and means for securing the strip of wood carried by said plate to said form.

3. In a device of the character described, a plate rigid in its own plane and flexible transversely thereto having a series of retaining devices arranged thereon in a line of distortion lying in a plane parallel to that of said plate and adapted to receive a strip of wood having a predetermined curvature corresponding to the line of distortion formed by said retaining devices, a stop arranged on said plate at each end of said series of retaining devices, a wedge adapted to be inserted between the end of the strip held by said retaining devices and one of said stops, a form having a predetermined curved surface formed by a series of spaced bars, said surface being adapted to receive said flexible plate and means extending up between said bars and adapted to engage the strip of wood carried by said plate.

In testimony whereof, I sign the foregoing specification, in the presence of two witnesses.

SANFORD E. WALKE.

Witnesses:

J. C. MANSFIELD,
VICTOR C. LYNCH.