May 6, 1930. V. NAVRATIL 1,757,779

BENDING DEVICE

Filed July 11, 1928

Fig. 1

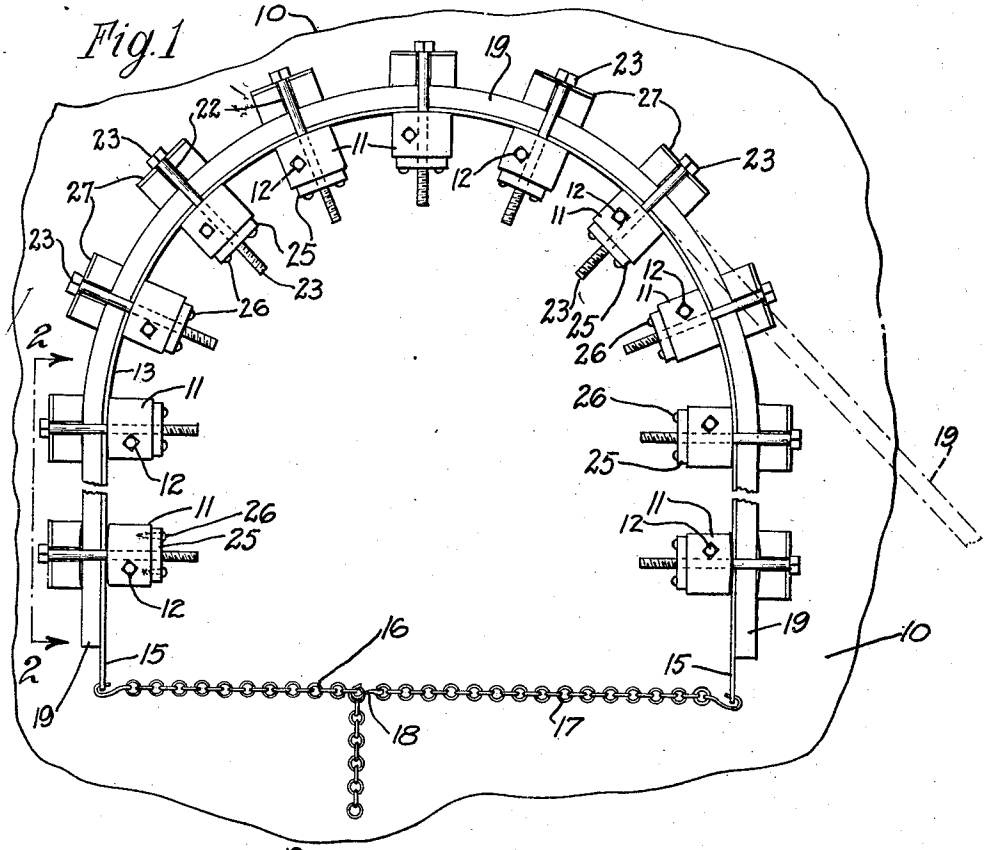


Fig. 2

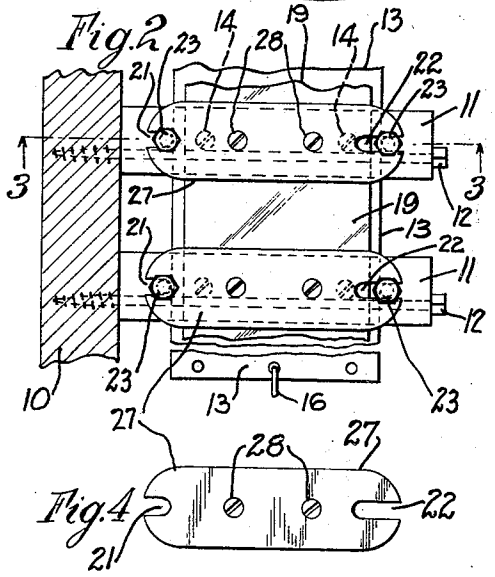


Fig. 3

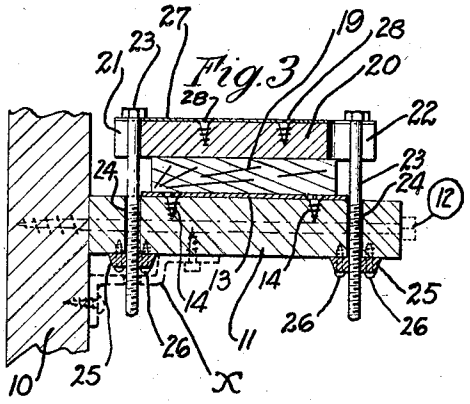


Fig. 4

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Patented May 6, 1930 1,757,779

UNITED STATES PATENT OFFICE

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BENDING DEVICE

Application filed July 11, 1928. Serial No. 291,870.

The invention relates to bending devices and more particularly to a device for bending wood strips either of solid construction or veneered into arched or arcuate form.

It is an object of the invention to provide a bending device which will effectively and conveniently enable a strip of wood to be permanently bent into arched or arcuate form.

A further object aims at providing a plurality of retaining blocks adapted to secure a metal band in the desired outline and subsequently clamp the wood strip to said metal band so that the wood strip ultimately retains the outline of the metal band.

Another object aim at providing improved clamping blocks for the wood strip, which are applied singly and facilitate the clamping of the wood strip to the metal band.

With these and other objects in view, which will appear from a perusal of the description of the invention, the latter comprises the means described in the following specification, particularly pointed out in the claims forming a part thereof and illustrated in the accompanying drawing, in which

Fig. 1 is a top plan view showing a steel band held in functional position by a plurality of retaining blocks and a wood strip secured to the band by clamping blocks.

Fig. 2 is a section on the line 2—2 of Fig. 1, and

Fig. 3 is a section on the line 3—3 of Fig. 2.

Fig. 4 is a view of the reinforcing plate.

Referring to the views of the drawing, 10 designates a table or wall constituting a support or base on which the wood strip is to be bent. A plurality of retaining blocks are secured to the table in position to define the particular contour or outline intended for the wood strip.

The blocks comprise rectangular members 11 which are secured to the base by a wood screw 12. A steel band 13 encompasses the various retaining blocks and is secured thereto by screws 14 whose heads are countersunk in the band to be flush therewith.

The free ends 15 of the steel band are connected by chains 16 and 17, the chain 17 terminating in a hook 18 which may be selectively introduced into the links of the chain 16. A wood strip 19 is laid in contact with the band and is held thereto by clamping members. The latter comprises rectangular blocks 20 whose ends are semi-circular and slotted as at 21 and 22. Attention is called to the fact that the slot 22 is deeper than the slot 21 for a purpose hereinafter further described.

The blocks 20 are secured to the retaining blocks 11 by through bolts 23, which are seated in the slots 21 and 22 and extend through apertures 24 provided in the blocks 11. Each through bolt has a nut 25 at the free end which is held against rotation by a plurality of screws 26 entering the block 11.

The outer face of the clamping block 20 is reinforced by a metal plate 27 having slots in alignment with slots 21 and 22 and secured to the block 20 by a plurality of screws 28, whose heads are countersunk in the plate 27.

In use, as explained before, the steel hand 13 is secured in place by the retaining blocks 11. Thereafter the wood strip which may be solid or veneered is placed in contact with the band. To this end the clamping at the center is first applied by placing the block 20 so that the through bolt 23 contacts with the bottom of the slot 22, whereupon the block is swung toward the band and shifted until the other bolt 23 is received in the slot 21.

To tighten the block 20, the heads of the through bolts 23 are turned causing axial movement of the bolts because the nuts 25 are secured against rotation. Thereafter the remaining clamping blocks are applied in like manner and left in position until the wood strip has become set and retains the desired form.

While the drawing shows a preferred embodiment of the invention, numerous changes can be made without departing from the spirit of the invention. I, therefore, do not wish to limit myself to the details of construction as shown but wish to include all changes and alterations and modifications constituting departures within the scope of the invention, as defined in the appended claims.

If desirable, the members 11 may be provided with a suitable stiffening bracket X as indicated by dotted lines in Fig. 3. The bracket X could readily be made of a flat bar

of a cross-section as indicated in the drawing and of a width equal to the width of the member 11. Suitable wood screws would secure such bracket X to the member 11 and also to the support 10. The bracket 11 would necessarily be provided with an opening to permit the passage of the bolt 23 through same, also as indicated in Fig. 3.

I claim:—

1. A bending device including a flexible retaining element, a plurality of spaced retaining blocks for holding said element in desired position, said element being fixed to set blocks, a plurality of clamping blocks in alignment with said retaining blocks, and bolts connecting said retaining and clamping blocks, said clamping blocks being placed in position subsequent to said bolts, a chain secured to each end of said flexible retaining element, and a hook at the free end of one of said chains adapted to be engaged into a link of the other of said chains to thereby facilitate the retainment of said element in arcuate formation.

2. A bending device including a flexible retaining element, a plurality of spaced retaining blocks for holding said element in desired position, said element being fixed to set blocks, a plurality of clamping blocks in alignment with said retaining blocks, and bolts connecting said retaining and clamping blocks, said clamping blocks being slotted to afford their arrangement in functional position with the bolts in place, a chain secured to each end of said flexible retaining element, and a hook at the free end of one of said chains adapted to be engaged into a link of the other of said chains to thereby facilitate the retainment of said element in arcuate formation.

In witness whereof I affix my signature.

VACLAV NAVRATIL.