

W. H. WIGGIN.

Machines for Making Metallic Moldings.

No. 153,028.

Patented July 14, 1874.

Fig. 1.

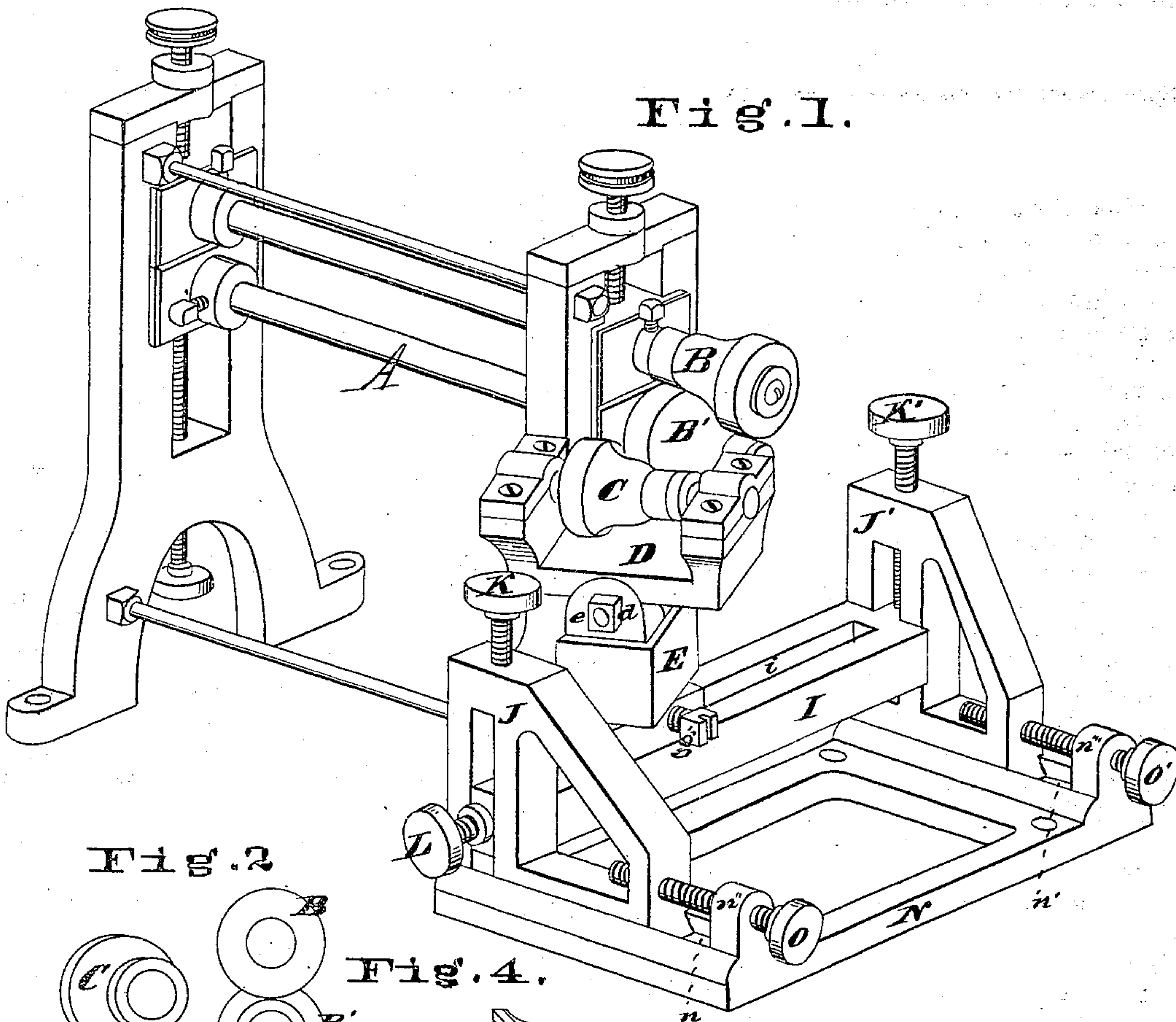


Fig. 2

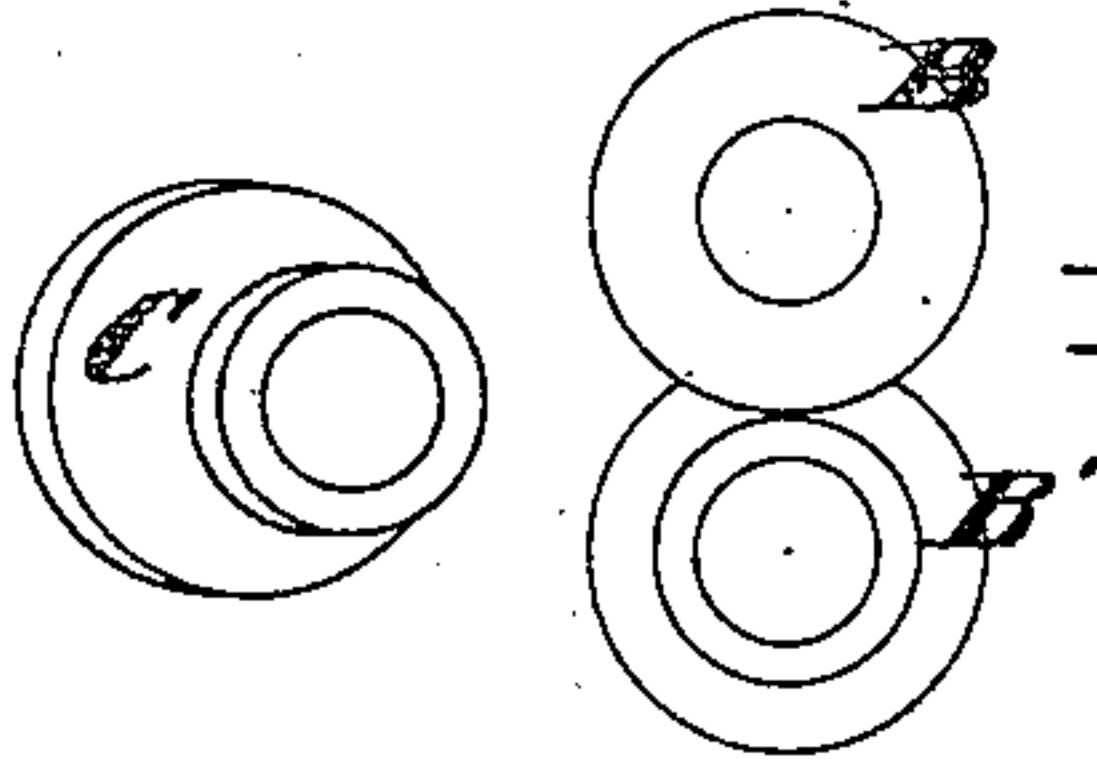


Fig. 4.

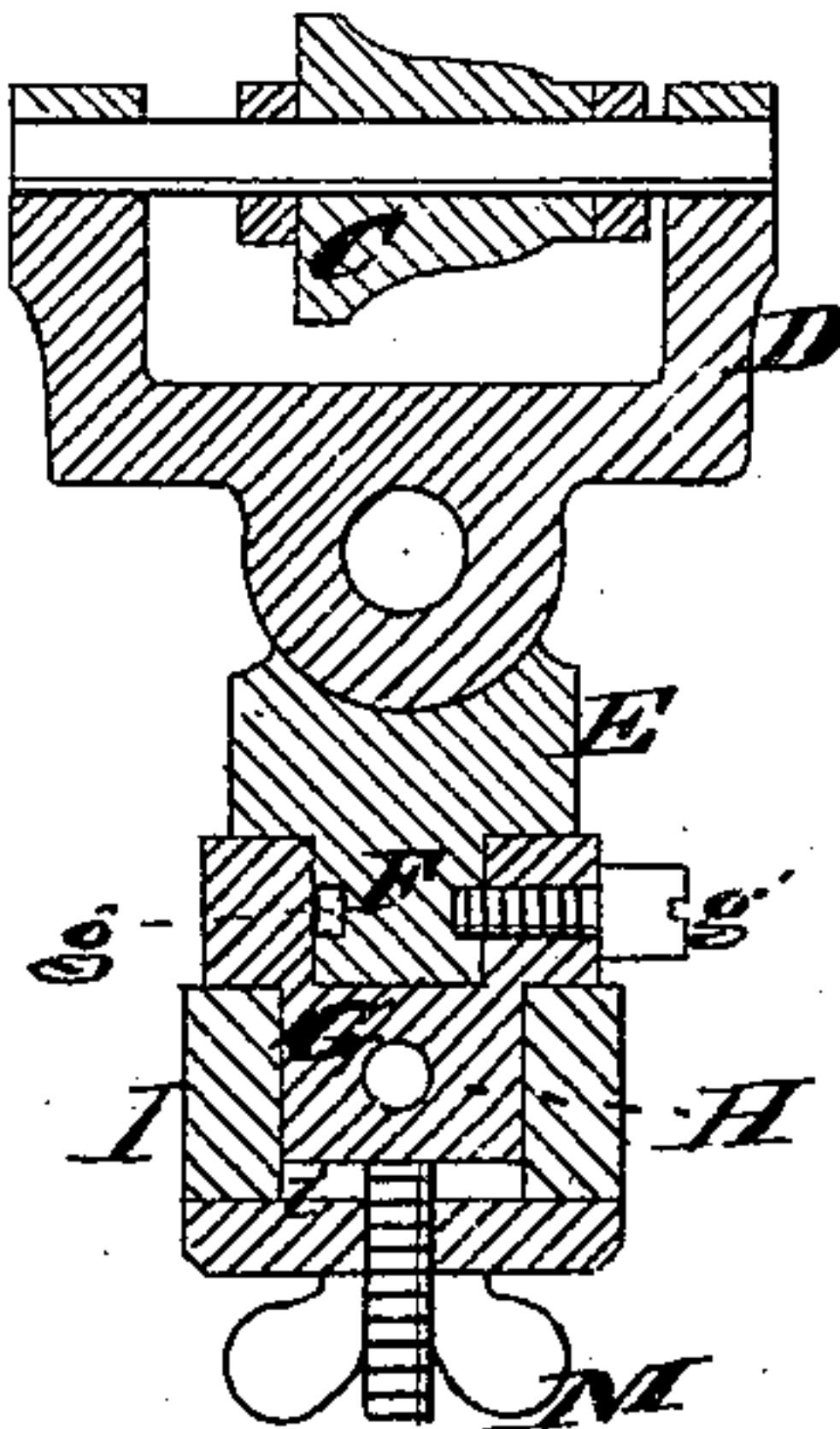
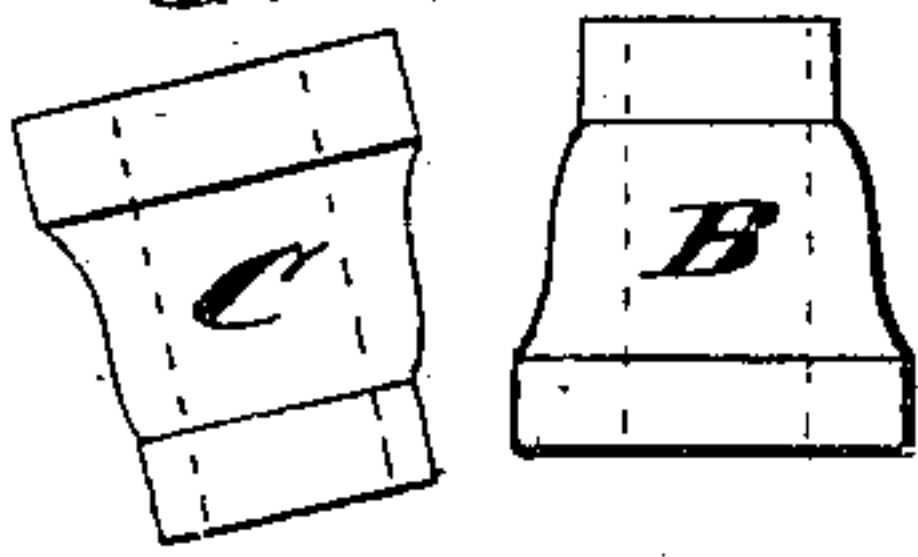


Fig. 3.



WITNESSES.

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IMPROVEMENT IN MACHINES FOR MAKING METALLIC MOLDINGS.

Specification forming part of Letters Patent No. **153,028**, dated July 14, 1874: application filed June 17, 1874.

To all whom it may concern:

Be it known that I, WILLIAM H. WIGGIN, a resident of the city and county of St. Louis, State of Missouri, have invented new and useful Improvements in Machines for Making Metallic Moldings, of which the following is a full, clear, and exact description, reference being had to the annexed drawing making a part of this specification, in which—

Figure 1 is a view in perspective of the invention; Figs. 2 and 3, details, being, respectively, an elevation and plan of the rolls; and Fig. 4 is a sectional elevation of the auxiliary roll and the parts immediately supporting it.

Like letters indicate like parts.

The object of the present invention is to provide an efficient and readily-operated means for forming flaring, curved, metallic moldings; and it consists of the combination with an ordinary swaging-machine of the peculiar device hereinafter described, by means whereof a third auxiliary roll can be adjusted, with reference to the rolls of the swage, so as to produce a molding of any degree of curve or flare.

In the accompanying drawing, A represents a swage of the ordinary kind provided with the usual pair of rolls B B', which may be of any preferable form. C represents an auxiliary roll, whose shape conforms to that of the roll B'. The roll C is journaled in a block, D, which block, in turn, is pivoted in another block, E, at *e*, and in such a direction as to provide for a tilting movement of the block D in the direction of the shaft supporting the roll C. The block E is underneath provided with a round tenon, F, which fits into and turns in a corresponding mortise in a third block, G. The tenon F is provided with a groove, *g*, in which a set-screw, *g'*, engages for the purpose of holding the tenon at any desired point. A screw, *d*, above fastens the block D. The block G, at its lower end, is provided with a square tenon, H, which rests in and traverses the slot *i* of a bar, I, which is arranged horizontally in a pair of uprights, J J', and which is adjusted vertically in said uprights by means of set-screws K K'. Extending lengthwise through the slot *i* and through the tenon H is a screw, L. By turn-

ing this the block G and the mechanism supported by it are caused to move in and out from the rolls of the swage A, for the various parts above mentioned are so arranged as to bring the bar I at right angles with the shafts supporting the rolls B B'. A set-screw, M, Fig. 4, is used to fasten the block more securely in the bar I and to relieve the strain upon the screw L. The uprights J J' rest and travel in grooves *n n'* of a bed-plate, N. The direction of these last-mentioned grooves is at right angles to that of the bar I. The plate N is provided with lugs *n'' n'''*. Set-screws O O' pass, respectively, through these lugs *n'' n'''* and the uprights J J', and are used to set the latter and the mechanism supported by them in any desired position considered in the direction of the shafts supporting the rolls B B'. The bed-plate N is suitably fastened to the frame-work (not shown) which supports the swage A.

To operate the invention, the sheet metal, being cut into suitably-curved blanks, is, preferably, run through the rolls B B', to initiate the form of the molding. The auxiliary roll C and supporting-frame are then moved into position and suitably adjusted to act on the blank, which is again passed through the rolls B B' C. As the curve is sharper or more moderate the roll C is set closer to or farther from the rolls B B'. This effect is also produced by the vertical adjustment of the bar I; but to form the molding, two curvatures—viz., horizontally and vertically—must be made. The roll C, therefore, is suitably tilted on its pivot *e*, and also suitably turned horizontally by turning the block E in the block G. When, however, the position of the roll C is affected by the two adjustments last mentioned a further adjustment becomes necessary. The roll C and the parts immediately supporting it—viz., the blocks D E G and bar I—must be properly adjusted with reference to the center of the curve of the molding. The provision for this last-named adjustment (which is a principal feature of the invention) is as follows: The uprights J J' being arranged to move in and out in the grooves *n n'* of the plate N are, by means of the screws O O', suitably moved in a direction parallel to that

of the shafts supporting the rolls B B'. In this manner the roll C, whatever direction it may be turned or inclined, can be easily and accurately set and held in the curve of the molding. Owing to the manner of fastening the block D in the block E—viz., at a central point underneath—the roll C can be readily tilted; and owing to the roll C being supported entirely from beneath, and not by any upright which would interfere, the work can be readily handled and pieces of large size can be worked. Furthermore, the roll C and supporting parts can be easily adapted to any ordinary swage.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with the swage A, the roll C, block D, block E, and block G, constructed and operating substantially as shown.

2. In combination with the swage A, the roll C, blocks D E G, bar I, screw L, uprights J J', plate N, and screws O O', constructed and operating substantially as described and shown.

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