(No Model.)

G. U. MEYER.

ARBOR.

No. 441,887. Patented Dec. 2, 1890.

Fig. 1.

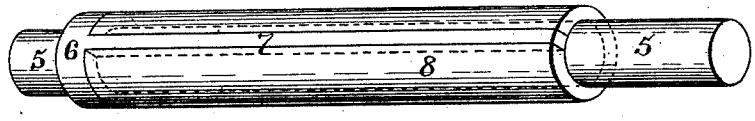
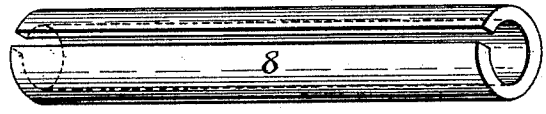


Fig. 2.



Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE U. MEYER, OF PROVIDENCE, RHODE ISLAND.

ARBOR.

SPECIFICATION forming part of Letters Patent No. 441,887, dated December 2, 1890.

Application filed September 9, 1890. Serial No. 364,461. (No model.)

To all whom it may concern:

Be it known that I, GEORGE U. MEYER, of Providence, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Arbors; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to an improvement in arbors for drawing metal tubes; and it consists in the peculiar and novel construction of the arbor, as will be more fully set forth hereinafter.

The object of this invention is to produce an arbor that can be more readily withdrawn from a tube drawn over the arbor than arbors as heretofore constructed.

Figure 1 is a perspective view of the complete arbor. Fig. 2 is a perspective view of the draw-bar provided with a collar and a longitudinally-extending spline; and Fig. 3 is a perspective view of a split tubular sleeve.

In the drawings, the number 5 indicates the draw-bar; 6, a collar formed near one end of the draw-bar; 7, a spline extending from the collar 6 longitudinally along one side of the draw-bar.

8 is a longitudinally-split tube made of a hard spring metal, so that in its normal condition the longitudinal slit will be closed or nearly closed, and, when the tube 8 is drawn over the draw-bar 5, the two edges of the longitudinal slit in the tube will bear against the spline 7, and the tube, with the spline, form a cylinder over which a tube may be drawn.

The spline 7 and the longitudinal slit in the tube 8 are shown as of uniform width; but the spline may be made wider at the collar and narrower at the opposite end, and the slit in the tube formed to correspond with the taper of the spline.

The operation of the mandrel is as follows: When a tube has been formed on the mandrel, the tube will be in firm contact with the split tube 8. By drawing the draw-bar 5 with the collar 6 and spline 7 out of the split tube, the split tube will contract and can be readily withdrawn, and the mandrel can be inserted into a tube by first inserting the split tube and then forcing the draw-bar into and the spline 7 between the edges of the tube 8. Both operations will be somewhat facilitated by slightly tapering the spline 7 and the slit in the tube 8.

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

1. The combination, with a cylindrical draw-bar provided on one side with a longitudinally-extending spline, of a split tube inclosing the draw-bar, the edges of the tube bearing against the spline, as described.

2. The combination, with the draw-bar 5, the collar 6, and the spline 7, extending longitudinally from the collar, of the split tube 8, the two edges of which bear against the sides of the spline, as described.

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