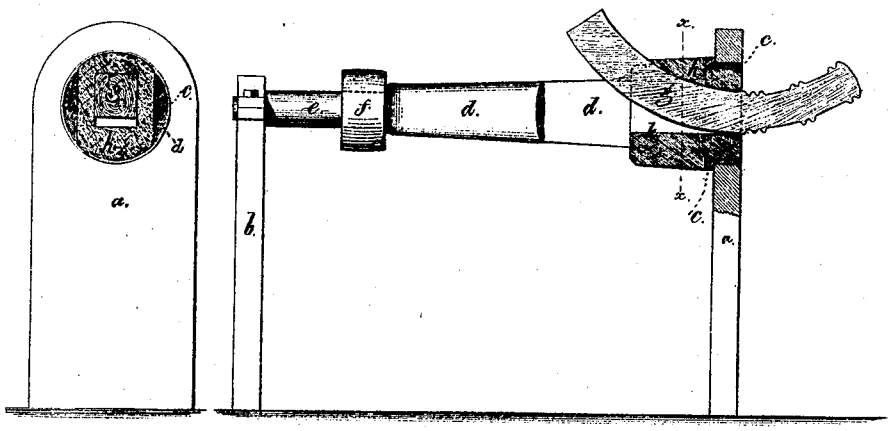
P. J. Hardy,

Lathe.

No. 113,048. Patented Mar. 28. 1871.

Fig. 2.

Fig. 1.



Witnesses.

Chas. H. Smith

Geo. H. Waldron

Pierre J. Hardy

United States Patent Office.

PIERRE J. HARDY, OF NEW YORK, N. Y.

Letters Patent No. 113,048, dated March 28, 1871; antedated March 24, 1871.

IMPROVEMENT IN TURNING-LATHES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, PIERRE J. HARDY, of the city and State of New York, have invented and made an Improvement in Turning-Lathes; and the following is declared to be a correct description thereof.

This lathe is designed for turning successively sections of a curved piece of wood, such as an arm, leg, or rail of a chair.

In cabinet work there are many cases where curved braces, legs, or bars are of necessity or for appearance employed, and these usually are finished up plain, or else carved at considerable expense, and a want has been felt of a lathe suitable to turning in ornamental sections or rings the surface of such curved pieces.

My invention is made to meet this want, and consists in a hollow mandrel-head, with side straps reaching to the shaft that carries the pulley and runs upon the back center.

The hollow mandrel is short, like a thimble, and into this is introduced a movable block, through which passes the curved piece of wood to be turned, and it is clamped within this block so that the projecting end of the wood can be turned, and then the curved piece of wood moved through further and another section turned, and so on.

In the drawing I have represented in—

Figure 1, a longitudinal section of the said lathe; and in

Figure 2, a cross-section at the line *x x*.

The frame or head *a b* is of usual construction, except that the opening for the hollow mandrel or thimble *c* is larger than usual, so as to fit said mandrel.

The side straps *d d* are formed with or connected to the mandrel *c*, and extend to the shaft *e* that runs in the frame *b* or upon a movable center, as usual.

Around the shaft *e* is the pulley *f*, by which the parts are rotated.

The curved strip of wood *g* is passed through a properly-shaped opening in the movable block *h*, that fits between the slings or straps *d* and within the mandrel *c*, and clamping-screws or bands are employed to secure the strip *g* within the block *h*, so that the projecting end may be turned by a tool held upon any suitable rest, and then the strip be loosened and pushed further through the block *h*, so that another section can be turned, and so on until completed.

The rest for the tool must be sufficiently short to be clear of the revolving curved projecting portion of the strip *g*, and said rest may be attached upon the frame or head *a*.

The hollow mandrel *c*, straps *d*, and shaft *e* form in substance a compound mandrel, through which the material to be turned can be passed, in consequence of the lateral openings between the straps *d*; and the block *h*, or clamping device that holds the piece of wood to be turned within the hollow mandrel, is to be of a shape and character best adapted to the work to be performed.

I claim as my invention—

The hollow mandrel, with lateral openings between the straps *b*, and means for holding and clamping the curved piece to be turned, substantially as and for the purposes set forth.

Signed this 9th day of August, 1870.

PIERRE J. HARDY.

Witnesses:

HAROLD SERRELL,

GEO. T. PINCKNEY.