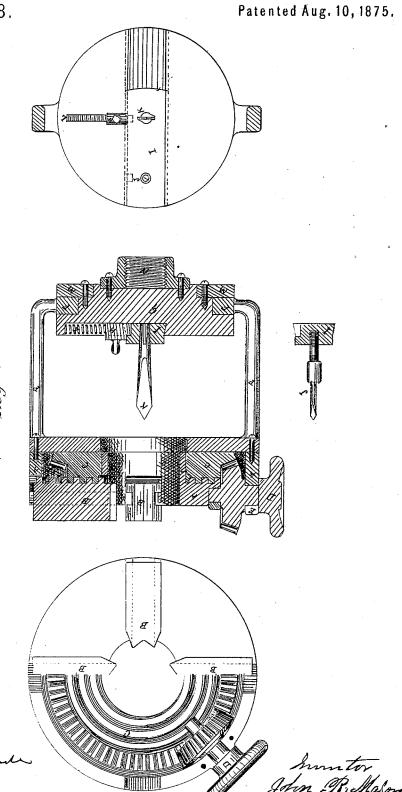
## $\begin{tabular}{lll} \textbf{J. R. MASON.} \\ \textbf{Chucks and Centerers.} \end{tabular}$

No. 166,538.



N. PETERS. PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

## UNITED STATES PATENT OFFICE.

JOHN R. MASON, OF WILMINGTON, DELAWARE.

## IMPROVEMENT IN CHUCKS AND CENTERERS.

Specification forming part of Letters Patent No. 166,538, dated August 10, 1875; application filed June 22, 1875.

To all whom it may concern:

Be it known that I, John R. Mason, of Wilmington, in the county of New Castle and State of Delaware, have invented a new and useful Improvement in Centering Devices, of which the following is a specification:

The invention will first be fully described,

and then pointed out in the claim.

Figure 1 is a sectional elevation of my improved device, and Figs. 2 and 3 are partly sectional views of different parts of the same.

Similar letters of reference indicate corre-

sponding parts.

A is a circular casing, with four grooves running directly central, which contain four jaws, B, each having a scroll upon its lower side, extending toward the interior of the casing. C is a scroll-plate, with cogs and scroll combined upon one side. The cogs are situated above the scroll upon the top edge of the plate. This plate has a bearing upon the inside of the casing A, with scroll facing the jaws B, and is turned upon the bearing by means of the key D gearing into its cogs. The key consists of a knob and pinion combined, having a bearing between said knob and pinion, and also upon the extreme end below the pinion. This key is let into a bearing upon the face of casing A. E is a plate, secured with screws into said casing, and secures the key D to its bearing. F is an arm-plate, which is attached to the back of casing A with

screws, having a circular bearing upon one end. G is a face-plate, with bearings to suit the circle of arm-plate F, having a dovetail groove running central through the plate; also a similar but lesser groove placed above, extending central and opening into the main groove, in which is placed a small lock-plate, H. I is a sliding plate, which slides in main groove. The tool J is secured to the sliding plate by a thread, and tool K is attached to said plate by groove and feather. The lockplate H is forced into openings in sliding plate I, when tools J or K become central, by a spiral spring, L. M is a ring, secured to the face-plate G by screws, which incloses the circle of the arm-plate F, which produces a bearing. N is a cap, which is attached to the back of the face-plate G by screws. This cap can be bored and chased to suit the spindle of any lathe.

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

Patent-

The combination of arm-plate F, face-plate G, lock-plate H, ring M, and sliding plate I, adapted for the use of two tools, J and K, with the scroll-chuck, all as and for the purpose specified.

JOHN R. MASON.

Witnesses:

James S. Grinnell, Harry Coleman.