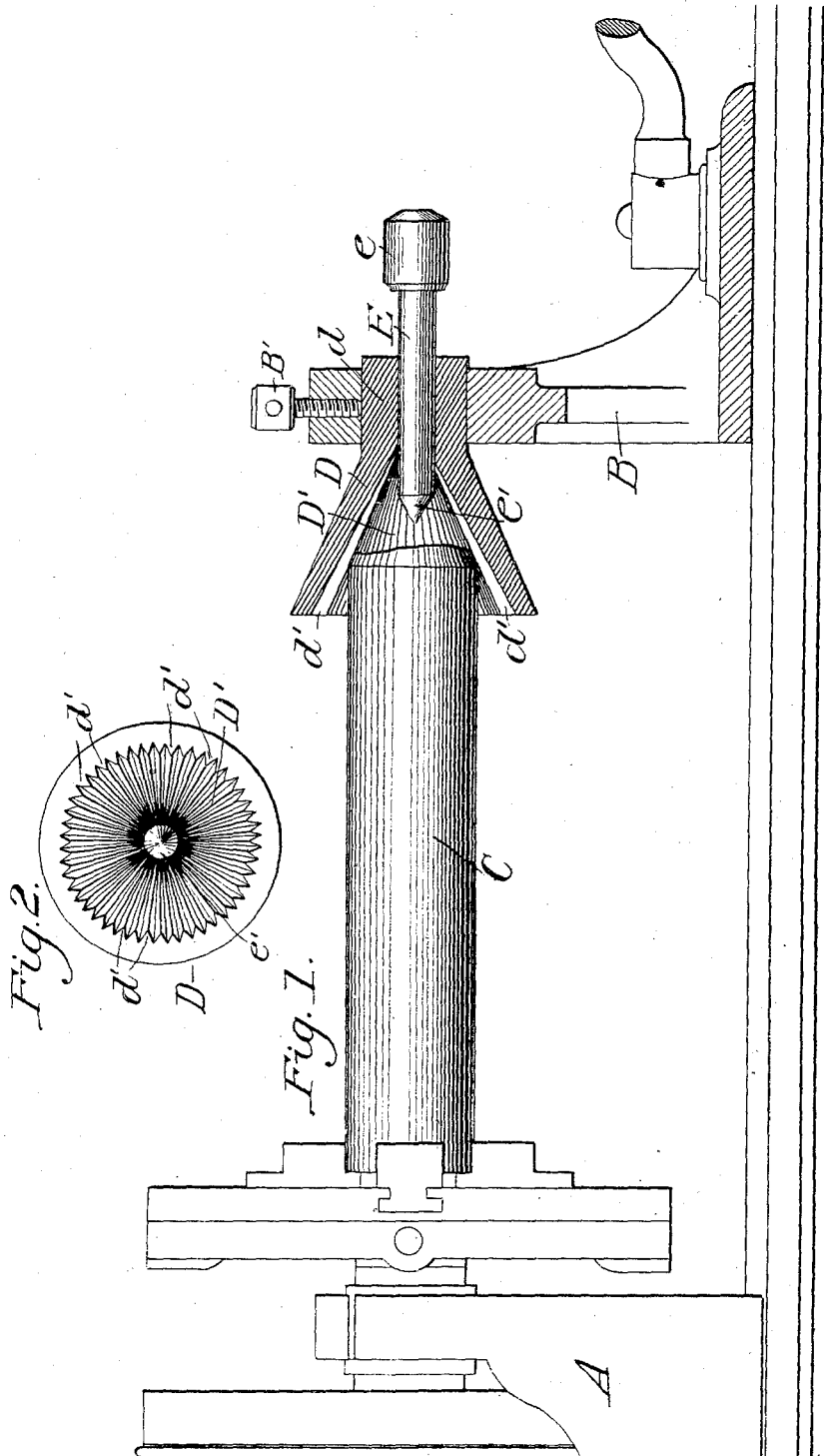


E. E. LAZELL.
CENTERING DEVICE.



Witnesses:
W. B. Deming
W. H. Burton

Inventor.
E. E. Lazell
By [Signature] Attorney.

*The drawing in this patent
is not in print.*

United States Patent Office.

EDWIN E. LAZELL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HIM-
SELF, THEODORE H. PETERS, AND FRANCIS KEYSER, OF SAME PLACE.

Letters Patent No. 82,131, dated September 15, 1868.

IMPROVED CENTRING-DEVICE.

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, EDWIN E. LAZELL, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Centring-Tools; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing, which is made a part of this specification.

My invention relates to a device for finding the true centre of a cylindrical piece of metal, wood, or other material, of which the centre is required for any purpose.

It consists of a hollow conical head, provided at its apex with a tubular stem, by which to hold it while in operation, and through which passes the centre-punch, which is of any approved form. The head is provided internally with longitudinal angular ribs, which, by the rotation of the piece to be centred, serve to remove from its surface any fins or other irregularities, and also to guide said piece to a central position in the head, when, by a stroke on the head of the punch, the centre may be correctly marked.

In the drawings—

Figure 1 is a sectional elevation of my improved centring-tool in position in the tail-stock of a turning-lathe.

Figure 2 is a front elevation of the tool, detached.

A may represent the head-stock and B the tail-stock of an ordinary turning-lathe, and C the material to be centred.

D is the conical head and E the punch of the centring-tool. D' represents the conical recess in the face of the head D, and d' the converging angular ribs of which the surface of said recess is composed. d is the tubular stem, by which the head is attached, here shown as inserted in the aperture in the tail-stock provided for the "centre," and held by the set-screw B'. The punch E is formed with a head, e, and a point, e', of any suitable form.

The head D and punch E may both be made of steel or other suitable metal, and the external form of said head and the shape of said punch may be varied, as preferred. The tool may also be employed otherwise than in a lathe, (as shown,) and, when employed in a lathe, may be mounted on the rest or any other convenient part.

Having thus described all that is necessary to a clear understanding of my invention, I would state that I am aware of the milling and centring-device patented by S. Wing, August 1, 1865, and do not therefore claim the combination of a conical concave milling-head with a centring-pin; but

What I do claim as new, and of my invention, is—

The arrangement, wit' the concave conical milling-head D, of the centring-pin E, projecting through the head D, in the manner and for the purpose herein specified.

EDWIN E. LAZELL.

Witnesses:

CARL BOCKING,

JULIUS GROF.