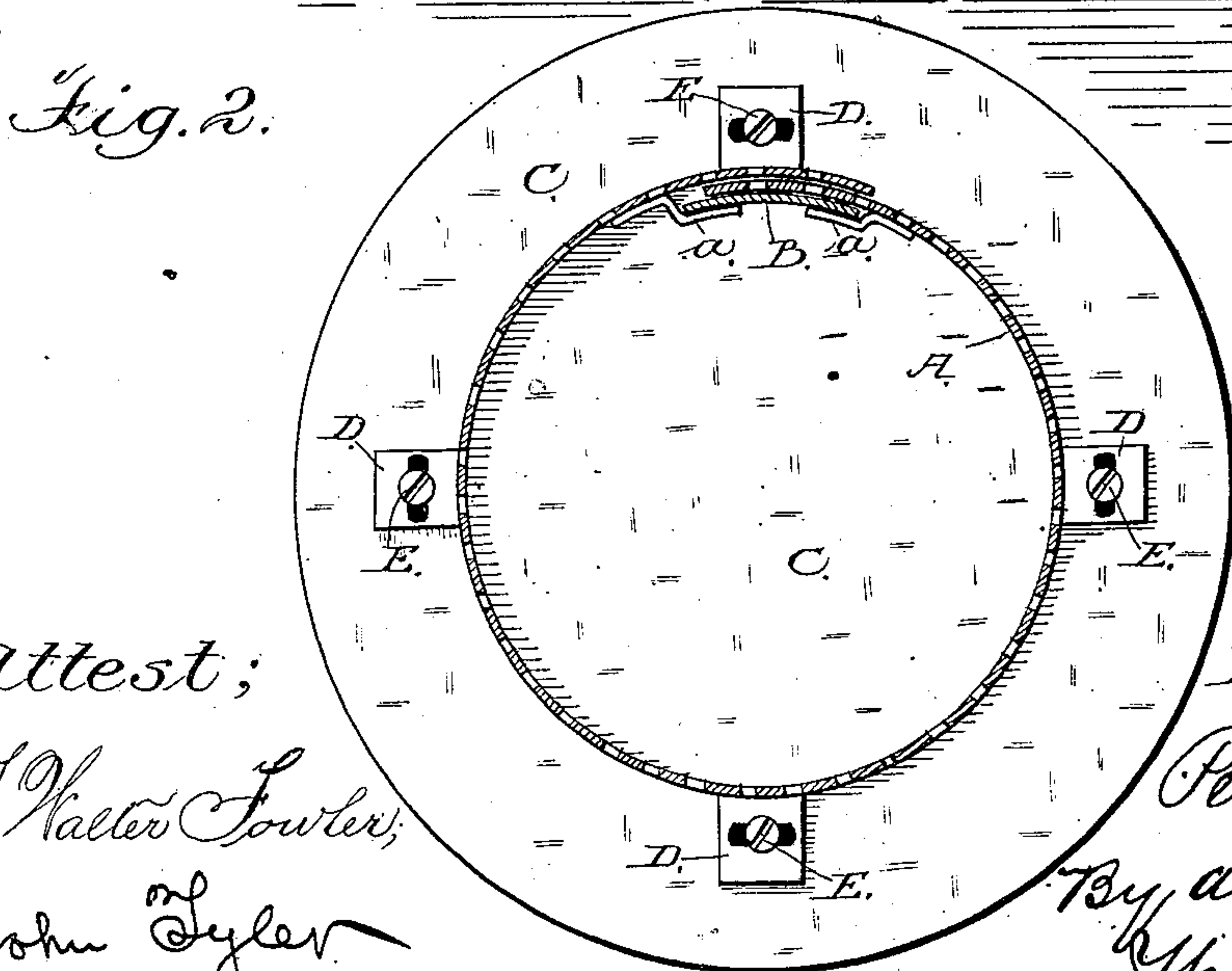
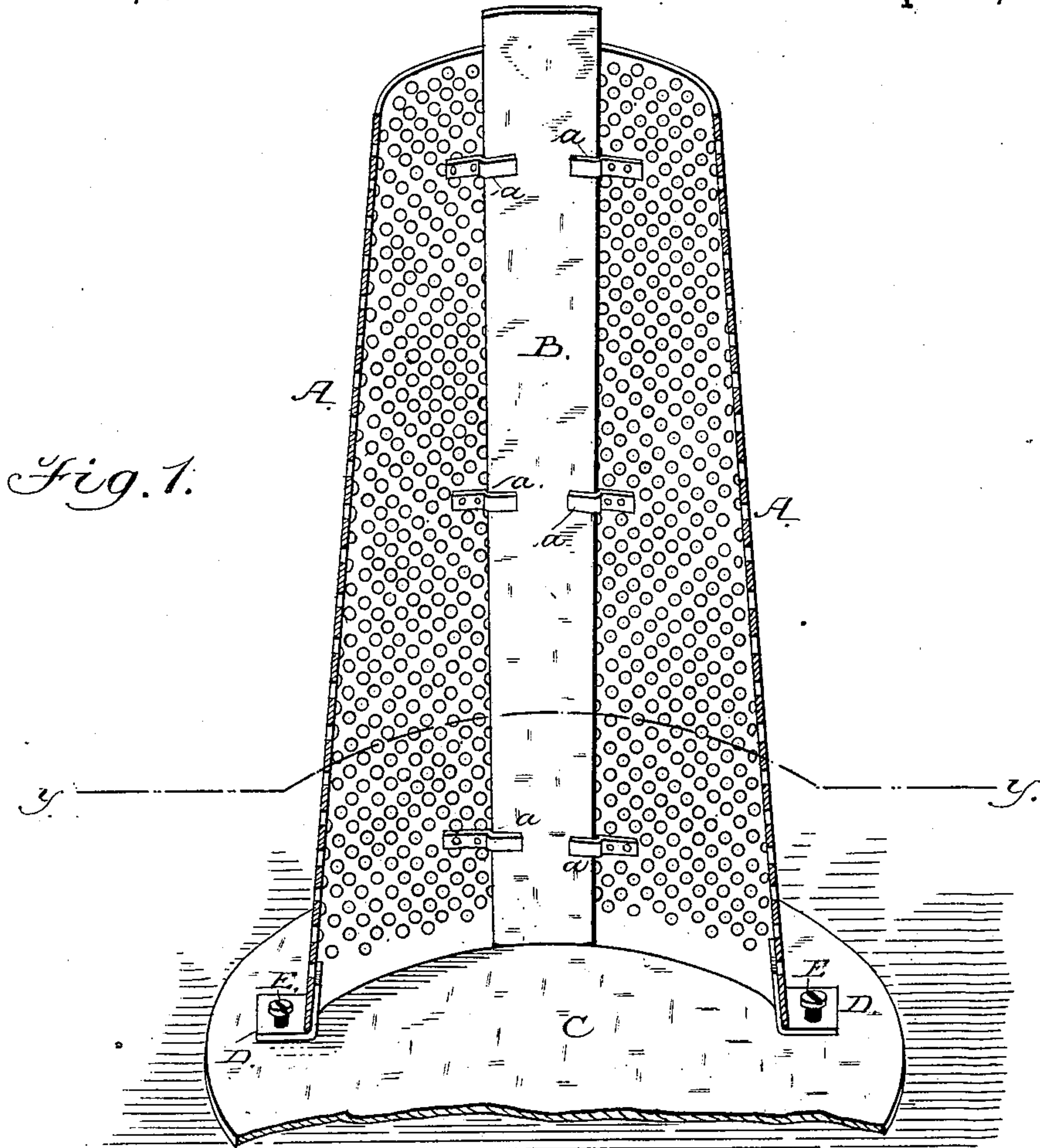


P. WILKES.
CORE BARREL FOR CASTING.

No. 246,847.

Patented Sept. 6, 1881.



Attest;

J. Walter Fowler,
John Tyler

Inventor;

Peter Wilkes
By atty
J. C. W. S. S. S.

(No Model.)

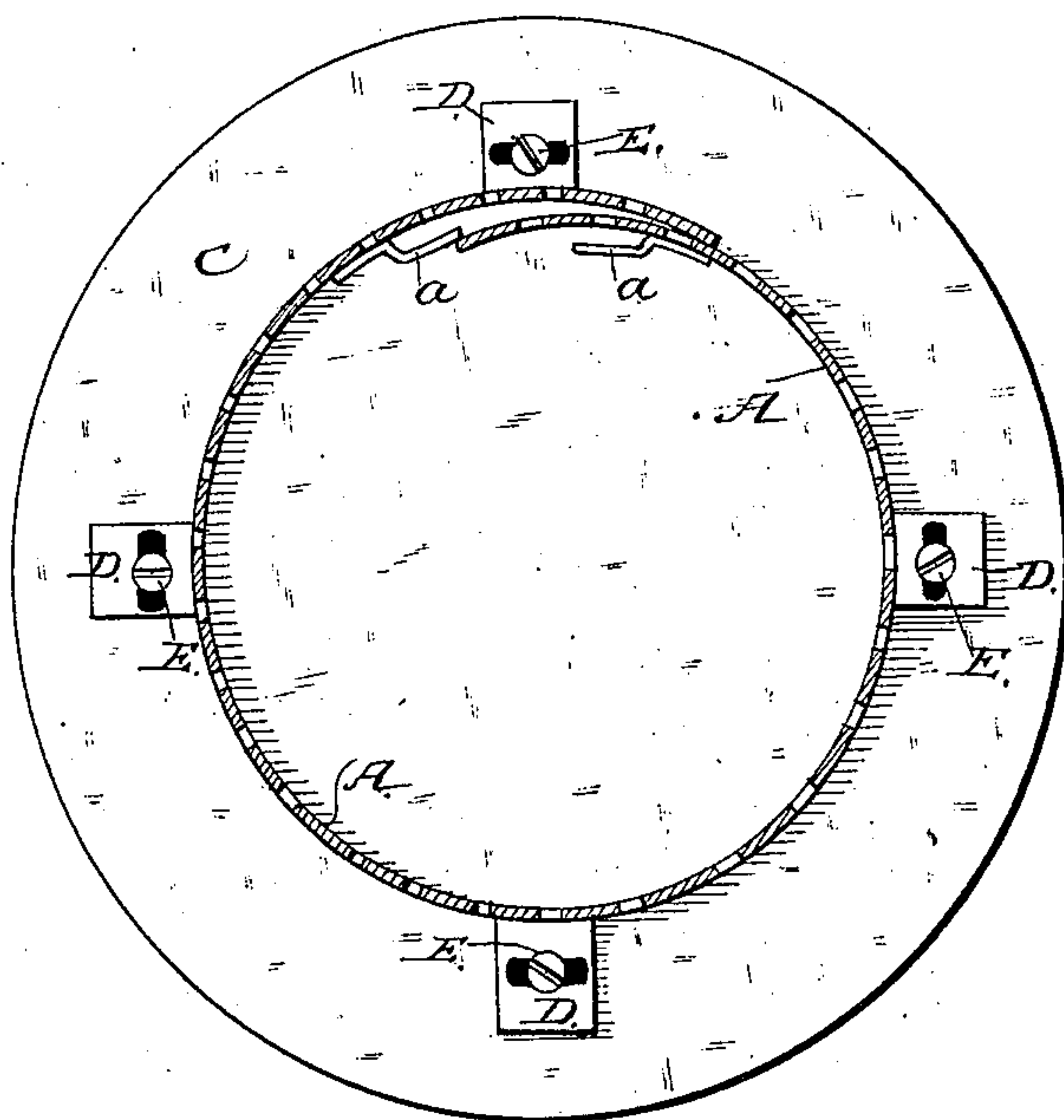
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Fig. 3.



Attest;

J. Walter Fowler,
John Sykes

Inventor:

Peter Wilkes
By atty
Wm. C. W. Squire

UNITED STATES PATENT OFFICE.

PETER WILKES, OF TRENTON, NEW JERSEY.

CORE-BARREL FOR CASTING.

SPECIFICATION forming part of Letters Patent No. 246,847, dated September 6, 1881.

Application filed July 28, 1881. (No model.)

To all whom it may concern:

Be it known that I, PETER WILKES, a citizen of the United States, residing at Trenton, in the county of Mercer and State of New Jersey, have invented new and useful Improvements in Core - Barrels for Casting, of which the following is a specification.

My invention relates to certain new and useful improvements in core - barrels for casting crucibles and other hollow articles. It has for its object to render the core-barrel collapsible during the shrinkage of the casting, so that the latter is properly relieved from strain; and with these ends in view my invention consists of a core-barrel split or open longitudinally, the longitudinal edges adapted to overlap one another, and provided on the inside surface with lugs formed to receive a tapered plate-bar designed to prevent collapse of the barrel until the proper time, and readily removable, as will be hereinafter and in detail set forth.

In order that those skilled in the art to which my invention appertains may fully understand the same, I will proceed to describe it, referring by letters to the accompanying drawings, in which—

Figure 1 is a central vertical section of a core-barrel embodying my invention; Fig. 2, a cross-section of the same, taken at the line *y y* of Fig. 1; and Fig. 3, a similar view, with the tapered bar removed and the barrel in a partially-collapsed condition.

Similar letters indicate like parts in the several figures.

A represents a piece of boiler-plate iron, perforated, as shown, and bent around into circular form, slightly tapering toward the top, the meeting edges overlapping, as clearly seen at Fig. 2. A short distance back from each edge of said plate are secured by rivets a series of lugs, *a*, the free ends of which are offset sufficiently to receive a plate-bar, B, which is tapered toward its lower end, to facilitate its withdrawal. This plate-bar B, as will be seen by reference to Fig. 2, holds the two edges of the barrel - plate against each other, and by

reason of the lugs *a* also prevents the collapse of the barrel while said plate-bar is in position. When this bar is withdrawn (which is done at the proper time during the cooling of the casting) the plate A is free to partially collapse, the edges being forced by the shrinkage of the casting into the position shown at Fig. 3; and in order that the lower end shall be free to accommodate itself to such movement, it is secured to the base C by radial lugs D, having curved slots *b* and securing-screws E.

From the foregoing it will be understood that the core-barrel is secured to the base C by the lugs and screws D E, and the tapered plate-bar B is put in position to prevent inward movement of the edges of the barrel. It is then sand-packed and secured in the usual way, and is ready for use. After the metal for the casting has been poured, and at the proper time to take up the shrinkage, the tapered plate-bar B is drawn from between the lugs *a*, and the longitudinal overlapped edges of the core-barrel are free to move inwardly toward the center, as most clearly shown at Fig. 3 of the drawings.

I do not wish to confine myself to the exact shape or proportions of the parts described, as they may be varied without departing from the spirit of my invention; but

What I claim as new, and desire to secure by Letters Patent, is—

A collapsible core-barrel for casting hollow articles, consisting of a perforated plate, A, bent into form, and provided with a series of lugs, *a*, in combination with a tapered bar, B, base-plate C, radial lugs D, slotted as described, and securing - screws E, substantially as and for the purposes set forth.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

PETER WILKES. [L. S.]

Witnesses:

JAMES H. HAMMOND,
THOS. BUTTERWORTH.