

J. Murray,
Steam-Boiler Indicator.
N^o 60,541. Patented Dec. 18, 1866.

Fig. 2.

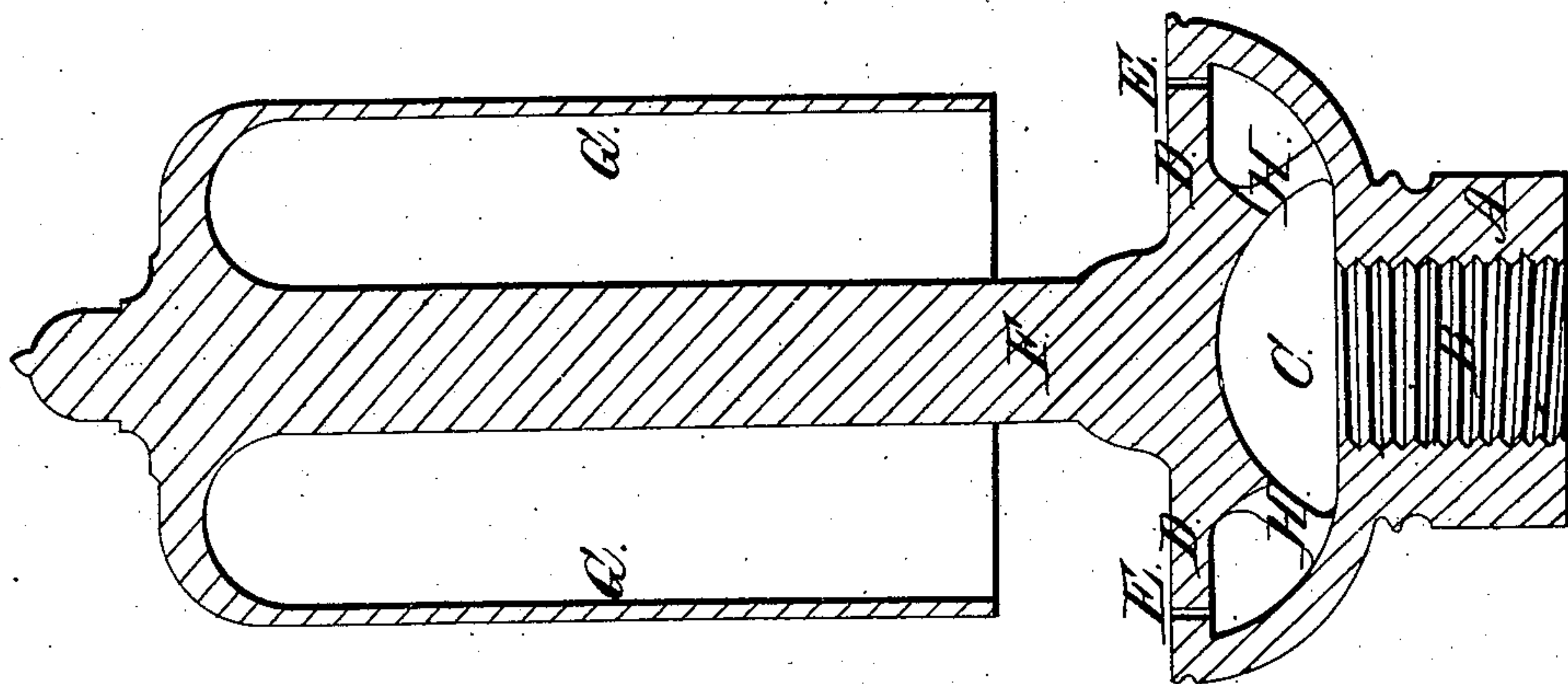
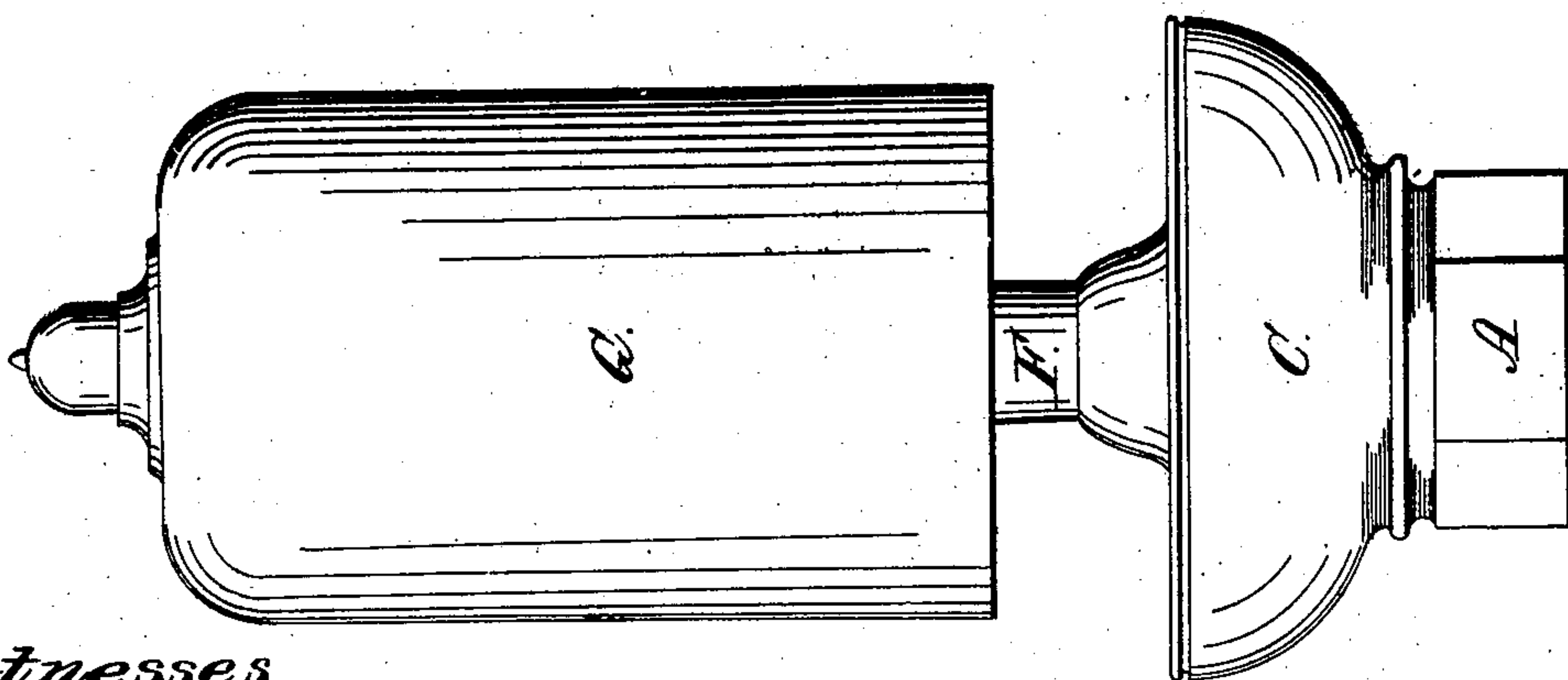


Fig. 1.



Witnesses.
to Chas.
Wm. Smith

Inventor.
John Murray

United States Patent Office.

IMPROVED WHISTLE FOR STEAM AND OTHER ENGINES.

JOHN MURRAY, OF NEW YORK, N. Y.

Letters Patent No. 60,541, dated December 18, 1866; antedated October 7, 1866.

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

TO ALL PERSONS TO WHOM THESE PRESENTS SHALL COME:

Be it known that I, JOHN MURRAY, of New York, county of New York, and State of New York, have invented a new and useful Improvement in Whistles for Steam and other Engines, and do hereby declare the same is fully described and represented in the following specification and the accompanying drawings, of which—

Figure 1 represents a side elevation.

Figure 2, a vertical section.

This invention relates to a novel arrangement of patterns and cores, by which I am enabled to produce a whistle for steam or other engines in one entire piece, as shown in the drawings; and to effect this object I merely make a core which corresponds in form with the interior of the bell, G, and fills up the space between the end of the bell and the plate, D, the said core having through its centre a hole for formation of the spindle, F. I also make another core corresponding in form with the interior of the base or part B C of the whistle, this latter core having apertures for formation of the plate and cap connections, H H. I next place the pattern, whose form is similar to the exterior of the whistle, (to be cast,) in a sectional flask containing moulders' clay, and, having obtained the desired impression, I now remove the pattern and in the centre of the space thus formed introduce the above-described cores. I next pour the molten metal into the spaces left in the cores and between them and the sand, and thus I produce in one continuous piece a steam whistle.

Having described the nature and manner of producing my invention, I will now describe the production itself.

In the drawings, A represents the hexagonal neck, with female screw B, for connecting the whistle to the dome or boiler of the engine. C is the cup which forms, with the tongue or plate D, the circular aperture or steam exit, E. F is the spindle which sustains the bell, G, of the whistle, and H H are the plate and cap connections. It is a fact well known to engineers and others that the steam whistle in present use, being composed of several pieces, is liable to work loose, become leaky and dangerous, because of the constant jar or vibration of the engine. It is also well known to manufacturers that the parts which comprise the steam whistle require very nice fitting, and are in consequence expensive. These difficulties are obviated by my steam whistle, which I cast altogether and at the same time in one continuous piece, (cored out the hollow portions thereof.) I next turn out the circular aperture or steam exit, E, and finish the exterior, when my steam whistle is now ready to be applied to a steam or other engine, and the same being in one continuous piece will not work loose or become leaky, the ring of the bell, G, more clear and distinct, and can be manufactured for twenty-five per cent. of the cost of steam whistles in present use. The neck, A, may be so cast as to receive the cock or valve, if desired.

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

The above-described whistle for steam and other engines as a new article of manufacture, substantially as and for the purposes set forth.

In testimony whereof I have hereunto set my signature

JOHN MURRAY,

Witnesses:

A. NEILL,

WM. H. SMITH.