

L. S. WHITE.
Kitchen-Boiler.

No. 220,782.

Patented Oct. 21, 1879.

Fig 1.

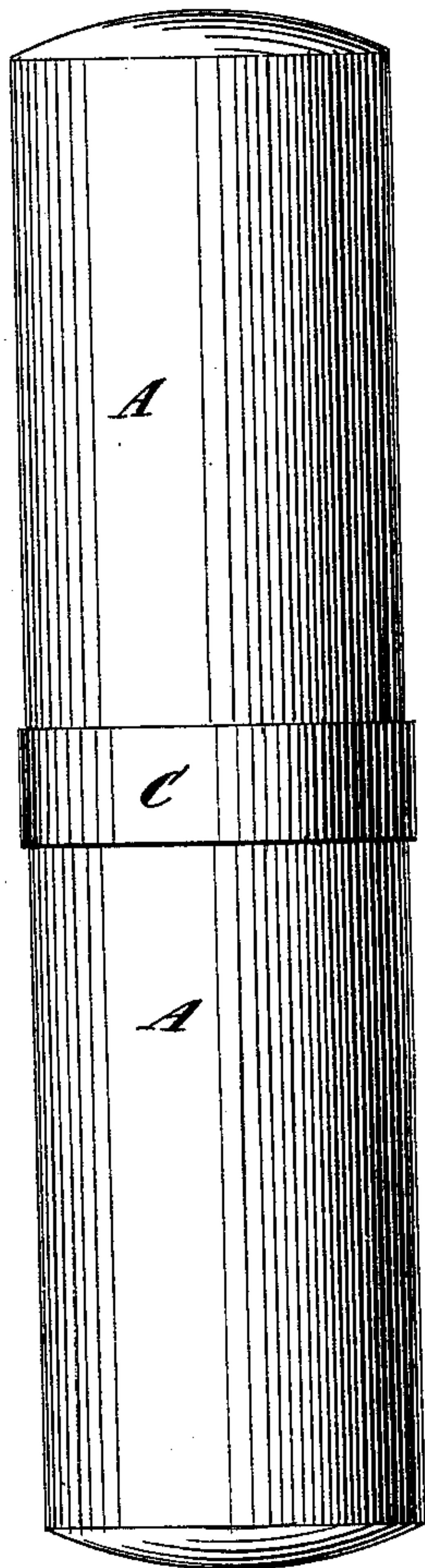
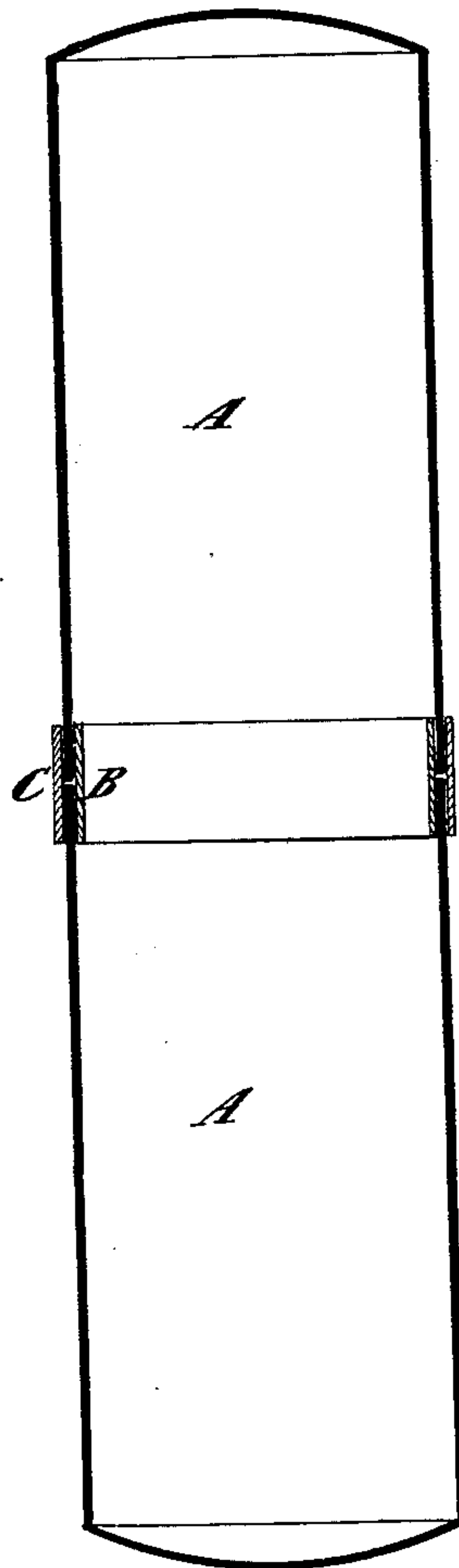


Fig 2.



Witnesses:
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By his Attorney
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UNITED STATES PATENT OFFICE.

LE ROY S. WHITE, OF WATERBURY, CONNECTICUT, ASSIGNOR TO BROWN & BROTHERS, OF SAME PLACE.

IMPROVEMENT IN KITCHEN-BOILERS.

Specification forming part of Letters Patent No. **220,782**, dated October 21, 1879; application filed March 1, 1879.

To all whom it may concern:

Be it known that I, LE ROY S. WHITE, of Waterbury, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Kitchen-Boilers, of which the following is a specification.

My improvements relate particularly to that class of kitchen-boilers which are made of copper or other ductile metal, and are formed wholly or in part by drawing or spinning the same, so as to form a boiler without any longitudinal seam or joint.

The invention consists in a cylinder for a boiler formed in two sections united transversely in a novel manner, each section being preferably provided with a head formed therewith from one piece of ductile metal by drawing or spinning without seam or joint, whereby I produce a boiler of very neat appearance, and one possessing great strength to resist the tendency to collapse, resulting from a diminution of pressure within the boiler.

In the accompanying drawings, Figure 1 represents an outside view of a boiler embodying my invention, and Fig. 2 a central vertical section thereof.

Similar letters of reference designate corresponding parts in both figures.

A A designate the two sections of which the boiler is composed. Each of these sections is represented as composed of a cylindrical body and a head formed in one piece therewith; but, if desirable, the heads may be made independently of the cylinder and secured thereto in any suitable manner. Each section, and preferably also its head, is formed of ductile metal by drawing or spinning the same from one piece without seam or joint, as thereby not only is the boiler prevented from leakage by unequal contraction and expansion, but by the operation of drawing the strength of the metal is greatly increased, and consequently a stronger boiler may be made with a given amount of metal.

The two sections are abutted together at their ends, and are secured, as clearly represented in Fig. 2, by means of a band or ring, B, of metal secured upon the inside of the boiler, and a similar band or ring, C, secured upon the outside thereof. I have shown these bands or rings B C as located at about the

center of the length of the boiler, as thereby the same is greatly strengthened and its liability to collapse from a reduced pressure within it is diminished; but, if desirable, they may be arranged near one end of the boiler.

Before being put together the parts forming the joint are preferably tinned, and after they are put together that part of the boiler is heated and a sweat-joint formed. I may also increase the strength of the joint by inserting screws from the outside of the boiler through the band C and the cylinder of the boiler and into the band or ring B. In this case, however, the screws would be inserted before the sweat-joint was formed, as the tin would run around the screws and render the boiler perfectly tight.

In putting the parts of the boiler together I first insert the band or ring B tightly within one section. I then slip the other section over the band, and afterward I place the band C upon the outside of the boiler, so as to cover and conceal the joint. As before stated that part of the boiler is then heated and a sweat-joint formed.

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

1. A cylinder for a sheet-metal kitchen-boiler composed of two sections, each section formed of ductile metal by drawing or spinning without seam or joint, the two sections being abutted together, and provided with a band covering the joint upon the inside, and another band covering the joint upon the outside, both bands being secured to the sections by means of solder, substantially as specified.

2. A kitchen-boiler composed of two sections, each section comprising a portion of a cylinder and a head formed of ductile metal by drawing or spinning without seam or joint, the two sections being abutted together and provided with a band covering the joint upon the inside, and another band covering the joint upon the outside, both bands being secured to the sections by means of solder, substantially as specified.

LE ROY S. WHITE.

Witnesses:

G. H. CLOWES,
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