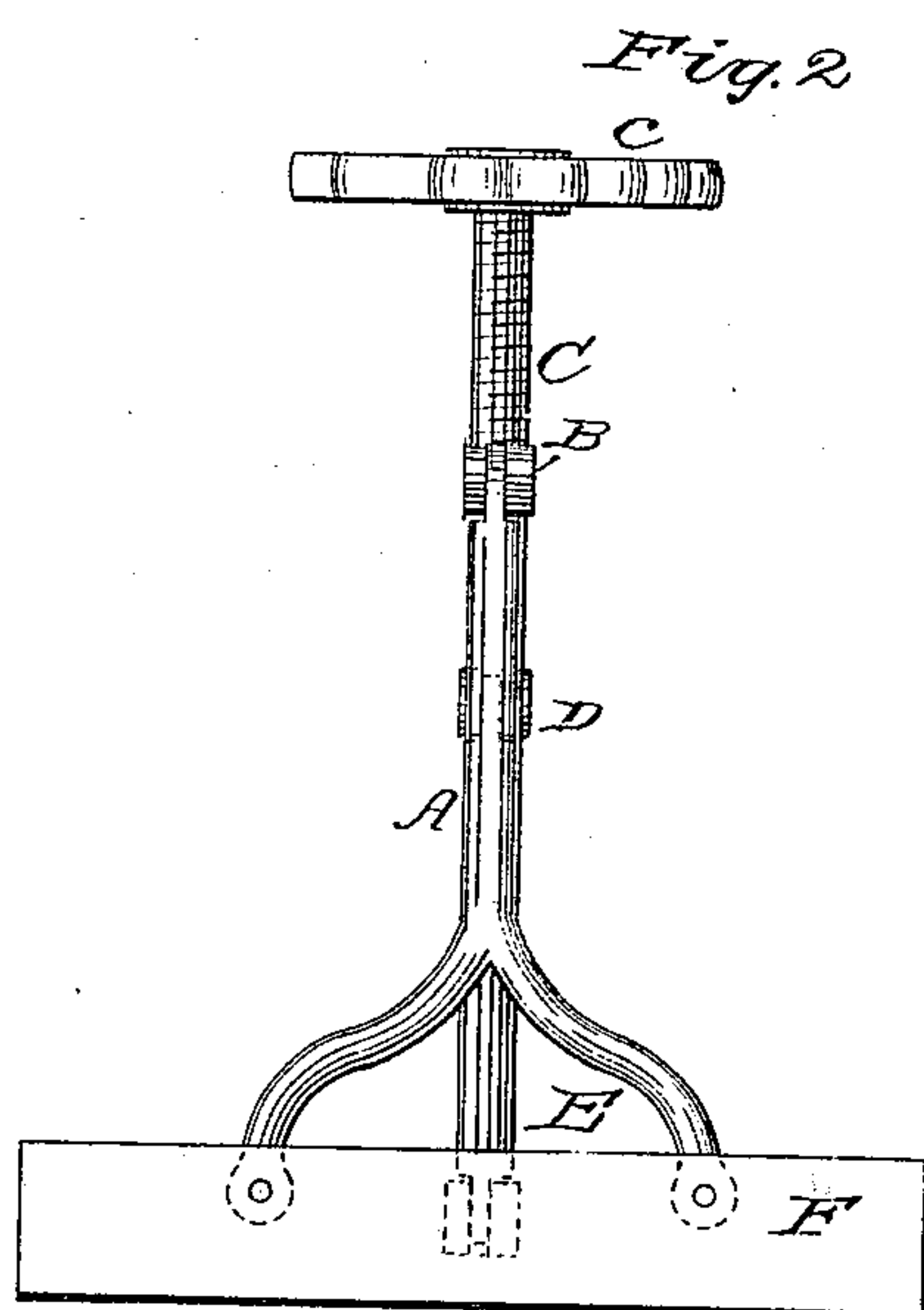
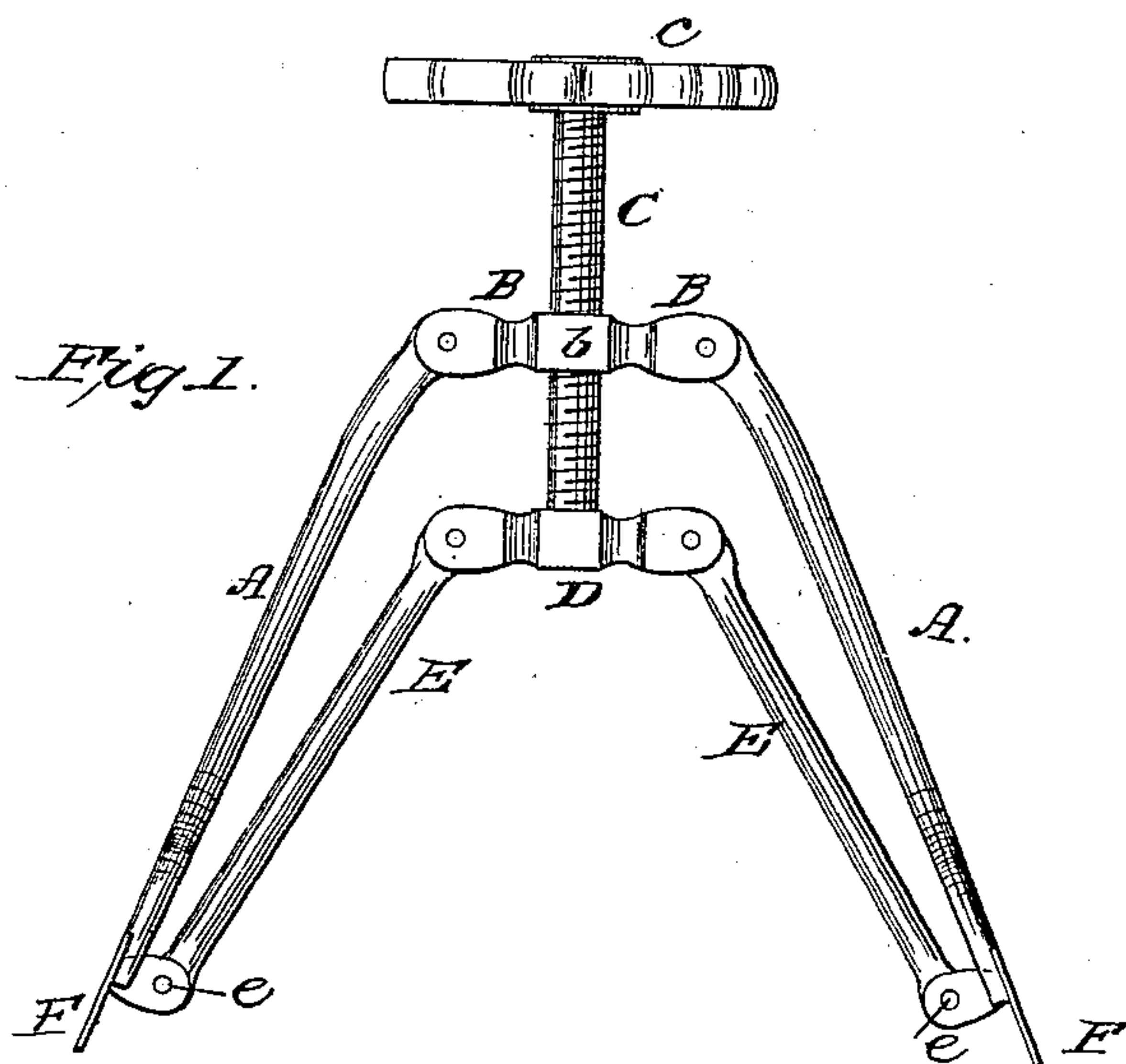


(No Model.)

J. M. URIE.  
TINNER'S TOOL.

No. 265,549.

Patented Oct. 3, 1882.



WITNESSES:

*Alex. L. Dietrich*  
*Chas. R. Burr.*

*James M. Urie*  
INVENTOR,  
*by Louis Bagger & Co.*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

JAMES M. URIE, OF BOULDER, COLORADO, ASSIGNOR OF ONE-THIRD TO  
FREDERICK S. HALL, OF SAME PLACE.

## TINNER'S TOOL.

SPECIFICATION forming part of Letters Patent No. 265,549, dated October 3, 1882.

Application filed August 16, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES M. URIE, of Boulder, in the county of Boulder and State of Colorado, have invented certain new and useful Improvements in Tinner's Tools; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, in which—

Figure 1 is a front view of my tool or apparatus for spreading tinware, and Fig. 2 is a side view of the same.

Similar letters of reference indicate corresponding parts in both the figures.

My invention has relation to tools or devices for spreading the sides of kettles, wash-boilers, and other tinware to facilitate the insertion of the bottom of the same; and it consists in the detailed construction of parts of the tool, hereinafter more fully described and claimed.

In the accompanying drawings, the letters A A represent two arms, which are hinged at their upper ends in a cross-head, B, the middle part, *b*, of which forms a threaded nut for a screw, C, which has at its upper end a turn-wheel, *c*. The lower end of screw C works in a cross-head, D, in the outer ends of which are pivoted arms E E, the lower ends of which are hinged at *ee* to bars F F, attached to the bifurcated lower ends of arms A A. In the present illustration of my invention I have shown the bars F F straight or parallel to each other;

but they may be curved so as to form segments of a circle if the tool is intended to be used for kettles or other tinware having circular bottoms.

After the body of the kettle or wash-boiler has been made, and its lower rim turned to form a flange for receiving the bottom, which has a corresponding flange, this tool or device is placed inside the said body, with its bars F F bearing against the sides of the body, and by turning wheel *c* said bars are spread so as to distend or expand the sides sufficiently to hold the sides firmly in the flange of the bottom, while the said flange and the flange of the body are pressed together. The tool is then removed by turning wheel *c* in the opposite direction, after which the bottom is double seamed to the body in the usual manner.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

The expanding device consisting of the cross-heads B and D, having the hinged arms A A and E E, plates or bars F F, and screw C, constructed and combined to operate substantially in the manner and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

JAMES M. URIE.

Witnesses;

CHAS. M. CAMPBELL,  
H. P. WALKER.