

(No Model.)

G. W. ANDERSON & G. M. HUNTINGTON.
EXPANDING DEVICE FOR USE IN MAKING WASH BOILERS.

No. 485,078.

Patented Oct. 25, 1892.

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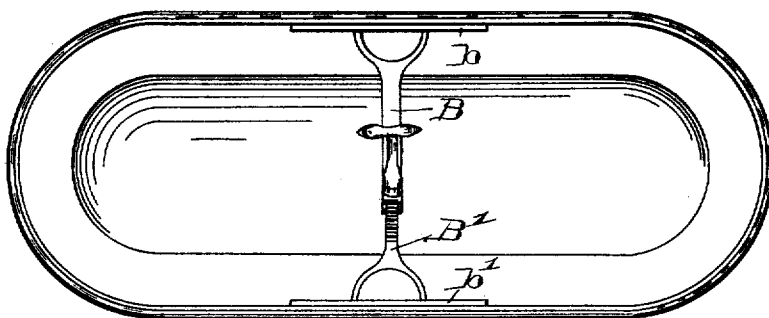
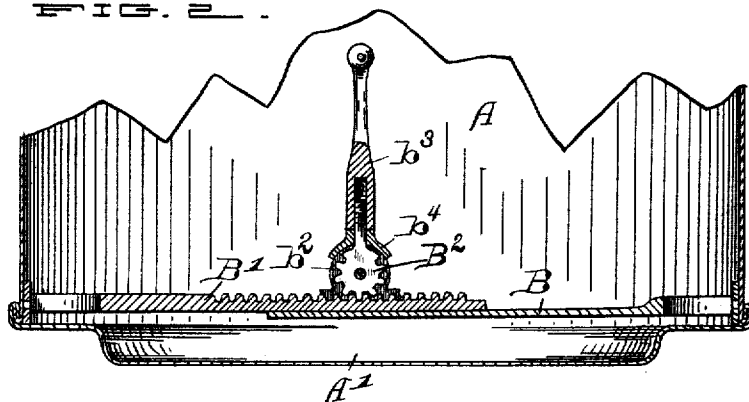
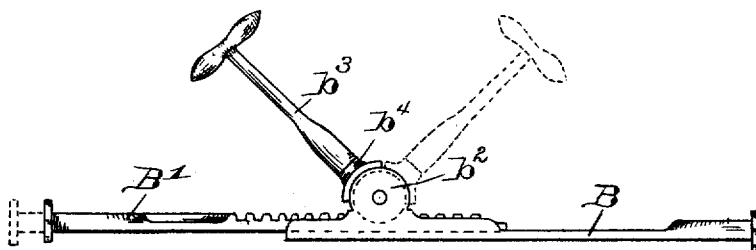


FIG. 2.



FILE - 3



WITNESSES.

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UNITED STATES PATENT OFFICE.

GEORGE W. ANDERSON AND GEORGE M. HUNTINGTON, OF LADOGA, INDIANA.

EXPANDING DEVICE FOR USE IN MAKING WASH-BOILERS.

SPECIFICATION forming part of Letters Patent No. 485,078, dated October 25, 1892.

Application filed November 21, 1891. Serial No. 412,690. (No model.)

To all whom it may concern:

Be it known that we, GEORGE W. ANDERSON and GEORGE M. HUNTINGTON, citizens of the United States, residing at Ladoga, in the county of Montgomery and State of Indiana, have invented certain new and useful Improvements in Expanding Devices for Use in the Manufacture of Wash-Boilers, of which the following is a specification.

In the manufacture of wash-boilers, water-heaters, and such like vessels, usually composed of copper bottoms and tin sides or other suitable sheet-metal parts, the bottom and sides are ordinarily made separate and afterward fitted together. It is necessary in such manufacture to force out the sides of the body and hold them into engagement with the flange around the bottom while being "pinned" or secured together; and our present invention consists in an improved construction of device for this purpose, which is light and convenient to use and inexpensive in construction, all as will be hereinafter more particularly described and claimed.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a top or plan view of a wash-boiler with our improved device for expanding the sides therein in the position it occupies while in use; Fig. 2, a central transverse section through said boiler and expanding device; and Fig. 3, a side elevation of our improved expanding device, different positions being indicated by whole and dotted lines.

In said drawings the portions marked A A' represent the bottom and body of the wash-boiler, respectively, and B B' B² the several parts of our improved expanding device.

The wash-boiler shown is or may be of any ordinary or desired construction, being only illustrated to better illustrate the use of our expanding device. The bottom A' is formed with the flange around its edge, as usual, and the body A is fitted within said flange, with which a flange on its lower edge interlocks, and is held in close contact therewith by said expanding device. The expanding device consists of the two bars B B', having clamping-jaws b b', respectively, on the outer ends. One of said bars (the bar B, as shown) is provided with ears b² on each side near its inner

end, between which the inner end of the other bar is mounted and adapted to slide. Said other bar B' is preferably formed with a rack on its upper face, and a circular or segmental rack B² is pivoted between the ears b² and adapted to engage therewith. Said circular rack B² is provided with a shank or stem on its upper side, the upper end of which is screw-threaded and on which a handle b³ is mounted, which handle is formed with a central screw-threaded perforation which engages with said screw-threaded end, thereby adapting said handle to be moved up and down on said shank. Interposed between the lower end of said handle and the ears b² is a collar b⁴, with an enlarged and concave lower face adapted to impinge when forced down against the upper edges of the ears b² to secure the parts in the adjusted position. The clamping-jaws b b' are preferably made of springy material, which will permit them to bend back to fit against uneven or curved surfaces when desired, or, as will be readily understood, they may be made of any form or curvature desired instead of straight; but we prefer to make them normally straight and of material of sufficient elasticity to permit them to adjust themselves against whatever surfaces they are forced into contact with.

The operation of our said invention is as follows: It being desired to secure a body into the bottom of a boiler by "pinning" or any other process, said body is fitted within the upturned flange of said bottom and the flanges interlocked. The expanding device is then placed within the boiler, the parts being so adjusted that it will slip in loosely and the handle b³ thrown back, which operates the circular rack to throw the bar B' forward and expand the sides of said body to the position desired. Said sides being forced out to the extent desired, said handle b³ is given a turn on the shank, which by reason of the screw-threaded connection operates to force the collar b⁴ down tightly upon the upper edges of the ears b² with sufficient force to hold said parts while being secured together, which being accomplished the device is removed by simply turning back the handle b³ and throwing it forward to release the clamping-jaws from the sides.

Having thus fully described our said inven-

tion, what we claim as new, and desire to secure by Letters Patent, is—

1. An expanding device for use in the manufacture of wash-boilers, &c., consisting of two bars, each carrying a clamping-jaw upon its outer end, the inner ends of which are formed to slide one within or upon the other, and a lever pivoted to one and arranged to engage with the other for securing the desired adjustment, the handle of said lever being adjustable toward or from said bars, whereby it may be forced to impinge upon one to hold said parts in the desired adjustment, substantially as set forth.

2. In an expanding device for use in the manufacture of wash-boilers, &c., the combination of the two parts B and B', each having a clamping-jaw upon its outer end, the part B being provided with the ears b^2 on its sides near its inner end, the inner end of the bar

B', formed with a rack on its upper face and mounted between said ears, the rack B³, pivoted between said ears and arranged to engage with said rack on the bar B', the shank extending up from said rack with a screw-threaded upper end, and a handle provided with a screw-threaded perforation mounted on said shank, and the collar b^4 , with its lower face arranged to engage with the upper edges of the ears b^2 , all substantially as described, and for the purpose as specified.

In witness whereof we have hereunto set our hands and seals, at Ladoga, Indiana, this 7th day of November, A. D. 1891.

GEORGE W. ANDERSON. [L. S.]
GEORGE M. HUNTINGTON. [L. S.]

Witnesses:

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JAMES F. HARVEY.