(No Model.)

W. M. TOWNER.

CRUCIBLE TONGS.

No. 346,136. Patented July 27, 1886.

FIG. 1.

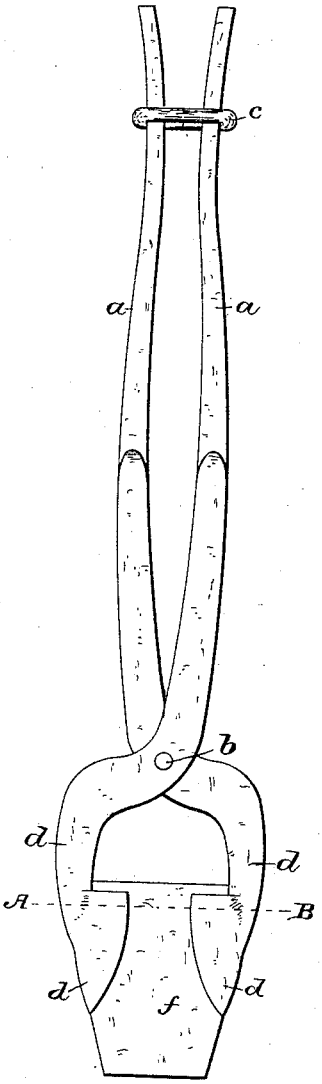


FIG. 3.

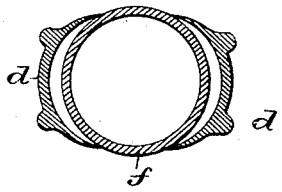


FIG. 4.

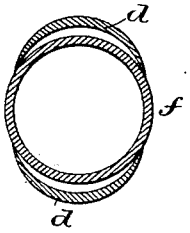
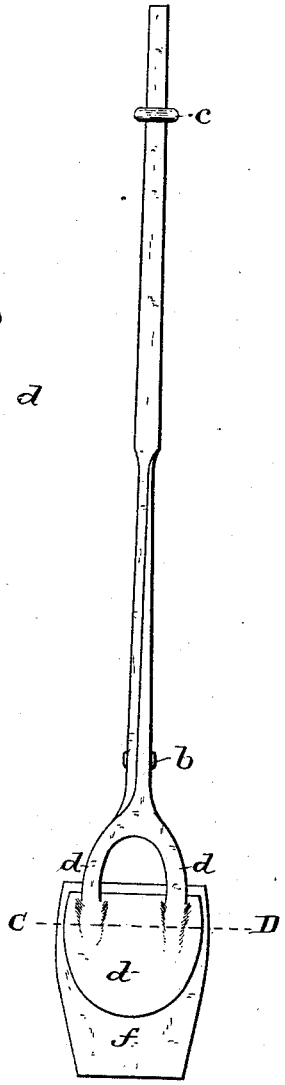


FIG. 2.



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CRUCIBLE-TONGS.

SPECIFICATION forming part of Letters Patent No. 346,136, dated July 27, 1886.

Application filed March 16, 1886. Serial No. 195,381. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM M. TOWNER, a citizen of the United States, residing at Stamford, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Crucible-Tongs, of which the following is a specification.

The object of my invention is to provide a pair of crucible-tongs which shall be better adapted to withstand a maximum of heat without losing their shape, and which shall also enable the operator to work the crucible with greater ease, precision, and safety, and less liability to breakage.

In the drawings, Figure 1 is a front elevation of my crucible-tongs in operative position upon a crucible. Fig. 2 is a side elevation of Fig. 1. Fig. 3 is a section taken upon the line A B of Fig. 1, and Fig. 4 is a section taken upon the line C D of Fig. 2.

a denotes the handles or reins of the tongs pivoted at *b*. *c* is a suitable coupler; *d*, the jaws of the tongs, and *f* a crucible.

The jaws *d* are first turned outwardly from their pivotal point at right angles to the reins, as shown in Fig. 1. They are then turned at right angles, and are bifurcated, the prongs running parallel to the reins and terminating in spoon-shaped arcs with concave faces or bits, as shown in the drawings, giving, when applied to a crucible, an air-space between the crucible and jaws, as shown in Figs. 3 and 4. The bearing-surface of the jaws upon the crucible extends uniformly about the air-spaces, excepting at the top, which is open to admit the air. The reins or handles *a* are pivoted, and may be made in the usual manner; but I prefer the construction shown in the drawings.

The spoon-shaped arcs of the jaws grasp the crucible at, above, and below and about its greatest circumference, approaching nearly the top of the crucible, as shown in Fig. 1. The furcated part of the jaws extending below the top of the crucible, as shown in Fig. 2, admits the air from the side and below the top of the crucible to the air-spaces, the heated air from the crucible and its contents escaping upward. The bearing-surface of the jaws distributes the pressure equally over a large surface of the crucible, not only near the top, as in the old form of tongs, but down and about the sides of the crucible, where there is greater resistance to the pressure of the jaws.

My tongs may be coupled in position upon a crucible with little, if any, pressure, as the spoon-shaped arcs of the jaws embrace the crucible at above and below its greatest circumference, supporting and preventing the downward escape of the crucible, the arc shape preventing its lateral escape, while the purchase given near the top of the crucible affords the operator better control when pouring its contents into the flask, often avoiding the necessity of using a shank to guide and support the crucible.

My tongs may be made in sizes to suit the extremes in the sizes of crucibles, though in crucibles not materially varying in size the same tongs may be used, provided the spoon-shaped arcs of the jaws are of the arc of a circle smaller than the outer circumference of the crucible at its greatest diameter.

The air-spaces admit the air through the furcated jaws below the top of the crucible, and keep the tongs from being overheated and losing their shape.

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

1. In combination with a crucible, a pair of crucible-tongs having spoon-shaped jaws *a*, adapted to conform to the contour of a crucible at above and below its greatest circumference, and affording ventilated air-spaces between the crucible and jaws, substantially as and for the purposes shown and described.

2. A pair of crucible-tongs having dished or concaved jaws adapted to conform to the sides of a crucible and affording an air-space between the crucible and jaws ventilated below the top of the crucible, substantially as shown and described.

3. A pair of crucible-tongs with bifurcated jaws *a*, terminating in spoon-shaped arcs with concave faces or bits, giving an air-space between the crucible and jaws and a uniform lateral and horizontal bearing down and about the sides of the crucible at, above, and below its greatest circumference.

WILLIAM M. TOWNER. [L. S.]

Witnesses:

WILLIAM BREWER,

HENRY WHEELER.