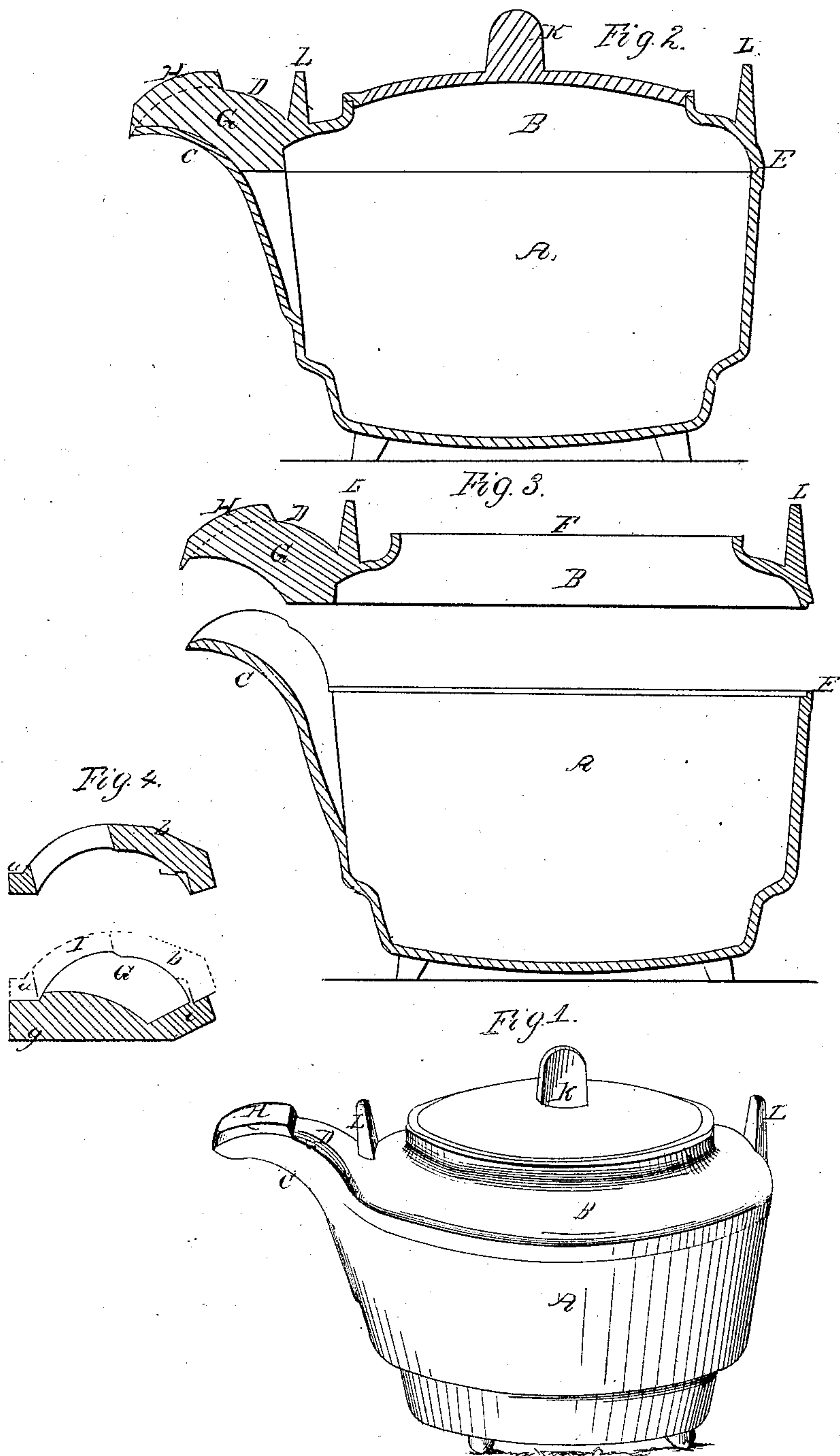


W. H. Pease,

Molding Tea-Kettles.

No 8,471.

Patented Oct. 28, 1851.



# UNITED STATES PATENT OFFICE.

WEBSTER H. PEASE, OF DAYTON, OHIO.

## IMPROVEMENT IN THE METHOD OF MOLDING KETTLES WITH SPOUTS.

Specification forming part of Letters Patent No. 8,471, dated October 23, 1851.

*To all whom it may concern:*

Be it known that I, WEBSTER H. PEASE, of Dayton, in the county of Montgomery and State of Ohio, have invented a new and useful Improvement in Molding Tea-Kettles; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification.

Figure 1 is a perspective view of the pattern for molding the tea-kettle; Fig. 2, a central vertical section of the same; Fig. 3, a sectional view of the lower and upper parts of the pattern for the body, the lid removed and parts separated; Fig. 4, a section of the core-box for the spout, the parts separated.

In constructing my pattern for molding the body of the tea-kettle, I divide it horizontally in the usual manner—viz., at the swell or upper portion of the body, placing the spout at the swell, instead of inserting it near the bottom. By this form I am the better prepared to introduce my mode of forming the molding-pattern.

The nature of my invention and improvement consists in providing the upper part of the pattern of the body of the kettle with two projections, one placed on the under side of the spout portion of said pattern, to prevent sand entering the spout when forming the green core of the body, and the other projection on the upper side of the spout, for forming a print in the sand to receive a projection of a dry-sand core, (formed in a core-box,) by the use of which in connection the said dry-sand spout-core can be inserted in the drag portion of the mold after the removal of the upper part of the pattern, but before the removal of the lower part of the pattern, and be held firmly in its required position, by which means the lower pattern is made to adjust the spout-core, and greater truth secured in setting the spout-core, and fewer defective casts result; also, in the facility of molding the kettle and dispensing with an anchor or sprig required in other modes to keep the spout-core in its place, as the print in the mold formed by H on the upper side of the spout of the pattern forms a receptacle or indent for the square projecting portion I of the dry-sand spout-core.

The following is a description of the pattern:

K is the lid; L L, the ears for the handle; A, the lower portion of the pattern of the body, with a rim, E, in the usual manner for making a joint. To this the under side, C, of the spout is attached. B, the upper portion of the body, having the remaining side D of the spout, which is provided on its under side with a solid projection, G, fitting the hollow of the spout, and preventing the sand used in forming the green core for the body of the kettle entering, thus preserving the hollow in the mold for the after insertion of the spout-core, the upper part, or H of G—that above the dotted line—forming a projection and print for the reception of the projection I on the dry-sand core formed in the spout-core box, Fig. 4, of which *z i* is the lower, and *a b* the upper part of the core-box. G' is the hollow for the reception of the sand introduced through I, the projecting portion of the spout-core entering the H print, also forming the opening of the spout.

The molding is as follows: Place A (the lower part of the pattern) in a reversed position (viz., with the feet of the kettle up) on a suitably-formed follow or molding board, surround it with the cope, a part of the flask, and fill the space with sand between the outside of A and the sides of the cope. Then reverse the cope and pattern still remaining and make a parting at E, the upper edge of A, in the usual manner. Now replace B (the upper part of the pattern) on A, surround it with the drag or other portion of the flask, and fill the inside of A and B with sand, make a parting across the inside of B at F, the top of the pattern thus forming the green core for the body of the kettle, but divested of the spout, fill up outside of B and above F level with the top of the flask, the space between the pattern and the sides of the flask, the parting at F preventing the green core of the body joining the drag portion of the mold outside or above B, and the projection H on the outside of the spout, attached to B, forming a print or indentation in the sand for the reception of the projection I of the dry-sand core made in the core-box G' I. Lift the drag from the cope, turn it up, and remove B of the pattern, insert the dry-sand spout-core G' I, placing I in the print made in the sand of the drag by H, return the cope containing A to its first position, placing it on the drag carefully, by



which the core for the spout will be adjusted. Now lift off the cope, but leaving the pattern A on the drag, which is afterward removed, make the proper gate in the cope, replace it on the drag, and it is ready for casting.

Having thus described my method of molding tea-kettles, I do not claim any peculiarity either in dividing the pattern or using a green-sand core; but

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

Providing the pattern B with two projecting or solid pieces, one, G, on the under side of the spout portion D, to prevent sand entering the spout when forming the green core of the body, and the other, H, on the upper side of the spout D, for forming a print in the sand to receive the projection I of a dry-sand

core, G' I, by the use of which in connection the said dry-sand spout-core G' I can be inserted in the drag portion of the mold after the removal of B, but before the removal of A, and be held firmly in its required position, by which means the pattern A is made to adjust the spout-core, and greater truth secured in setting the spout-core, and fewer defective casts result, in the manner set forth substantially in this specification and accompanying drawings.

In testimony whereof I have hereunto signed my name before two subscribing witnesses.

W. H. PEASE.

Witnesses:

JOHN F. CLARK,

A. E. H. JOHNSON.