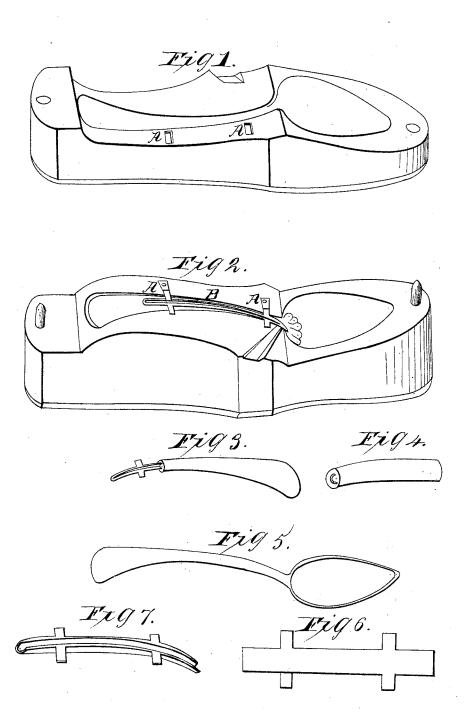
## R. Wallace,

## Making Metal Spoons.

Nº 5,470.

Portented Mar. 14, 1848.



## United States Patent Office.

ROBERT WALLACE, OF NORTH HAVEN, CONNECTICUT.

## IMPROVEMENT IN THE MANUFACTURE OF SPOONS.

Specification forming part of Lefters Patent No. 5,470, dated March 14, 1848.

To all whom it may concern:

Be it known that I, ROBERT WALLACE, of North Haven, in the county of New Haven and State of Connecticut, have invented a new and useful improvement in the manufacture of spoons from block tin or other fusible metal by inclosing in the center of the handle a piece or strip of tin-plate or other suitable metal made concave or tubular by a drop in suitable dies or otherwise, so as to raise the edges of said piece or strip and form a groove, giving strength against a strain upon the handle in any way.

To enable others skilled in the art to make and use my improvements, I describe the same and the operation as follows, referring to the drawings accompanying this specification as

part thereof, viz:

My mold is mostly in common form.

Figure 1 represents the core, and Fig. 2 the shell, of the mold.

In Fig. 2, at B, is seen the strengtheningplate in place, curved to suit the bend of the handle, (made concave and the edges turned up,) and held in place by braces from the sides of the plate, resting in mortises in the sides of the molds, as seen at A A in Figs. 1 and 2, and not touching the molds while closing the same and casting. These braces, when the casting is made, are clipped off close to the handle, and the spoon is ready for finishing.

Figs. 3 and 4 represent sections of the handle, showing the strengthening-plate inclosed.

Fig. 5 represents a strengthening - spoon finished. Fig. 6 represents a flat plate, and Fig. 7 a concave plate as made by the dies.

The advantages of this improved mode of strengthening spoon-handles are as follows, viz: The concave strengthener can be made of strips of tin plate double the width of any that

can be used flat, and will give more than double the strength, operating as it does equally in every direction, whereas the flat strength-ener adds very little resistance to the up and down strain. Again, the concave plate not being liable to bend or spring, is free from that trembling in the mold which renders difficult the inclosing either the wire or the flat plate. The concave plate is preferable to the wire, inasmuch as when made (as it may be) of sheet-tin the fusible metal will readily and strongly adhere to it; and, furthermore, the material of which it is thus made is cheaper than wire and inclosed at less expense. It also gives greater strength to the handle of a spoon, as may be readily ascertained by comparing specimens of both kinds of manufacture.

I do not claim as my invention the strengthening of spoon-handles by inclosing therein either a wire or a flat piece of tin or other metal, the latter mode having been used by me in years past and found not to answer the

purpose; but

I do claim as my invention and desire to se-

cure by Letters Patent-

The inclosing in the center of the handle of a spoon, for the purpose of strengthening the same, a strip or piece of tin-plate or other suitable metal in concave, grooved, or tubular shape, or in any shape whereby one or more edges of the said strip or piece will be made to resist the up and down strain of the handle, said strip or piece having been first formed or shaped by a drop in suitable dies or otherwise, and curved to suit the bend of the handle, as seen in Fig. 7, all in manner and form substantially as above described.

RÖBERT WALLACE.

Witnesses:

AUGUSTUS HALL, 2d, EDGAR ATWATER.