D. SHERWOOD.

Attaching Rim to Wire Articles.

No. 213,699. Patented Mar. 25, 1879.

Fig. 1

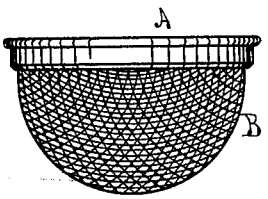


Fig. 2

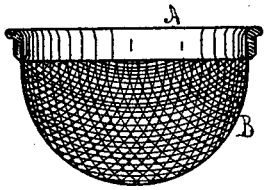
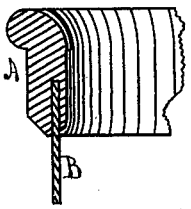


Fig. 3



Witnesses

Wm. S. Brown

Henry F. Welch

Inventor

Daniel Sherwood

by David Hall Rice

His Atty.

UNITED STATES PATENT OFFICE.

DANIEL SHERWOOD, OF LOWELL, MASSACHUSETTS, ASSIGNOR TO WOODS, SHERWOOD & CO., OF SAME PLACE.

IMPROVEMENT IN ATTACHING RIMS TO WIRE ARTICLES.

Specification forming part of Letters Patent No. **213,699**, dated March 25, 1879; application filed November 15, 1878.

To all whom it may concern:

Be it known that I, DANIEL SHERWOOD, of the city of Lowell, county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Attaching the Bands or Rims to Receptacles formed of Woven Wire, of which the following is a specification:

My invention consists in applying to the raw edge of the woven wire, after it is bent into the form of the strainer or receptacle to be produced, a rim or band of metal, so that the woven-wire ends shall be embedded in the body or substance of a cast metallic band, and thus the parts be united more firmly to each other, and held more firmly in the position which they are intended to have, than by the ordinary methods of constructing such a receptacle with its attached band or rim, as well as attaching the same cheaply and almost instantaneously.

In the drawings, Figure 1 exhibits an elevation of a wire strainer and its band, constructed according to my invention. Fig. 2 represents a vertical section of the same; and Fig. 3 represents an enlarged view of the metallic band and one of the wires of the strainer connected with it.

Heretofore it has been customary to unite the body of the strainer or similar article to its metallic band or rim by constructing them separately and soldering the wire body of the strainer to the surface of the metal band, or between two of its surfaces when it has been previously bent or spun into form, so that the wire-body can be placed between two such surfaces. By either of these methods it has been found impossible to unite the rim and body of the strainer together with proper solidity or neatness and smoothness where the parts joined, owing to the fact that the wire-gauze will not receive the solder properly in its meshes, and cannot be firmly united to the metallic band or rim, as two smooth pieces of metal can be united by soldering; neither can the solder, when applied over the wire meshes, be rendered smooth and finished in appearance without great expense and trouble. Besides this, such wire strainers and like receptacles are frequently used in preparing articles of food or drink which are of a nature to operate upon the material of which the solder is formed and produce poisons, which, contaminating the food or drink, are deleterious to the consumer, and this necessarily results from any combination of metals which can be used for soldering the bands or rims upon such articles.

By my improvement all these difficulties are avoided, and a much stronger, cheaper, and more finished article is produced, containing no metallic parts which will produce poisonous effects when used.

A is the metallic rim of the strainer; B is the wire-gauze body.

I construct this rim by forming a mold which is made to close on the lower side, which forms the top edge of the rim, and which is interiorly of the shape of the exterior of the rim A in reverse, the rim being intended to be formed in the mold with its top edge downward. This mold is made with an annular opening in its top, of the size of the upper edge of the re-receptacle-body B, so that when bent into form the annular edge of the woven-wire body B may be inserted into the mold through its corresponding annular opening, the wire body part B being inverted for that purpose. Otherwise than as described, the mold is made in the usual manner.

I then take such metal as may be desired, and, having melted it, I invert the wire body part B of the strainer, and cause its edge to project through the annular opening into the mold. I then pour the melted metal into the mold, which, filling the mold, forms the rim A, and joins it to the wire body part B of the strainer at a single operation, the metal of the rim flowing through every part of the wire meshes of the body B and uniting with the latter, so as to be practically inseparable from it without the destruction of both parts on account of the great amount of heat which is attainable at the instant of the juncture of the metal with the wire body B. Immediately upon the rim A being formed in this way, it cools so rapidly that no injury can be done by its heat to the wire-gauze or its coating or finish, as would be the case if such heat were held by the metallic ring for any considerable length of time, it being understood that the wire-gauze is coated with metal before the rim

is formed upon it. The amount of heat which can be given to the metal before the rim A is cast from it, as described, permits of a metal being used upon which the acids of articles of food prepared by the use of the strainer can have no effect, such metal requiring a higher degree of heat than ordinary solder, which is applied by the common soldering process, in order to cause a perfect union between the band A, made of such metal, and the wire-gauze body B.

The advantages of this method of constructing and uniting the solid edge or rim part to the wire-gauze part of utensils is obvious, as well as the great economy of the operation. The wire-gauze edge of the body imparts additional strength to the rim A, and prevents its being readily bent out of shape when formed in this manner.

What I claim as of my invention is—

A strainer or receptacle consisting of a seamless body, having its edge inclosed by a continuous rim cast thereon, substantially as described.

DANIEL SHERWOOD.

Witnesses:

DAVID HALL RICE,

C. U. LATHAM.