

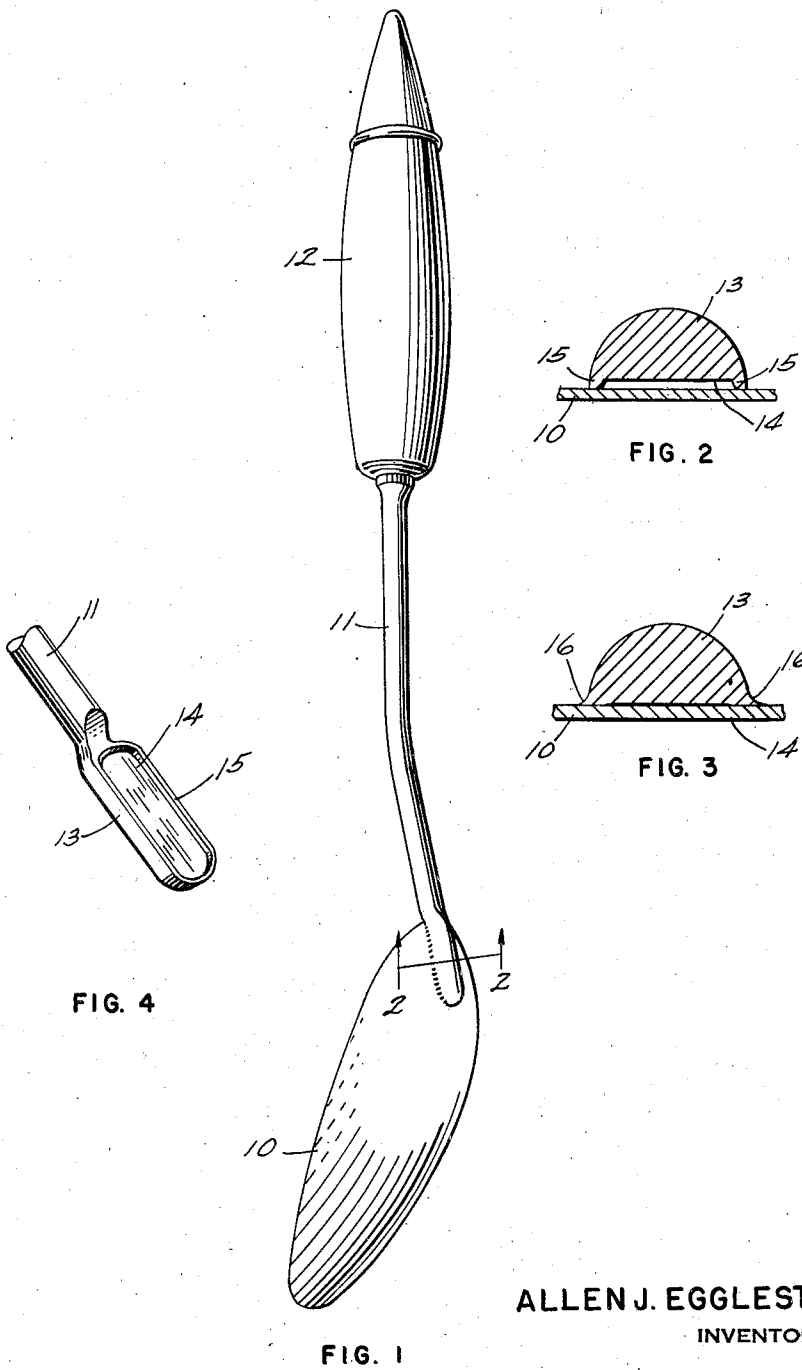
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A. J. EGGLESTON

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METHOD OF MAKING A KITCHEN TOOL

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ALLEN J. EGGLESTON  
INVENTOR

BY  
*Davis, Lindsey, Smith & Shonta*  
ATTORNEYS

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## METHOD OF MAKING KITCHEN TOOLS

Allen J. Eggleston, Chicago, Ill., assignor to Ekco Products Company, Chicago, Ill., a corporation of Illinois

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1 Claim. (Cl. 76-105)

1

The invention relates generally to a method of making kitchen tools more particularly to making a kitchen tool of the type comprising a sheet metal food-contacting portion rigidly secured to a metal stalk or shank having a handle.

The general object of the invention is to provide a novel construction for a kitchen tool of the foregoing character, providing a connection between the sheet metal portion and the stalk, which is free of all crevices and sharp corners where dirt or grease could collect, thereby rendering the tool readily maintained in a clean, sanitary condition.

More specifically, it is an object to provide a novel construction for a kitchen tool of the foregoing character, comprising a stalk formed with a head welded to the sheet metal portion of the tool, the welding extending around the entire rim of the head to completely close any space therebetween and resulting in a fillet connecting the head and sheet metal to avoid a sharp corner therebetween.

Another object is to provide a novel construction for a kitchen tool of this type, in which the sheet metal portion and the head of the stalk are welded around the entire rim of the latter so that the assembled parts may be plated without chance of any plating solution lodging between the head and sheet metal portion to cause corrosion therein.

A further object is to provide a novel method of welding the head of the stalk of a kitchen tool of this type to the sheet metal portion in such manner as to avoid all dirt-collecting crevices or corners.

Other objects and advantages will become apparent from the following description taken in connection with the accompanying drawing, in which:

Figure 1 is a perspective view of a kitchen tool embodying the features of the invention.

Fig. 2 is an enlarged transverse section taken approximately on the line 2-2 of Fig. 1 and showing the parts before being secured together.

Fig. 3 is a view similar to Fig. 2, showing the parts after they are secured together.

Fig. 4 is a fragmentary perspective view of one of the parts.

The present invention relates to kitchen tools, such as cake turners, spatulas, spoons, ladles, or forks. Tools of this character comprise generally a stalk having a handle mounted at one end thereof, with the other end of the stalk secured to a food-contacting member made of sheet metal. Throughout the specification and in the claims, 55

2

I have referred to such food-contacting member as being a blade. However, the term "blade" is used herein with sufficient breadth to include the flat sheet metal member of a cake turner or spatula, or the bowl member of a spoon or ladle, or the tine member of a fork, as well as other similar parts.

In making tools of this general character, one method heretofore frequently employed is to rivet the stalk to the blade. Such method has a number of objections, among which is a lack of sufficient strength and, therefore, a tendency for the tool to break at the point of riveting, unless the riveting is perfectly formed. Another objection is that the riveting is provided by small bosses formed on the head of the stalk, thus leaving a slight space between the head and the blade in the area around the bosses. If the tool is to be plated, the solutions used in plating will seep into such space and usually will not be thoroughly cleared therefrom. This may induce corrosion in the space, eventually resulting in breakage. In use, the presence of such a space permits grease and dirt to lodge therein, which cannot be removed in washing the tool. Such a construction is, therefore, objectionable from the sanitary standpoint.

Another method, heretofore frequently employed, of securing the stalk to the blade is to provide current concentrating bosses within the area of the head of the stalk, and welding the head to the blade, the actual weld occurring only within the area of such bosses. This again is subject to the same difficulties and objections of the riveted form, since plating solutions can enter the space between the head and the blade outside of the points of welding, to start corrosion, and in use grease and dirt can enter such space. In some instances, the difficulty of corrosion resulting from the plating operation has been eliminated by separately plating the two parts. This, however, has objections, since it requires separately handling two parts, it necessitates use of detachable anti-nesting devices in plating the blade or bowl member, and it may result in marring the plating when the two parts are riveted or welded together.

The present invention provides a construction which eliminates these difficulties and, at the same time, provides a rigid connection between the head of the stalk and the blade. Such construction utilizes welding to secure the two parts together but completely closes the space between the head of the stalk and the blade. It further provides a fillet connecting the head and the

blade, and thus eliminates sharp corners from which grease and dirt cannot readily be removed.

In the drawing, I have disclosed a spoon to illustrate the invention. Thus, as shown in Fig. 1, the spoon is disclosed as comprising a bowl 10 (herein more broadly referred to as a blade), a stalk 11 secured at one end to the bowl 10 and having a handle 12 rigidly secured at its other end. The stalk 11 is provided at the blade-securing end with a head 13 provided with a flat surface 14 adapted to be placed in face-to-face relation with one face of the bowl 10. The head 13 is adapted to be welded to the bowl and, since the area of the surface 14 is much larger than can be practically welded throughout its entire area, current concentrating means is provided on the surface 14 to concentrate the welding current into a relatively small area and thus permit attainment of a welding temperature without excessive use of current.

In the present instance, the current concentrating means is so formed as to result in complete closure of any space between the surface 14 and the bowl 10, as well as to eliminate any sharp corner therebetween. To this end, the current concentrating means is in the form of a rib 15 extending around the entire rim or periphery of the head 13. The rib 15 can readily be formed in the same operation by which the head 13 is formed. The head 13 is then placed against the surface of the bowl 10 with the rib 15 providing the contact therebetween, as illustrated in Fig. 2. The welding is performed under pressure, tending to force the head 13 and bowl 10 together so that, as the rib 15 becomes heated by the welding current, the resulting plasticity thereof at the welding temperature will result in the rib being forced outwardly to form a fillet, indicated at 16 in Fig. 3, extending around the entire periphery of the head 13. Such fillet eliminates any sharp corner between the head and the bowl and, since the rib becomes integral with the bowl by being welded thereto, any space between the bowl and the head is completely closed around the entire periphery or rim of the head.

The result of the foregoing construction is that, should it be desired to plate the article, no plating solution can enter between the head 13 and the bowl 10 since it is sealed around the entire periphery. By plating the article after the blade and stalk are welded together, separate handling of these two parts is avoided, and no anti-nesting devices are required in the plating since the shape of the complete article prevents such nesting.

The cost of manufacture is thereby reduced. Also, since there is no riveting or welding to be performed after the plating operation, there is less chance of the plating becoming marred. Moreover, the construction similarly prevents grease and dirt from entering therebetween and further eliminates a sharp corner between the head and the bowl, which would be very difficult to keep clean. The construction is such that it may be readily manufactured since the head 13 with its rib 15 can be formed as easily as a head with riveting portions or with small boss-like current concentrating portions as heretofore employed. The bowl requires no special forming operations other than the provision of a substantially flat surface to contact the rib 15. The elimination of any tendency for plating solution to remain between the head and blade, or for dirt and grease to collect therein, prevents corrosion and, therefore, has an obvious advantage over construction heretofore employed. The avoidance of a sharp corner between the head and the blade also permits the tool to be kept clean at such point without effort.

I claim:

The method of making a kitchen tool comprising a blade and a stalk, which comprises forming the blade with a stalk-engaging portion coplanar with the remainder of the blade, forming a flat-faced head on one end of the stalk with a rib projecting substantially perpendicularly from the flat face and extending throughout the periphery of said flat face, placing said head against said stalk-engaging portion of said blade with the rib engaging the surface of said portion, and welding the head and blade together under pressure to force the metal of the rib outwardly and thereby form a fillet sealing the entire rim of the head and elimination a sharp corner at the juncture of the head and blade.

ALLEN J. EGGLESTON.

#### REFERENCES CITED

The following references are of record in the file of this patent:

#### UNITED STATES PATENTS

Number	Name	Date
225,789	Benjamin	Mar. 23, 1880
239,139	Boardman	Mar. 22, 1881
904,540	Lachman	Nov. 24, 1908
979,970	Lachman	Dec. 27, 1910
2,105,007	Ready	Jan. 11, 1938
2,176,436	Ready	Oct. 17, 1939