(No Model.) 2 Sheets—Sheet 1.

A. WOLFF.

METHOD OF MAKING METAL MOUNTS FOR BRUSHES, &c.

No. 492,177. Patented Feb. 21, 1893.

Fig. 1

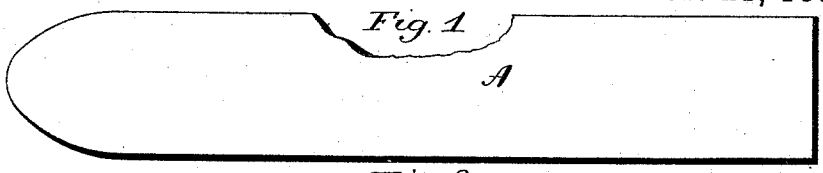


Fig. 2

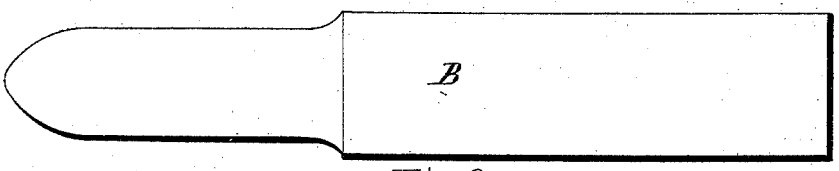


Fig. 3

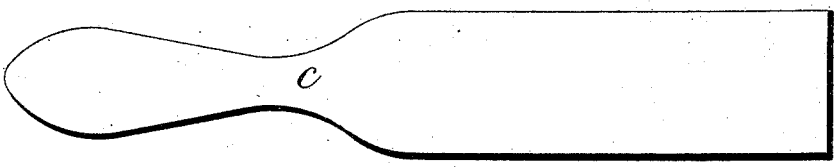


Fig 4

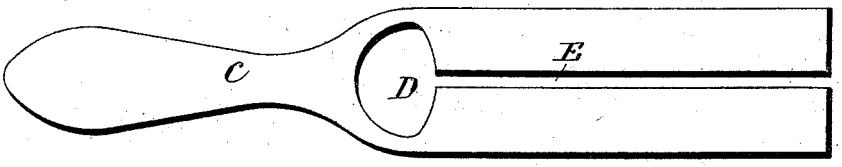
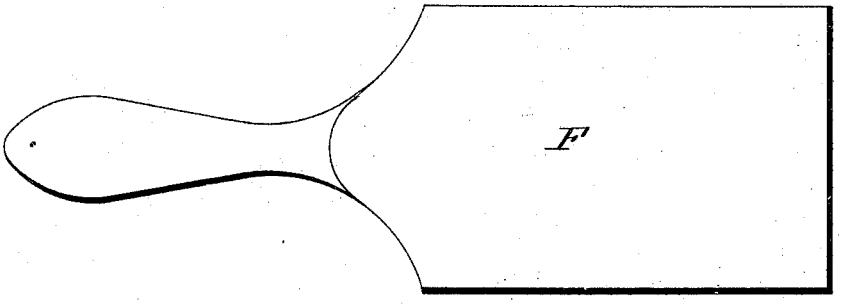


Fig. 5



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(No Model.) 2 Sheets—Sheet 2.

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METHOD OF MAKING METAL MOUNTS FOR BRUSHES, &c.

No. 492,177. Patented Feb. 21, 1893.

Fig. 6

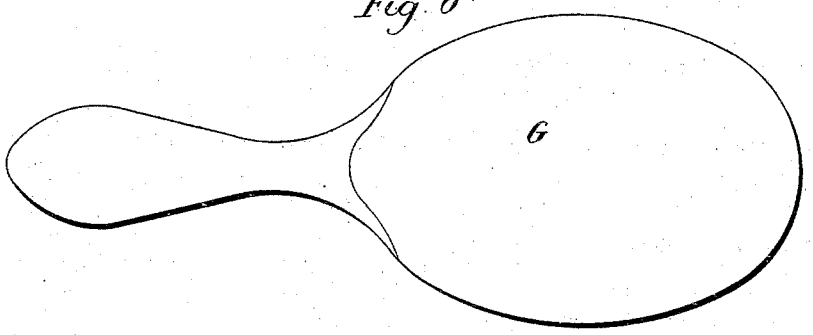


Fig. 7

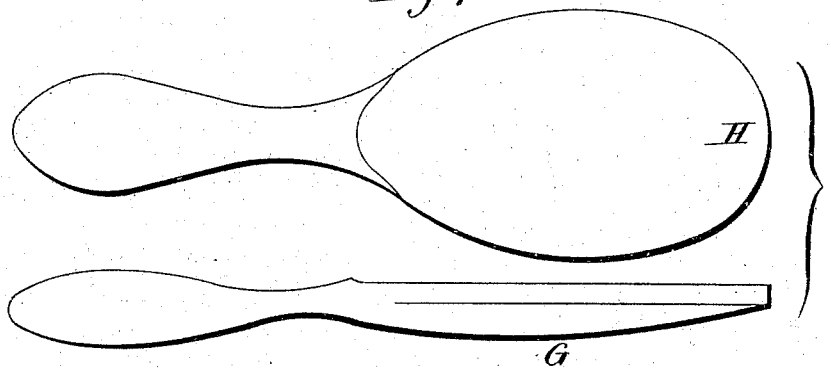
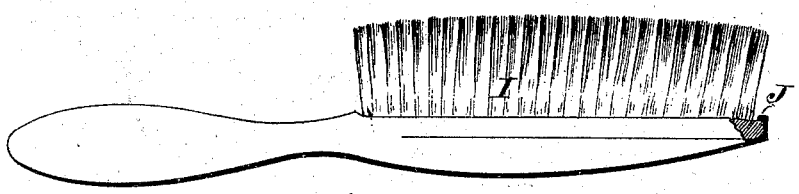


Fig. 8



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UNITED STATES PATENT OFFICE.

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METHOD OF MAKING METAL MOUNTS FOR BRUSHES, &c.

SPECIFICATION forming part of Letters Patent No. 492,177, dated February 21, 1893.

Application filed November 21, 1892. Serial No. 452,700. (No specimens.)

To all whom it may concern:

Be it known that I, ADRIAN WOLFF, of Waterbury, in the county of New Haven and State of Connecticut, have invented a new Improvement in Methods of Making Metal Mounts for Brushes, Hand-Mirrors, &c.; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a view showing the blank or shell in the first stage of its development. Fig. 2, a view showing the blank in the second stage of its development, its closed end having been operated upon to partially develop a handle. Fig. 3, a view showing the blank or shell after the handle has been developed. Fig. 4, a view showing the blank after it has had an opening formed in it and been slit preparatory to the development of its open end. Fig. 5, a view showing the open end of the blank opened out and flattened, and the handle flattened. Fig. 6, a view showing the flattened open end of the shell trimmed into oval form. Fig. 7, a view comprising plan and edge views of the mount after the edge of its oval outer end has been drawn up to form a rim or flange, and the metal within the same has been struck up into concavo-convex form. Fig. 8, a view comprising plan edge views and of my improved mount, furnished with a brush.

My invention relates to an improved method of making metal mounts for brushes, hand-mirrors, and kindred articles, the object of the invention being to produce at a comparatively low cost for manufacture, a seamless sheet-metal article, pleasing and convenient in form, and by reason of its seamlessness, capable of receiving a high and enduring finish.

With these ends in view, my invention consists in first forming a tubular sheet-metal shell or blank, closed at one end, then reducing the closed end of the said shell, and developing it to form a handle, then forming a centralized opening of transverse extension, in the shell at the inner end of the handle, and slitting the shell from the center of the said opening outward, to its outer end, then opening out and flattening the said end of the shell, then trimming the said flattened portion of the shell, and then drawing the edge of the said flattened portion of the shell up, to form a rim or flange.

My invention further consists in certain other steps in the method, as will be more fully described and pointed out in the claims.

In carrying out my invention, I first draw a long tubular blank or shell A, from sheet-metal, the said blank being closed at one end, uniform in diameter in its main portion, and of considerable length as compared with its diameter, which is considerably less than the width of the outer end or main portion of the mount which it is designed to produce. In the drawing of this blank I may employ aluminum, brass, or any other suitable metal or alloy. The blank may be either round, or oval in cross section, its shape and size depending upon the character and use of the mount to be produced. Having secured such a blank, I reduce its closed end by stripping, drawing or spinning, or some equivalent process, to form the partially developed handle B, shown by Fig. 2 of the drawings, the diameter of the said partially developed handle B, corresponding to the largest diameter of the completely developed handle C, shown by Fig. 3 of the drawings, and produced by spinning, or otherwise operating upon the partially developed handle B. The shell is now cut away at a point just in advance of the inner end of the handle, to form an irregular oval opening D, the major axis of which does not fall much short of the diameter of the shell which is slit open as at E, from the center of the said opening D, to its outer end. It is not necessary that the opening described as being cut in the shell, have the irregular oval form of the opening D, but it should be of transverse extension with respect to the length of the shell, and if the outer end of the mount is to be oval or curved when developed, the inner edge of the opening should be curved. When so prepared by cutting, the outer end of the shell is opened out and flattened, as shown by F, in Fig. 5 of the drawings. If now it is desired that the handle of the shell shall be flattened, it is filled with tallow, resin, or some equivalent material, to prevent it from caving in, and flattened to the required form between

suitable dies. This might be done before the development of the outer end of the shell is begun, but it will be found more convenient to do it, if at all, after the shell has been cut and opened out, which makes the interior of the handle more convenient of access than it is before the shell is so cut and opened. The flattened outer end F, of the shell is now trimmed into oval form, as shown by G, in Fig. 6 of the drawings. After this, the edge of the said oval is drawn up at a right angle thereto, to form the rim or flange H, shown by Fig. 7 of the drawings, and the metal within the rim is struck or shaped into concavo-convex form, as at I, in order to increase the capacity of this end of the mount, and to make its exterior conformation correspond in its lines to the lines of the handle. After the brush J, has been set within the said rim, the edge thereof is turned inward over the backing of the said brush, as at K, in Fig. 8 of the drawings. If desired, the brush J, may be replaced by an oval glass, which would be held in place in the same way by turning the edge of the rim or flange inward over its edge, but in such use of the mount its outer end would probably not be struck into concavo-convex form.

The mount produced in following my improved method, as thus described, is seamless, and is therefore particularly well adapted for receiving a high finish, for seams, in an article of this character, as is well known, interfere with finishing it, and soon show themselves when the article receives the wear of use.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A method of making sheet-metal mounts for brushes, hand-mirrors and kindred articles, consisting in first forming a tubular sheet-metal shell closed at one end, then reducing the closed end of the shell and developing it to form a handle, then forming an opening in the shell at the inner end of the handle, and slitting the shell from the center of the said opening to its outer end, then opening out and flattening the said outer end of the shell, and then developing the said flattened end of the shell to adapt it to receive a brush or other article, substantially as set forth.

2. A method of making sheet-metal mounts for brushes, hand-mirrors and kindred articles, consisting in first forming a tubular sheet-metal shell closed at one end, then reducing the closed end of the shell and developing it to form a handle, then forming an opening in the shell at the inner end of the handle, and slitting the shell from the center of the opening to its outer end, then opening out and flattening the said outer end of the shell, then trimming said flattened end of the shell into oval form, then drawing up the edge of the said oval flattened portion to form a rim or flange within which the brush or other object is placed, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ADRIAN WOLFF.

Witnesses:
CHAS. FEHL,
M. L. SPERRY.