

(No Model.)

G. W. KNAPP.
SOCKET FOR DIPPER HANDLES.

No. 509,173.

Patented Nov. 21, 1893.

Fig. 1.

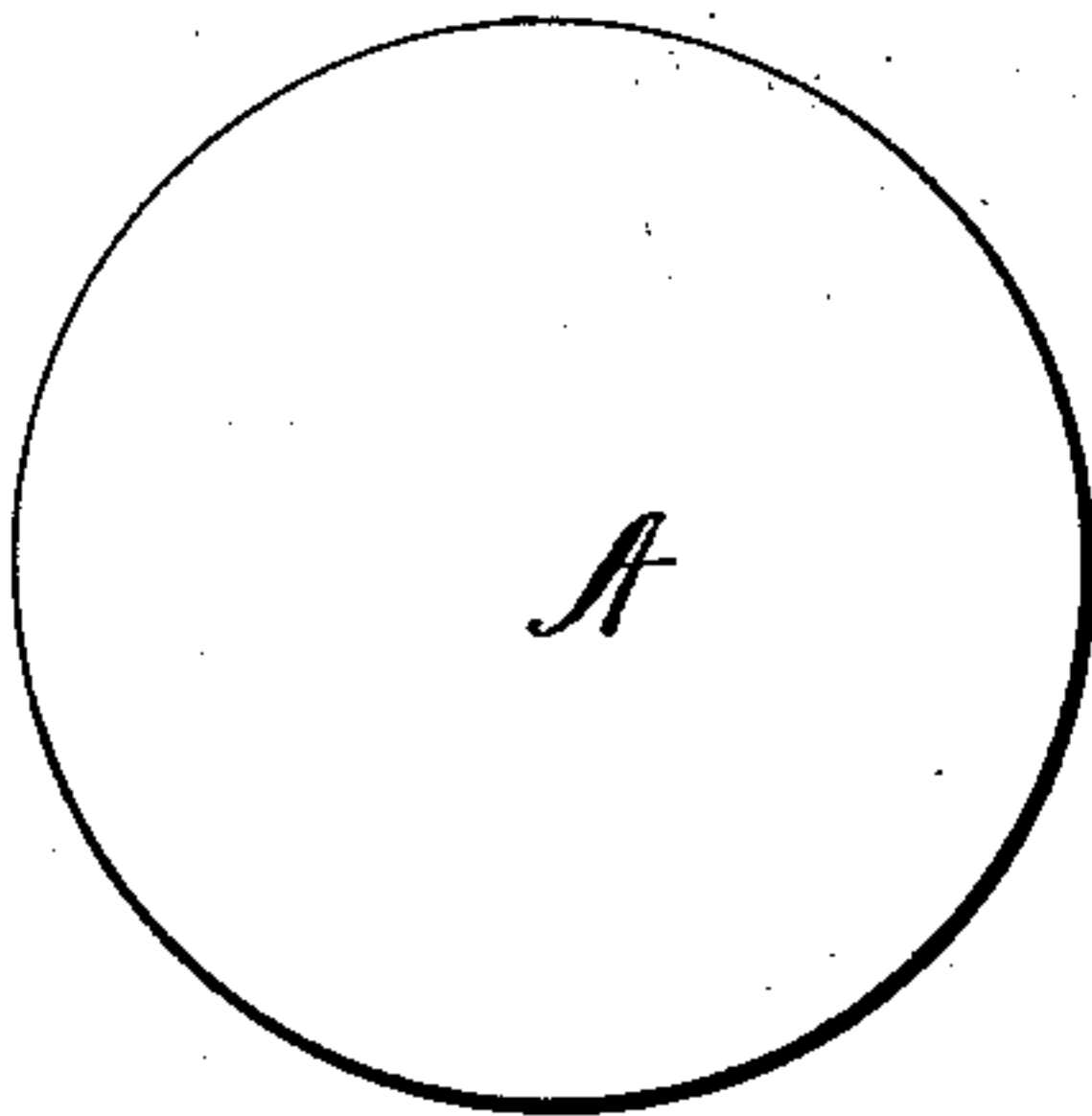


Fig. 2.

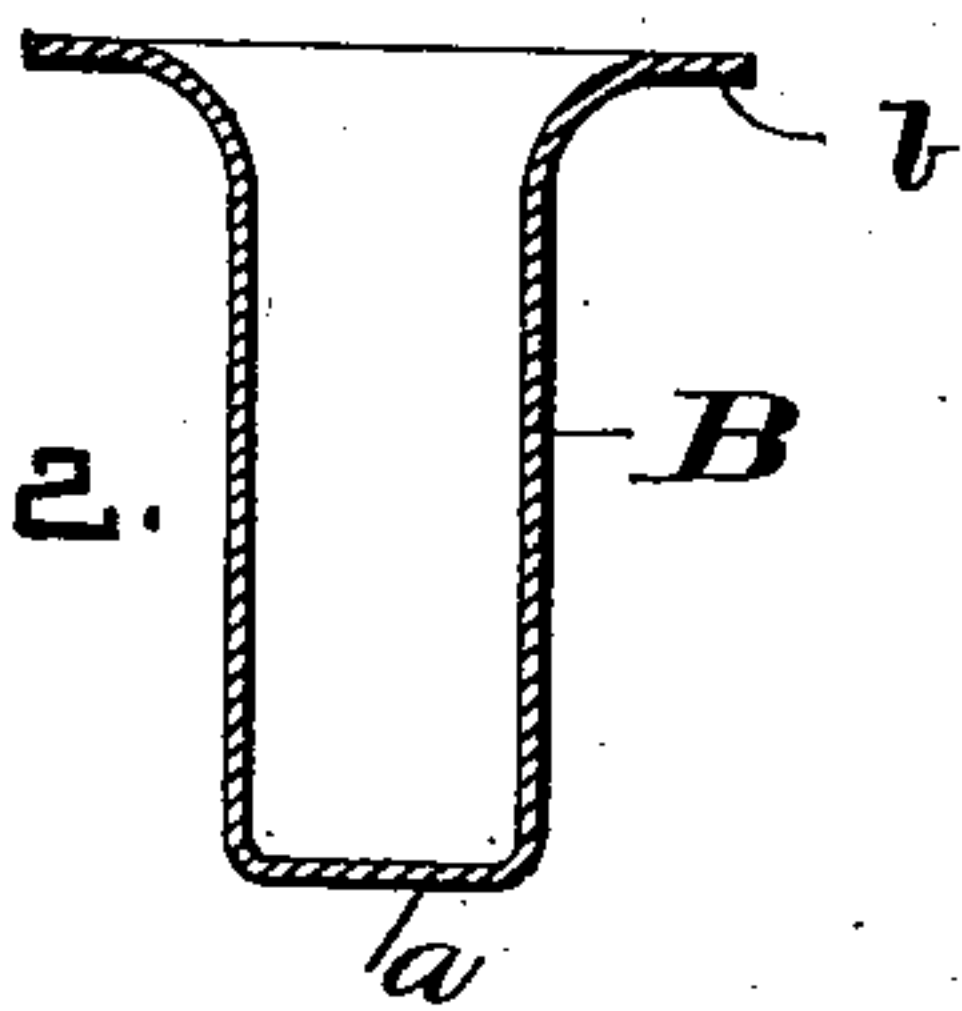


Fig. 3.

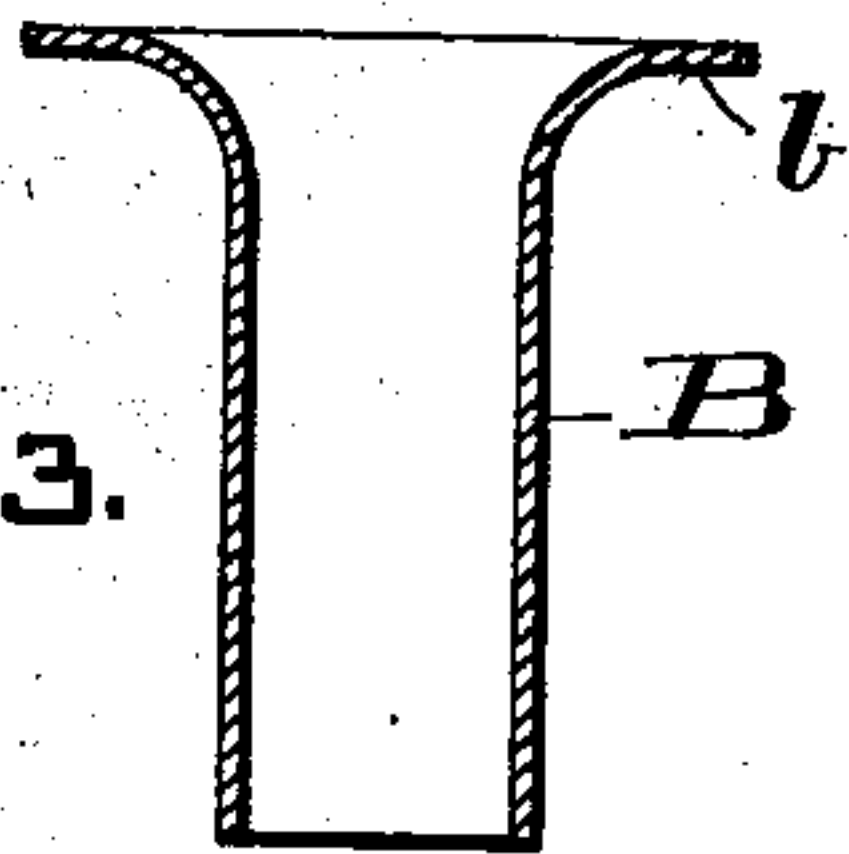


Fig. 4.

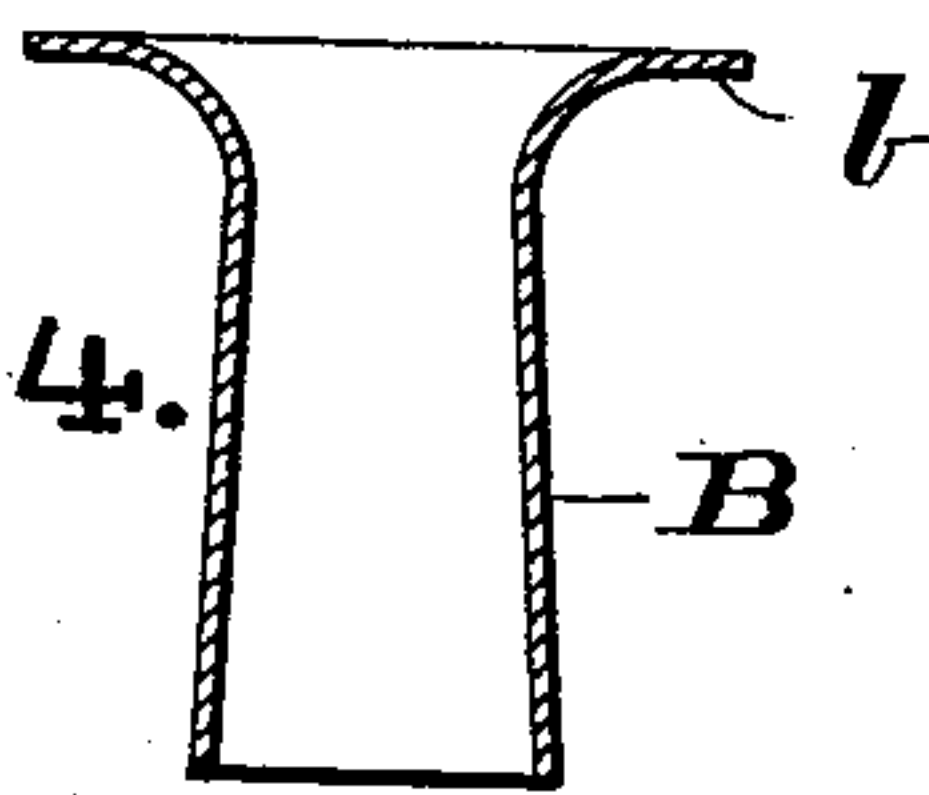


Fig. 5.

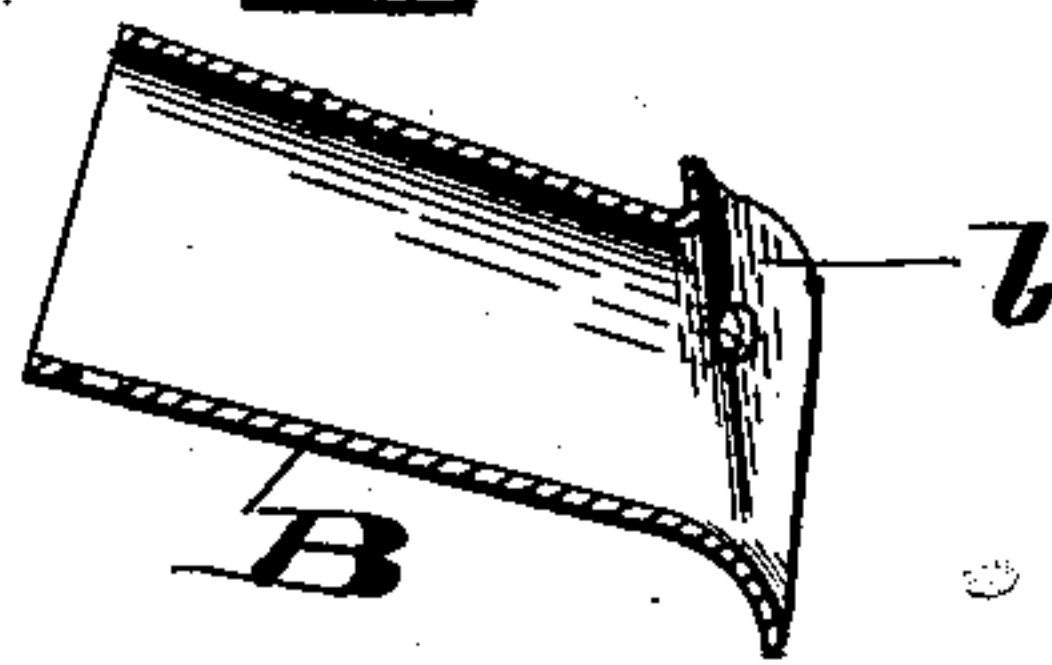
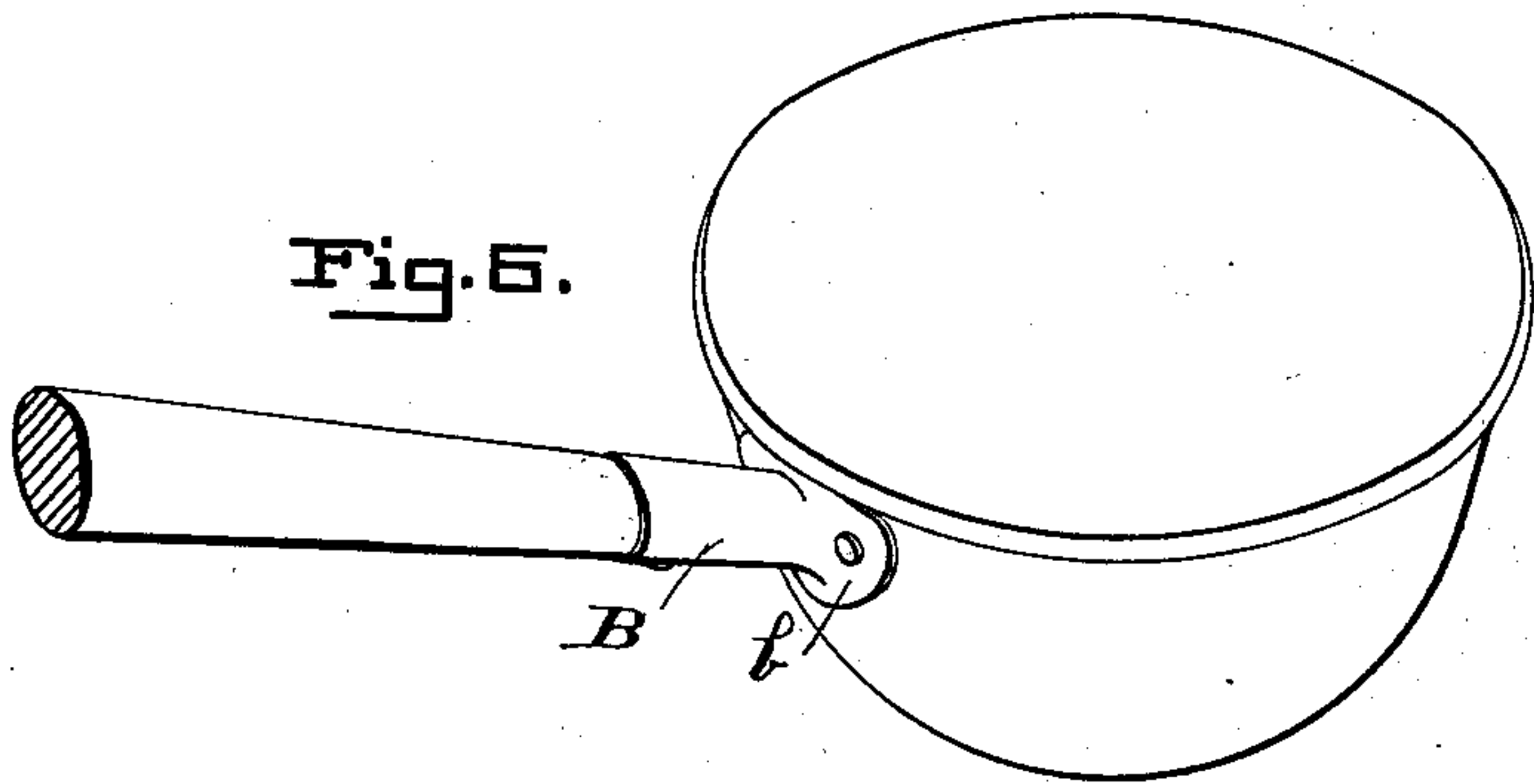


Fig. 6.



WITNESSES: _____

A. O. Babendreier,
Alvan Macauley

INVENTOR: _____

G. W. Knapp
By Chas B. Mann
att'y

UNITED STATES PATENT OFFICE.

GEORGE W. KNAPP, OF BALTIMORE, MARYLAND.

SOCKET FOR DIPPER-HANDLES.

SPECIFICATION forming part of Letters Patent No. 509,173, dated November 21, 1893.

Application filed January 28, 1893. Serial No. 460,012. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. KNAPP, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Sockets for Dipper-Handles, of which the following is a specification.

This invention relates to an improvement in sockets for dipper handles, and has for its object to provide a socket struck up from a single blank, which shall be cheaper to manufacture, more durable in wear and which shall present a neater and consequently more salable appearance, than sockets generally in use.

The invention is illustrated in the accompanying drawings in which—

Figure 1, is a view of the circular blank from which the socket is struck. Fig. 2, is a vertical-section of the socket illustrating the first step of procedure in its manufacture, in which the blank is struck into the flanged, cylindrical shape shown. Fig. 3, is a view illustrating the second step, which consists in cutting out the closed end, *a*, of the shank of the blank as shown in Fig. 2. Fig. 4, is a view illustrating the third step, which consists in expanding the open end, *a'*, of the shank, to make it taper toward the flange *b*. Fig. 5, is a section of the finished socket. Fig. 6, is a view of the finished article in position upon the bowl of the dipper.

Heretofore it has been the custom generally, when attaching wood handles to dippers and analogous articles, to use a cast iron socket, having a round shank, to receive the end of the wood handle, and a flange through which the rivets are driven to secure said socket to the bowl of the dipper. This socket is more or less unsightly, besides being comparatively expensive to manufacture and heavier than is desirable. It has too that fault inherent to cast iron,—it is brittle.

To provide a socket which shall combine the desirable qualities, without the faults above enumerated, is the object of this invention.

In the drawings, the letter, *A*, Fig. 1, designates the circular blank, from which the socket is struck; *B*, the shank of the socket

which is formed when the blank is struck by the die, and, *b*, is the flange, which, in the finished article is riveted to the bowl of the dipper.

In making the socket, several steps are employed: first, striking the blank into the form shown in Fig. 2, of the drawings, which is cylindrical and has a flange at one end; the other end being closed by a part, *a*; second, opening the closed end, by punching out the part *a*; third, expanding the cylindrical shank *B*, so as to make it taper toward the flange; fourth, bending the flange to a proper angle with respect to the axis of the cylindrical shank, so that the handle, when inserted in the shank of the socket, will have a proper inclination with respect to the bowl of the dipper, and trimming the flange, and punching the rivet holes therein, leaving it in a finished condition.

After securing the socket to the bowl of the dipper, the whole is tinned, so that a close tight joint is made between the flange of the socket and the wall of the dipper.

The socket though light, is, on account of its tubular shape, very strong, and yet neat in appearance.

Although preferable, the tapering form of the socket is not absolutely essential to the spirit of my invention.

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

The combination of a dipper bowl; a wooden handle; a sheet-metal socket for attaching the handle to the bowl and comprising a seamless, tubular shank open from end to end and having at one end an integral angularly-disposed flange provided with rivet holes and with flat edges so that the concave surface of the said flange is in contact with the surface of the bowl; and rivets securing the flange to the bowl, as shown and described.

In testimony whereof I affix my signature in the presence of two witnesses.

GEORGE W. KNAPP.

Witnesses:

CHAS. B. MANN,
ALVAN MACAULEY.