

(No Model.)

J. L. MOORE & F. R. BROWN.
HANDLE FOR HARDWARE OR ANALOGOUS ARTICLES.

No. 555,873.

Patented Mar. 3, 1896.

Fig. 1.

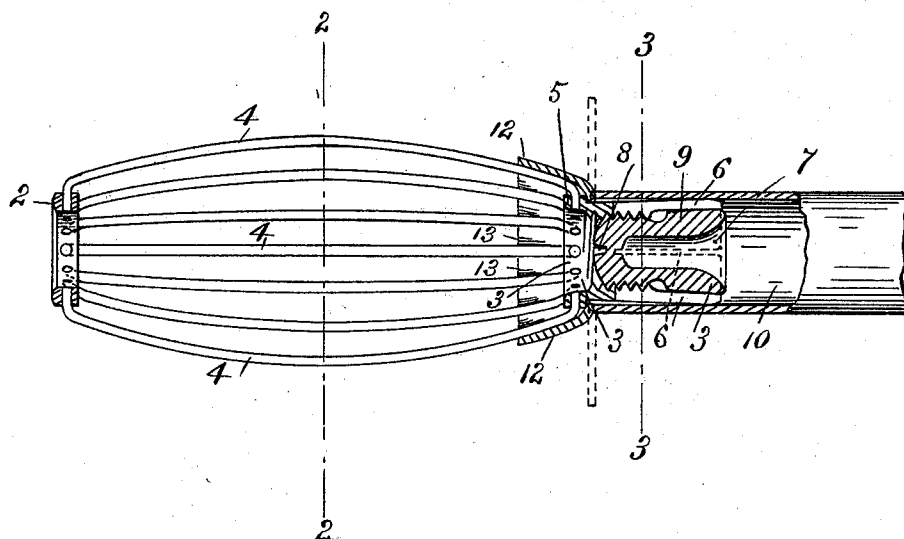


Fig. 2.

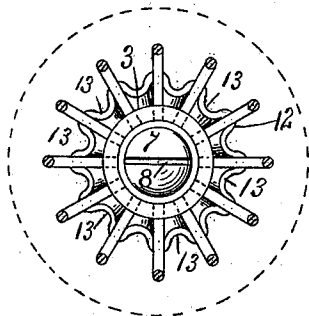
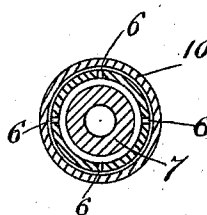


Fig. 3.



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UNITED STATES PATENT OFFICE.

JAMES L. MOORE, OF STRATFORD, CONNECTICUT, AND FRED R. BROWN, OF SPRINGFIELD, MASSACHUSETTS; SAID MOORE ASSIGNOR OF HIS RIGHT AND SAID BROWN ASSIGNOR OF ONE-THIRD OF HIS RIGHT TO WILLIAM A. WHITNEY AND THE HENDEE & NELSON MANUFACTURING COMPANY, OF SPRINGFIELD, MASSACHUSETTS.

HANDLE FOR HARDWARE OR ANALOGOUS ARTICLES.

SPECIFICATION forming part of Letters Patent No. 555,873, dated March 3, 1896.

Application filed February 1, 1896. Serial No. 577,739. (No model.)

To all whom it may concern:

Be it known that we, JAMES L. MOORE, residing at Stratford, in the county of Fairfield and State of Connecticut, and FRED R. BROWN, residing at Springfield, in the county of Hampden and State of Massachusetts, citizens of the United States, have invented new and useful Improvements in Handles for Hardware and Analogous Articles, of which the following is a specification.

This invention relates to handles for various articles of hardware and culinary utensils, and for other purposes, the object being to provide a ventilated handle of improved construction which is contractible and expansible in a direction at right angles to the axis thereof, which, when applied to an object which becomes heated in use, remains cooler than said object, so that the bare hand may be applied thereto; and the invention consists in the peculiar construction and arrangement of the several parts of the handle, and in means for attaching the same to an object, all as hereinafter fully described and more particularly pointed out in the claims.

In the drawings forming part of this specification, Figure 1 is a longitudinal section of a handle constructed according to our invention, this figure illustrating a like sectional view of a tubular part of an object to which the handle may be applied. Fig. 2 is a sectional view on line 2 2, Fig. 1. Fig. 3 is a section on line 3 3, Fig. 1.

In the drawings, 2 is a metallic ring, preferably of brass, at the outer end of the handle, and 3 is a metallic ferrule, also preferably of brass, at the opposite end of the handle. The said ring and ferrule are perforated to receive the extremities of a series of flexible metal bars or wires 4, which constitute the body of the handle. The said ferrule 3 has a collar 5 around the end thereof, to which the ends of said bars 4 are attached, and the said perforations, within which the ends of these bars pass in the end of said ferrule, are made through said collar in order that a proper length of bearing for the ends of said

wires on the end of said ferrule may be had. The said bars 4 are preferably made flat on that portion of the surface thereof against which the hand is applied, and the remaining portion of the surface of the bars may be cylindrical or otherwise, as may be preferred. The extremities of said bars 4 are preferably secured in the said perforations in said ring 2 and ferrule 3 by tightly forcing them thereinto, and also by soldering the same, if desired. The said ferrule 3 is provided with several longitudinal slots 6, extending from its free end toward said collar, to the end that it may be expansible and contractible in the manner and for the purpose hereinafter described, and the interior of said ferrule, for a certain distance from said collar 5 inward, is screw-threaded and its said free end is preferably internally tapered slightly. Into said ferrule 3 is fitted a metallic screw-plug 7, provided with a screw-driver slot 8 in the end thereof adjoining the inner end of said ferrule. For turning said plug a screw-driver is entered through the said ring 2. The portion 9 of said screw-plug 7 is tapered—that is to say, its unthreaded extremity is slightly larger than that part thereof nearest its screw-threaded part—and said tapered part of said plug operates to expand that part of the ferrule within which it is placed, when turned in said ferrule to move it toward said collar 5, and thus cause said ferrule to be frictionally engaged with the tubular part 10 of an object to which it may be desired to attach said handle.

The above-described means for connecting the handle to a tubular part of an article provides convenient means for changing the same from one to another, thus making one handle answer for several.

Means for compressing and adding more or less rigidity to the ends of the bars 4, which are connected to the end of said ferrule 3, are provided by means of a cup formed from a circular metal plate 12, (whose circumferential line is shown in dotted line in Fig. 2,) centrally perforated and placed on said fer-

rule against the under side of the said collar 5 thereon. After placing said plate on said ferrule, the end of the handle to which it is attached is placed into a die of suitable
 5 form and a plunger is entered through the said ring 2 against the inner end of said ferrule, and the latter, together with said plate 12, and the ends of the said bars 4, attached to said ferrule, are forced into said die,
 10 which is so formed that it forms said plate into a cup shape around the ends of the bars 4 and produces the corrugations 13 (see Fig. 2) between said bars near the junction thereof with said ferrule, and thereby the portions
 15 of said bars against which the sides of said cup are forced are more or less compressed toward the axis of the handle, thereby imparting a certain rigidity or stiffness to them, and the interposition of the corrugations 13
 20 between said bars tends to hold them more firmly in their properly-separated positions and maintain a symmetry of form in the handle. Said corrugated cup may, if desired, be fully formed before putting it on the
 25 handle and in such condition be applied thereto, and it may be further attached to the said inclosed bars by soldering.

When the handle of the above-described construction is to be secured to the ends of a
 30 tubular part 10, the screw-plug 9 is turned within the ferrule in the manner above described to carry its larger tapered end more or less beyond the end of the ferrule within which it is operated, thus permitting the ferrule to contract to its normal diameter. The
 35 latter is then placed in the end of the said tubular part 10 and a screw-driver passed through the ring 2 and the handle into the slot 8 in said plug, whereby the tapered part
 40 of the latter is drawn into the end of the ferrule within said part 10 and is so expanded as to be firmly connected thereto. Screwing the said plug in an opposite direction immediately frees the handle so that it may be
 45 separated from said part 10.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. A handle for hardware and analogous
 50 articles consisting of a group of metallic

bars arranged side by side, the extremities of which converge around a circle, combined with a ring to which said bar extremities are secured, having radially-arranged perfora-
 55 tions therein for receiving the extremities of said group of bars at one end thereof, a ferrule having an annular collar thereon, through which is a series of radial perforations for receiving the opposite ends of said
 60 group of bars, and means for securing the ends of said bars rigidly in said ring and in the collar of said ferrule, substantially as set forth.

2. A handle for hardware and analogous articles consisting of a group of metallic
 65 bars arranged side by side, the extremities of which converge around a circle, combined with a ring having radially-arranged perforations therein for receiving the extremities of said group of bars at one end thereof, a
 70 ferrule having an annular collar thereon through which is a series of radial perforations for receiving the opposite ends of said group of bars, means for securing the ends of said bars rigidly in said ring and in the
 75 collar of said ferrule, and a metal cup attached to said ferrule and enveloping the ends of said bars connected thereto and having corrugations therein entering between
 80 said bars, substantially as set forth.

3. A handle for hardware and analogous articles consisting of a group of metallic
 85 bars arranged side by side, the extremities of which converge around a circle, combined with a ring to which said bar extremities are secured having radially-arranged perforations therein for receiving the extremities of
 90 said group of bars at one end thereof, a longitudinally-slotted ferrule to which the opposite ends of said group of bars are secured, having a partially screw-threaded interior, and a plug screwing into said ferrule
 having a tapering end engaging with said slotted part thereof, substantially as set forth.

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