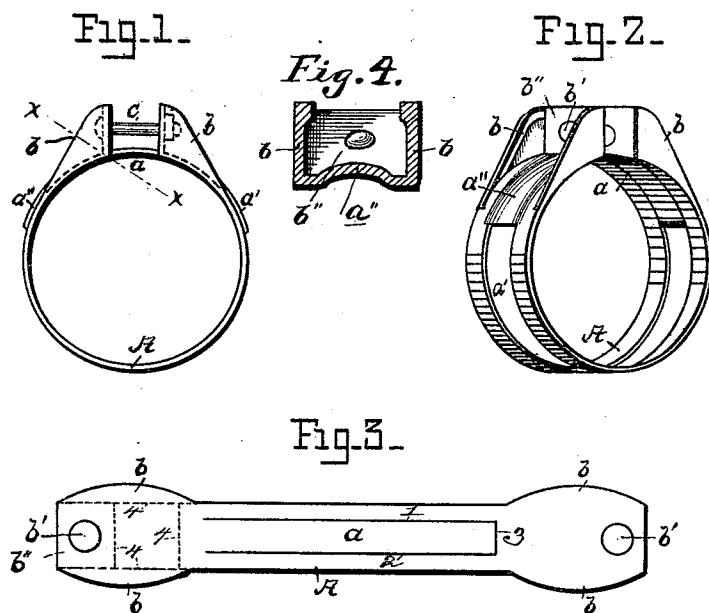


(No Model.)

H. B. SHERMAN.
HOSE CLAMP.

No. 499,760.

Patented June 20, 1893.



Witnesses.

G. M. Metcalf,
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Howard B. Sherman
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UNITED STATES PATENT OFFICE.

HOWARD B. SHERMAN, OF BATTLE CREEK, MICHIGAN.

HOSE-CLAMP.

SPECIFICATION forming part of Letters Patent No. 499,760, dated June 20, 1893.

Application filed July 20, 1892. Serial No. 440,703. (No model.)

To all whom it may concern:

Be it known that I, HOWARD B. SHERMAN, a citizen of the United States, residing at Battle Creek, in the county of Calhoun and State of Michigan, have invented certain new and useful Improvements in Hose-Clamps; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention has relation to hose-clamps, and consists in certain peculiarities in the construction thereof, substantially as herein-after described and particularly pointed out in the subjoined claims.

In the accompanying drawings illustrating the invention:—Figure 1 is an end view of the clamp as it appears when secured around a hose. Fig. 2 is a perspective view thereof with the securing bolt removed. Fig. 3 is a plan view of the blank of sheet metal from which the clamp is made; and Fig. 4 is a section on the line $x-x$ of Fig. 1, showing the thickened upper edges of the ears.

A designates the body of my improved band, said body being formed of sheet metal and having integral with it the tongue a , which latter spans the space between the ends of the band. The band is further formed with integral upwardly-extending flanges, b'' , having perforations, b' , and ears or lugs, b , said flanges and ears or lugs forming firm, integral, reinforcing braces, by which the ends of the clamp may be drawn and held by a bolt and nut C around the part to be clamped, said bolt passing through the perforations, b' , in said flanges b'' , as clearly shown in the drawings. The tongue, a , is formed by punching from the central portion of the body of the clamp on the lines 1, 2 and 3 a suitable longitudinal part—except the one end thereof which is left intact—and then bending said part reversely and concentrically with the body, A, so as to span the space between the ends thereof. When the tongue is thus bent a longitudinal opening, a' , is left in the body of the clamp, said opening lying entirely

within said body and being bounded on all four of its sides by portions thereof. This opening makes the clamp more elastic than it otherwise would be and also affords facilities by which the clamp will be prevented from slipping longitudinally on the hose, because when clamped on the hose the material of the latter will bulge out into and through said opening. The solid portion of the band, at the ends of said opening and between said lugs or ears are swaged or otherwise suitably operated on to form a depression or channel, a'' , said channel extending beyond the plane of the body of the clamp and being of substantially the same size as said tongue, which latter, when bent reversely, is received therein. The flanges and lugs or ears, b and b'' , are formed by suitably bending or swaging the ends of the blank on the lines 4, 4, 4, Fig. 3, and the upper edges of said ears or lugs are thickened as clearly shown in Fig. 4. Importance is attached to the thickening or reinforcement of the band-ears, as the device is thereby strengthened at the place where the maximum strain is exerted. In practice the band ears may be thickened and the material thereof tempered simultaneously with the bending of the parts to form them, by swaging the metal on the lines above mentioned.

It will be seen from the above that I have provided a hose-band or clamp formed of sheet metal which can be quickly and cheaply manufactured, and which, at the same time, possesses the strength and durability of cast metal and the flexibility necessary for the best results, and which also will not be liable to accidental displacement when properly secured around the hose.

It is obvious that instead of but one tongue, a , and one opening, a' , a plurality of each of the same may be provided without departing from the spirit of my invention.

Having thus fully illustrated and described my invention and pointed out the process of forming the same, together with some of its more salient features and advantages, what I claim, and desire to secure by Letters Patent of the United States, is—

1. As an improved article of manufacture, the herein described hose-clamp, made of sheet metal, and consisting of a band having

at each of its ends and integral therewith
flanges and lugs or ears, said lugs or ears be-
ing thickened at their upper edges, said band
being also formed with a longitudinal open-
5 ing bounded on all four of its sides by por-
tions thereof and with channels located in its
solid portion at the ends of said opening and
between said lugs or ears, and with a reverse-
ly-bent tongue spanning the opening between
10 the ends of the band and received by said
channel; and means engaging said flanges
and securing the ends of the band together,
substantially as described.

2. A hose clamp, made of sheet metal, and
15 consisting of a band having at each of its ends
and integral therewith flanges and lugs, or
ears, said band being also formed with a lon-

gitudinal opening bounded on all four of its
sides by portions thereof, and with channels
located in its solid portion at the ends of said 20
opening and between said lugs or ears, the
band being further formed with a reversely-
bent tongue spanning the opening between
the ends thereof and received by said chan- 25
nel; and means engaging said flanges and se-
curing the ends of the band together, sub-
stantially as described.

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

HOWARD B. SHERMAN.

Witnesses:

GEO. W. NICHOLS,
W. J. GARFIELD.