

No. 628,529.

Patented July 11, 1899.

J. B. GATHRIGHT.
TRACE CARRIER.

(Application filed June 23, 1898.)

No Model.)

Fig. 1.

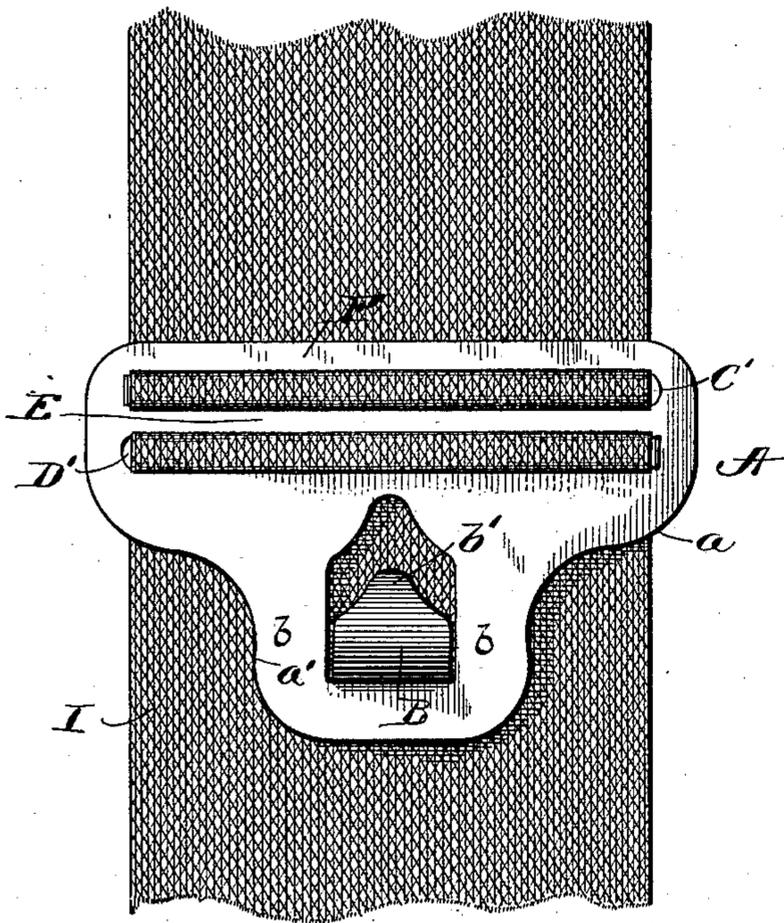
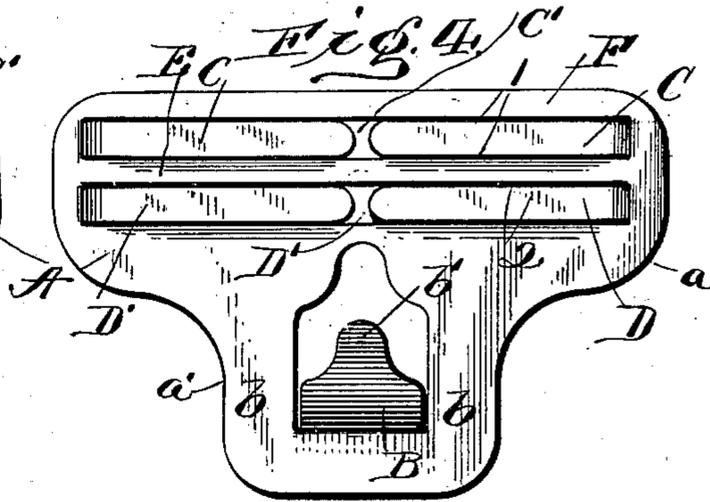
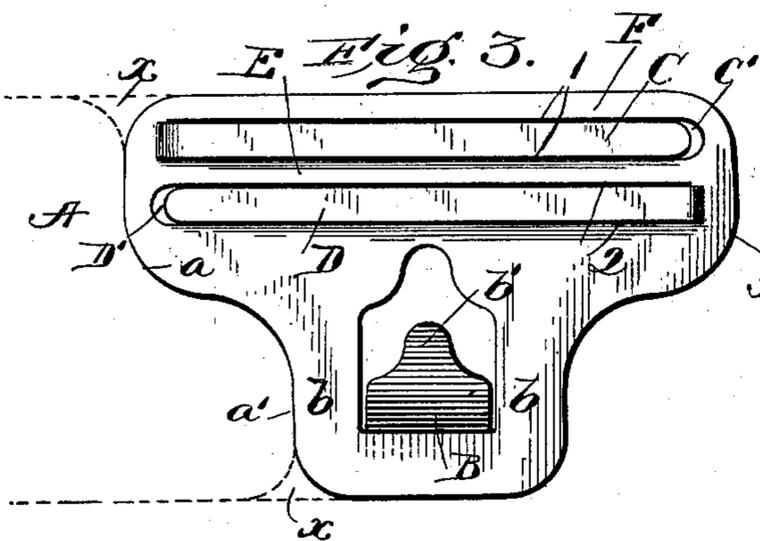
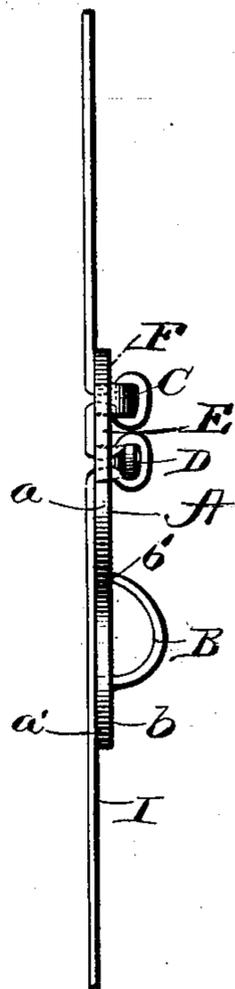


Fig. 2.



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UNITED STATES PATENT OFFICE.

JOSIAH B. GATHRIGHT, OF LOUISVILLE, KENTUCKY.

TRACE-CARRIER.

SPECIFICATION forming part of Letters Patent No. 628,529, dated July 11, 1899.

Application filed June 23, 1898. Serial No. 684,253. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH B. GATHRIGHT, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Trace-Carriers; 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 and figures of reference marked thereon, which form a part of this specification.

This invention has particular reference to that type of combined back-band buckles and trace-carriers which are made of sheet metal and with the hook and buckle portions stamped therein; and its object is to provide a simplified and cheapened device which will be most strong and durable in construction and most efficient in maintaining its adjusted position upon the back-band by friction alone and also to provide one which may be quickly attached to or detached from a back-band and will not destroy or weaken the latter. This object is accomplished by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a face view of my improved back-band hook and buckle applied to a back-band. Fig. 2 is an edge view of the same. Fig. 3 is a face view of the device detached from a back-band, indicating in dotted lines the mode of outlining the same to avoid waste of material. Fig. 4 is a front view of a slightly-modified form.

The same reference characters designate the same parts in the several figures.

The base-plate A is made wider at its upper end than at its lower end, and its said upper and lower ends are of equal depth, and their respective curves *a* and *a'* are of the same radius, so that when said base-plates are cut from a strip of sheet-steel or other suitable sheet metal having a length that is a multiple of a base-plate and a width the same as the height of the base-plate no material is wasted or lost except the small triangular pieces *x* in the corners between two adjacent base-plates, as indicated in Fig. 3,

thus resulting in a great saving of material in comparison with sheet-metal trace-carriers heretofore proposed. By forming said base-plate with square corners, as may be done, the pieces *x* will be saved; but the construction shown is preferred. In addition to such saving of material the described form of the base-plate gives the latter a stem or narrower part of such width that the hook B, formed therein for the trace-chain, will be so arranged thereon as to provide in said base-plate and at each side of and below said hook wearing plates or portions *b* for separating the trace-chain from the back-band I and for supporting and stiffening said hook. Said hook B is formed by properly slitting the base-plate and punching or stamping the metal bounded by said slits into curved or hook form, and in practice the point *b'* of said hook will be in the plane of the base-plate, so as to cause it more efficiently to hold the trace-chain.

The upper portion of the base-plate is preferably formed with two series of slits 1 1 and 2 2, extending longitudinally thereof, and the metal between said slits is bent or punched outward beyond the plane of the base-plate, thus forming two resilient tongues C and D, occupying a plane outside the plane of the base-plate, an intermediate separating-bar E and a rigid top bar F in the plane of the remaining portion of the base-plate, and openings C' and D' below the respective tongues, which openings and tongues are of the same dimensions, so that the longitudinal edges of the latter will be in the horizontal planes of the longitudinal edges of the former. In order that said tongues may be bent from the base-plate at their ends without distorting or weakening the device and also to the end that the tongues shall be resilient, so as to increase the facility with which the device may be applied to or adjusted upon the back-band, as well as to increase the power of the grasp of the buckle upon the back-band, each of said tongues is slit transversely either at one end, where it is joined to the base-plate, as shown best in Fig. 3, or at an intermediate point in its length, as indicated in Fig. 4. When slit at the ends, said slits will preferably be at the right and left, re-

spectively, and when slit at an intermediate point they will preferably be at the longitudinal centers thereof.

When the device is applied to a back-band, the latter extends under the bar F, through opening C', forward and upward over tongue C, rearward and upward back through said opening C', and around the edge of the intermediate bar E, thence along the under surface of the latter, through opening D', and forward and upward over the tongue D, thence rearward and upward back to and through said opening D', and thence downward along the under surface of the narrower part of the base-plate, as shown in Figs. 1 and 2. It will be seen that well-defined loops are formed by the band around the longitudinal edges of the openings C' and D', which loops project below the resilient tongues, and in use when strain is put upon the trace-carrier sufficient to give it a tendency to slip on the band the tongues will be pressed down upon said loops and exert a clamping action on them, which will greatly aid the friction caused by the indirection given to the band in passing through the openings and around the tongues to securely hold the trace-carrier in position. In practice it has been found that the friction caused by the indirection of the band is not sufficient in itself to securely hold the trace-carrier in position, and the clamping action of the resilient tongue is therefore a valuable improvement on the sheet-metal trace-carriers heretofore proposed.

Owing to the greater efficiency of the slit tongue for holding the back-band, one tongue will secure it; but two tongues will cause more uniform wear and strain upon the two edges of the band when the slits are at the ends of the tongues, and that is preferable as affording greater resiliency by reason of the greater leverage.

From the above it will be seen that I have provided a most simple, practical, durable,

and cheap back-band buckle and trace-carrier formed wholly of sheet metal and with all parts integral and one in which no metal is removed in the formation of the hook and buckle portions. It will also be seen that as the width of the tongues is the same as that of the openings beneath said tongues the back-band will extend in an inclined direction between the base-plate and tongues, thus increasing the hold of the buckle thereon. It will furthermore be seen that the most important feature of slitting the tongues transversely causes the buckle to hold to the band by friction alone so tightly as to avoid all possibility of accidental slippage, while at the same time it enables said tongues to be bent at the ends without weakening the device.

Having thus described the invention, what I believe to be new, and desire to secure by Letters Patent, is—

1. A trace-carrier, formed of resilient sheet metal, and having slits in its base portion and the metal between the slits bent out to form a clamping-tongue occupying a plane outside that of the base, said tongue being slit transversely to give resiliency and enable it to be bent without stretching the metal, substantially as described.

2. A resilient sheet-metal trace-carrier, having a plurality of pairs of parallel slits in its base portion and the metal between each pair of slits bent out and separated at one end from the base to form resilient clamping-tongues occupying a plane outside that of the base, each tongue being separated from the base at an end opposite the separated end of the adjacent tongue, substantially as and for the purposes specified.

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

JOSIAH B. GATHRIGHT.

Witnesses:

E. S. FOOTE,
J. E. MCGRATH.