

G. L. CRANDAL.  
Carriage-Curtain Loop.

No. 199,798.

Patented Jan. 29, 1878.

Fig. 1.

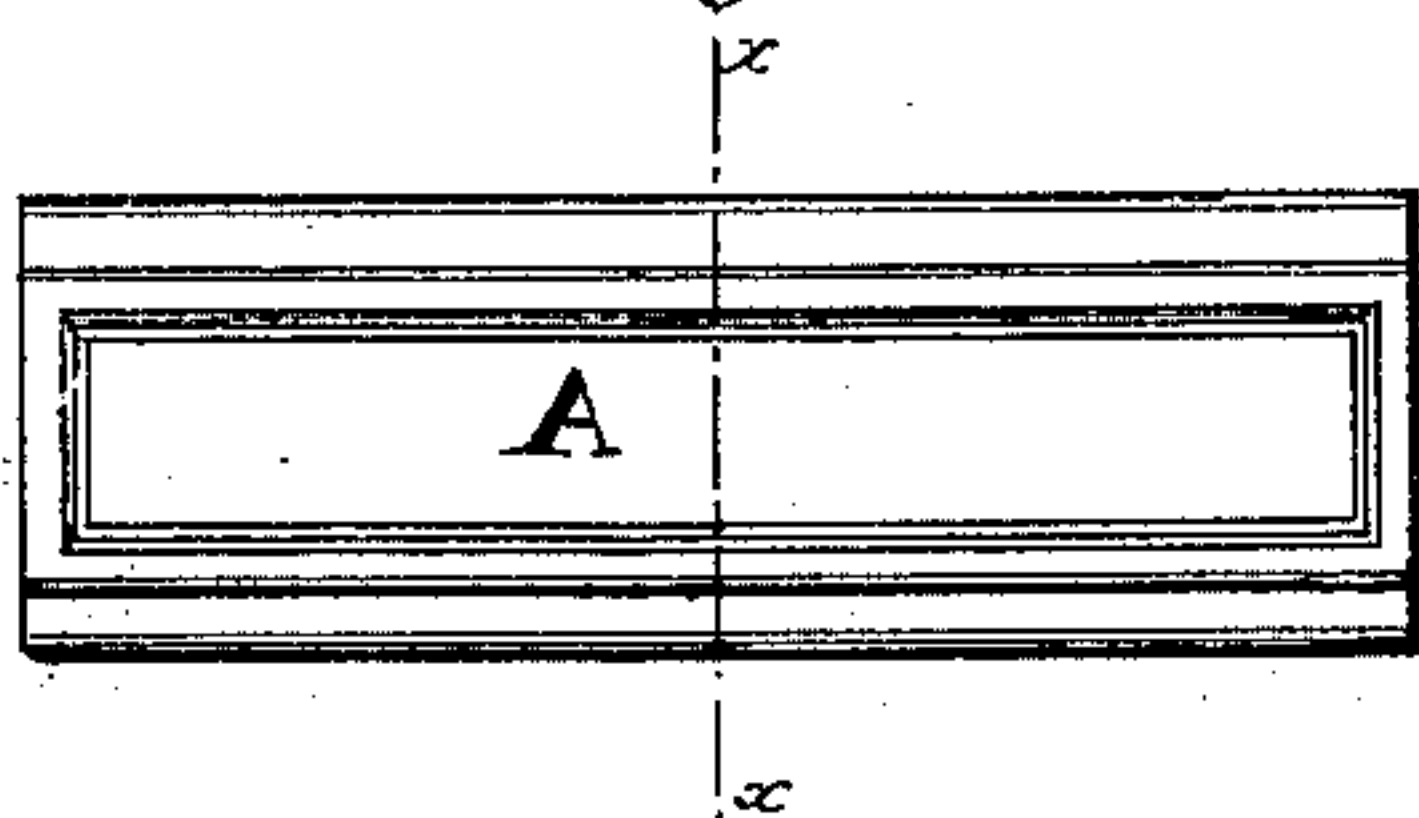


Fig. 2.

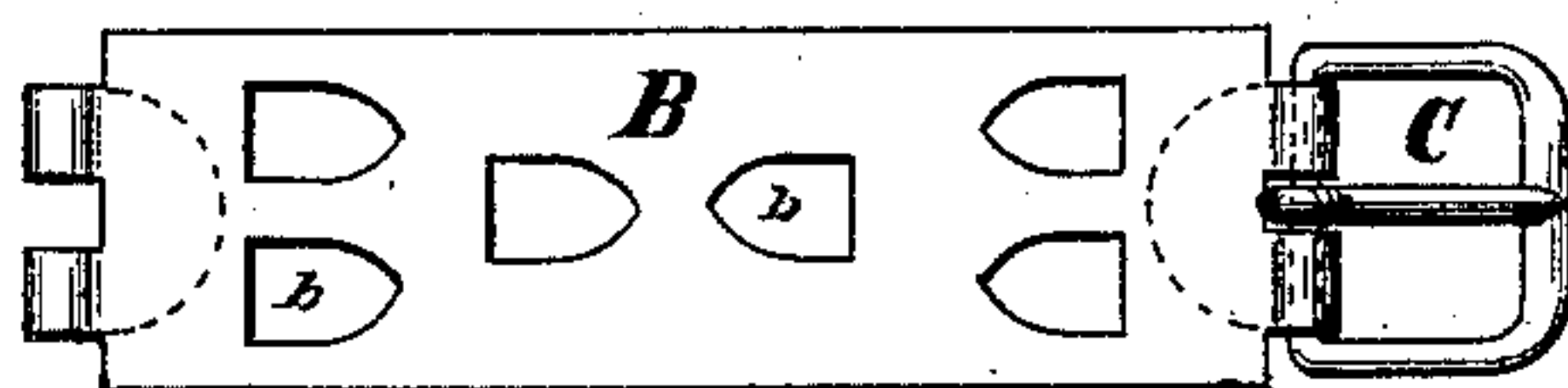


Fig. 4.

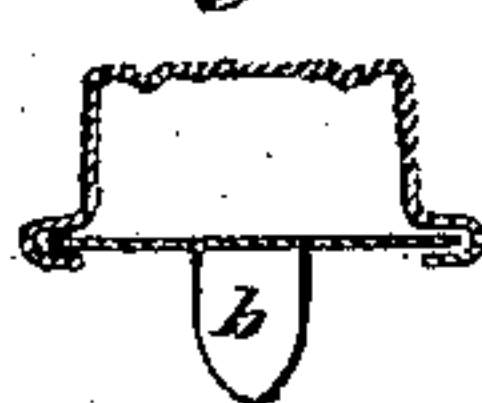


Fig. 3.



Fig. 5.

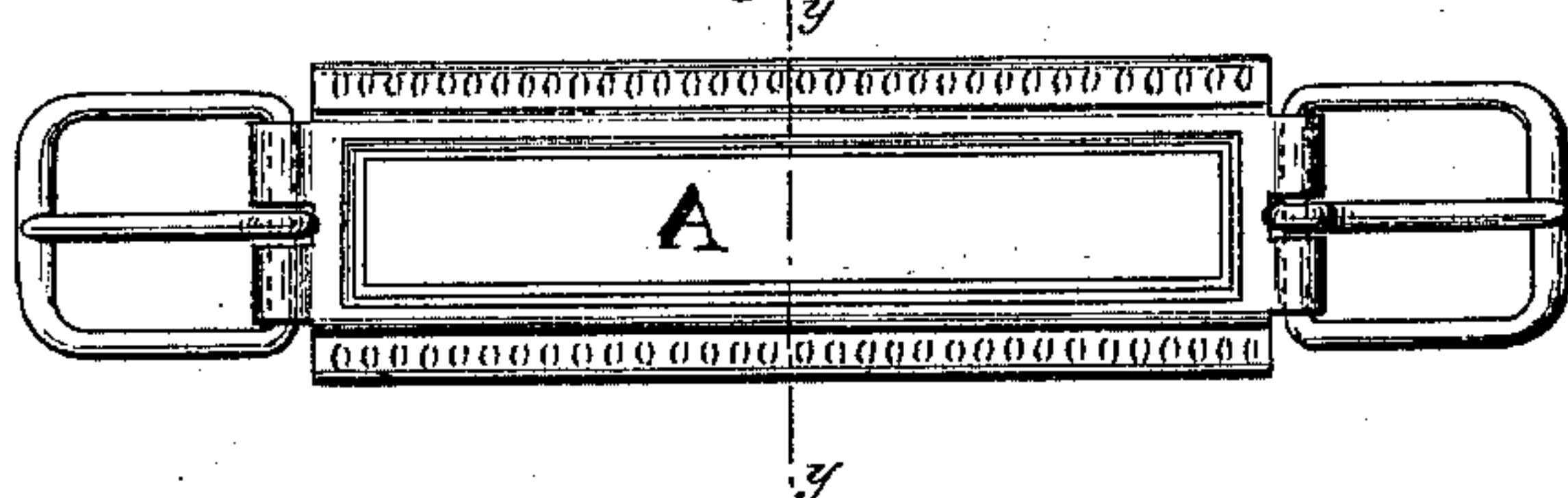


Fig. 6.

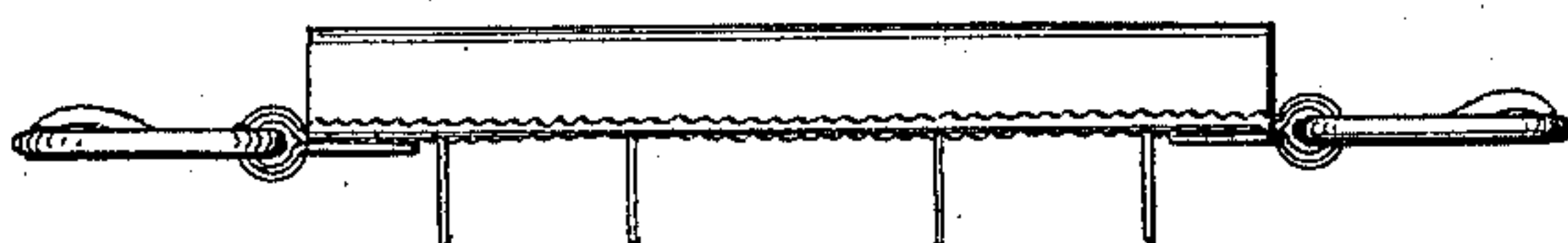
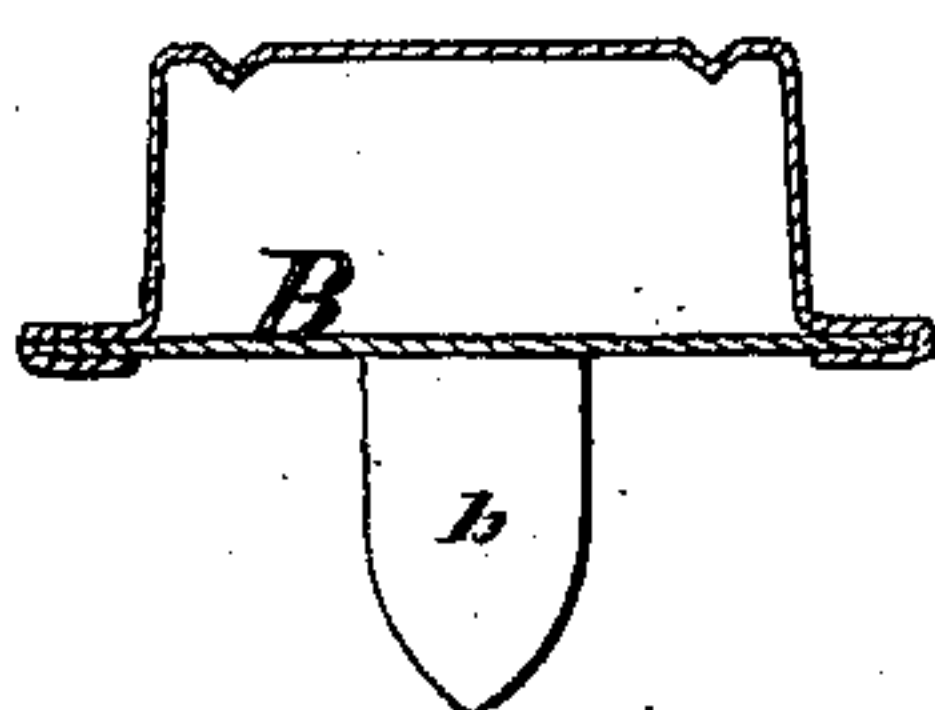


Fig. 7.



Witnesses:-

S. D. Jerome  
W. H. Moore

Inventor:

Geo. L. Crandal

# UNITED STATES PATENT OFFICE.

GEORGE L. CRANDAL, OF BINGHAMTON, NEW YORK.

## IMPROVEMENT IN CARRIAGE-CURTAIN LOOPS.

Specification forming part of Letters Patent No. **199,798**, dated January 29, 1878; application filed November 30, 1877.

*To all whom it may concern:*

Be it known that I, GEORGE L. CRANDAL, of Binghamton, in the county of Broome, State of New York, have invented a new and useful Improvement in Carriage - Curtain Loops; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures marked thereon.

Figure 1 of the drawings represents the loop as struck up in dies. Figs. 2 and 3 represent the metallic plate which is fastened to the carriage-curtain, and to which the loop is attached. Fig. 4 represents a vertical section of the loop and plate put together. Figs. 5 and 6 represent the loop completed. Fig. 7 is an enlarged vertical section on the line *y y* of Fig. 5.

The object of my invention is to furnish a cheap and efficient loop. This I accomplish by attaching a metallic loop, A, to the metallic plate B, to which is also attached a buckle or buckles, C. The plate B has clinches *b b*, struck out and turned up at right angles, which are put through the curtain and clinched down. This attaches the plate to the curtain.

The loop is fastened to the plate in a very expeditious manner, by being struck out in a die with a flange turned outward and the edges then folded over the edge of the plate, as in Fig. 4, and then closed down in a die. The dies for this are made notched, so as to corrugate the edges, as shown in Figs. 5 and 6.

It will be seen that the dies corrugate or crimp the edges, bending them first upward and then downward, securing the plate firmly, and at the same time making a fine finish to the loop. The corrugations have the appearance of stitches when the loop is upon the carriage, giving it the look of a patent-leather loop.

It is obvious that different forms of corrugations may be used, or that the same may be closed down firmly by a die having no corrugations, provided the parts are held securely together.

It will also be seen that by using the corrugated seam projecting from the edge of the box-loop, the teeth are effectually concealed, so that when put in the curtain the holes cut in the leather for the teeth are covered by the edges projecting from the box-loop.

I am aware of the patent to F. A. Neider, dated August 24, 1875, and hereby disclaim the construction shown therein.

I claim as my invention—

1. A carriage-curtain loop consisting of two metallic strips, A B, united by folding the parts over, as shown, with their united edges closed down, and corrugated to securely hold them in place, substantially as described.

2. A carriage-loop provided with a corrugated edge-seam, for the purpose described.

GEO. L. CRANDAL.

Witnesses:

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