

*M. Loughran.*

*Making Carriage Irons.*

*N<sup>o</sup> 48,699.*

*Patented Jul. 11, 1865.*

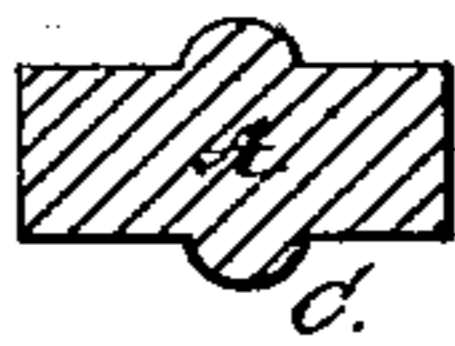
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



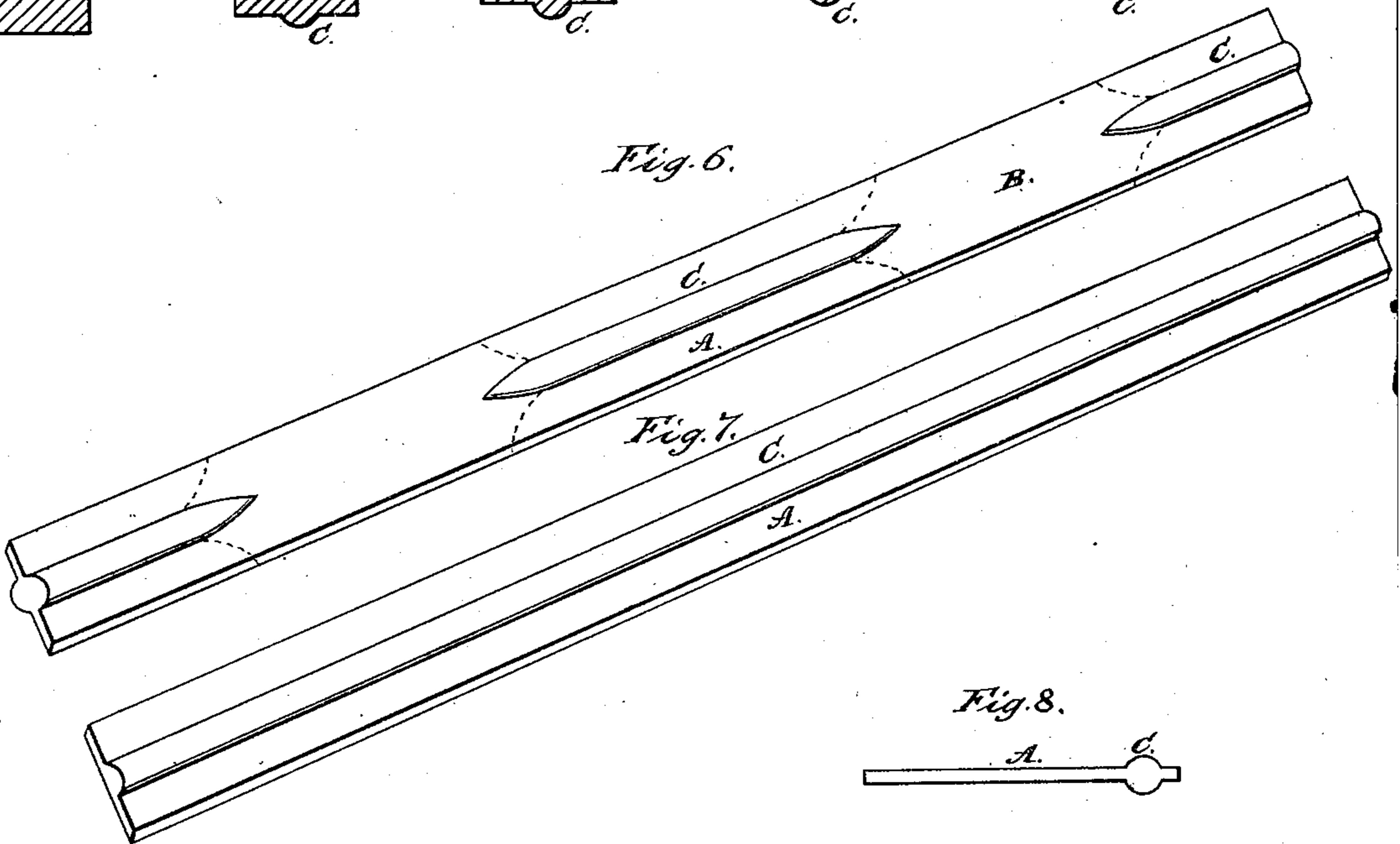
*Fig. 4.*



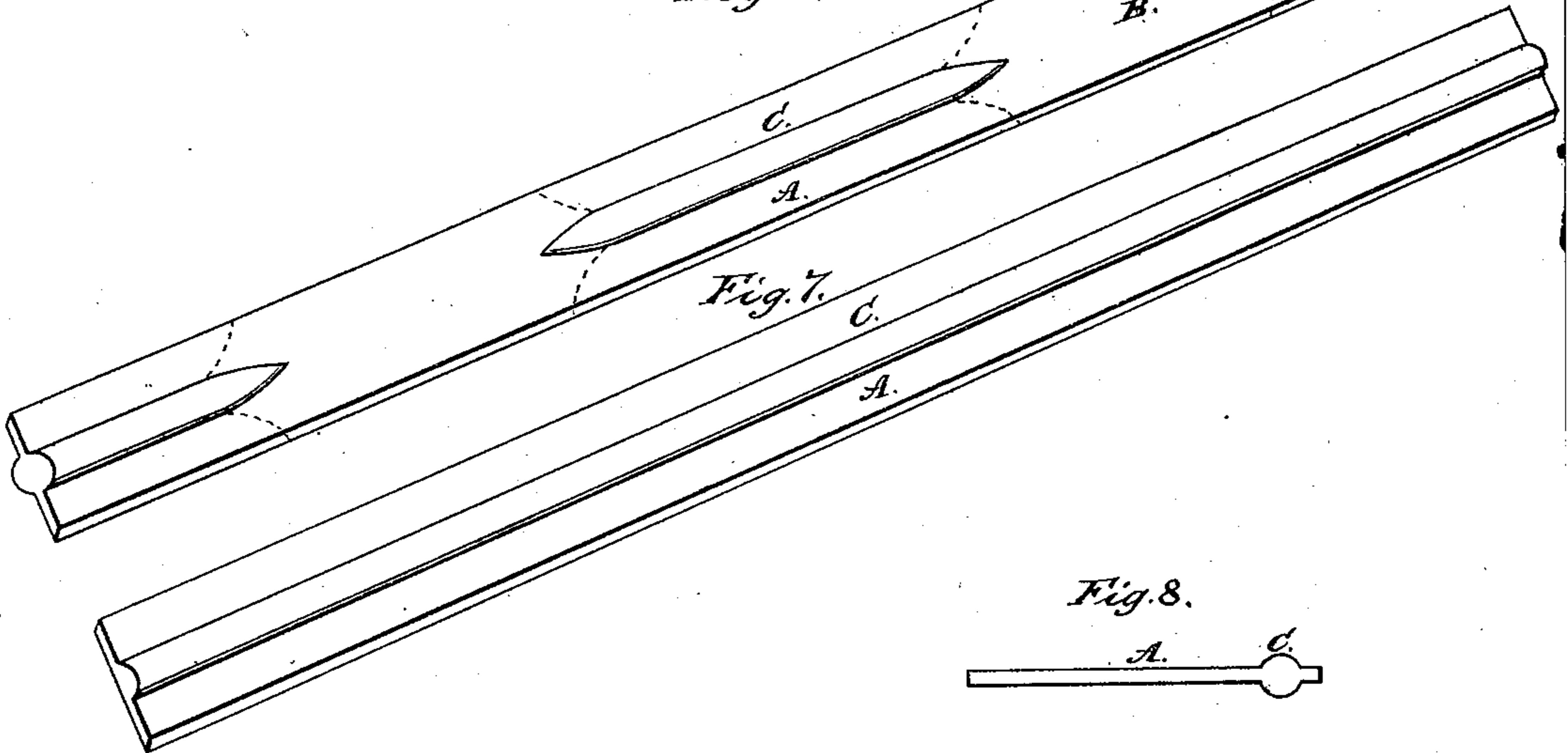
*Fig. 5.*



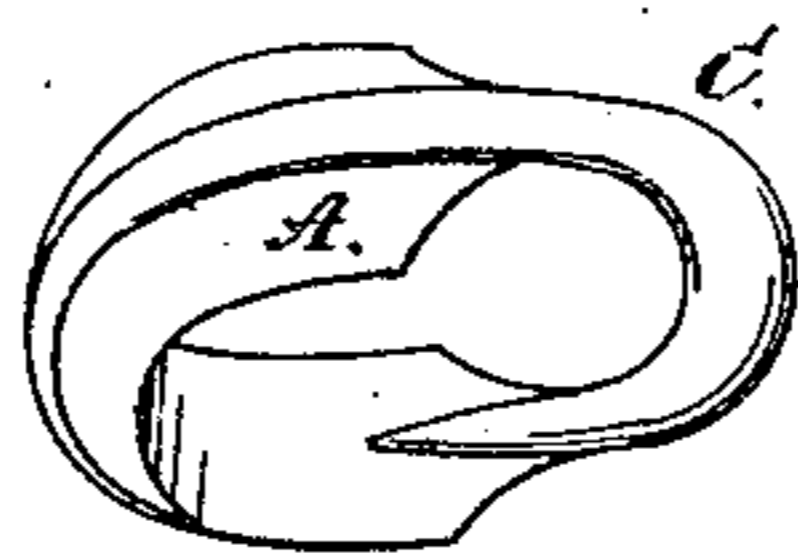
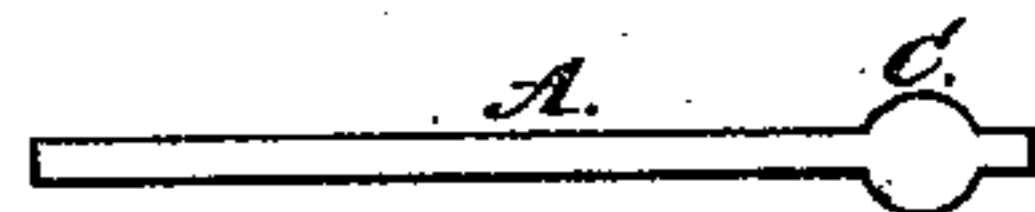
*Fig. 6.*



*Fig. 7.*



*Fig. 8.*



*Fig. 9.*

*Witnesses:*  
*Isiah W. Ellis.*  
*John R. McKenna*

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# UNITED STATES PATENT OFFICE.

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## IMPROVED METHOD OF FORMING BLANK CLIPS FOR SINGLE-TREES.

Specification forming part of Letters Patent No. 48,699, dated July 11, 1865.

### *To all whom it may concern:*

Be it known that I, MICHAEL LOUGHRAN, of Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented a new and Improved Method of Forming Blank Clips for Single and Double Trees; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming part of this specification, and to the letters of reference marked thereon.

The nature of my invention consists in rolling iron so as to form thin flat bars with a raised "bead" running longitudinally on both sides, either in the center of the bar or near one edge, and depressing the bead so raised in certain places on one or both sides, thus forming flattened spaces at regular intervals, in such a manner along the bar that by cutting away that portion of the flat on each side of the raised bead the bar can be turned and welded, forming a substantial clip or clevis in a cheap, neat, and expeditious manner.

To enable others to understand my invention, I will proceed to describe its construction by reference to the accompanying drawings, in which—

Figure 1 represents an end view of a small iron bar, A. This bar while hot is passed successively through the grooves of a properly-constructed pair of rolls until it assumes the various shapes indicated by the end views, Figs. 2, 3, 4, and 5, which, while it rolls the body A of the bar out thin, leaves a raised bead, C, down the center or near one edge, as shown at Fig. 8. This bar, so rolled, is then passed

through another groove in the same rolls, having blank spaces at regular points around its periphery, and as the bar passes through these blank points, depress the bead C in certain places, forming a series of short beads, having a flat space, B, between each, as represented by Fig. 6. Fig. 7 is a view of the opposite side of the bar, the bead C being left continuous. The iron being rolled, as shown, that part of the flat on each side of the short bead C is cut away, as indicated by the dotted lines at Fig. 6. The blank clips are then taken from the bar by severing or cutting through the center of each bead, which leaves the blanks so shaped that they can be easily bent and welded to form a finished clip or clevis, (represented by Fig. 9,) having a bead, C, extending around the outside, which not only adds to its appearance, but serves to strengthen it at those parts where strength is most needed.

Having thus briefly described my invention, what I claim is—

As a new article of manufacture, bars of iron, having a raised bead running longitudinally on one or both sides, whether said beads are in the center of the bar or near one edge, and with flattened spaces on one or both sides at regular intervals along the body of the bar, made by depressing the beads in certain places without regard to the shape of the beads, so so as to form clips and clevises, in the manner herein shown.

MICHAEL LOUGHRAN.

Witnesses:

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