

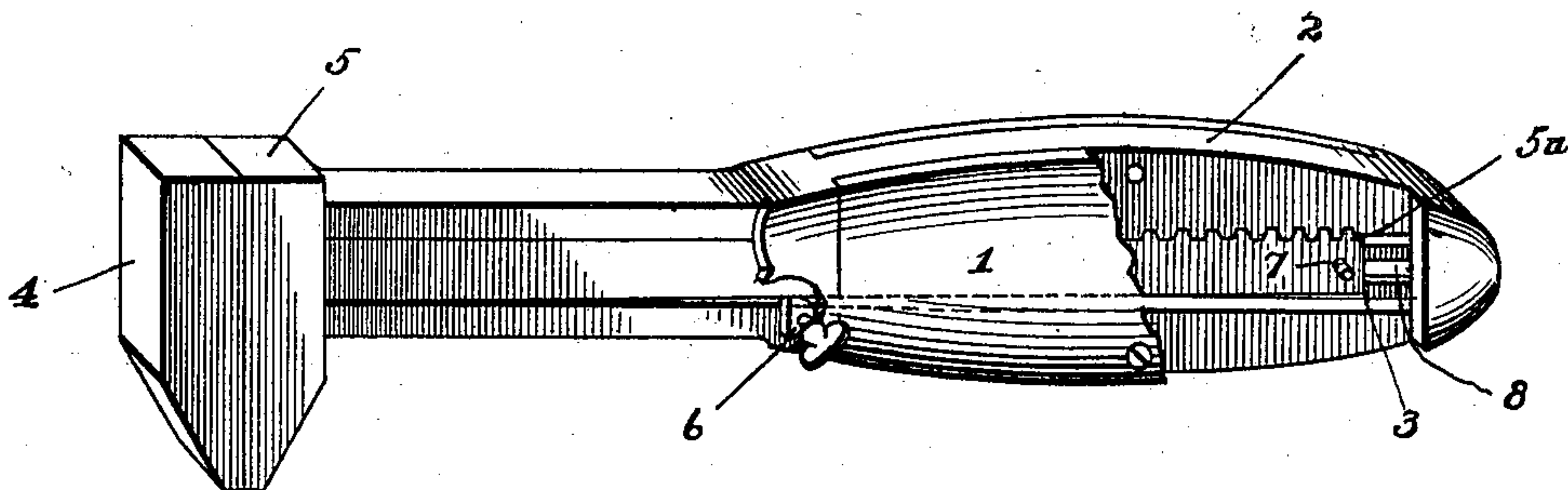
(No Model.)

L. N. LEONARD.  
COMBINED NUT AND PIPE WRENCH.

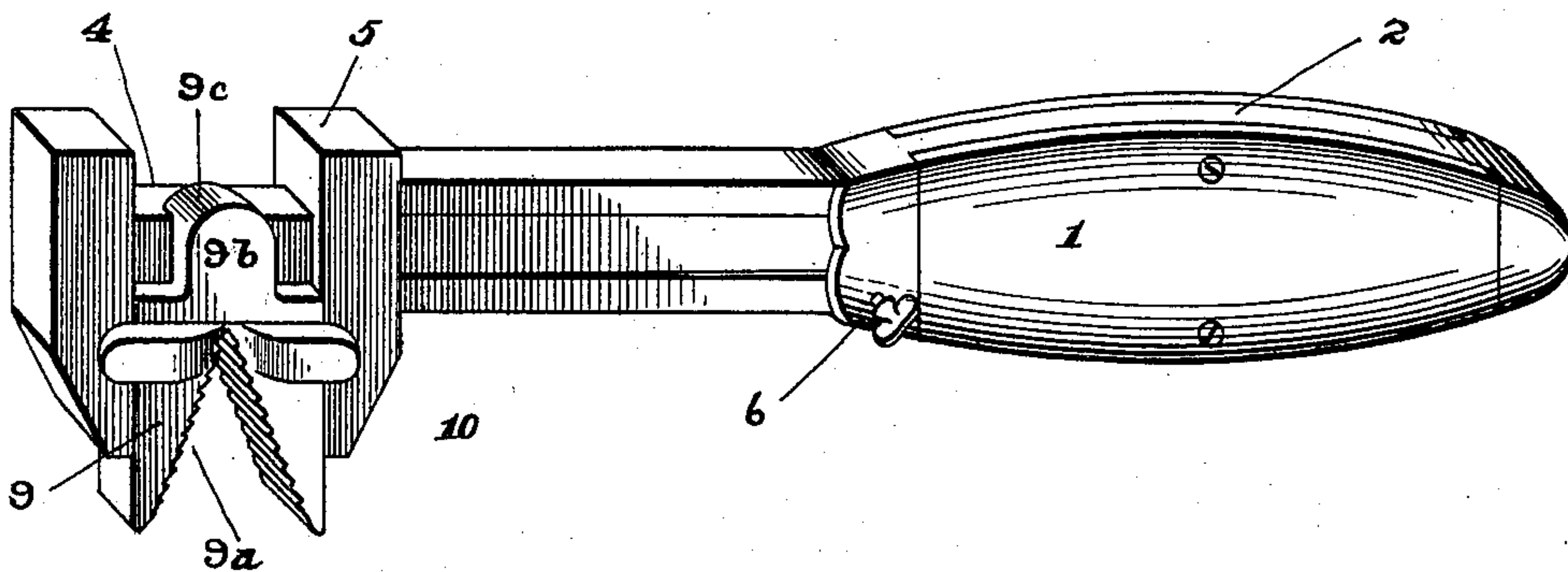
No. 599,001.

Patented Feb. 15, 1898.

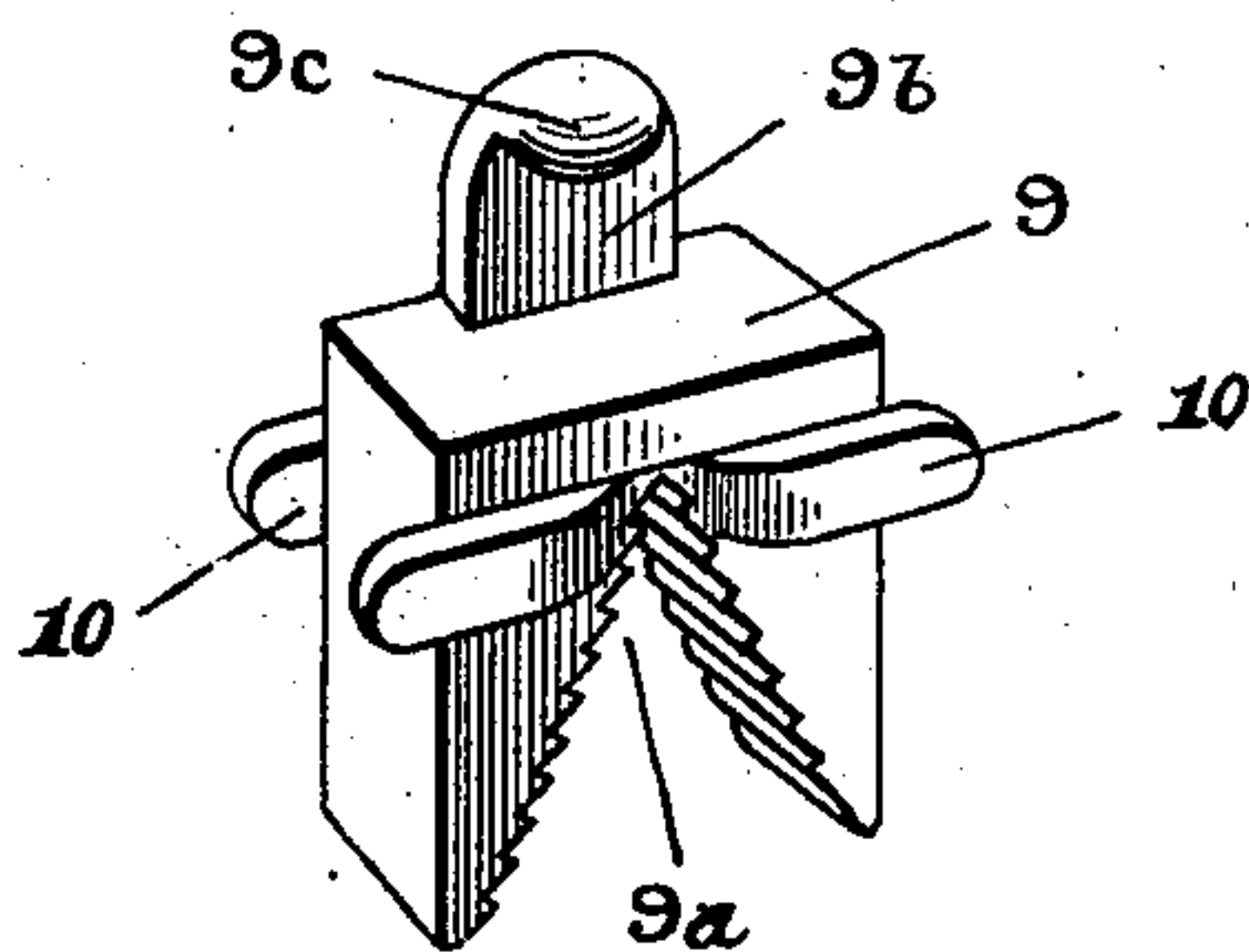
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses  
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# UNITED STATES PATENT OFFICE.

LOUIS N. LEONARD, OF BUTTE, MONTANA.

## COMBINED NUT AND PIPE WRENCH.

SPECIFICATION forming part of Letters Patent No. 599,001, dated February 15, 1898.

Application filed April 17, 1897. Serial No. 632,683. (No model.)

*To all whom it may concern:*

Be it known that I, LOUIS N. LEONARD, a citizen of the United States, residing at Butte, in the county of Silver Bow and State of Montana, have invented certain new and useful Improvements in a Combined Pipe and Monkey Wrench; and I do hereby 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.

This invention relates to certain improvements in a monkey-wrench, the object being to combine therewith a removable attachment which will temporarily make it applicable as a pipe-wrench.

The invention also contemplates the novel construction and arrangement of parts whereby they are made susceptible of rapid adjustment to nuts of varying sizes.

To these ends the invention comprises certain novel features of construction and arrangement of parts whereby the above and other important advantages are attained and whereby it is made simpler and better adapted for the purposes for which it is intended, as will be hereinafter fully described, and specifically defined in the appended claims.

In the accompanying drawings, Figure 1 represents a perspective view of a wrench embodying my invention, a portion of the handle being removed to show the construction and arrangement of the parts therein. Fig. 2 is a similar view showing the pipe-wrench attachment in position thereon, and Fig. 3 is a perspective view of the pipe-wrench attachment removed.

Similar reference-numerals designate corresponding parts in all the figures of the drawings.

1 represents the handle, which is formed of a skeleton frame 2, the upper and lower outer portions of which are designed to follow the contour of the handle and are so arranged as to provide a longitudinal space 3 to receive within it the shank 4 of the movable jaw. The forward end of the skeleton frame has an enlarged head 5, which serves as the stationary jaw of the wrench.

The extreme end of the shank of the movable jaw is provided with a series of serrations or teeth 5<sup>a</sup>, and the edge of the skeleton

frame adjacent thereto is provided with a series of similar teeth which are intended to engage with each other through the agency of means which I shall presently describe to prevent the movement of the movable jaw after having been set to the nut. The teeth are normally out of engagement and will thus permit of the free movement of the movable jaw, so that the wrench may be quickly set to the nut, after which a cam-block 6, rotatively secured to the skeleton frame beneath the edge of the shank of the movable jaw and provided with a suitable finger-piece to be grasped by the hand, is moved in one direction to cause the end of the shank to rise and bring its teeth into engagement with the toothed edge of the skeleton frame. The end of the shank is provided with lateral projections or pins 7, which are designed to move in longitudinal guideways 8, arranged upon either side of the handle, as clearly shown.

My improved pipe-wrench attachment comprises a block 9, having a V-shaped serrated opening 9<sup>a</sup> to receive the pipe and an extension 9<sup>b</sup>, adapted to rest against the side of the shank of the movable jaw. This extension 9<sup>b</sup> is arranged at one side of the block, and its end is bent to form a lip 9<sup>c</sup>, which bears upon the upper edge of the movable jaw, while the upper end of the block bears against the lower edge. Ribs 10 are arranged upon the block at each side of the V-shaped opening 9<sup>a</sup>, the outer extremities of which project beyond the ends of the block and engage the movable and stationary jaw, and in this manner my improved pipe-wrench attachment is securely held in place.

It will thus be seen that my invention provides in a simple and inexpensive manner a combined monkey and pipe wrench which is capable of rapid adjustment to varying-sized nuts and which provides a simple and effective device which may be quickly attached, so as to convert it into a pipe-wrench. It is also obvious that as the parts are simple in their construction and arrangement they are not liable to get out of order.

Modifications of my invention may be made without departing from the essential features thereof, and I do not wish to be understood as limiting myself to the precise details of construction herein shown and described,



but reserve the right to change and alter the various parts as may be considered to fall within its spirit and scope.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A wrench, comprising a handle provided with a groove having teeth or serrations thereon, and a head to form the stationary jaw, a block having a serrated opening and extension and projections at each side thereof, a movable jaw arranged upon a shank, adapted to slide within said groove, the end of the shank being provided with teeth or serrations, and a cam-block rotatively secured to said handle by movement of which the teeth are brought into or out of engagement with each other, substantially as described.

2. A wrench, comprising a handle provided with a groove having teeth or serrations thereon, and a head to form the stationary jaw, a block having a serrated opening and extension and projections at each side thereof, a

movable jaw arranged upon a shank, adapted to slide within said groove, the end of the shank being provided with teeth or serrations, and lateral projections or pins adapted to move in grooves in the sides of the handle, and a cam-block rotatively secured to said handle by movement of which the teeth are brought into or out of engagement with each other, substantially as described.

3. A pipe-wrench attachment, comprising a block having a serrated opening therein to engage the pipe, an extension formed thereon to engage one edge of the shank and projections arranged at each side of the block adapted to engage the stationary and movable jaws, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

LOUIS N. LEONARD.

Witnesses:

CHAS. B. LORENZ,  
L. V. BENDER.