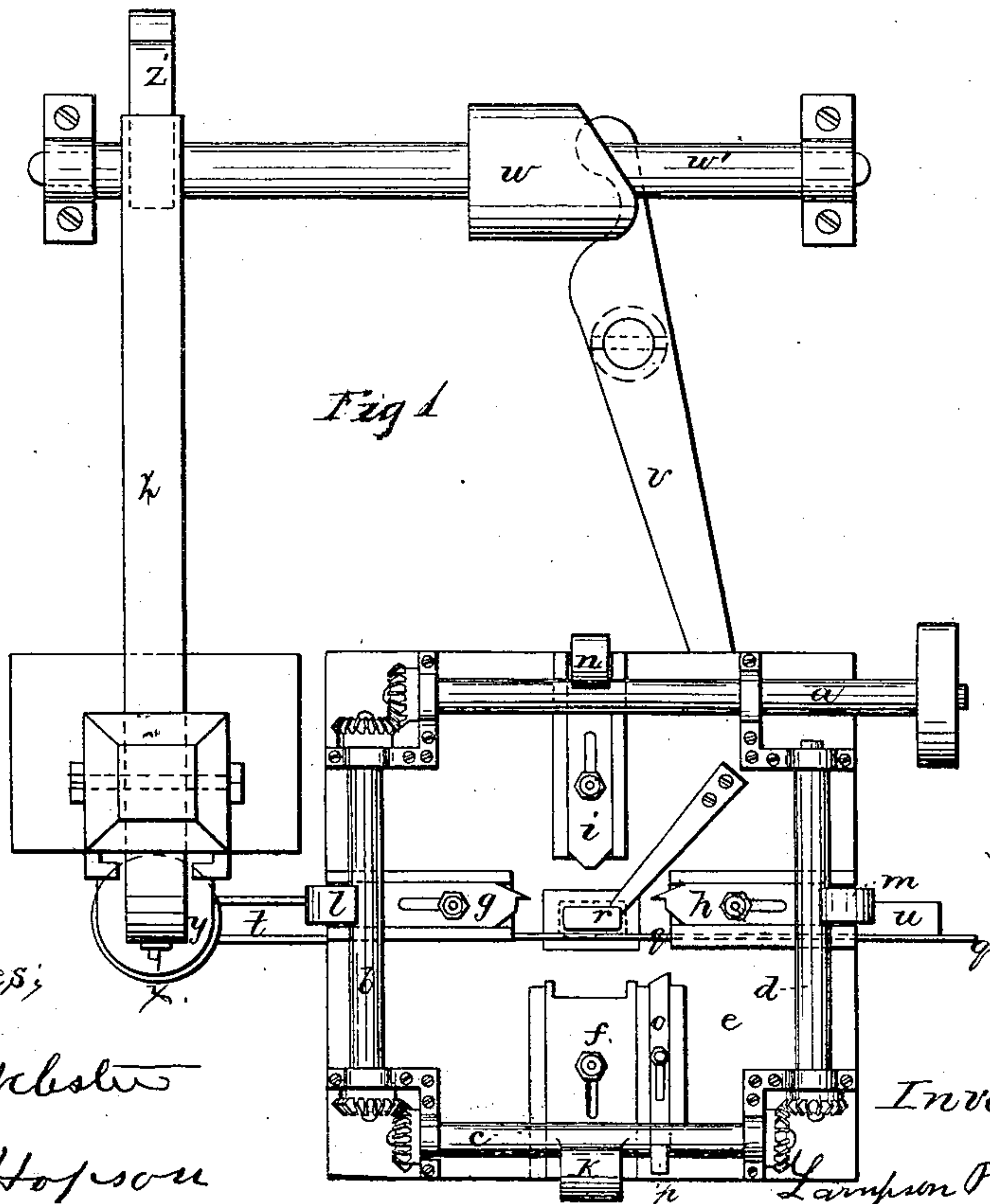
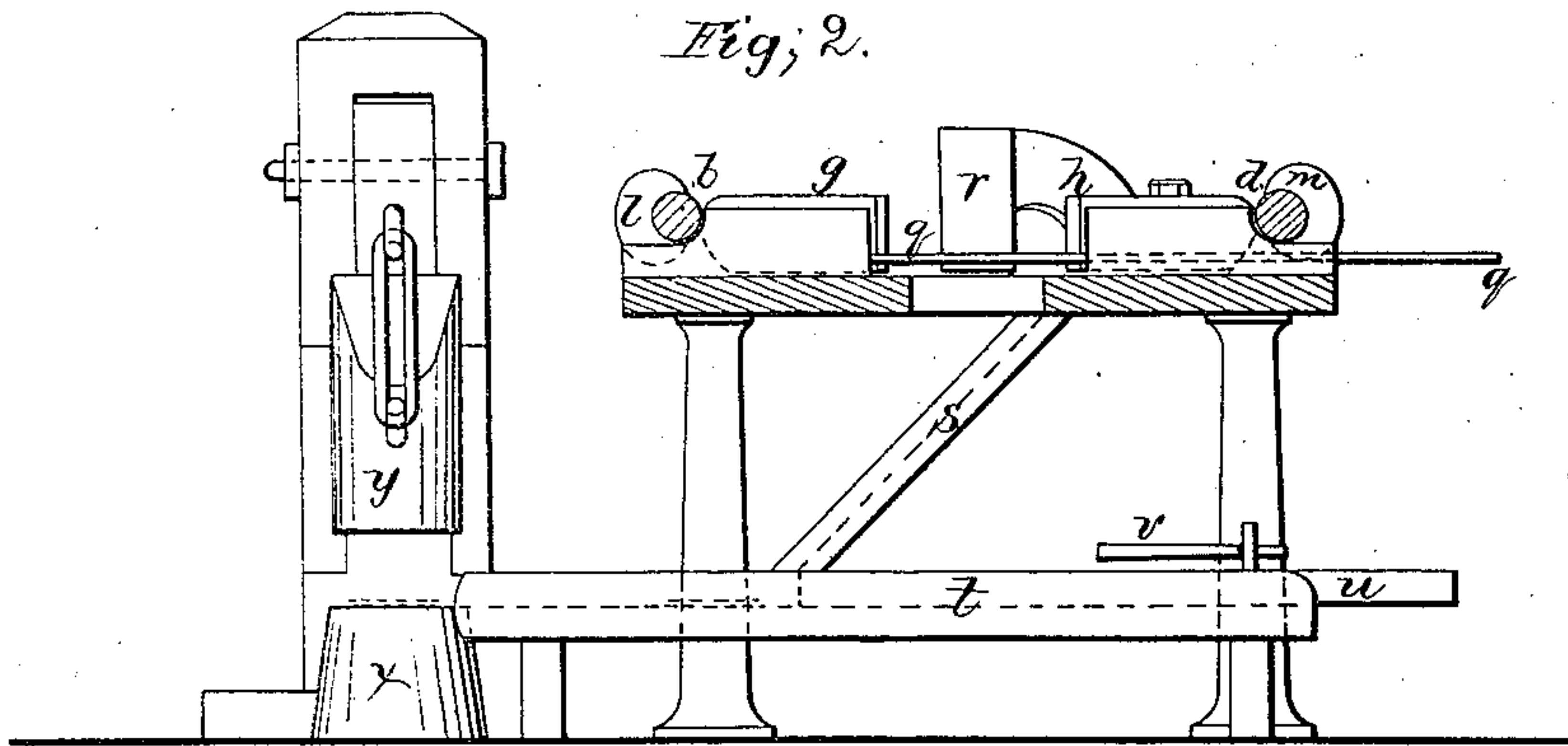


*I. P. Mitchell.*

*Making Clothes Buckles.*

*N<sup>o</sup> 5,606.*

*Patented Dec. 19, 1865.*



*Witnesses;*

*John W. Webster  
Orin L. Hopson*

*Inventor;*

*Lamson P. Mitchell*

# UNITED STATES PATENT OFFICE.

LAMPSON P. MITCHELL, OF WATERBURY, CONNECTICUT.

## IMPROVEMENT IN MACHINERY FOR MAKING BUCKLES.

Specification forming part of Letters Patent No. 51,606, dated December 19, 1865.

*To all whom it may concern:*

Be it known that I, LAMPSON P. MITCHELL, of Waterbury, in the county of New Haven and State of Connecticut, have invented, made, and applied to use a certain new and useful Improvement in Machinery for Making Buckles and Similar Articles; and I do hereby declare the following to be a full, clear, and exact description of my said invention, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 is a plan of my said machine, and Fig. 2 is an elevation of the press with the bending-machine shown in section.

Similar marks of reference denote the same parts.

I make use of a series of successively operating clamps to bend the wire up to its desired shape around a stationary block, in combination with a conductor and automatic feeding-slide that conveys the buckle or buckle-frame to the die that flattens or presses the same to shape, the feeding up of one buckle or buckle-frame forcing away the one previously impressed.

In the drawings, *a* is the driving-shaft of the bending-machine.

*b*, *c*, and *d*, are shafts occupying a quadrangular position and driven by miter-gears at the angles.

*e* is a bed sustaining these shafts, and also fitted with grooves or recesses, in which the bending-blocks *f*, *g*, *h*, and *i* slide, that are actuated respectively by cams *k*, *l*, *m*, and *n*, that are shaped so as to bring the said blocks up at the proper time.

*o* is a cutter, acted upon by a cam, *p*, that acts to separate the length of wire to form the buckle or similar article, said wire *q* being fed in the proper length each movement of the machine.

In the center of the machine is the forming-block *r*, supported from a bracket upon the bed *e*, which bed *e*, beneath this block *r*, is formed with an opening.

The wire *q*, being fed in by rollers or other suitable mechanism, is cut off by the cutter *o* at the same time that the bending-block *f* comes up against it and bends the ends backward around the block *r*. Then the blocks *g* and *h* come up, bending the ends backward again, so as to form the wire into a quadrangular shape, the die *i* being employed to act upon the wire, near the ends thereof, and press them so as to insure said ends coming properly together. (See red lines, Fig. 1.) As the parts move, the cams *k*, *l*, *m*, *n*, and *p* allow the respective slides to be withdrawn by springs or equivalent means, and the buckle or buckle-frame, being unsustained, drops or may be forced off the former *r* and falls down the chute *s* into a horizontal trough, *t*, wherein is a slide, *u*, operated on by a lever, *v*, and cam *w* on the shaft *w'*, which is timed to move in unison with the shaft *a*, and this slide *u* conveys the buckle or similar article along the trough *t* to the anvil *x*, that is on a level with the bottom of said trough, and by this means the wire article, bent up as aforesaid, is placed properly on the said anvil, the act of doing which pushes off the previous buckle. The buckle or frame is pressed or flattened by the die *y*, acted upon by the lever *z* and cam *z'* on the shaft *w'*.

By this arrangement of mechanism the bending up and stamping of the buckle or frame is rendered automatic and reliable, each article being properly bent and stamped precisely the same as the others.

What I claim, and desire to secure by Letters Patent, is—

The combination of the chute *s*, trough *t*, and feeding-slide *u*, with the dies *x* *y* and mechanism for bending the wire to shape, substantially as set forth.

In witness whereof I have hereunto set my signature, this 15th day of August, 1865.

LAMPSON P. MITCHELL.

Witnesses:

ORRIN L. HOPSON,  
JOHN W. WEBSTER.