

(Model.)

L. J. LYMAN.
Tracheotomes.

No. 241,036

Patented May 3, 1881.

Fig: 1.

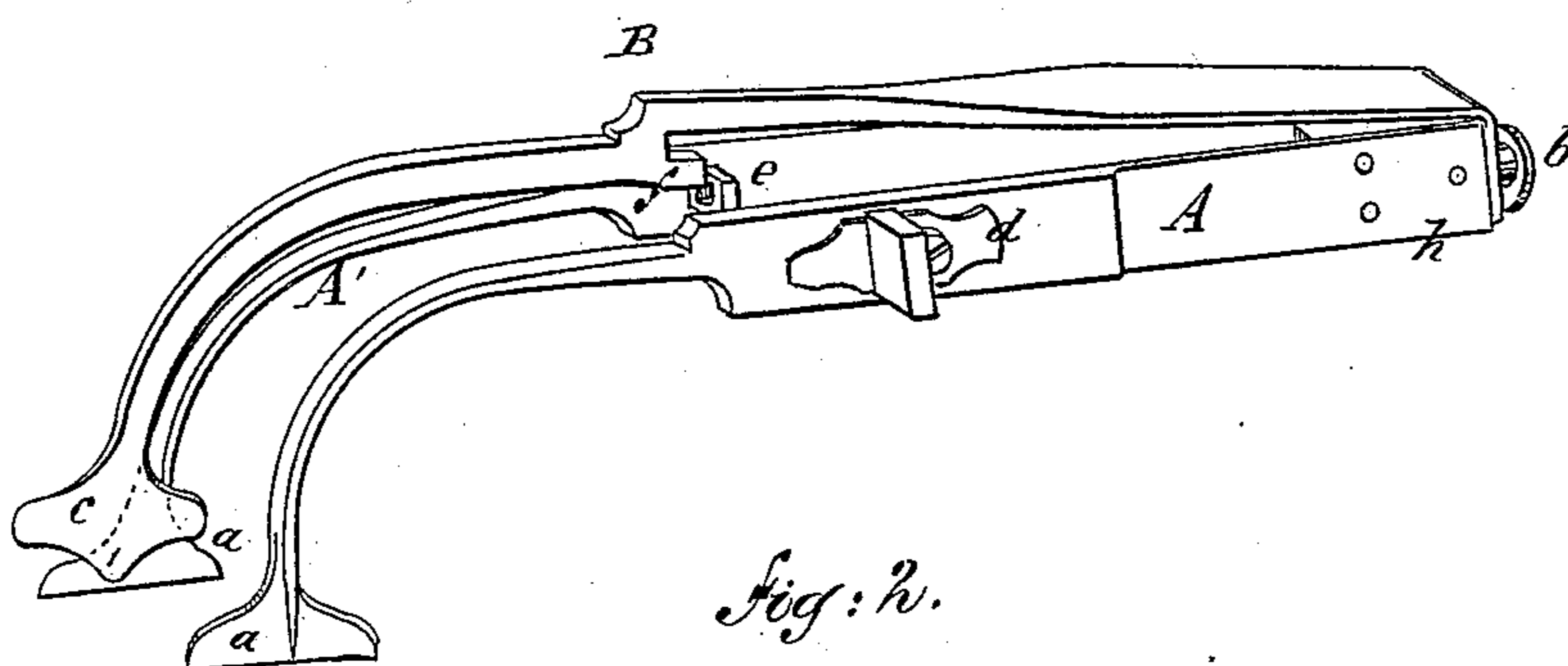


Fig: 2.

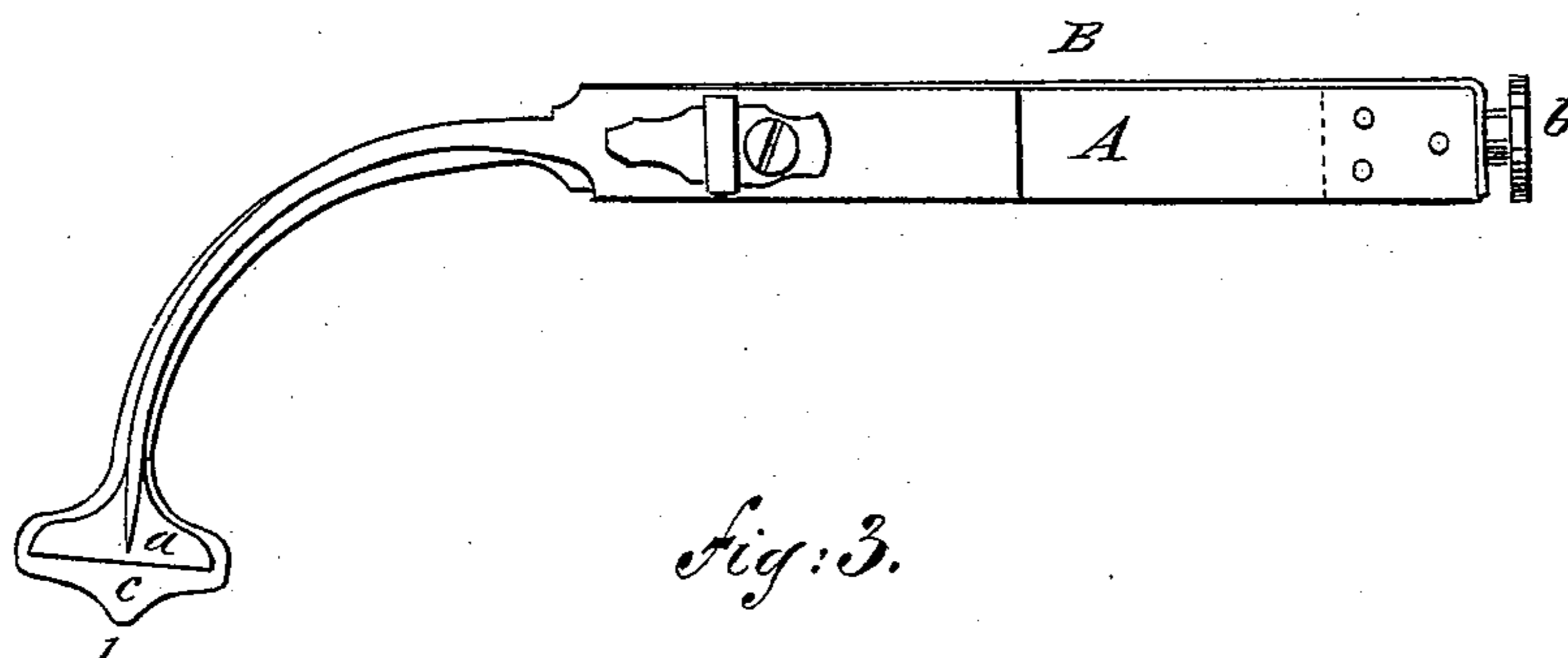
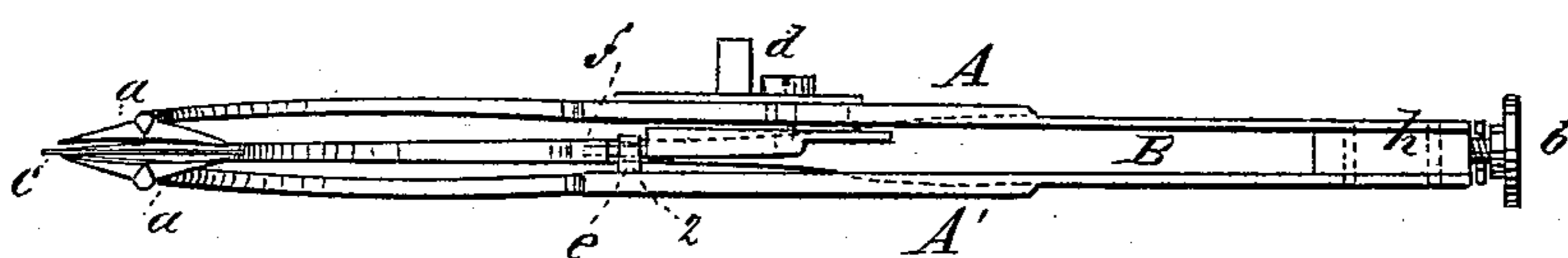


Fig: 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

LEWIS J. LYMAN, OF MANHATTAN, KANSAS.

TRACHEOTOME.

SPECIFICATION forming part of Letters Patent No. 241,036, dated May 3, 1881.

Application filed August 21, 1880. (Model.)

To all whom it may concern:

Be it known that I, LEWIS J. LYMAN, of Manhattan, in the county of Riley and State of Kansas, have invented a new and useful Improvement in Tracheotomes, of which the following is a specification.

My improvements relate to surgical instruments for use in opening the trachea in cases of membranous croup, or in any case when it is necessary to practice tracheotomy.

The object of my invention is to provide for more easily effecting an entrance to the trachea than can be done by instruments heretofore in use, and for retaining the instrument in proper place after insertion.

The invention consists in a blade of peculiar shape upon a spring-arm fitted between two spring holding-arms that are formed with T ends, and also in a catch for simultaneously securing and loosening the spring-arms, all as hereinafter described with reference to the accompanying drawings, forming part of this specification.

Figure 1 is a perspective view of my improved tracheotome in an open position. Fig. 2 is a side view of the same as closed. Fig. 3 is a bottom view of the same as closed.

Similar letters of reference indicate corresponding parts.

In the drawings, A A' are spring-arms, attached firmly at the base to a suitable block, h, and having their outer portions curved, as shown, for convenience of use. The outer ends of arms A are formed with projections a a, which give a T shape to the ends, and these T ends are beveled upon the outer side, so that when brought together upon the blade by compressing the arms there is no abrupt edge.

B is the spring-arm carrying the blade. This consists of a spring-plate attached to the base h by a set-screw, b, or similar fastener, which passes through a slot in the end of arm B, so that the latter can be removed quickly after the trachea is opened. The outer end of arm B is curved to conform to arms A A', and is shaped so that when pressed inward the outer end of arm B, carrying blade c, passes between

arms A A'. The blade c is made slightly longer than the T ends of arms A A', and has its forward cutting-edge formed with a point, 1, at its mid-length, from which point the edge curves inward to the ends, thus forming a double-concave cutting-edge, which is most effective for slitting the trachea to give entrance for the T ends of arms A A', which, when compressed, come at opposite sides of the blade.

Upon the side of one arm, A, there is fitted a sliding catch, d, that is formed at the inner portions with a projection, 2, for entering an eye, e, that is fixed on the inner side of the other arm. The arm B is formed with a projection, f, at its inner side, which passes in front of the eye e when the arms are compressed, so that the projection 2 of catch d will pass above the projection f of arm B, and the three arms will thus be held in the compressed position. To release the arms simultaneously it is only necessary to slide the catch d back.

The instrument is used in the closed position for effecting an entrance. After the T ends are entered the catch d will be moved to spread the arms A A' and the arm B will spring back, so that by loosening screw b the arm or blade can be removed. The T ends of arms A A' prevent the instrument from becoming misplaced after insertion by catching under the angles of the opening made by the dilation of the slit in the trachea, thereby keeping the trachea open until the tube is introduced.

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

1. The tracheotome consisting of spring-arms A A', formed with T ends, spring-arm B, provided with blade c, and catch d, or equivalent device, for retaining the arms closed, combined for use substantially as described.

2. In tracheotomes, the sliding catch d, formed with projection 2, combined with arms A A' and B, having eye e and projection f, substantially as and for the purpose set forth.

LEWIS JUDD LYMAN.

Witnesses:

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GEO. S. GREEN.