

H. H. Elwell.

Reversible Knob Latch.

N^o 53,520.

Fig. 1. Patented Mar. 27, 1866.

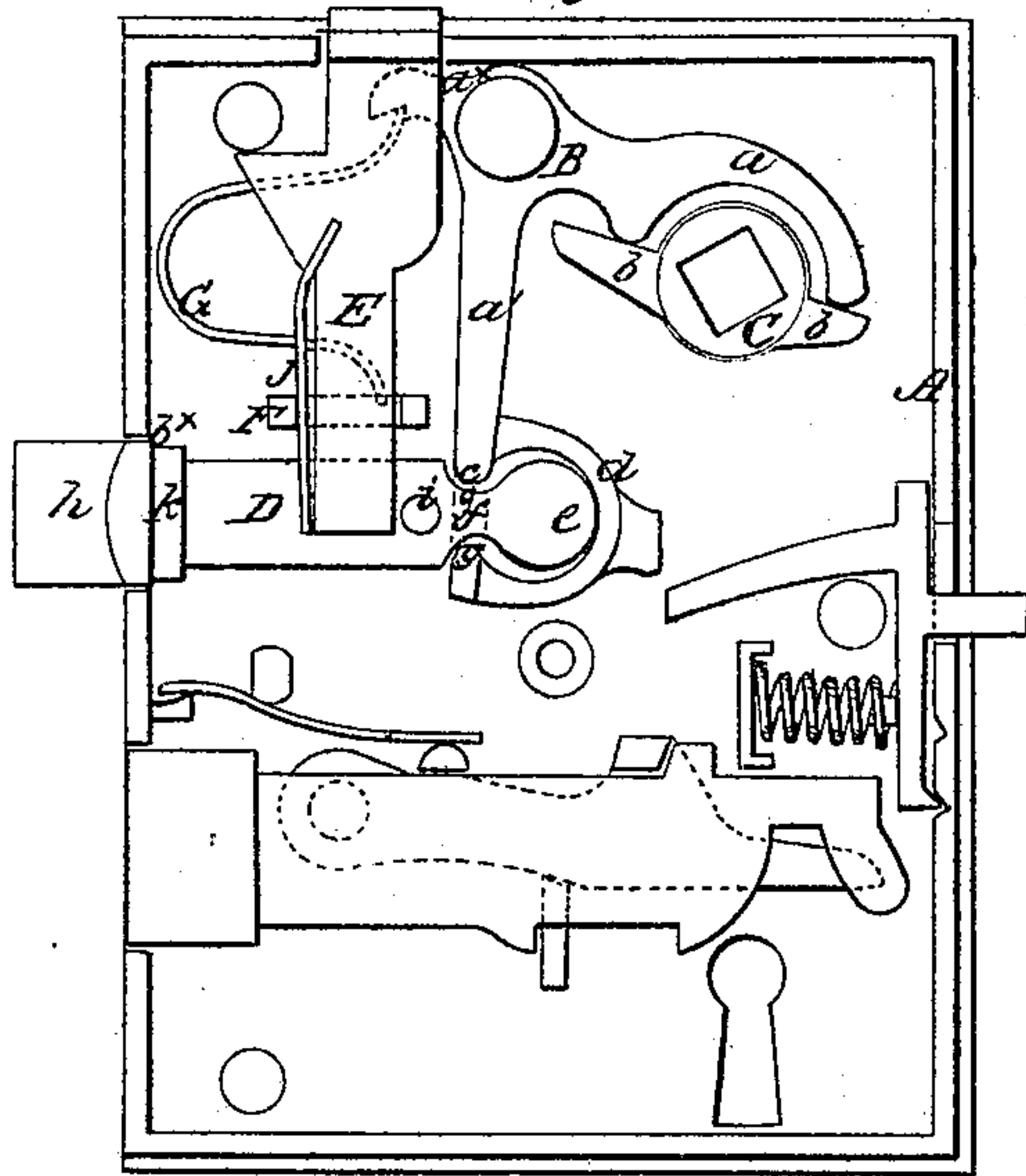


Fig. 2.

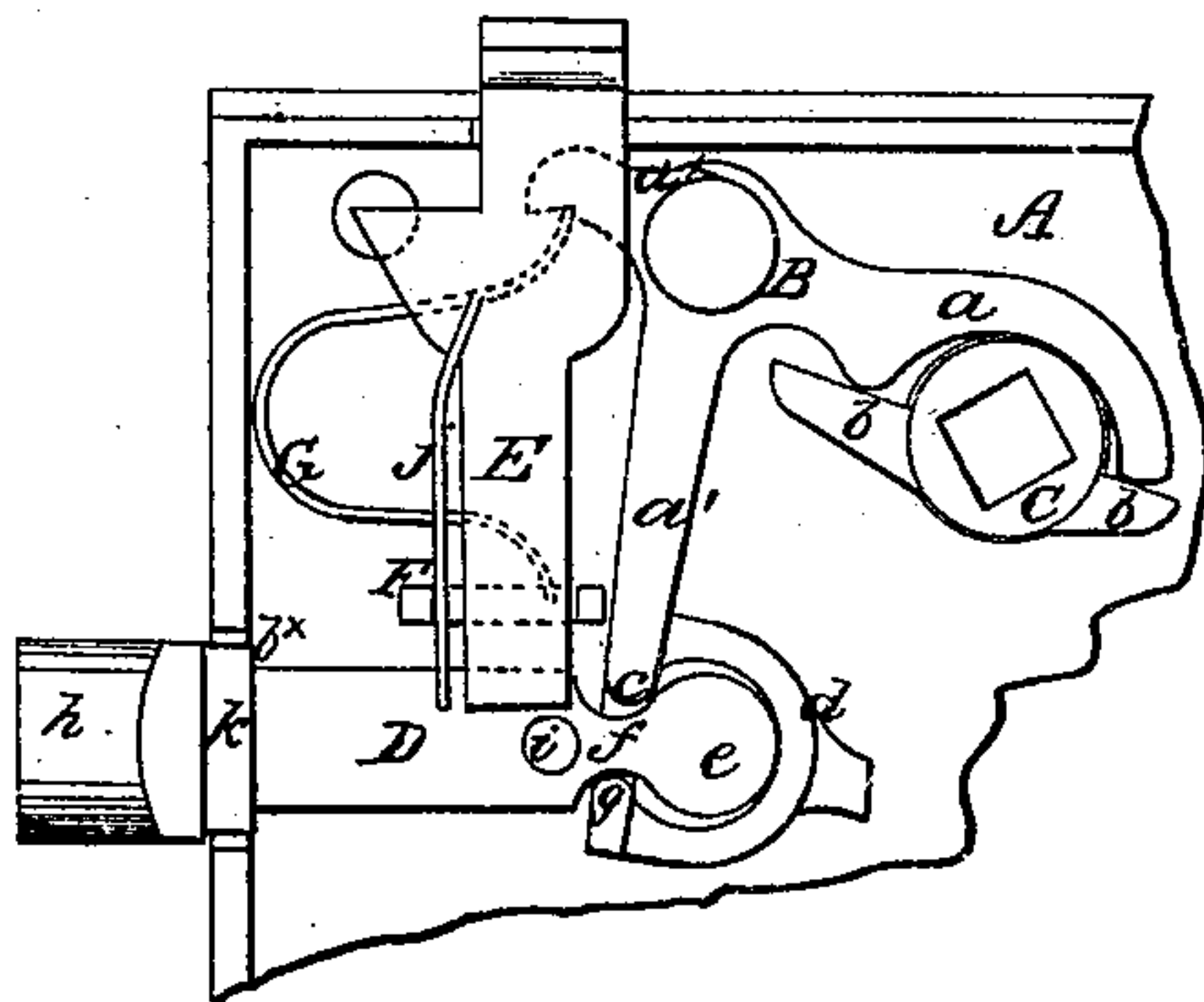


Fig. 3.



Witnesses:

Wm E Lyon
Geo B Huntington

Inventor:

Henry H Elwell
Munn & Co Attorneys

UNITED STATES PATENT OFFICE.

HENRY H. ELWELL, OF NORWALK, CONNECTICUT, ASSIGNOR TO THE
NORWALK LOCK COMPANY, OF SAME PLACE.

IMPROVEMENT IN KNOB-LATCHES.

Specification forming part of Letters Patent No. 53,526, dated March 27, 1866.

To all whom it may concern:

Be it known that I, HENRY H. ELWELL, of Norwalk, in the county of Fairfield and State of Connecticut, have invented a new and useful Improvement in Locks; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an internal view of a lock having my improvement applied to it. Fig. 2 is also an internal view of a portion of the same, showing a different position of the parts constituting my invention and the other parts which are internally connected therewith; Fig. 3, a detached top or under view of the slide-latch.

Similar letters of reference indicate corresponding parts.

This invention relates to a new and useful improvement in that class of locks which are provided with reversible slide-latches to admit of them being applied to either a right or left hand door, as may be required.

The invention consists in a novel way of attaching or connecting the slide-latch to the lever of the knob-arbor, as hereinafter fully shown and described, whereby the slide-latch may be turned or reversed in the lock without disconnecting the latch from the lever.

The invention also consists in using, in connection with the slide-latch attachment above described, an adjustable stop and guide in connection with a cylindrical collar on the slide-latch, all arranged as hereinafter fully shown and described, whereby the slide-latch is firmly held in position when adjusted as desired, and readily released so as to be capable of being turned or reversed when necessary.

A represents the lock-case, which may be constructed of rectangular or other form, and provided internally with a lever, B, having two arms, *a a'*, against one of which, *a*, the arms *b b* of a hub, C, on the knob-arbor work.

The lower end of the arm *a'* of the lever B has a notch or recess, *c*, and a socket, *d*, at one side, the latter receiving the inner end of the slide-latch D, which is of circular form,

as shown at *e*, a neck, *f*, being formed by notches or recesses *g g* in the top and bottom edges of the slide-latch. This neck *f* fits in the recess *c* in the arm *a'* of the lever B. By this arrangement a secure connection is formed between the slide-latch and the arm *a'* of the lever B, so that when the latter is operated, through the medium of the hub on the knob-arbor, the slide-latch D may be drawn within the lock-case. The outer end of the slide-latch D is beveled at one side, as shown at *h*, and it will be seen that by this mode of connection the slide-latch may be turned so as to bring the bevel *h* to suit either a right or left hand door, as may be required, and in turning the slide-latch it does not require to be disconnected from the arm *a'* of lever B. The direct or principal connection of the slide-latch with the arm *a'* is formed by the edges of the recess *c* fitting it the notches or recesses *g g* in the slide-latch, and the socket *d* of said arm, with the circular end *e* of the slide-latch fitting into it, prevents unnecessary play between the arm and slide-latch, and at the same time admits of the connection being sufficiently loose to avoid any binding of the parts.

The slide-latch has a pin, *i*, projecting from each side of it, and within the case there is fitted a vertical slide, E, the upper end of which projects through the top of the lock-case, so that it may be operated. This slide is fitted in a guide, F, and it has a spring, *j*, at one side of it, which is also fitted within the guide and prevents the slide from casually moving or dropping when raised. This slide works over the slide-latch and serves to keep it in position or prevent it from turning, and the pin *i*, at the outer side of the slide-latch, is kept in contact with the slide when the latter is down by means of a spring, G, which bears against a projection, *a^x*, at the upper end of lever B. (See Fig. 1.)

On the slide-latch D, at the inner end of the bevel *h*, there is a cylindrical collar, *k*, which, when the slide-latch is adjusted in a working position, as shown in Fig. 1, is entirely within the lock-case, and the square portion of the slide-latch at the inner part of the bevel within the square opening *b^x* of the case, through which the slide-latch works, as shown in Fig. 1.

In order to turn the slide-latch and reverse the bevel *h* the slide *E* is raised so that its lower end will be above the pin *i*, and the spring *G* immediately throws the slide-latch out sufficiently far to cause the cylindrical collar *k* to pass into the opening *b*^x, (see Fig. 2,) and the slide-latch may then be turned, and, when turned, shoved a trifle inward or backward, so that the slide *E* may be shoved down in front of the pin *i*.

The arrangement is an exceedingly simple one, and admits of the slide-latch being turned or reversed in position with the greatest facility.

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

1. The connecting of the slide-latch *D* with

the arm *a'* of the lever *B*, by means of the recess *c* and socket *d* of said arm, and the circular end *e* of the slide-latch, and the notches or recesses *g g* in the top and bottom edges of the same, substantially as shown and described.

2. In combination with the connection above specified, the pins *i*, on the slide-latch, and the slide *E*, substantially as and for the purpose specified.

3. The cylindrical collar *k* on the slide-latch, in combination with the pins *i* and the slide *E*, substantially as and for the purpose set forth.

HENRY H. ELWELL.

Witnesses:

JOHN B. WHEELER,
SAMUEL E. FOOTE.