

(Model.)

A. H. HASTINGS.
Upright Piano Forte Frame.

No. 241,212.

Patented May 10, 1881.

Fig. 1.

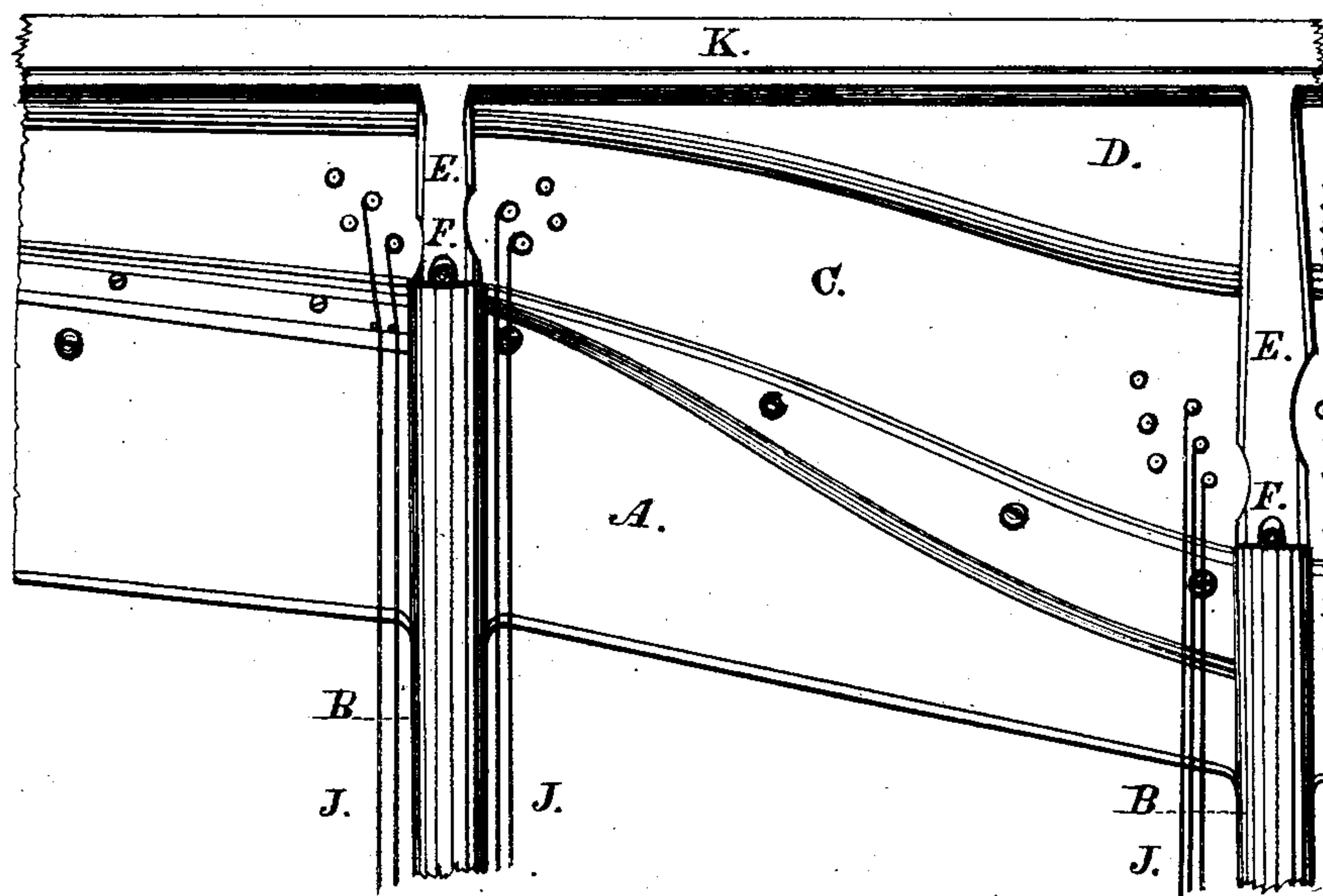
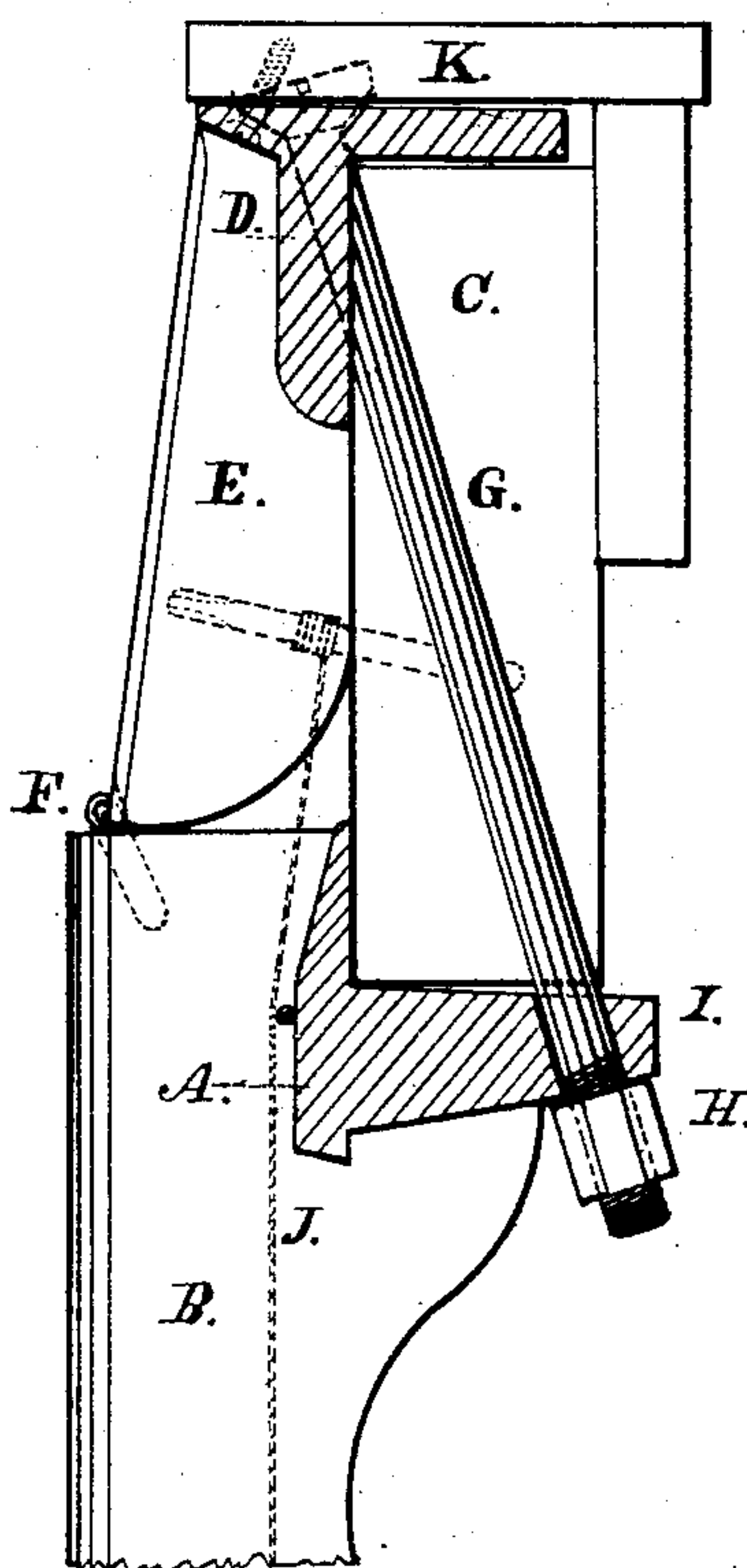


Fig. 2.



Witnesses;

Harrie A Hastings
Argus L Freeman

Inventor;

Mariah Horace Hastings.

UNITED STATES PATENT OFFICE.

AZARIAH H. HASTINGS, OF NEW YORK, N. Y.

UPRIGHT-PIANO-FORTE FRAME.

SPECIFICATION forming part of Letters Patent No. 241,212, dated May 10, 1881.

Application filed June 24, 1880. (Model.)

To all whom it may concern:

Be it known that I, AZARIAH HORACE HASTINGS, a citizen of the United States, residing at New York city, in the county and State of New York, have invented certain new and useful Improvements in Upright Piano-Fortes, of which the following is a specification.

The object of my invention is to produce a wrest-block in upright pianos that is less changeable in dampness and heat, to centralize the strength of the structure with the strain of the strings, making the structure more compact and solid, and to avoid the necessity of timbers in the back, which occupy space that should be left unoccupied to produce an acoustic advantage to the sound-board; and it consists in a metal cap to cover a part of the front of the wrest-block and extend back over a part or all of the top of the wrest-block and connect it with the string-frame by bars cast on the cap or on the string-frame, and in bolts running from the cap at the top front corner of the wrest-block obliquely down to the lower back corner, and there secured to the string-frame by a support or lug cast thereon.

In the accompanying drawings, Figure 1 represents a front view of the string-frame with two intermediate bars, the wrest-block, cap, and rear top of the piano. Fig. 2 represents a sectional view of the same at one of the intermediate bars of the string-frame, showing the position of bolt and the line of strength and strain.

A is the iron string-frame; B B, the intermediate bars on the string-frame. These bars run up to the top of the string-frame or beyond, to serve as a support for the cap D, on which I cast bars or supports E E, which rest against the bars of the string-frame, secured by dowels F F. I make the metal cap D to cover a part or all of the front of the wrest-block C, and extend it back over the top of the wrest-block far enough to give it strength to check the forward tendency of the top of the wrest-block between the bars on the string-frame or

supports on cap. This cap may be cast in one piece with the string-frame for some pianos. At the bars I run a bolt, G, as shown in Fig. 2, through the cap D, at the upper front corner of the wrest-block C, obliquely, down to the lower back corner of the said block, and there secure it by a nut, H, (or other mechanical device,) to a support, I, cast on the string-frame. By this arrangement the forward tendency of the top of the wrest-block is checked, and the breaking-strain is overcome by strength of metal that does not vary by atmospheric changes, and avoids the necessity of wooden timbers in the back. It also centralizes the strength of the structure with the strain of the strings, as shown by the string J in Fig. 2, which shows the line of strain. The top of the cap D may be cast to serve as the rear top of the piano, or a wooden top, K, may be used, as shown in drawings, by screwing it to the cap in front, as shown in Fig. 1.

I am aware that upright pianos have been made with bars and plates in front of the wrest-block. I therefore do not claim such a construction, neither do I claim a piano constructed without bracing back of the sound-board; but—

What I do claim as my invention, and desire to secure by Letters Patent, is—

1. The metal cap D, constructed as described, and adapted to cover a part or all of the front surface of the wrest-block C, and having its flange extending back at right angles (or thereabout) to the front portion to cover a part or all of the rear top of the piano-case, substantially as set forth.

2. The bolt G and cap D, in combination with the support I, cast on the string-frame, and the connecting-supports E, all arranged to operate substantially as shown and described, and for the purpose set forth.

AZARIAH HORACE HASTINGS.

Witnesses:

EDWD. H. PECK,
HULBERT PECK.