

E. Prescott,
Making Combs,
Nº 11,793, Patented Oct. 10, 1854.
Fig. 1.

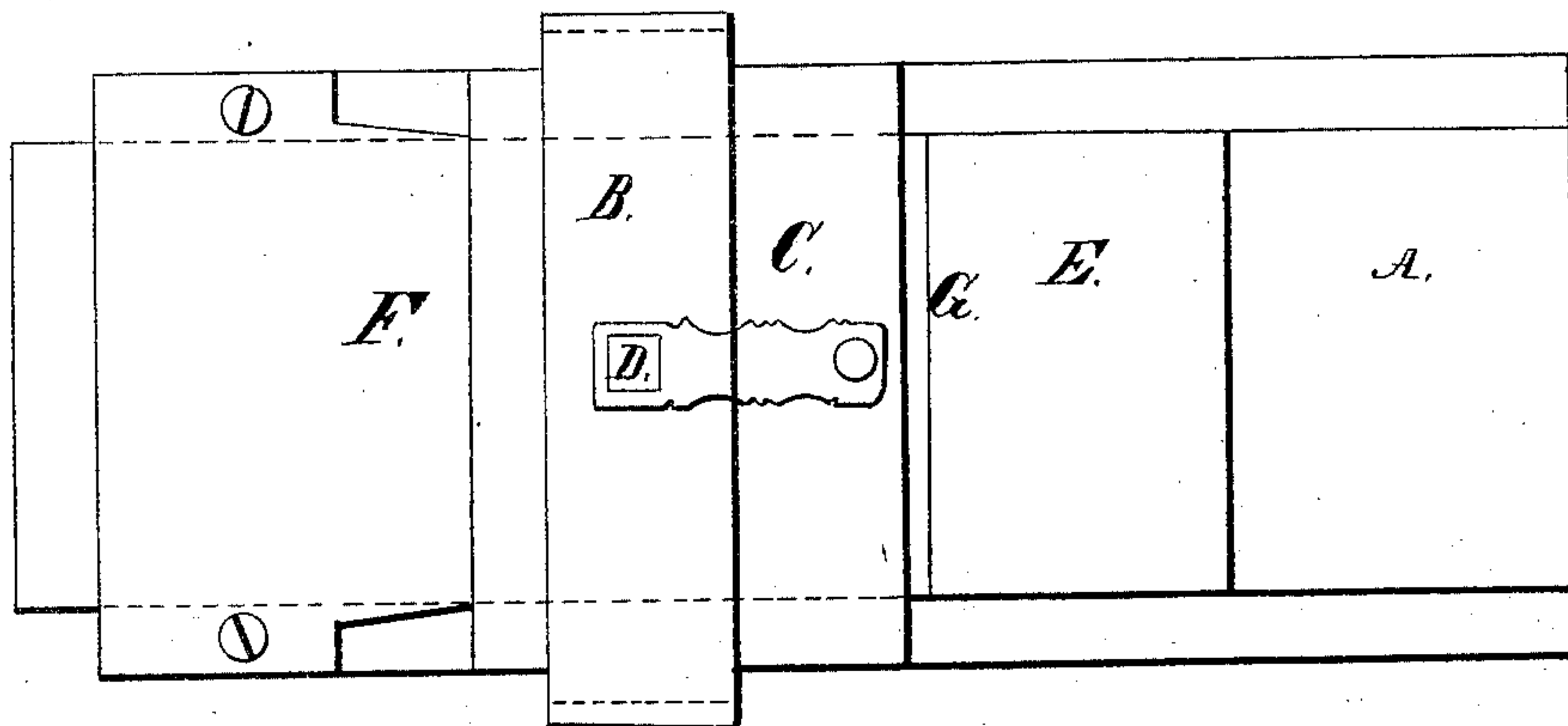
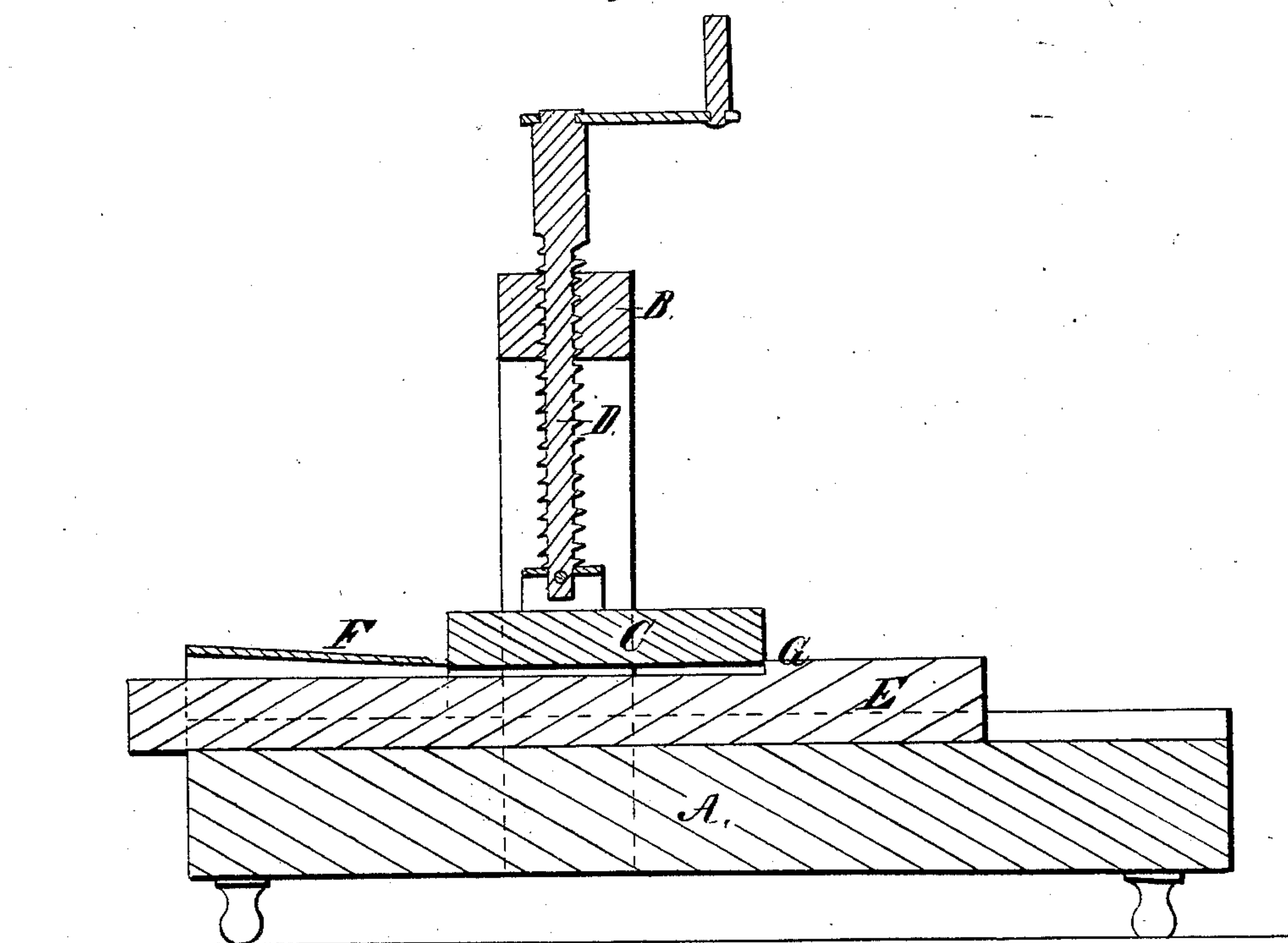


Fig. 2



UNITED STATES PATENT OFFICE.

EMERSON PRESCOTT, OF LEOMINSTER, MASSACHUSETTS.

MACHINE FOR SPLITTING HORN, &c.

Specification of Letters Patent No. 11,793, dated October 10, 1854.

To all whom it may concern:

Be it known that I, EMERSON PRESCOTT, of Leominster, in the county of Worcester and State of Massachusetts, have invented
5 a new or Improved Machine for Cutting or Splitting Horn or Shell for the Manufacture of Combs; and I do hereby declare that the same is fully described and represented in the following specification and the
10 accompanying drawings, letters, figures, and references thereof.

Of the said drawings Figure 1, represents a top view of my machine. Fig. 2, is a vertical and longitudinal section of the
15 same.

In the said drawings, A, denotes a strong metallic bed or base having a gallows or press frame B, applied and made to extend transversely over it. Said frame is made to
20 carry a press platen, C, and a powerful screw, D, or other suitable equivalent for forcing said platen downward toward a movable carriage, E, placed between the said platen and bed and made capable of being
25 moved longitudinally under said platen and on the bed and toward and under a splitting knife, F, disposed directly over the bed and the side of the press as seen in the drawings. The said carriage is provided with a
30 shoulder, G, for the piece of horn or shell to rest against while it is being moved toward the cutting knife. I make use of any convenient means or mechanism for propelling the carriage forward toward the
35 knife. The press applied to the said carriage and knife should be of sufficient power and strength to enable a person when the horn or shell has been softened by heat in the usual manner of softening it and to the
40 extent to which it is commonly softened in order to be split into laminae or sheets, to compress the sheet between the platen and the carriage and to bring it to one uniform thickness or plane on its top surface.
45 While it is thus compressed, the carriage is moved forward toward and under the knife so as to move the shell under the platen and while the platen is acting upon it, the shell being forced by the carriage against the
50 knife which passes through and splits it. To those who are accustomed to working shell or horn for the manufacture of combs, it is well known, that its thickness is very irregular and that it often has what are
55 termed hard bunches or knobs.

In the machines generally used for split-

ting horn or shell their inequalities are not reduced as in my machine; for such machines to which I allude hold the shell steadily upon the carriage by means of a
60 series of disconnected upright bearings, separately operated by springs, their object being to make the lower surface of the shell or that which rests upon the carriage, conform as nearly as possible to the sur-
65 face of the carriage. In such machines a considerable loss of shell results owing to the uneven thickness which the shell constantly maintains during the process of splitting it.

With my machine the shell is reduced to an even thickness and maintains such during the process of splitting it; the inequalities being all pressed down in such manner that little or no loss of material results.
75 It will therefore be seen that there is a very important difference between the construction and operation of my machine and those of the machines wherein the shell is held upon the carriage by disconnected upright
80 bearings. From the above, therefore it will be seen that I do not claim the carrying of the shell or horn by means of a carriage; nor the holding the material on the carriage by a thin metallic plate borne down by a
85 series of vertical pressers, each of which is forced down by a separate spring so as to act upon the unequal surface of the shell or horn, and make the lower surface even or nearly so with the surface of the carriage
90 in order that the knife in cutting through the said material may reduce it to an even thickness and leave a surplus composed of such irregularities; but

What I do claim:

In combination with the movable carriage and the splitting knife and arranged with respect to them substantially as specified is a single platen press of power sufficient when the shell or horn is softened or
100 rendered expansive by heat to reduce it to a uniform thickness on the carriage as specified and to preserve it in such state preparatory to and while it may be moved against the splitting knife as stated.

In testimony whereof I have hereunto set my signature this twenty-fourth day of July A. D. 1854.

EMERSON PRESCOTT.

Witnesses:

JOSEPH COLLINS,
C. H. MENICURE.