

F.C. Lighte,
Piano Frame,

No 27,226,

Patented Feb. 21, 1860.

Fig. 2.

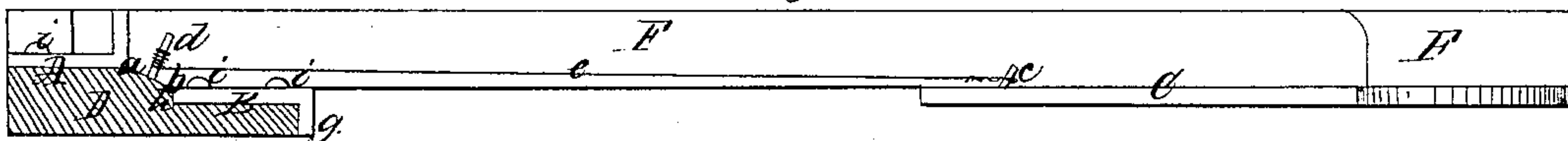
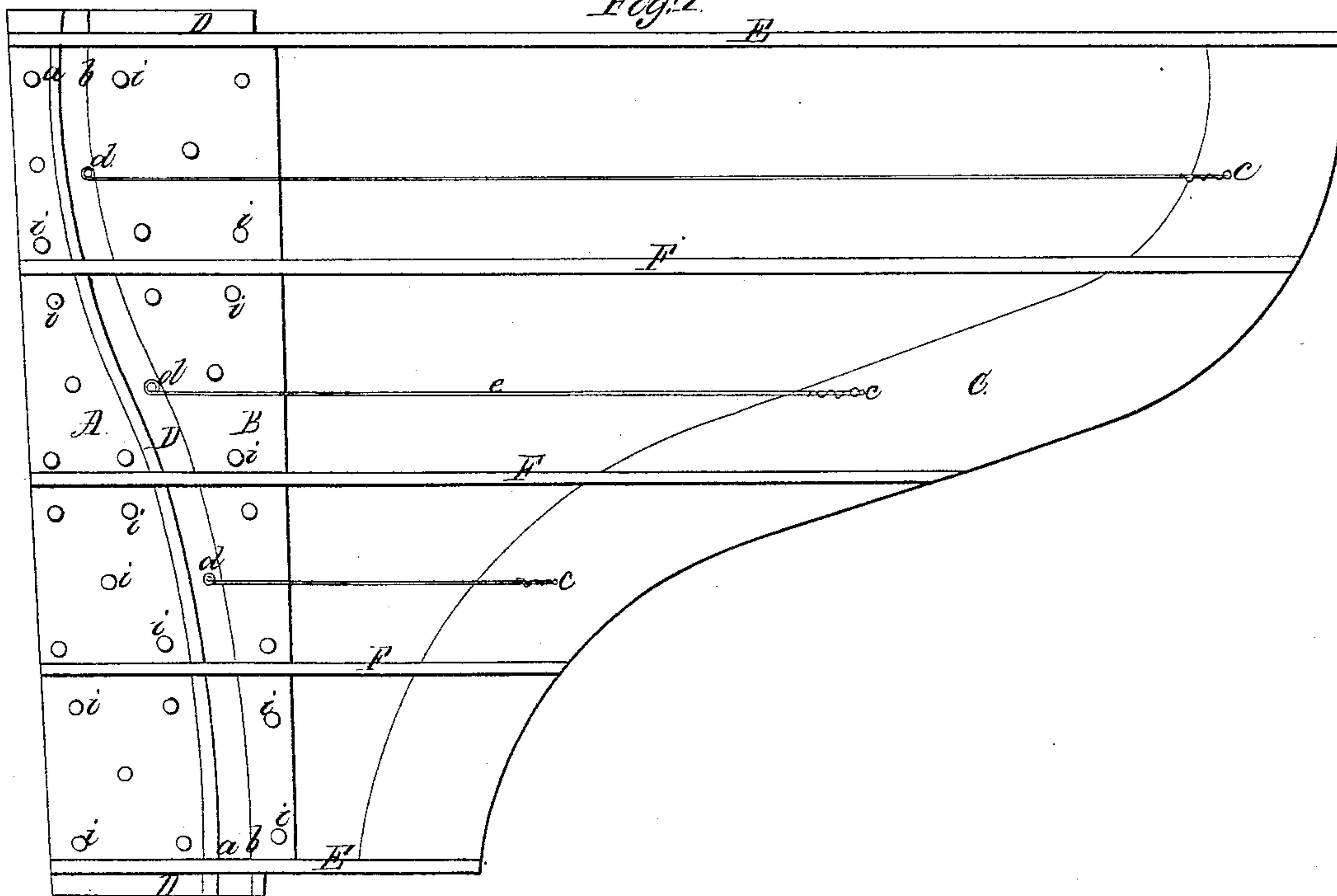


Fig. 1.



Witnesses:
M. M. Livingston
Geo. H. Gibbs

Inventor:
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UNITED STATES PATENT OFFICE.

FERDINAND C. LIGHTE, OF NEW YORK, N. Y.

GRAND PIANOFORTE.

Specification of Letters Patent No. 27,226, dated February 21, 1860.

To all whom it may concern:

Be it known that I, FERDINAND C. LIGHTE, of the city, county, and State of New York, have invented a new and useful Improvement in Grand Pianofortes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1, is a plan of the wrest plank and iron string frame of a grand piano forte illustrating my improvement. Fig. 2, is a vertical section of the same, taken transversely to the wrest plank.

Similar letters of reference indicate corresponding parts in both figures.

My invention consists in a certain novel construction of, and mode of combining the wrest plank and the iron frame of a grand piano forte, whereby the wrest plank is better sustained by the frame against the strain of the strings than it is in other grand pianofortes.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

The iron frame is composed of two horizontal plate like parts A, and B, which fit over the wrest plank D, a plate like part C, which constitutes the hitch-plate and receives the hitch pins *c, c*, two side pieces E, E, and any convenient number of straight braces F, F, connecting the parts A, B, with the part C. The part B, has its back edge *b*, so far in advance of the front edge *a*, of the part A, that the space *a, b*, left between them is wide enough to expose the portion of the wrest plank which receives the tuning pins *d, d*, and the part B is so much lower than the part A, that the lower face of the latter is higher than the upper face of the former, and that while the wrest plank fits close under the lower surface of A, the part of the said plank exposed by the opening *a, b*, is higher than the upper face of the part B, and hence the strings *e, e*, are permitted to pass over the said part B. The upper surface of the part C, is about on a level with the upper surface of the part B. The side pieces E, E, and braces F, F, are raised above but united with the upper surfaces of the parts A, B, and C. The part A,

is strengthened by an upward projection *f*, which runs along its back edge, and the part B, is strengthened by a downward projection *g*, which extends all along its back edge; and this downward projection *g*, constitutes an abutment for the front edge of the wrest plank D, to bear against. The front part of the wrest plank, which fits under the part A of the frame is raised in step form above the part which fits under the part B, and the face of the step *h*, thus formed bears against the edge *b*, of the said part B, which also forms an abutment to the wrest plank. The wrest plank is secured to the parts A, and B, by screws *i, i*, passing through A and B, and screwing into the wrest plank. The wrest plank thus fitted to the frame is sustained against the direct strain of the strings by abutting against the edge *b*, and the downward projections *g*, of the part B of the frame, and by being fitted to the bottom of frame instead of to the upper surface, as is the usual practice in applying the iron frame to grand pianofortes, it, the wrest plank has its front part sustained against the tendency exerted by the strings, to pull it from its place in an upward direction, and hence the screws which secure it to the frame are relieved of strain. The opening *a, b*, left between the parts A, and B, provides for the insertion of the tuning pins in the wrest plank in such a manner as to keep them entirely free from contact with metal.

I do not claim, sustaining the wrest-plank of a piano-forte, against the direct strain of the strings, by forming a projecting abutment on an iron frame for the plank to bear against; but

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

The construction of the iron frame, with two plate like portions A, B, one elevated above the other, and with an opening *a, b*, between them, for the tuning-pins of the wrest-plank, and constructing the wrest-plank with a step *h*, and fitting it to the bottom of the said parts A, B, of the frame, all substantially as herein described.

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Witnesses:

M. M. LIVINGSTON,
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