

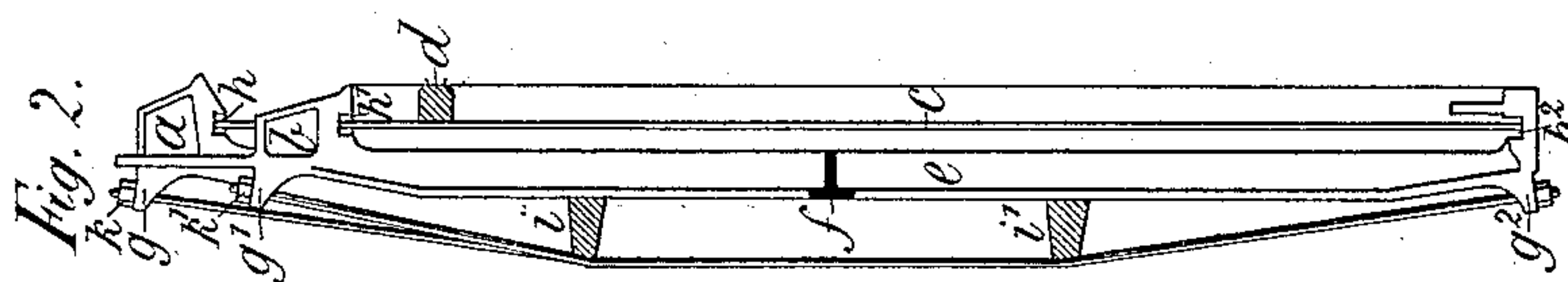
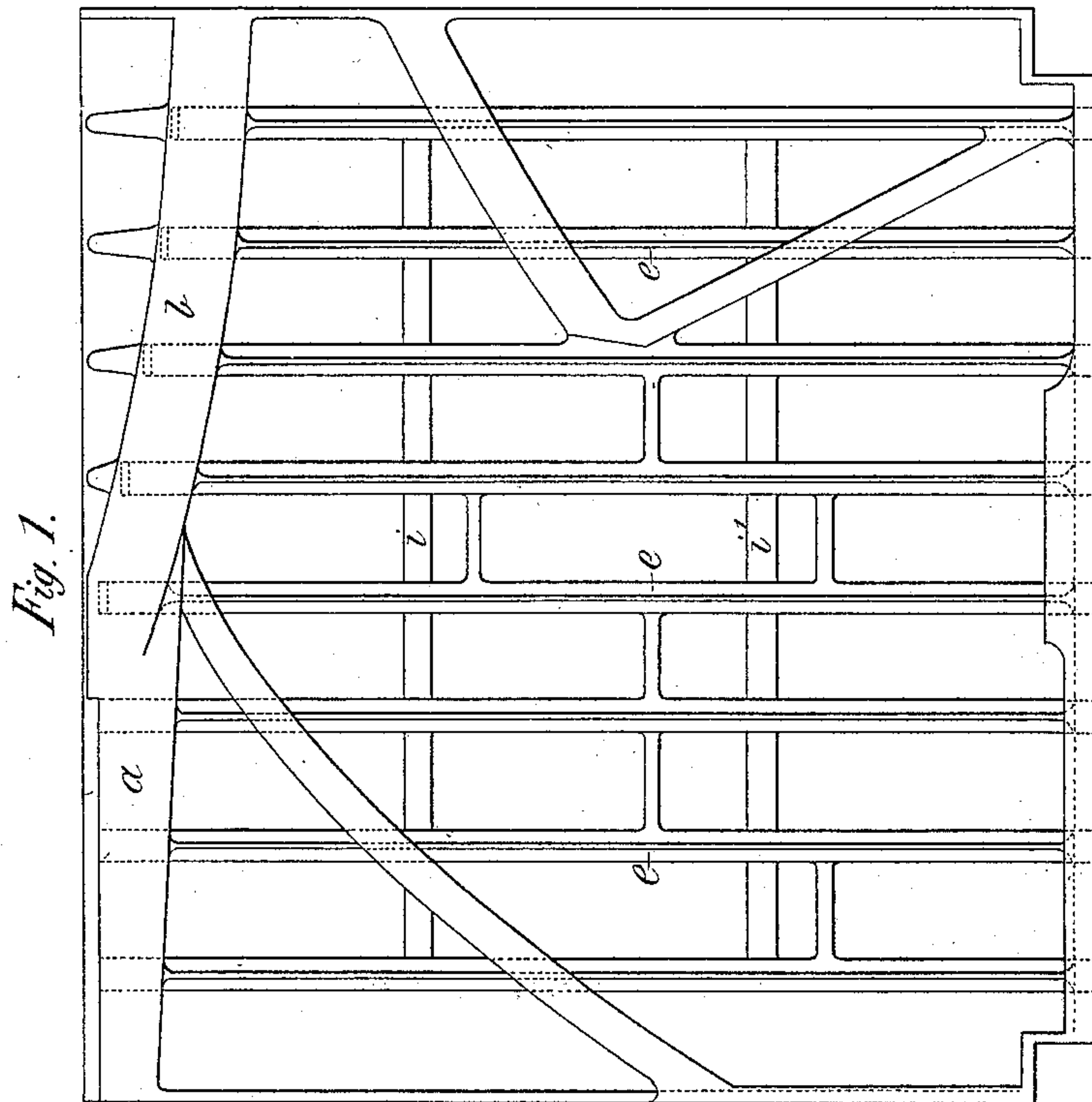
(No Model.)

J. BOURRY.

PIANO FRAME.

No. 322,154.

Patented July 14, 1885.



Witnesses:

C. J. Bell.
O. H. Clark.

Inventor:

Jean Bourry.
By Paine & Ladd,
Attorneys.

UNITED STATES PATENT OFFICE.

JEAN BOURRY, OF ZURICH, SWITZERLAND.

PIANO-FRAME.

SPECIFICATION forming part of Letters Patent No. 322,154, dated July 14, 1885.

Application filed October 20, 1884. (No model.) Patented in France January 21, 1884, No. 159,840, and in Germany January 25, 1884, No. 28,492.

To all whom it may concern:

Be it known that I, JEAN BOURRY, a citizen of Switzerland, residing at Zurich, in the Canton of Zurich, Switzerland, have invented
5 certain new and useful Improvements in the Iron Frames of Upright and Grand Pianos, (patented to me in France, No. 159,840, dated January 21, 1884, and in Germany, No. 28,492, dated January 25, 1884;) and I do hereby de-
10 clare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and
15 to letters or figures of reference marked thereon, which form a part of this specification.

The object of this invention is to remove the stays or struts placed before or upon the sounding-board, and connected with the iron frame
20 of upright and grand pianos, which stays have to oppose the necessary resistance to the strain or tension of the strings, but impede the development of the sound. In the construction shown by the annexed drawings, the strain or
25 tension of the strings is counterbalanced by strong wires behind or below the sounding-board, leaving it free from any obstructions on the side of the strings, and the construction allows of a considerable reduction in the
30 weight of the frame.

Figure 1 represents the front view of the frame, and Fig. 2 the profile.

a and *b* are the string-rails of an upright cross-stringed piano. *c* is the sounding-board;
35 *d*, the cross-section of the upper part of the bridge. The T-shaped stays *e*, of which a cross-section is shown at *f*, have projections or lugs *g g' g''* at the back of their extremities, with a hole admitting iron or steel truss-wires, which
40 can be tightened by the nuts *k k' k''*. The

wooden saddles *i i'*, over which the truss-wires are bent, compensate the strain of flexion on the stays *e* produced by the tension of the strings. The distance between the stays *e* and the wires on one side and the strings on
45 the other being equal, the tension is equivalent on both sides of the frame. The sounding-board is fitted in the grooves *h h' h''* of the frame.

I am aware that Letters Patent for improvements in pianos have been issued to Martin, No. 57,743, dated September 4, 1866, and to F. Mathushek, No. 113,073, dated March 28, 1871. I therefore do not claim anything as
50 shown or described by them. 55

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

1. A piano-forte frame having the stays *e*, with the projections or lugs on the back thereof at or near their ends and in line therewith,
60 together with the truss-wires stretched between said projections or lugs, and one or more saddles interposed between the truss-wires and the stays, substantially as and for the purpose
65 set forth.

2. A piano-forte frame consisting of a skeleton cast-iron frame having cross ribs or stays and perforated lugs or projections on the back side of the frame at the ends of the ribs, together with truss-wires stretched between the
70 lugs, and one or more saddles interposed between the ribs and truss-wires, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JEAN BOURRY.

Witnesses:

JULIUS A. BOURRY,
ED. EGLI.