

(No Model.)

2 Sheets—Sheet 1.

K. V. BARNEKOV.

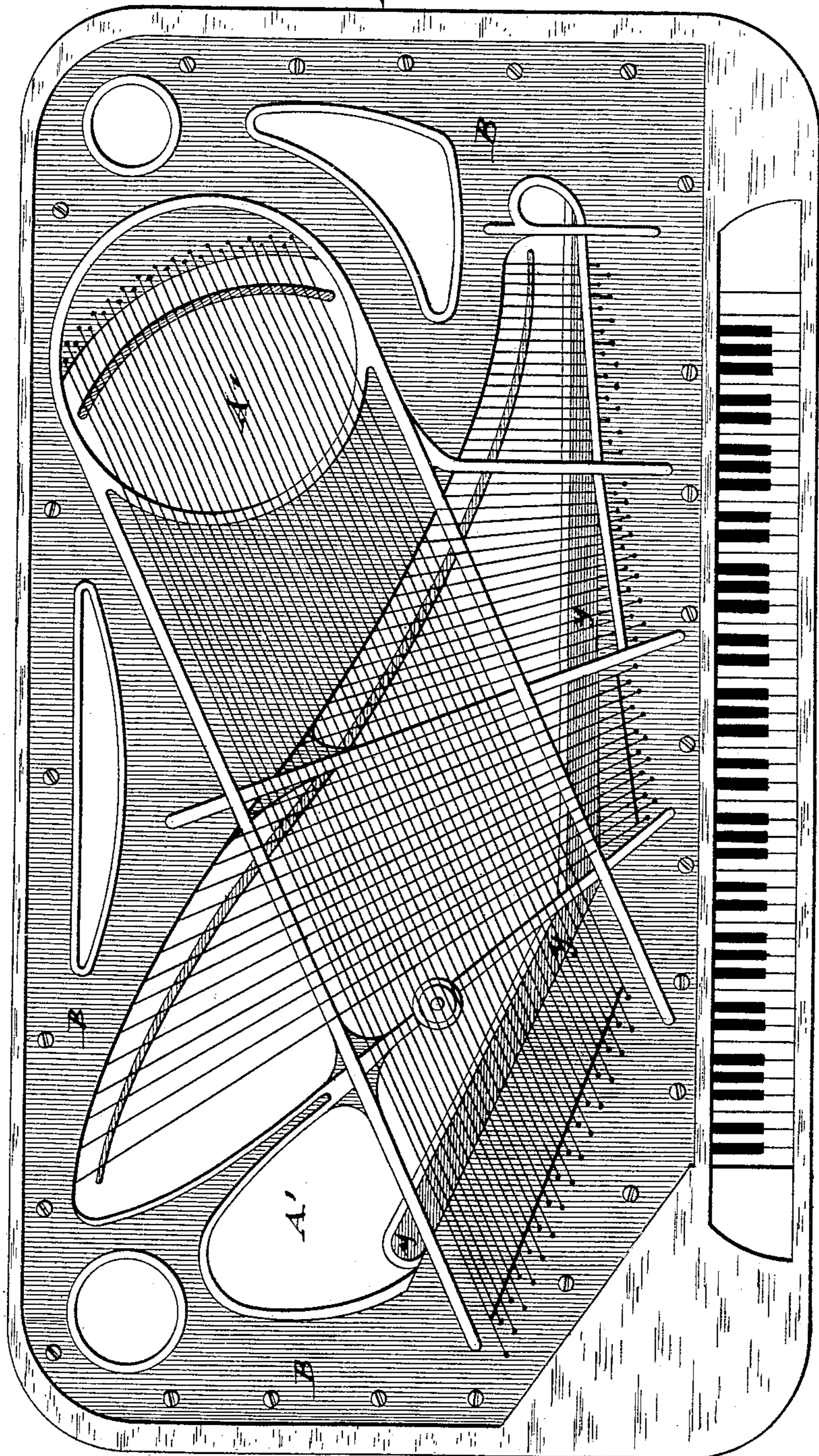
SQUARE PIANO.

No. 332,182.

Patented Dec. 8, 1885.

Fig. 1.

A



WITNESSES:

Frederick Rosenbaum.
Otto Risch.

A

INVENTOR

Karl V. Barnekov

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(No Model.)

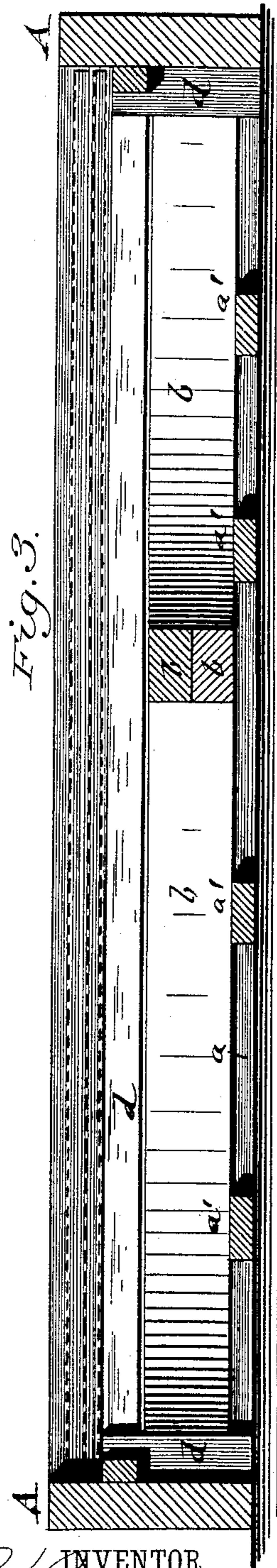
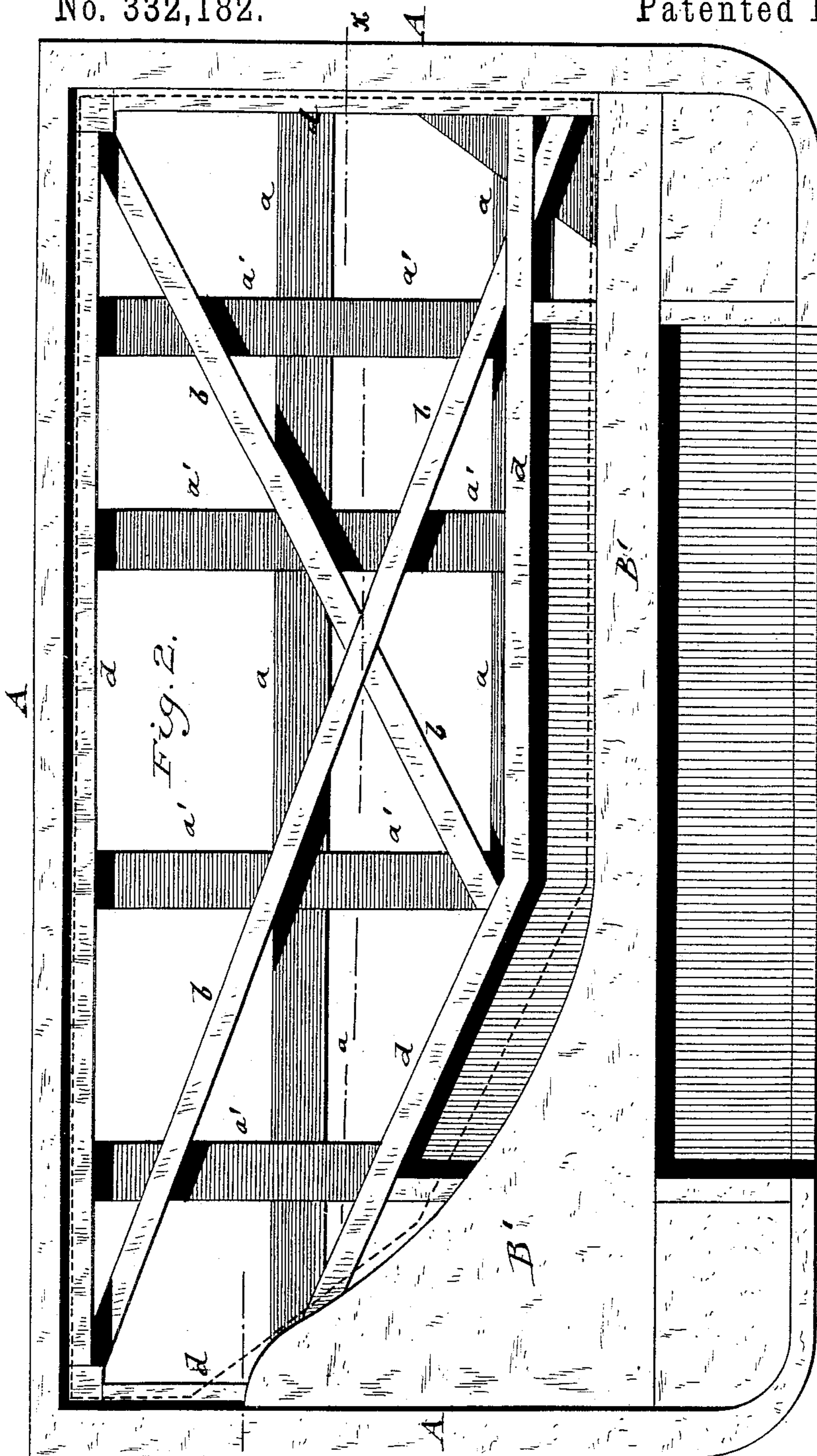
2 Sheets—Sheet 2.

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SQUARE PIANO.

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WITNESSES:

J. H. Rosenbaum
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INVENTOR

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UNITED STATES PATENT OFFICE.

KIEL V. BARNEKOV, OF NEWBURG, NEW YORK, ASSIGNOR TO CORINNA R. IRWIN AND JENNIE MAY BARNEKOV, OF SAME PLACE.

SQUARE PIANO.

SPECIFICATION forming part of Letters Patent No. 332,182, dated December 8, 1885.

Application filed July 12, 1884. Serial No. 137,510. (No model.)

To all whom it may concern:

Be it known that I, KIEL V. BARNEKOV, of Newburg, in the county of Orange and State of New York, have invented certain new and
5 useful Improvements in Square Pianos, of which the following is a specification.

This invention has reference to certain improvements in square pianos, whereby the action is simplified and an enlarged volume of
10 tone obtained that approaches to some extent to that produced by grand pianos.

The invention consists of a square piano in which the sounding-board and string-frame are supported on an open bottom frame composed of intersecting base-timbers, diagonal
15 braces, and rim-pieces, the wrest-plank being arranged at the front of the case. The treble and middle strings are arranged to run from right to left, while the bass-strings are overstrung diagonally and from the left to the
20 right hand corner of the string-frame.

In the accompanying drawings, Figure 1 represents a plan of my improved square piano, showing the metallic string-frame and
25 strings. Fig. 2 is a plan of the supporting-frame with the string-frame and sounding-board removed, and Fig. 3 is a vertical longitudinal section on line *x x*, Fig. 2.

Similar letters of reference indicate corresponding parts.

A in the drawings represents the case of my improved square piano. The case A supports an open-bottom frame, which consists of rectangularly-intersecting timbers *a a'*, diagonally-intersecting braces *b b*, and rim-pieces *d d*, as shown in Figs. 2 and 3. The
35 sounding-board *A'* rests upon the rim-pieces *d d* of the case A in the usual manner. The rim-pieces *d d* also support, above the sounding-board, a metallic string-frame, B, in which
40 the middle and treble strings extend from the right toward the left, while the overstrung bass strings extend diagonally from the left-hand front corner to the right-hand rear corner of the string-frame B, and cross thereby

the middle and treble strings nearly at right angles, as shown in Fig. 1. The sounding-board bridges, ribs, and open parts of the string-frame B are arranged to correspond to this disposition of the strings, which enables
50 the action to be greatly reduced in length, the actions of the treble and middle strings being all of equal length, while those of the bass-strings gradually increase in length, so as to reach the bass-strings, as indicated by the
55 open space for the hammers marked *y y* in Fig. 1. The wrest-plank *B'* and the tuning-pins are arranged at the front of the piano, whereby the tuning is facilitated and the bending over the string-frame to get at the tuning-
60 pins at the rear of the same withdrawn.

The construction of the string-frame and strings admits the use of an open-bottom frame, by which the tone is more effectively emitted than with the closed bottoms of the square
65 pianos heretofore in use. The strain exerted on the metallic string-frame is more evenly distributed and balanced, so that a string-frame of less weight and strength can be used.

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

The combination, in a square piano, of a supporting-case, A, an open-bottom frame composed of intersecting base-timbers *a a'*, diagonal braces *b b*, and rim-pieces *d d*, a
75 sounding-board, *A'*, resting thereon, a wrest-plank, *B'*, at the front of the piano, a string-frame, B, secured to the rim-pieces, the treble and middle strings of the string-frame running from the right to the left, while the over-
80 strung bass strings extend diagonally from the left front corner to the right rear corner of the string-frame, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two witnesses.

KIEL V. BARNEKOV.

Witnesses:

CHAS. A. DIXON,

EDWARD P. CORWIN.