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PATENTED FEB. 4, 1908.

J. HAVASSY.
BELL PIANO.

APPLICATION FILED JUNE 13, 1907.

2 SHEETS—SHEET 1.

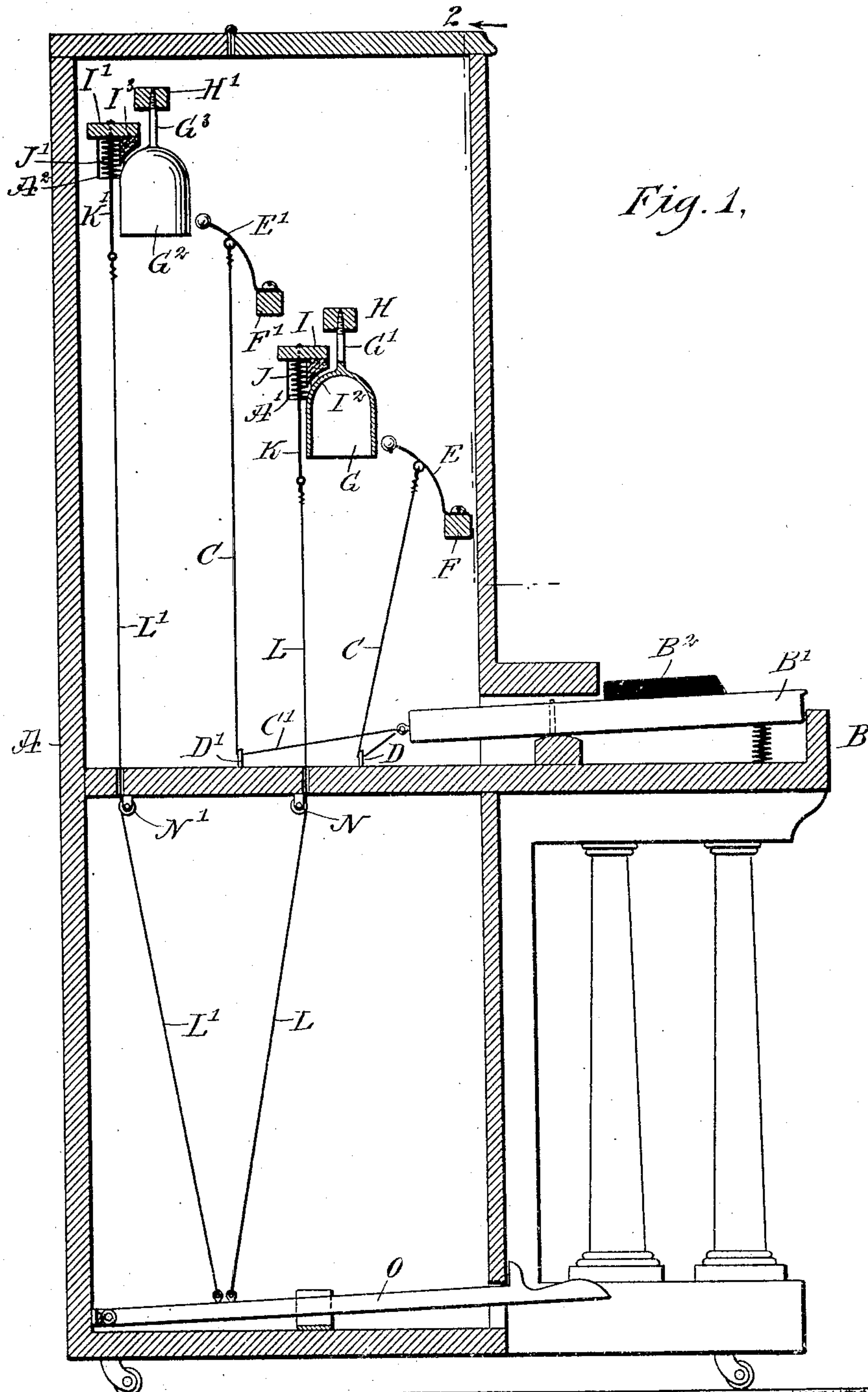


Fig. 1,

WITNESSES

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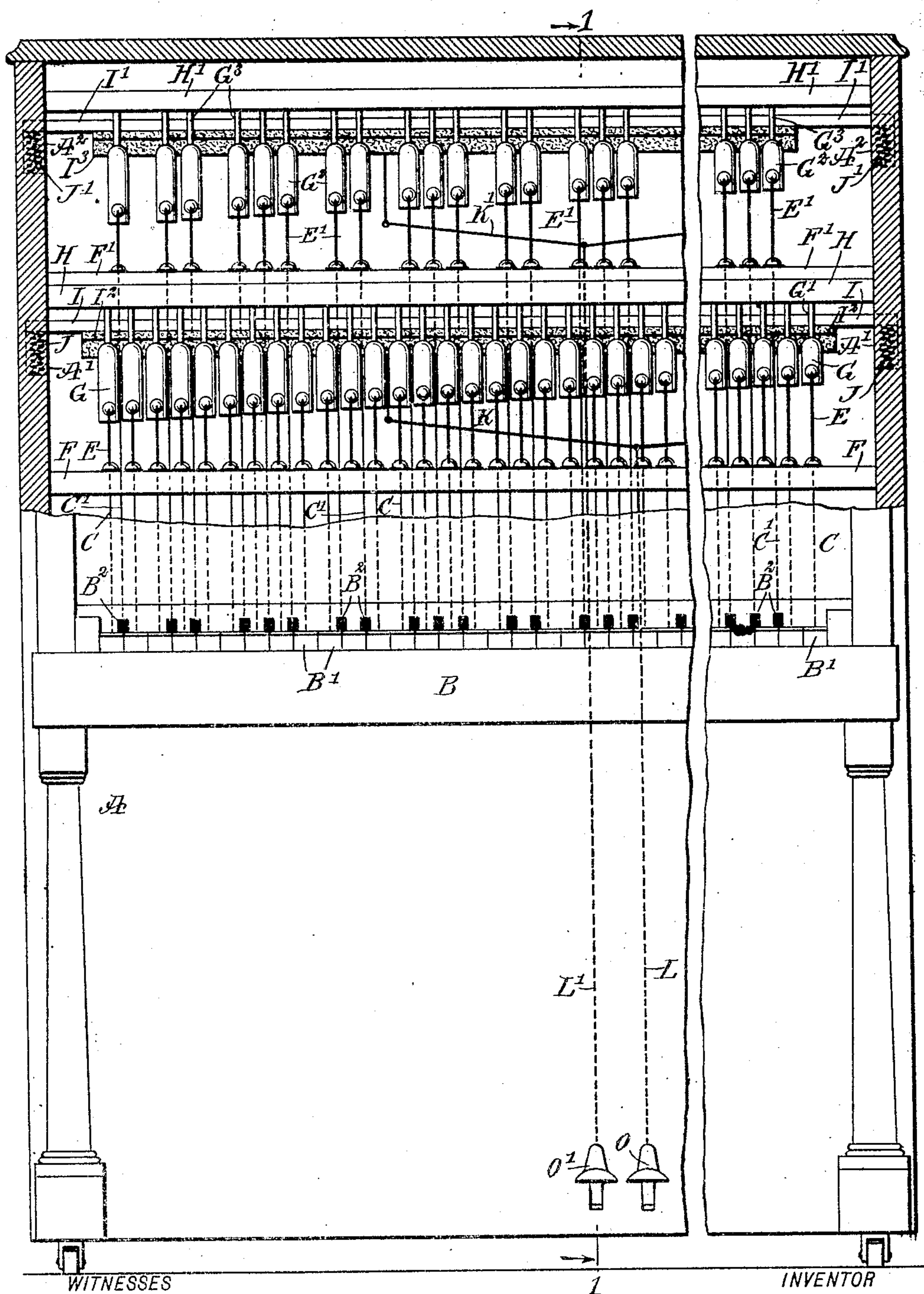
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Edward Thorpe.
New York, Nov. 3,

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UNITED STATES PATENT OFFICE.

JOE HAVASSY, OF COPPERHILL, TENNESSEE.

BELL-PIANO.

No. 878,397.

Specification of Letters Patent.

Patented Feb. 4, 1903.

Application filed June 13, 1907. Serial No. 378,800.

To all whom it may concern:

Be it known that I, JOE HAVASSY, a subject of the King of Hungary, and a resident of Copperhill, in the county of Polk and State of Tennessee, have invented a new and Improved Bell-Piano, of which the following is a full, clear, and exact description.

The invention relates to musical instruments, and its object is to provide a new and improved bell piano, which is simple and durable in construction and arranged to permit of properly sounding the bells on playing the piano keys, and to damp the bells whenever desired upon actuating a pedal mechanism.

The invention consists of novel features and parts and combinations of the same, which will be more fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in both views.

Figure 1 is a cross section of the improvement on the line 1—1 of Fig. 2, and Fig. 2 is a sectional front elevation of the same on the line 2—2 of Fig. 1.

The casing A of the bell piano, is preferably in the form similar to the one given to upright pianos, and on the casing A is mounted a key-board B, having the usual white keys B' and the black keys B². The white keys B' are connected at their rear ends with cords C passing through guide rings D attached to the casing A, the cords being connected with spring strikers E fastened to a rail F attached to the casing A. Each striker E is adapted to strike a bell G suspended by a shank G' from a rail H attached to the casing A, the arrangement being such that each key actuates a striker E for sounding a corresponding bell G, the striker E on release of the key immediately returning to its inactive position, that is, out of contact with the bell G. The rear end of each black key B² is connected with a cord C' extending through a guide ring D' and connecting with a spring striker E' attached to a rail F' fastened to the casing A, each striker E' being adapted to sound a bell G² suspended by its shank G² from a rail H' attached to the casing A. By the arrangement described two series of bells G and G² are employed, of which the bells G are tuned to the tones of the diatonic scale,

while the bells G² are tuned to semi-tones, to provide the half tones corresponding to the whole tones of the diatonic scale, so that the two series of bells complete a chromatic scale of a desired number of octaves.

In order to damp the series of bells G, G², damper rails I and I' are provided, mounted to slide in suitable bearings A', A² arranged in the sides of the casing A. The damper rails I and I' are provided at their under sides with strips I², I²' of felt or other suitable material, to damp the series of bells G and G² whenever the corresponding damper rail I or I' is moved downward. The damper rails I and I' are normally held in an uppermost inactive position by springs J, J' arranged in the bearings A', A², and the said damper rails I and I' are connected by stirrups K, K' with cords L, L', extending downwardly and passing over guide pulleys N, N' to then connect with pedals O, O' arranged in the lower part of the casing A. Thus when the pedal O is pressed the damper rail I is moved downward against the tension of the springs J, so that the strip I² moves in contact with all the bells G to damp the same, and when the operator releases the pedal O then the damper rail I returns to its normal inactive position by the action of its supporting springs J. In a like manner when the pedal O' is pressed the damper rail I' damps the series of bells G², and when the pedal O' is released then the damper rail I' returns to its normal inactive position by the action of the springs J'.

In using the bell piano the performer plays the keys B', B² in the usual manner according to the notes of the music to be executed, it being understood that when a key is pressed the corresponding bell G or G² is sounded. By suspending the series of bells G and G² in the manner described and shown in the drawings, each individual bell can be properly sounded, and if desired can be damped by pressing the corresponding pedal O or O'. It will also be noticed that by the suspension of the bells as set forth the damper rails I and I' can readily damp each series of bells.

In order to accommodate the bells in each series, I prefer to make the bells comparatively flat, and locate the strikers E and E' in the front of the bells, so as to strike the same exteriorly at the front when pressing a corresponding key.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent:

1. A bell piano comprising a series of suspended bells, a key-board having keys, a
5 spring striker for engaging each bell exteriorly, a cord connection between each key and a striker to sound the corresponding bell, a sliding and spring-pressed damper rail for engaging the series of bells, and a
10 pedal connected with the said damper rail to move the latter in engagement with the said series of bells on pressing the said pedal.
2. A bell piano comprising a series of suspended bells, a key-board having keys, a
15 spring striker for engaging each bell exteriorly, a cord connection between each key and a striker to sound the corresponding bell, a damper rail mounted to slide vertically and adapted to engage the series of
20 bells, a pedal connected with the said damper rail to move the latter in engagement with the said series of bells on pressing the said pedal, and springs for returning the said damper rail to normal inactive position
25 on releasing the pedal.
3. A bell piano comprising a series of suspended bells, a key-board having keys, a spring-striker for each bell, a cord connection between each key and a striker to sound
30 the corresponding bell, a spring-pressed damper rail normally held out of engagement with the said bells, a pedal, and a cord connection between the said pedal and the said damper rail to move the latter in con-
35 tact with the said series of bells and against the tension of the springs of the damper rail.

4. A bell piano comprising two series of suspended bells, the bells of one series being tuned to the tones of a diatonic scale and the other series of bells to semitones, the two
40 series of bells completing the chromatic scale through a plurality of octaves, sets of spring strikers for engaging the said series of bells exteriorly, a key-board having white and
45 black keys, and cord connections between the said series of strikers and the white and black keys of the key-board.

5. A bell piano, comprising two series of suspended bells, the bells of one series being tuned to the tones of a diatonic scale and the
50 other series of bells to semitones, the two series of bells completing the chromatic scale through a plurality of octaves, sets of spring strikers for engaging the series of bells, exteriorly, a key-board having white and
55 black keys, cord connections between the said series of strikers and the white and black keys of the key-board, damper-rails mounted to slide up and down, springs on which rest
60 the said rails, the springs normally holding the damper rails out of engagement with the corresponding sets of bells, pedals, and cord connections between the pedals and the said damper rails.

In testimony whereof I have signed my
65 name to this specification in the presence of two subscribing witnesses.

JOE HAVASSY.

Witnesses:

ED. HEDDEN.

DOCIA COCHRAN.