

E. DRAPER.
Musical-Game Apparatus.

No. 164,641.

Patented June 22, 1875.

Fig. 1.

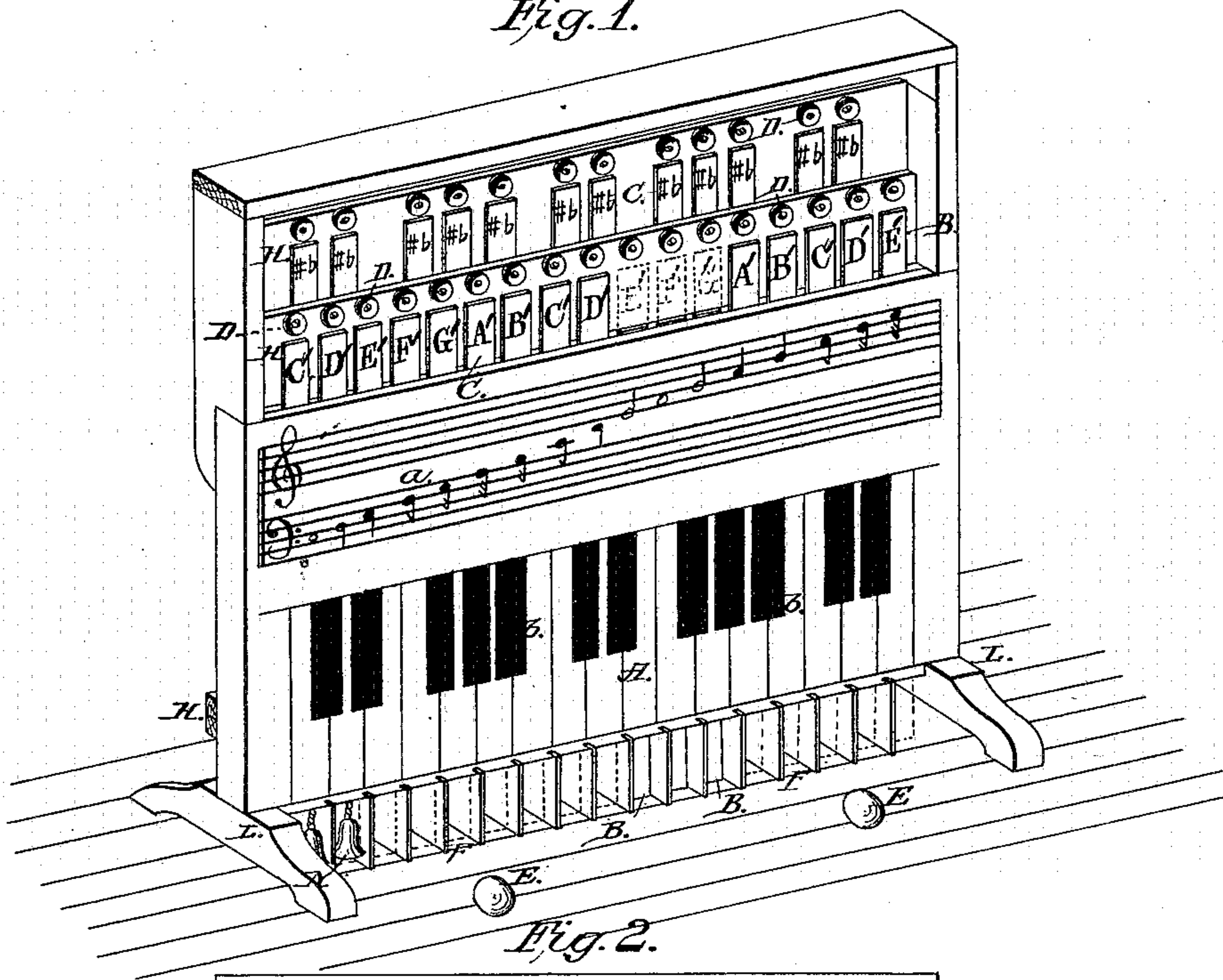
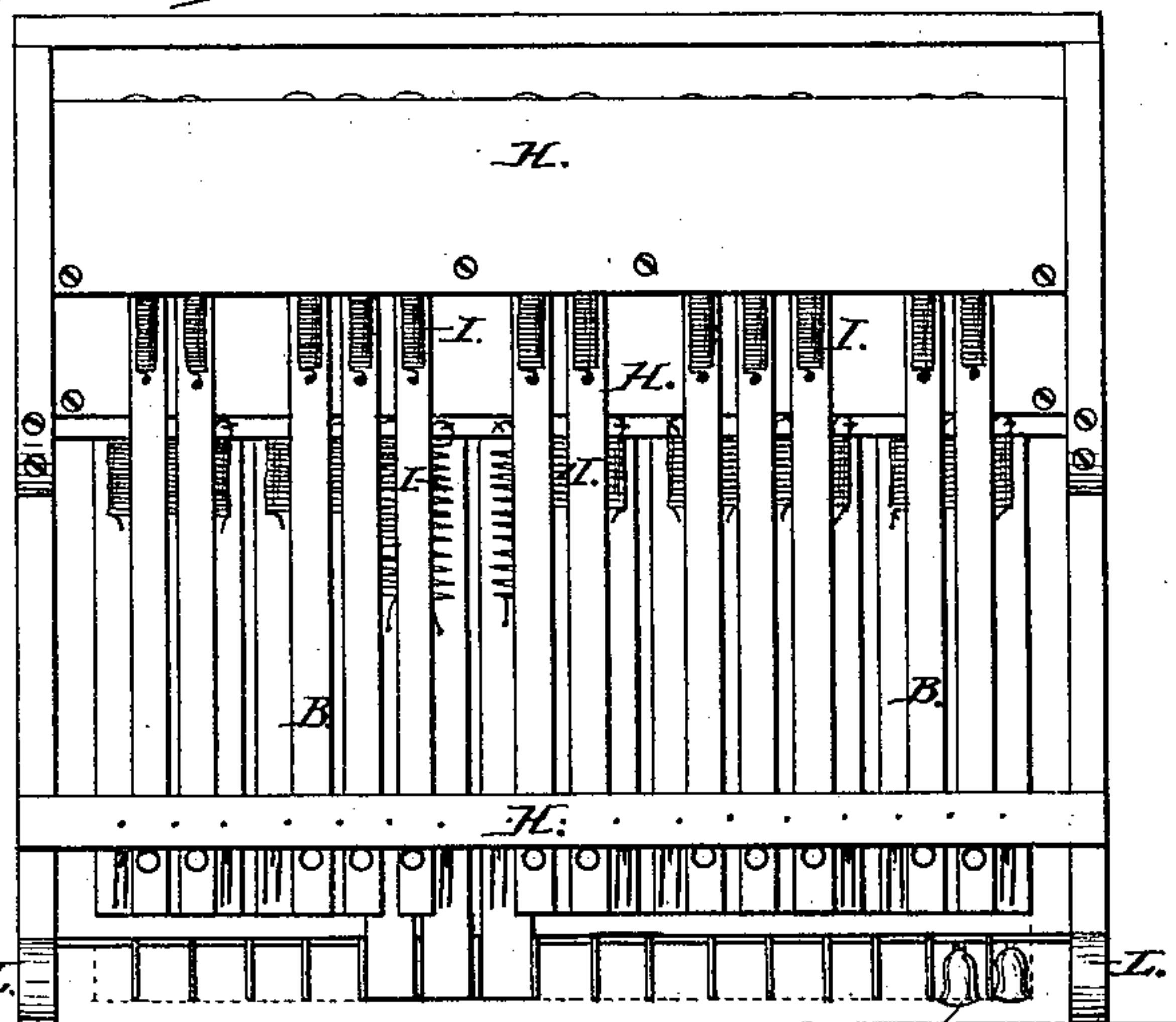


Fig. 2.



Witnesses:

Inventor:

S. Y. Muebel
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UNITED STATES PATENT OFFICE.

ELISHA DRAPER, OF LONDON, CANADA.

IMPROVEMENT IN MUSICAL-GAME APPARATUS.

Specification forming part of Letters Patent No. **164,641**, dated June 22, 1875; application filed December 22, 1874.

To all whom it may concern:

Be it known that I, ELISHA DRAPER, of the city of London, in the Province of Ontario and Dominion of Canada, minister of the Gospel, have invented a new and useful apparatus to be called "Draper's Harmonic Notation Instructor and Musical Game;" and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, and being part of this specification, in which—

Figure 1 is a perspective view of my invention. Fig. 2 is a rear view of the same.

Like letters indicate like parts in each figure.

The nature of this invention relates to an apparatus designed to facilitate the study of music by combining recreation with instruction; and consists in the novel and peculiar arrangement of a musical staff and key-board, in combination with mechanism so constructed and arranged that, by rolling balls, keys may be struck producing sounds corresponding with the notes, and bringing to view letters corresponding with the sounds represented by the musical scale and key-board.

In the drawing, A represents a vertically-arranged board, on which is depicted a representation of a musical staff, *a*, and a key-board, *b*. B B is a row of keys or slides, having points or catches engaging on the lower edge of the vertical board A to keep them in position, and springs I I attached to the back side of each to force them up when the points or catches are disengaged. C C are upper ends of the slides or keys B B, revealing when elevated the letters of the musical scale. D D are rows of tuned bells or coiled wires, and designed to indicate by sound the notes struck in playing. E E are balls of wood, stone, or other material. F F are guards, to prevent the bells striking more than one key at a single throw, those opposite the black keys of the musical key-board being movable, in order to operate the rear row of slides representing the flats and sharps in the musical scale. H H are cross-bars, with pins passing through them between the slides to keep them in position, and having the bells attached to their front sides. L L are foot pieces or sup-

ports, maintaining the whole in an upright position.

This device is operated by rolling the balls E E against the slides B B, the force of the rolling balls disengaging the points or catches, releasing the slides, which are forced up by the springs I I, causing their upper ends to come in contact with the bells D D, indicating by sound the note struck, and revealing at the same time the corresponding letters of the musical scale A', B', C', D', E', &c., on the upper ends of the slides.

The musical game consists in the contest of two or more players, or sets of players, each set using a separate octave, and is conducted somewhat as follows: The leader on one side rolls a ball at the lowest note in the scale, and if he succeeds in striking it rolls again at the next note to the right, and so on successively till he misses a point, when his opponent plays similarly, beginning also at the lowest note in the scale, and the player, or set of players, that first thus strikes all the notes in the scale successively wins the game.

When several parties play on opposite sides, no one is permitted to play after missing a point till all the others have played in turn.

While the contestants are engaged a teacher or monitor questions the player on the position and value of the notes struck, and the letters and sounds which they represent.

When teaching vocal music alone bells are attached simply to the lower edge of the key-board, as at N, to represent the sound of the note in the scale corresponding with the keys to which they are attached.

What I claim as my invention, and for which I desire Letters Patent, is—

The apparatus described and shown, consisting of the slides B B, with the letters of the musical scale placed thereon, and the springs I I attached thereto, the tuned bells D D, or their equivalents, the balls E E, the guards F F, the cross-bars H H, and the supports L L, in combination with a musical staff and key-board, as shown, when constructed and arranged substantially as described, and for the purpose set forth.

ELISHA DRAPER.

Witnesses:

T. T. MACBETH,
J. F. LATIMER.