

H. R. DICKS.
ELECTRICAL MUSICAL INSTRUMENT.
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1,037,603.

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Fig. 1.

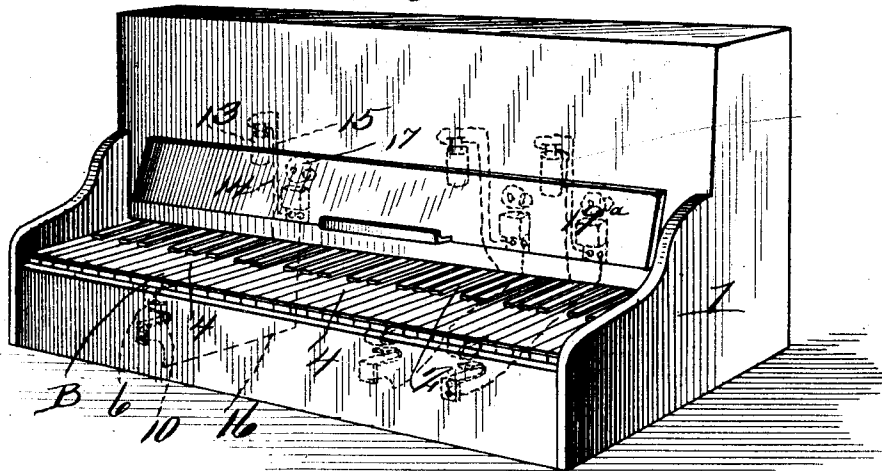
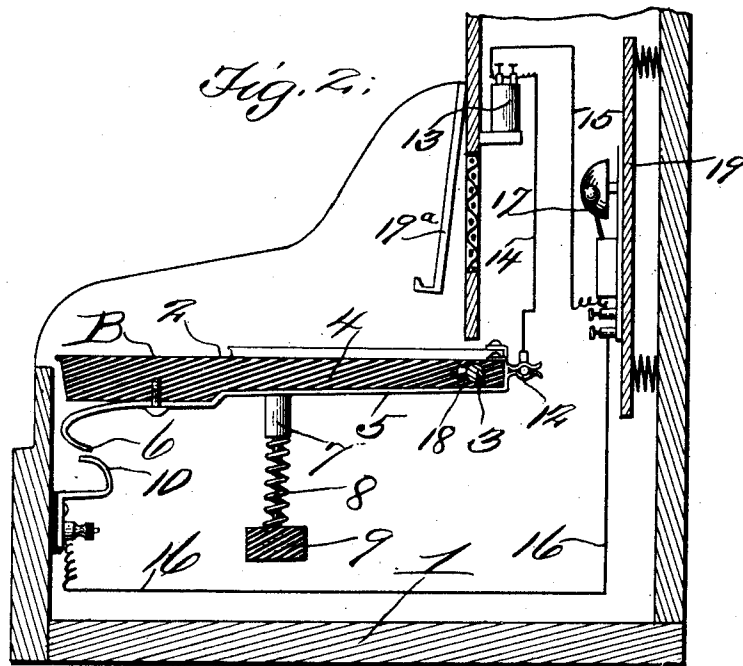


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

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ELECTRICAL MUSICAL INSTRUMENT.

1,037,603.

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To all whom it may concern:

Be it known that I, HALLIE R. DICKS, a citizen of the United States, residing at Grey Eagle, in the county of Todd and State of Minnesota, have invented a new and useful Electrical Musical Instrument; and I do hereby declare 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.

This invention relates to the art of musical instruments, and particularly pertains to a new and useful electrical musical apparatus of that class embracing a number of electromagnetic bells and keys electrically connected to the bells for operating them.

The main object of the invention is to provide an improved device of this design by which the harmony and the purity of the tone obtained from the bells are greatly increased.

A further object of the invention is to produce an instrument of the type mentioned, which possesses features of simplicity, durability and cheapness of construction.

In the drawings, there is only disclosed one form of the invention, but in practical fields this form may require certain alterations, to which the applicant is entitled provided the alterations are comprehended within the scope of what is claimed.

The invention comprises further features and combination of parts, as hereinafter set forth, shown in the drawings, and claimed.

In the drawings:—Figure 1 is a view in perspective of a musical instrument constructed in accordance with the invention, and clearly disclosing the keyboard thereof, and further showing one of the keys wired in connection with a bell and battery. Fig. 2 is a sectional view of a portion of the instrument, in order to disclose the complete construction and wiring of one of the keys.

Referring more especially to the drawings, 1 designates the casing of the instrument, while 2 denotes the keyboard, which comprises the usual number of keys. Each key is wired electrically in connection with a battery and bell, in the manner disclosed in the drawings. Each bell is of the proper pitch. Each key of the board is of the de-

sign shown in Fig. 2. The keys are all pivotally mounted upon a rod 3, extending the length of the instrument, as shown in Fig. 2.

Secured on the underfaces of the keys 4 are the metal plates 5 which at their forward ends are provided with downwardly curved spring contact portions 6. Projecting downwardly from the central portions of the plates 5 are lugs 7, which engage the springs 8. These springs 8 fit over lugs of the bar 9, as shown in Fig. 2. The downwardly curved spring contact portions 6 are designed to cooperate with correspondingly shaped portions 10, which are secured to the frame of the instrument. The rear portions of the plates 5 terminate into terminals 12.

As before stated each key is designed, when depressed, to ring a bell. There is shown a plurality of bells, which are tuned to give a musical scale. Each bell has its own independent circuit. For instance, in Fig. 2 there has been disclosed one key, which is the key of B. This key is connected to a battery 13 by means of the wire 14. The wire 14 connects to the terminal 12. The bell and battery are connected by a lead 15, while the bell is connected by a lead 16 to the curved yieldable contact member 10. It will be understood clearly that when the key as shown in Fig. 2 is depressed, a circuit is closed through the key, the contact members 6 and 10, the wires 14, 15 and 16, and the battery and bell, thus causing the bell 17 to ring. It will be further noted that an instrument having a number of keys as shown in Fig. 1 may be played in such wise as to produce very attractive and harmonious music. When pressure upon the keys is relieved, they are returned to their normal positions by virtue of the springs 8. The keys are limited in their upward movement, by virtue of the shape of the pivot rod for the keys, as shown at 18.

The instrument is provided with the usual sounding board 19, in the rear. The casing of the instrument is provided with the usual music rack 19^a.

From the foregoing, it will be observed that a novel form of electrical musical instrument has been produced embracing a number of electric magnetic bells, and one

which has been found to afford a great deal of attraction upon the vaudeville stage, and one which is reasonably easy to learn.

The invention having been set forth, what is claimed as new and useful is:

1. In a musical instrument, a horizontally disposed shaft, a plurality of keys pivoted upon the shaft and provided upon their under surfaces with metallic plates, said plates terminating at their forward ends in downwardly curved spring contact portions, and at their rearward ends in terminals, said plates intermediate their ends having a lug and spring connection between a stationary portion of the frame of the instrument for restoring the keys to their normal position, a plurality of contact members secured to the frame of the instrument to be coöperated with by the downwardly curved portions of the plate, a battery electrically connected to the rear terminal of each key, a bell electrically connected to each battery, each bell having electrical connections with each contact member of the frame of the instrument, whereby as one or the other of the keys is depressed, its respective bell will be sounded.

2. In a musical instrument, a horizontally disposed shaft, a plurality of keys pivoted upon the shaft and provided upon their

under surfaces with metallic plates, said plates terminating at their forward ends in downwardly curved spring contact portions, and at their rearward ends in terminals, said plates intermediate their ends having a lug and spring connection between a stationary portion of the frame of the instrument for restoring the keys to their normal position, a plurality of contact members secured to the frame of the instrument to be coöperated with by the downwardly curved portions of the plate, a battery electrically connected to the rear terminal of each key, a bell electrically connected to each battery, each bell having electrical connections with each contact member of the frame of the instrument, whereby as one or the other of the keys is depressed, its respective bell will be sounded, said shaft having means formed as a part thereof constituting means to coöperate with the keys for limiting the upward movement of the keys.

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

HALLIE R. DICKS.

Witnesses:

MELL WALDVERGEL,
WILL BARRY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."