

UNITED STATES PATENT OFFICE.

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MUSICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 551,289, dated December 10, 1895.

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To all whom it may concern:

Be it known that I, ERNEST ROBERT KAPPELER, a citizen of the United States of America, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Musical Instruments, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in musical instruments, and relates more particularly to chimes and the like.

15 The object of my invention is that any desired tune or air may be played and to provide novel means whereby the correct time and full value of each note are obtained without the aid of an instructor.

20 A further object of the invention is to design a musical instrument of the above-referred-to class that will be strong, durable, and comparatively inexpensive to manufacture.

25 With the above and other objects in view the invention finally consists in the novel construction, combination, and arrangement of parts to be hereinafter more particularly described, and specifically pointed out in the claims.

30 In describing the invention in detail, reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate similar parts throughout the several views, in which—

35 Figure 1 is a plan view of the mechanism of my improved musical instrument. Fig. 2 is a front elevation of the same. Fig. 3 is a vertical longitudinal sectional view on the line *xx* of Fig. 1. Fig. 4 is a plan view of one of the plates. Fig. 5 is a front view of the same. Fig. 6 is a plan view of the slide. Fig. 7 is a front view of the same.

45 In the drawings, 1 indicates the body portion of the instrument, and 2 2 the apertures formed on the face of the body portion and arranged on the side thereof.

50 The reference-numeral 3 represents the metal plates extending horizontally over the body portion. Said plates are apertured at 4, near their free ends, for the reception of the

pins 5 of the plates or keys. A wire 7 is arranged on the body portion which is adapted to retain the plates or keys and supports the same as shown in Fig. 2. Said wires should be stretched taut, and may be fastened to the body portion in any suitable manner.

60 The reference-figures 8 8 represent slots cut horizontally in the body portion. These slots serve as guideways for the slides 9, having arranged thereon knobs 10, and carrying on the opposite end a wire staple 11, which comes in contact with the underneath side of the plates or keys. The sides of the plates or keys are further provided with a mark 12, for the purpose of securing an accurate adjustment. A series of keys 13 13 are provided which are the same in form as the plates or keys 3. The plates 13, however, are composed of felt or other suitable material. These felt keys are used for varying the values of notes, as hereinafter referred to.

70 The adjustment of the instrument is as follows: If it is desired to play a certain tune or air, the key corresponding to the first note of the tune or air is placed in the lowermost position on the body portion of the instrument, the next key corresponding to the second note of the tune is placed adjacent to the first key, and so on consecutively until all the keys are placed in rotation to correspond with notes which constitute a certain tune. In case a note of greater value is desired, the key following will be one composed of felt. For example, we will assume that a tune is composed principally of quarter-notes, and a half-note is desired. Then by inserting the felt key after such note and sounding each key consecutively when the felt key is reached the preceding key or note will receive a double value. In order to indicate a long rest or pause, a pin is placed before the key preceding such rest, said pin being placed in one of the small apertures in the face of the instrument. This will also indicate to the operator the division of measure and time. A large pin may be inserted to indicate a double bar—*i. e.*, the conclusion of the different parts. The slides afford means whereby a perfectly-clear note may be produced from the plates or keys, it being understood that as the slide carries the staples 11 and the plate resting on

the staples the point at which the said plate rests on the staples may be varied, thereby changing the vibration of the plate and producing a note of a certain pitch in accordance with the markings 12, heretofore referred to. The mark on the side of the keys will serve as a guide to the operator for accurate adjustment of the keys to produce a clear note or sound.

10 It will be seen that the instrument is easily played, a sounder being used to sound the keys, the lowermost key being sounded first and then the next one, and so on consecutively until the end of the tune. If it is desired to
15 play a different tune, the keys are removed and arranged in the regular order as heretofore described, and a different melody may be played by striking the notes one after the other. The keys are so arranged that the
20 sound is perfectly clear, and is similar to that of chimes, special care being taken in the construction to suspend the plates or keys in such a manner as not to deaden the sound.

It will be apparent from the above description that various changes may be made in the details of construction of my improved musical instrument without departing from the general spirit of the invention. For example, tubes and steel plates may be employed for
30 the keys.

Having fully described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. A musical instrument consisting of a frame carrying metallic sounding plates and felt strips arranged to produce notes and rests when struck consecutively. 35

2. In a musical instrument, a suitable frame having a series of grooves, slides working therein and metallic sounding plates and felt strips arranged to produce notes and rests whereby a tune results, substantially as described. 40

3. In a musical instrument, a suitable frame, a series of metallic plates and felt strips and a slide having a wire supporting the plates and strips in a manner to produce notes and rests when struck consecutively. 45

4. A musical instrument, consisting of a body portion, a series of removable metallic sounding plates and felt strips, in combination with guides and apertures formed in said body portion, and sustaining wires for said keys, all parts being arranged and operating substantially as described, and for the purpose herein specified. 50

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

ERNEST ROBERT KAPPELER.

Witnesses:

H. C. EVERT,

W. E. ELBERT.