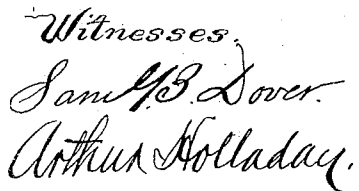


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Inventor
G. S. Rice.

UNITED STATES PATENT OFFICE.

GERRETT S. RICE, OF CHICAGO, ILLINOIS; SARAH RICE ADMINISTRATRIX
OF SAID GERRETT S. RICE, DECEASED.

MUSIC-CHART.

SPECIFICATION forming part of Letters Patent No. 383,011, dated May 15, 1888.

Application filed January 19, 1885. Serial No. 153,444. (No model.)

To all whom it may concern:

Be it known that I, GERRETT S. RICE, a citizen of the United States, residing in Chicago, in the State of Illinois, have invented a new and useful Means of Indicating to the Mind of the Performer all the Chords, Combinations, Positions, and Inversions possible under any given key or letter of the scale or accidentals that can occur outside of the given key, of which the following is a specification.

My invention consists in using signs or symbols of a peculiar character or form in connection with the scale intervals, as will hereinafter appear. I place these signs or symbols on any convenient or movable attachment of convenient form or shape, together with the key, scale or interval, names or syllables, all properly spaced, with all whole and half steps indicated and marked from a given set-point or key-note.

Figure 1 is a plan of the key-board of any keyed instrument, showing my movable attachment placed thereon. Fig. 2 is a few measures of a sample tune with the harmonic changes shown by the symbols below. Fig. 3 is the same as Fig. 1, with slight variations, as will hereinafter appear.

My attachment can be applied to any key-board instrument.

A A are the white keys of any key-board, and B are the black keys. At the rear of the keys I place my recording attachment C C, upon which are shown all the diatonic intervals of any given key—major or minor—measured off in exact distances from the given key-note or set-point. Each key or scale interval is surrounded or has placed near it one or more signs or symbols, said signs or symbols revealing all of the harmonies or chords in which said note can be used, together with all basses and inversions, and also all proper tenor, alto, and other parts.

E is a common key-index, permanently or otherwise attached to the instrument, along side of which is placed my attachment.

To particularly illustrate, given the key of C, place the point K opposite the key-note C, which instantly brings every interval or note-indicator with its proper symbol over or in position to indicate all the intervals and combinations of the given key C. Under the set-

key K are found the circular and diamond formed symbols. These two forms of symbols indicate on the recording attachment every note in harmony with the given note C, which may be played in combination with said note C at pleasure. The reason why these two symbols are found under C is that C is one (1) or eight (8) of the key, and always exists in two harmonies. The circle-symbols indicate that this note C or one (1) may be played in combination with all other letters or notes marked with a circle sign. The same may be said of the diamond-shaped symbols. It will also be observed that nearly all the different symbols are surrounded by a circle in light line, and that the other circles are in heavy line. The heavy lines are the circle-symbols, previously referred to, and the light-lined circle are pins upon which are placed the symbol desired. The pins may or may not be used at pleasure. These pins are placed in the attachment, which is placed over the key-board, and in the act of playing these pins are or may be struck in place of the keys, which act forces them down onto the key with the same effect as though the keys were struck directly by the player.

P P is the temporary attachment placed over the key-board and provided with the pins referred to, upon which are marked the symbols.

I will now refer to another number, note, or scale interval in this key of C—for instance, No. 2. Under this number is found another symbol in square form. In glancing over the attachment the player instantly grasps in his mind every note in harmony in this dominant combination, as every number surrounded with a square is a note in perfect harmony with this number, 2, and every harmony has a root-base. The three symbols I employ indicate the three ruling harmonies of all keys in all of the various positions, inversions, and combinations. These harmonies are known as the "tonic," indicated by ○ (circle;) the "sub-dominant" by ◇ (diamond;) "dominant" indicated by □ (square.) In these three different harmonies all the notes or intervals of every key are embraced, and in circle one (1) is the root-base, in the diamond four (4) is the root-base, in the square five (5) is the root base. I will

now move the key-indicator K to another key—say D. The same identical laws prevail as previously described. Every note that can be used in this key of D is indicated at once on the attachment and each indicated sign is over the key to be struck. So on with every change of position of indicator K. By the use of these attachments there is instantly indicated to the performer all of the diatonic intervals of every key, with all the possible harmonies of each interval, also the base, tenor, alto, and treble.

When the performer does not wish to use the root-base, he can use the inversions, which are plainly marked on the attachment. To illustrate this we will return to the key of C, shown in the figures. One (1) is the root-base of the tonic harmonies, marked by circles, while three (3) would be the first inversion and five (5) would be the second inversion. Five (5) is the root-base of the dominant family marked with square-symbol, and seven (7) is first inversion, two (2) is the second inversion, and four (4) is the third inversion of the same, all of which is plainly indicated on the base end of the attachment. In the minor key the same identical laws prevail, except the minor third and minor sixth (indicated by m^3 and m^6) must be played instead of the regular major third and major sixth. Position of the chords in any of the various families are instantly determined by the location of the root symbol, which is placed at and to the right of indicator K. Thus one, (1,) three, (3,) and five (5) show the first position of the tonic harmony, all of which are shown by the circle-symbols. In case of another family of symbols—as, for instance, the squares—seven, (7,) two, (2,) four,

(4,) and five (5) show the second position of the dominant seventh family, the root five (5) being plainly shown in top row. The application of this process in playing tunes is illustrated in Fig. 2. The key-indicator K would be set to the key-note of the tune. In the illustration, there being no flats or sharps shows the key to be C. The first note in the tune is the third above the key-note. Referring to the indicator, we find the third indicated by the circle. The base of this note would be indicated by a circle, the lowest of which on the base is one (1) in the root-base. The first like sign below this note 3, or any given note, indicates the alto, the second like sign below indicates the tenor. The circle harmony prevails until the harmonic family changes, as shown by the diamond symbol; and this continues until another change occurs in the harmonic family, which is indicated by the circle, &c.

I claim—

A movable chart or indicator capable of being placed on the key-board of any instrument, provided with signs and symbols of different shapes and forms arranged in the manner described, to represent the respective harmonic families, and properly spaced, in combination with a key-indicator permanently attached thereto, all constructed and operating substantially as shown.

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

GERRETT S. RICE.

Witnesses:

CLARENCE B. STORY,
D. H. FLETCHER.