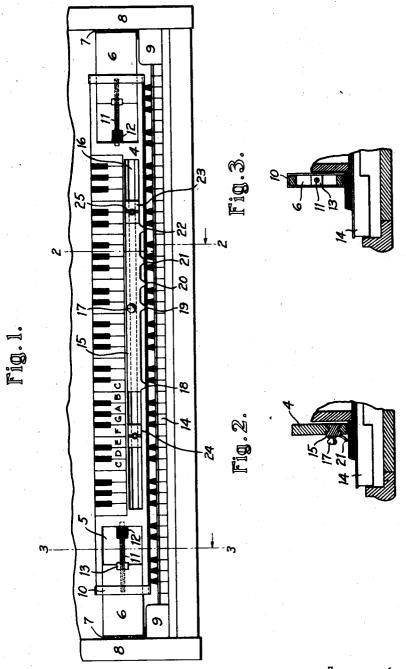
## A. J. HADAWAY & F. H. BOYER.

CHORD INDICATOR.

APPLICATION FILED SEPT. 10, 1910.

998,612.

Patented July 25, 1911.



Witnesses: D. Gurnee.

C. W. Carroll

## UNITED STATES PATENT OFFICE.

ALBERT J. HADAWAY AND FITZ H. BOYER, OF ROCHESTER, NEW YORK.

CHORD-INDICATOR.

998,612.

Specification of Letters Patent. Patented July 25, 1911.

Application filed September 10, 1910. Serial No. 531,466.

To all whom it may concern:

Be it known that we, Albert J. Hadaway, a subject of the King of Great Britain, and FITZ H. BOYER, a citizen of the United 5 States, residents of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Chord-Indicators, of which the following is a specification.

This invention relates to devices for use in playing, and in learning to play, the

piano or other keyboard instruments.

In previously-proposed devices of the type to which the present invention relates 15 a chart or diagram has been arranged above and in proximity to the keyboard of a piano or organ, this chart having marks or devices to indicate the keys to be struck in producing chords. In some of such devices there 20 have also been provided longitudinallyadjustable portions which may be moved to adjust the indicating devices to various portions of the keyboard, according to the key in which the harmonies are to be produced. 25 In all of such devices, so far as we are informed, it has been necessary for the performer upon striking each chord to make a selection among the various marks or indications on the chart, according as one or an-30 other of the several chords of a given key is to be played, and this necessity renders more difficult the use of such devices, and limits their usefulness, particularly for the unskilled.

The object of the present invention is to produce a device of the kind in question in 35 which such selection is performed automatically. To this end we employ a device in which the change from one chord to an-40 other chord in the same key is produced by moving a member longitudinally between two or more positions, these positions being determined automatically by suitable stops. In either of such positions the indicating de-45 vices carried by the movable member indicate only a single chord, so that the only operations necessary on the part of the performer, while playing in a given key, are to move

50 other, and then play the notes indicated. In the accompanying drawings:—Figure 1 is a front-elevation of a chord-indicator embodying the present invention, the figure showing also the keyboard and a portion of 55 the case of the instrument in connection with which the indicator is used; Fig. 2 is a

the movable member from one stop to the

vertical section on the line 2—2 in Fig. 1, looking from right to left; and Fig. 3 is a vertical section on the line 3—3 of Fig. 1

looking from right to left.

The illustrated embodiment of the invention comprises a body-portion 4 in the form of a comparatively wide and thin board, which is marked upon its front surface, as shown in Fig. 1, with a chart or diagram of 65 the keyboard of a musical instrument, with letters corresponding to the musical notation of the notes. As illustrated, this chart covers only four octaves of the keyboard, but obviously it may be extended to any de- 70 sired degree.

To secure the body 4 in place on the instrument, it is provided with longitudinally adjustable end-members. For this purpose, the body is provided at each end with a 75 recess 5 in which an end-piece is mounted, the end-piece being provided with a strip of felt or other suitable material 7 adapted to engage the portions 8 and 9 of the case of the instrument, so as to support the 80 chord-indicator both horizontally and ver-The end-pieces 6 are guided by means of metal bands 10 at the ends of the body 4, and they are forced outwardly by means of screws 11, which have knurled 85 heads 12 by means of which they may be turned. These screws engage, at their inner ends, the body-portion 4, and are threaded in nuts 13 in the end-pieces 6. The screws 11 constitute not only means for forcing the 90 end-pieces into engagement with the casing of the instrument, but they also, owing to their independent operation, permit exact longitudinal adjustment of the chart to bring its designation directly over the keys 95 14 of the instrument.

The notes constituting a chord are indicated by devices carried by a slide 15, which moves in a longitudinal guide 16 on the body-portion 4. A knob 17 on the front of 100 the slide is employed for the purpose of moving it. The indicating devices are in the form of pointers, of which five are illustrated. Two of these pointers, designated by the reference numbers 18 and 19, are ar- 105 ranged to indicate the bass-notes of an accompaniment, being located an octave apart. The other three pointers, 20, 21 and 22, are arranged to indicate the treble chord of an accompaniment. If the slide be located so 110 that the pointers 18 and 19 indicate the note C, for example, in two octaves, the pointers

20, 21 and 22 indicate the notes E, G and C

Since a sufficient accompaniment for simple melodies may be produced by playing 5 alternately the tonic and dominant notes of a scale, together with the corresponding chords, two positions only of the slide are essential to produce such an accompaniment, and means are provided for arresting the 10 movement of the slide in such positions.

To this end we employ two stops 23 and 24, which are mounted in the slide-guide 16, and are secured in their adjusted positions by means of thumb-screws 25. As shown in

<sup>15</sup> Fig. 1 the device is adjusted for playing accompaniments in the key of C. To this end the stop 23 is so located as to arrest the slide in position to indicate C as the bass note, and E, G, C as the treble chord. The

20 left-hand stop 24, on the other hand, is arranged to arrest the slide in a position to indicate G as the bass note, and B, D, G as the treble chord. With the device so adjusted, it is necessary merely to strike the notes indicated by the pointers, and move the slide back and forth from one stop to the other, according to the character of the

melody to be accompanied.

When it is desired to play accompaniments in keys other than C, it is necessary merely to move the stops 23 and 24 along the slide-guide to bring them into position to indicate the proper keys. In all cases, however, the stops are so located as to permit a movement through the space of three notes of the key in question, so as to permit indications of the tonic and dominant chords of the key. Obviously intermediate chords may also be indicated by moving the slide through other distances less than the full 40 space between the stops.

We claim:-

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1. A chord-indicator comprising a body adapted to be mounted above the keyboard of a musical instrument, a slide movable lon- 45 gitudinally on the body and carrying indicators arranged to register with the keys of a single chord, and means for limiting the movement of the slide and arresting it in two positions corresponding respectively to 50 the tonic and dominant chords of a scale.

2. A chord-indicator comprising a body adapted to be mounted above the keyboard of a musical instrument, a slide movable longitudinally on the body and carrying indi- 55 cators arranged to register with the keys of a chord, and stops for limiting the movement of the slide in various positions, the stops being adjustable to arrest the slide in predetermined positions according to the 60

key in which chords are to be played.

3. A chord-indicator comprising a body adapted to be mounted above the keyboard of a musical instrument, a slide movable longitudinally on the body and carrying indi-65 cators arranged to register with the keys of a chord, and stops for limiting the movement of the slide in various positions the stops being adjustable to arrest the slide in predetermined positions according to the key 70 in which chords are to be played, and the body being marked to indicate the positions of the stops for various keys.

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Witnesses:

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