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[54] **CHORD INVERSION FINDER**

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[52] **U.S. Cl.** **84/474**
[51] **Int. Cl.** **G09b 15/02**
[58] **Field of Search** 84/470–485

[56] **References Cited**

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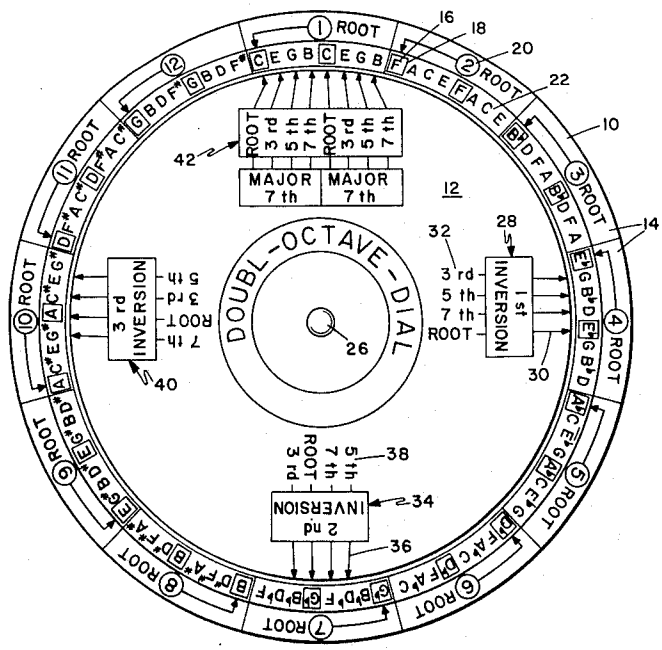
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[57] **ABSTRACT**

A chord inversion finder for all key signatures and particularly adapted to show the common inversions of three or four tone chords quickly and easily by mere adjustment of a dial or dial-like member upon a base dial and having in consecutive peripheral segments the tone names in the regular diatonic chord sequences in two octaves, and the first mentioned dial has positioned indicators pointing out the tones in sequence for at least one chord inversion and possibly for the first, second and third inversions, that is, the specific tones and sequence thereof for such inversions chosen from the two-octave chordal representation in that particular key signature.

5 Claims, 3 Drawing Figures



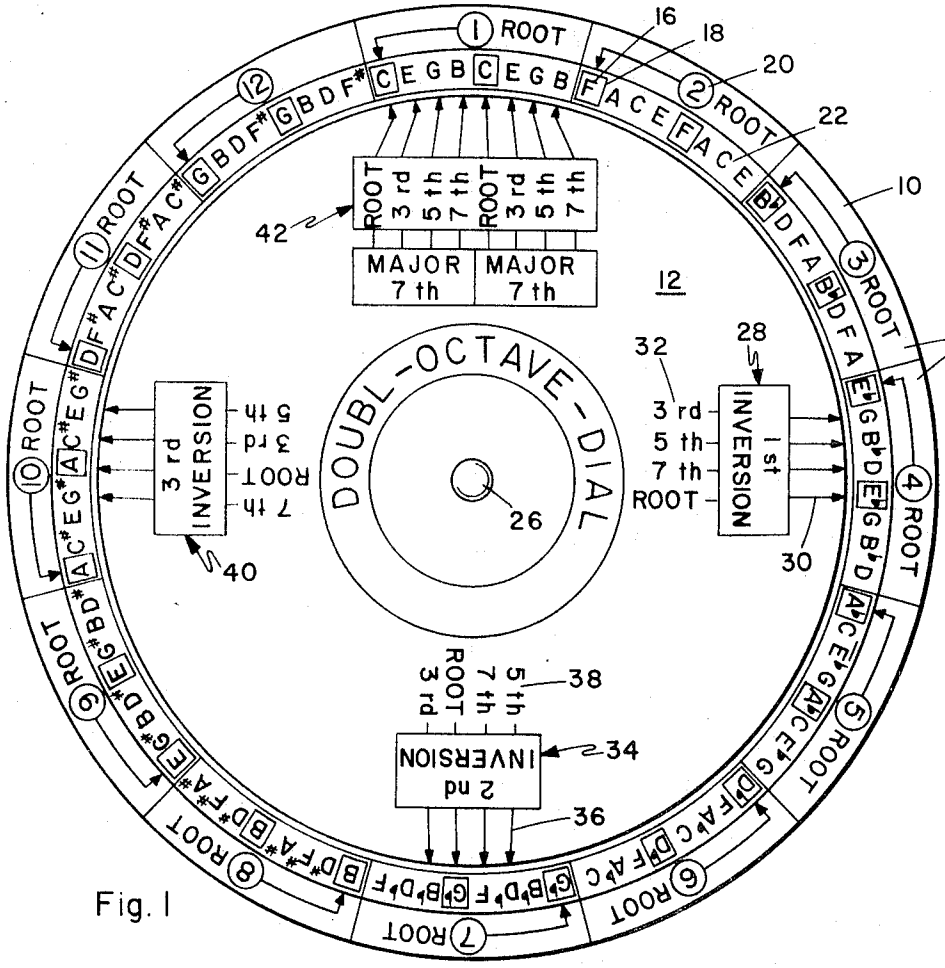


Fig. 1

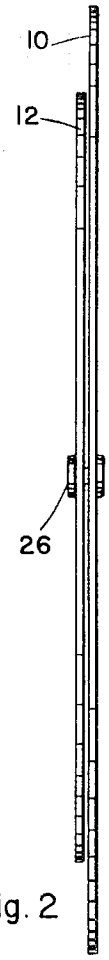


Fig. 2

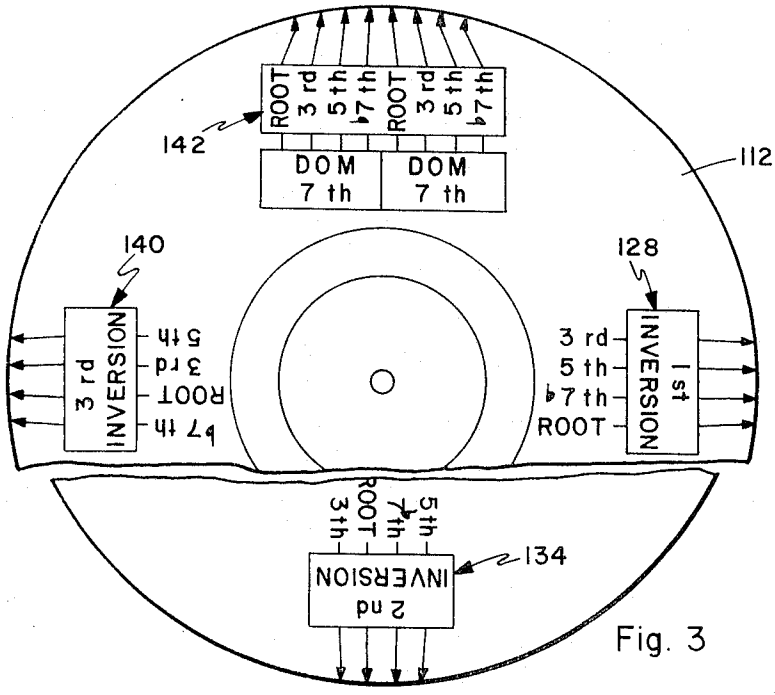


Fig. 3

CHORD INVERSION FINDER

BACKGROUND OF THE INVENTION

Chord inversions, particularly those of three and four tone chords, are very widely accepted and considered simple except for the difficulty in distinguishing between the inversions and the difficulty arising out of the necessary extension into a second octave. There is a need therefore for a simple teaching device combining showings of chord inversions and showing the same for different key signatures.

SUMMARY OF THE INVENTION

As claimed this device meets the immediately above-mentioned need and comprises a dial having a plurality, ordinarily twelve, of peripherally disposed displays of indicia showing the tone names in regular chord sequences for an equal number of key signatures, each sequence being doubled or repeated as it occurs in the next octave. A second member which may be a dial is rotatively adjustably mounted on the first and carries arrays selectively disposable opposite the displays on the first dial to point out the first and second inversions of the chord sequences and pointing out tone names selected from both octaves in the order or sequence demanded for the inversions of the chords concerned.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a front view of the complete device;

FIG. **2** is a fragmentary cross-sectional view of the device at the center thereof; and

FIG. **3** is a fragmentary view of another dial to illustrate a further example of the dials which are proposed to be provided as a set to show the inversions for several chords.

DETAILED DESCRIPTION OF A PREFERRED EMBODIMENT

As illustrated a larger or first dial **10** has a peripheral position exposed radially outwardly beyond a smaller, second dial **12** which is shown round but need only be a dial-like member since an entire circular periphery is not required as will become clear hereinafter.

The peripheral portion of the larger dial is divided into sections or segments **14,** shown as 12 in number to correspond with the commonly accepted twelve key signatures **16,** which latter are indicated in boxes **18,** identified as "ROOT" and numbered as at **20.**

In each segment **14** there is a display **22** of tone names representing the tones in a given chord in the corresponding key signature, that illustrated in FIG. **1** being the Major 7th with the seventh not flatted and, as in all the segments, this chord is repeated to show the same chord in the next octave, so that each display **22** represents a chord in two octaves. If major triads are to be represented the displays will each have six tones represented thereon, and as illustrated each display **22** has eight tones.

The smaller or second dial **12** is mounted by a pivot pin **26** centrally of the dial **10** for rotative adjustment and the periphery of the dial **12** is adjacent to the display **22.** A "1st inversion" array **28** on the peripheral portion of the smaller dial **12** has positional indicators **30,** which may be arrows, in spaced relation to point selectively to the different tone names in the displays **22** when the smaller dial is rotatively adjusted. Of course the spacing of the arrows and the spacing of the tone names in the displays **22** must correspond, and the denomination of the ROOT tone of the inversion chord is basic and critical to the concept of the invention, since adjustment of the smaller dial to achieve registration of the ROOT in the inversion array with one of the ROOTS or key signatures in the display **22** always determines the order or sequence of the chord tones. For example, the 1st inversion sequence for the key of E-flat as pointed out by the arrows **30** is G, B-flat, D, E-flat, the E-flat being that of the second octave in the display **22.** The tones of the chord, such as the third, fifth, seventh and ROOT in the illustrated form, as at **32,** are indicated in the array.

Similarly the 2nd inversion array **34** has arrows **36** and named degrees **38** in the chord and again the "ROOT" indication in this array **34** is critical in directing the registration of the array with the display **22.** In the instance of the second inversion of the chord G-flat it is pointed out as D-flat, F, G-flat and B-flat. A third inversion array **40** is similar to the other inversion arrays: for example, the third inversion of the chord in A is G-sharp, A, C-sharp and E.

As illustrated, the smaller dial **12** may also have an array **42** showing the bass chord, repeated for the second octave, primarily as a teaching device to stress the necessity of expansion beyond one octave when inversions are employed, since the duplication in the array **42** is very noticeable to the student-user of the device.

It will be understood that other chords, such as minor, diminished and augmented chords, and of course simpler traid chords and their inversions can be taught by this device, the only change necessary being a simple and obvious extension to replaceable dials such as that illustrated in FIG. **3,** where in smaller dial **112** a 1st inversion array **128,** a 2nd inversion array **134** and a 3rd inversion array **140** show the sequences derived from the regular diminished chord detailed in the array **142.** In order to effect the replacement of the dials, pivot pin **26** is provided with a rounded head, and the dials have central perforations dimensioned to snap over the head. In order to preserve the integrity of the dials, the edges of the perforations are reinforced by any means known in the art.

I claim:

1. A chord inversion finder, comprising:

a first dial having a plurality of spaced segments adjacent to the periphery thereof;

each of said segments having a display of indicia therein indicating tone names in regular diatonic chord sequence for a particular key signature, and this sequence repeated within the same segment to include the same sequence in the next octave;

a second dial mounted on the first dial coaxially therewith and manually rotatable relative thereto;

said second dial having a diameter smaller than the first dial to expose said indicia; and

said second dial having at least one array thereon selectively shiftable into registration with one of the segments on the first dial;

said array having positional indicators to point out the tone in said one segment of an inversion of said diatonic chord, said positional indicators being labeled with the root and degrees of the chord tones in the sequence of the particular inversion.

2. A chord inversion finder according to claim 1 including on said second dial an additional array having positional indicators thereon to point out the tones in the regular chord sequence.

3. A chord inversion finder according to claim 1 wherein said array has indicia thereon indicating the root, third, fifth and seventh degrees of the corresponding diatonic chord.

4. A chord inversion finder according to claim 1 wherein said second dial is removable from and replaceable upon said first dial;

and including further dials similar to said second dial and having indicia thereon indicating minor, augmented and diminished chords, respectively.

5. A chord inversion finder according to claim 4 wherein said panel has a pivot pin having a head, and said second dial and further dials have central perforations, dimensioned to snap over said head and means to re-inforce these dials at the edges of said perforations.

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