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APPARATUS FOR TRANSPOSING MUSIC

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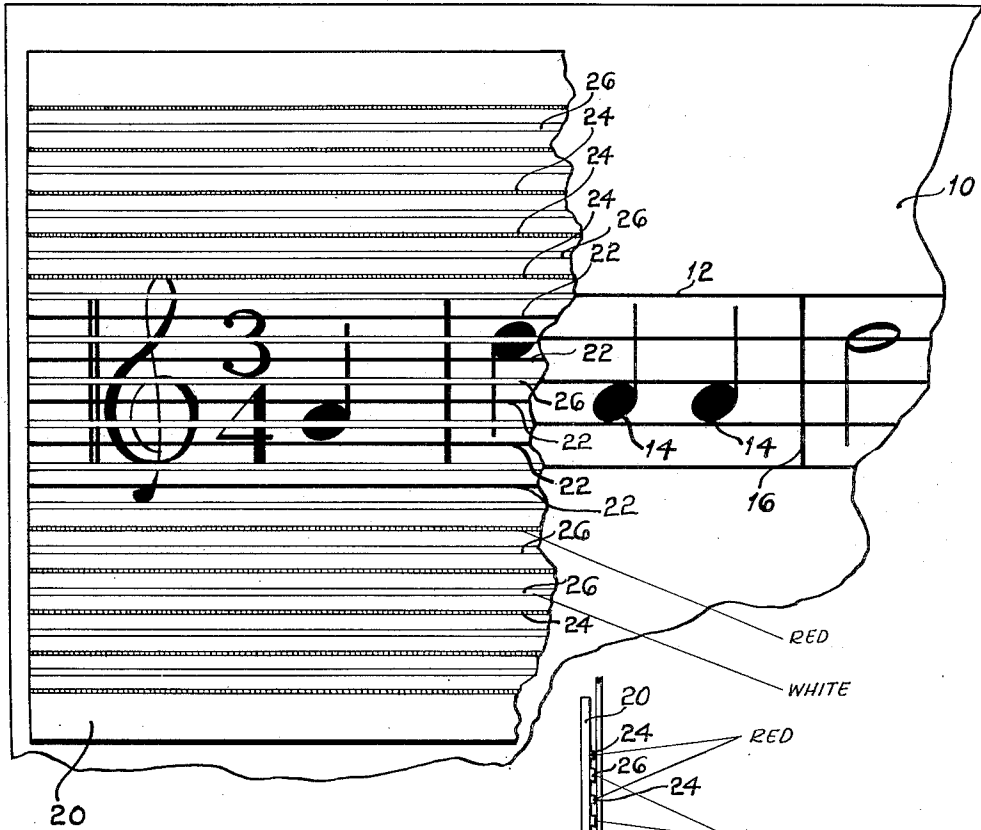


FIG. 1

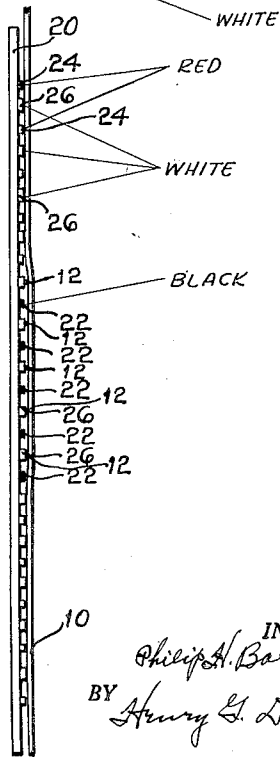


FIG. 2

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APPARATUS FOR TRANSPOSING MUSIC

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4 Claims. (Cl. 84-473)

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This invention relates to a method of and apparatus for transposing music and more particularly to a method of and apparatus for transposing music by means of an apparatus so arranged that the notes appear to be transposed from one key to another upon the ledger lines. The invention disclosed herein is related to the disclosure in my application Serial No. 233,603, filed June 26, 1951, for Device for Teaching Music.

Musicians often find it desirable for various reasons to transpose music from one key to another. In the past it has been the common practice to rewrite a musical composition, shifting the notes with respect to the staff. This is a long tedious operation.

An object of this invention is to provide a device for transposing the notes from one key to another without rewriting the musical composition. This has been accomplished by providing a transparent sheet having printed, engraved or otherwise produced thereon several series of lines, so that upon placing this transparent sheet on top of the music, it appears as though the notes have been transposed to another key.

Another object of this invention is to provide an apparatus for and a method of transposing the notes of the music with respect to the staff, this followed by a photographic and offset printing method for reproducing the musical composition in a different key without rewriting the music. This has been accomplished by providing a plastic sheet blocking out at least some of the staff lines and substituting therefor other staff lines arranged in proper position with respect to the notes for the desired key.

Other objects and advantages reside in the construction of parts, the combination thereof and the mode of operation, as will become more apparent from the following description.

Referring to the drawings, Figure 1 is an enlarged plan view of a portion of a sheet of music and a portion of a device for transposing the music from one key to another.

Figure 2 is an end elevational view of a sheet of music and apparatus for transposing the music from one key to another, the dimensions being greatly exaggerated for the purpose of illustration.

In the drawings, the reference character 10 indicates a portion of a sheet of music shown for the purpose of illustration. This sheet of music includes the staff lines 12 (five in num-

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ber), notes 14, bars 16, et cetera. In order to transpose this music to another key, instead of rewriting the music, a plastic sheet of transparent material 20 has been used.

This sheet of material is at least as long as the width of the music. However, for the purpose of illustration, it has been broken away, so as to show the notes in association with the original staff lines and then to also show the notes transposed to another key.

The plastic transparent sheet 20 has printed on the underside thereof five staff lines 22. Above and below the staff lines 22 is found a series of red lines 24 used as ledger lines. These red lines 24 are the same distance apart as the black staff lines 22. The red lines are also printed on the underside of the plastic sheet. Midway between the black lines and midway between the red lines, and in the center of the space between the lowest black line and the underlying red line and the upper black line 22 and the adjacent red line 24 are printed white lines 26. These white lines, when overlying a sheet of white sheet music, are for all practical purposes unnoticed. The thin white line extends through the note without any inconvenience to the musician. By placing the red, white and black lines on the underside of the sheet 20 and superimposing this sheet upon a white sheet, it gives the appearance as though the white and the black lines are printed on the white sheet.

The spacing of the white lines is equal to the spacing of the staff lines 12 of the underlying page of music. The spacing of the black lines 22 and the spacing of the red lines 24 is also equal to the spacing of the black lines 12 on the original sheet of music 10. The width of all the lines may be somewhat exaggerated, as is the size of the music, for the purpose of clearness. No attempt has been made to illustrate sharps and flats, in that the sharps and flats are a function of the key of the music.

In transposing music from one key to another, the transparent plastic sheet 20 is placed on top of the staff of the original music with the lines 22 positioned so as to transpose the music to the desired key. Let it be assumed, for example, that it is found desirable to transpose the music from the key of "G" to the key of "A." This would mean raising all of the notes a distance equal to half the distance between staff lines. This distance equal to half the distance between staff lines may be referred to as a degree, that is, the vertical distance be-

tween the notes of two immediately succeeding keys.

Instead of rewriting the notes, the plastic sheet 10, with the lines 22, 24 and 26 on the underside thereof, is superimposed upon the staff in such a position that all of the notes appear to be raised a distance equal to half the distance between staff lines when read through the plastic sheet 20, as shown in Figure 1. When arranged in this position, the white lines 26 block out the original staff lines. The thin white lines 26 overlying the black lines pass through some of the notes, that is, the notes located on the original staff lines, but due to the fineness of the white lines 26, it is not objectionable to the ordinary observer that a white line passes through the note.

The red lines 24 function as ledger lines, so that notes found above or below the staff lines 22 may then be interpreted or read with respect to the red ledger lines. In the event a key is shifted from the key of "G" to the key of "B", the four upper staff lines 22 would then be superimposed upon the four lower staff lines 12 of the original music. When this is done, the first red line 24 above the top staff line 22 will then register with the top staff line 12 of the original music. This red line would then block out the top staff line 12 of the original sheet of music. The white lines 26 would then be inconspicuously located between the original staff lines 12.

By the use of this plastic sheet having the black, white and red lines printed on the underside, it is possible to transpose a piece of music from one key to any other key without rewriting the music. The black, white and red lines contacting the sheet music eliminate shadows. If the black, white and red lines are used on the upper side of the plastic sheet, objectionable and confusing shadows of the lines may be cast upon the original sheet music.

Although red and white lines have been shown in connection with the plastic sheet 20, any other suitable colors could be used. If, for example, the original sheet music were printed upon some other color than white, as, for example, upon yellow paper, then the lines 26 might be yellow. Furthermore, the ledger lines 24 need not necessarily be red. They could be any other suitable color.

In reproducing music that has been transposed from one key to another by the device disclosed herein, the portion of the music to the right of the time designation, as viewed in Figure 1, may be reproduced by an offset printing process, in which event the sheet music can be reproduced without the tedious labor of rewriting the music. The time, the clef designation, and the necessary sharps and flats may be supplied in any suitable manner.

This procedure greatly economizes on the cost of reproducing music transposed from one key to another. It saves time. Furthermore, it lends itself to the playing of printed music or a page of music in a different key by merely superimposing the transparent sheet having the necessary ruled lines thereon in proper position on the original page of music.

For the purpose of illustration, only one staff has been shown on the plastic sheet. Several staves could be shown on the same sheet or several sheets could be used, so as to transpose all of the notes on a page of music from one key to another. Furthermore, the ledger lines, that is, the red lines, could consist of dashes with white lines

located between the dashes of the same lines, so that in the event a ledger line is used to cover up the staff line on the original composition, the entire original staff line will be covered. The ledger lines, upon being reproduced by offset printing, will then consist of a series of dashes to distinguish them from the staff lines that are shown in full line. By this arrangement the red dashes cover up a part of the original staff line and the white dashes cover up the balance of the staff line.

The white lines 26 extend continuously between the staff lines 22 and the ledger lines 24. This permits the adjustment of the plastic sheet by one degree, or by three degrees, or by any odd number of degrees. Likewise, the plastic sheet may be superimposed, so as to cover up one staff line, or two staff lines, or any number of staff lines. By this arrangement it is possible to transpose the original composition in one key to any other key in the same octave or in some other octave.

The transparent plastic sheet may be made from an elastic material, so that as the red, white and black lines are printed thereon, or otherwise provided thereon or therein, the spacing between the lines may be increased by placing the elastic sheet in tension in the up and down direction. By this arrangement the same plastic sheet may be used for various spacings between the staff lines.

Instead of printing the several colored lines, the lines may be etched or engraved in one surface of the plastic sheet. The proper color may then be applied to the lines. It is also possible to incorporate the proper pigments of the lines in the material used in manufacturing the plastic sheet. This is accomplished by adding the pigment to the solvent for the plastic used in the transparent sheet, then applying this solvent along straight lines. This solvent is preferably volatile, so that after it has been applied, the volatile solvent evaporates, leaving the pigment embedded in the surface of the plastic sheet.

The plastic sheet together with red, black and white lines printed thereon, as described above, may be superimposed upon the original staff by offsetting a distance equal to half a space or any odd multiple of a half space, in which event the original staff lines are covered by the white lines. By placing the plastic sheet at a distance equal to an even multiple of half a space, the original staff lines will be covered by the red and black colored lines on the plastic sheet.

Although the preferred embodiment of the device has been described, it will be understood that within the purview of this invention various changes may be made in the form, details, proportion and arrangement of parts, the combination thereof and mode of operation, which generally stated consist in a device capable of carrying out the objects set forth, as disclosed and defined in the appended claims.

Having thus described my invention, I claim:

1. A device for transposing a musical composition from one key to another said musical composition including conventional notes associated with permanent staff lines, said device including a transparent sheet, five equally spaced parallel lines extending across the transparent sheet, the distance between the five parallel lines being equal to the distance between the staff lines of the musical composition, additional equally spaced parallel lines above and below the five parallel lines, said additional lines corresponding

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to the ledger lines and being distinguishable from the first mentioned five lines so that as the transparent sheet is positioned with some of the first mentioned five lines registering with the staff lines of the original composition the notes appear to be shifted from one key to another.

2. A device for transposing a musical composition according to claim 1, wherein the transparent sheet is provided with white lines positioned between the lines referred to in claim 1 so that when the white lines are placed in registry with the original staff lines the original notes are transferred to new staff lines.

3. A device for transposing a musical composition from one key to another according to claim 1, wherein the lines on the transparent sheet are placed in direct contact with the original sheet.

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4. A device for transposing a musical composition according to claim 1, wherein white lines are printed on the spaces between the staff lines and the ledger lines, all of the lines on the transparent sheet being located on one side of the sheet so that the sheet may be superimposed upon the staff of original music with the lines in contact with the original sheet.

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