

Oct. 20, 1953

A. BALINT

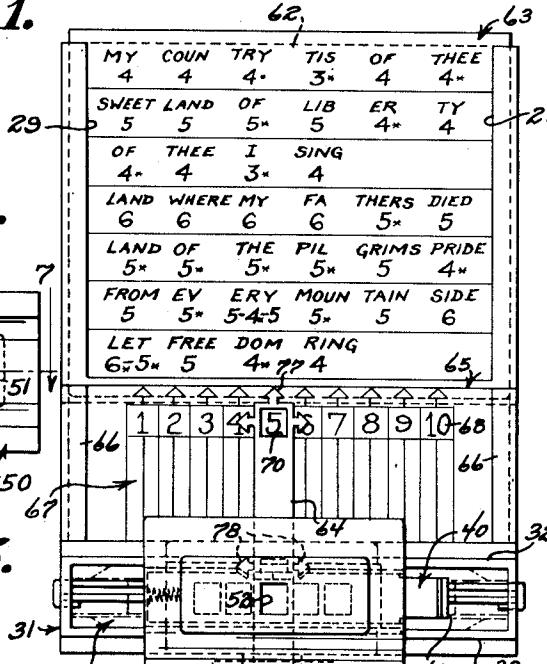
2,655,830

AUTOMATIC HARMONICA INSTRUCTOR

Filed Oct. 10, 1950

2 Sheets-Sheet 1

Fig. 1.



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Fig. 2.

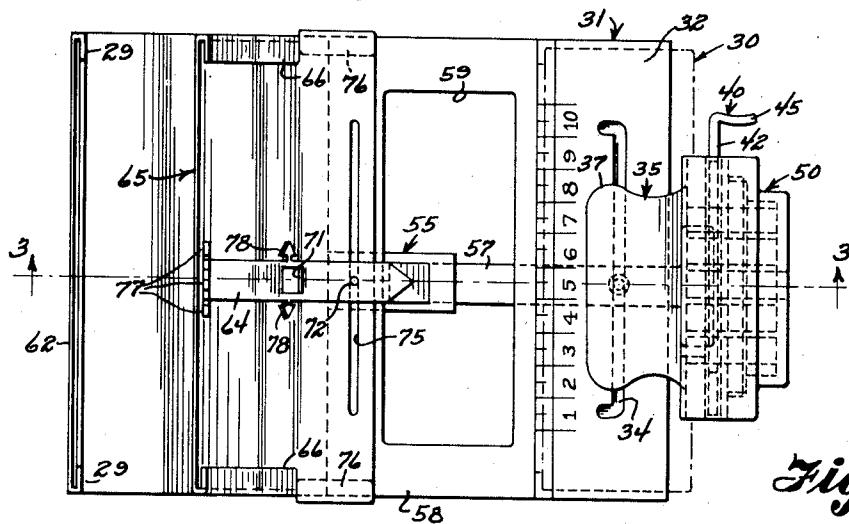


Fig. 14.

Fig. 12.

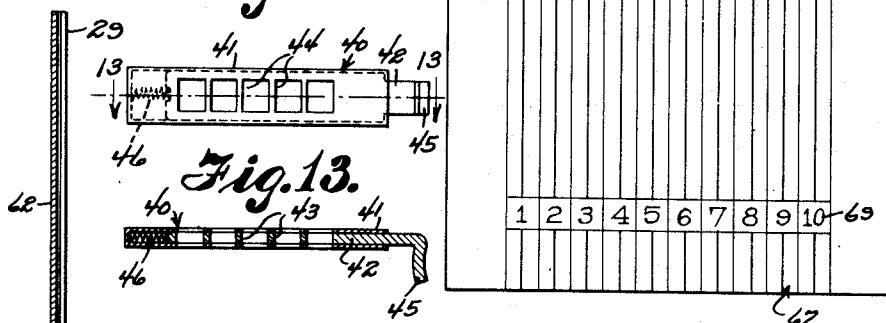
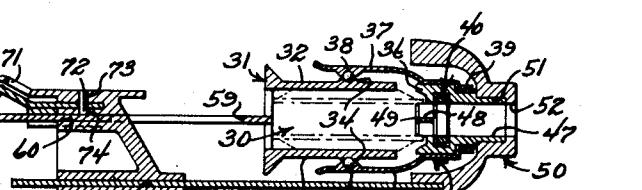
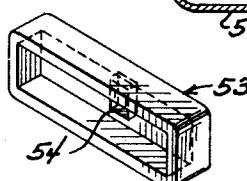


Fig. 3.

Fig.



57 53 58 37 35 INVENTOR.  
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## UNITED STATES PATENT OFFICE

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## AUTOMATIC HARMONICA INSTRUCTOR

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5 Claims. (Cl. 84—377)

## 1

This invention relates to an attachment for harmonicas, and more particularly to a device for helping or aiding a student to learn to play the harmonica.

The object of the invention is to provide an attachment for a harmonica whereby the playing of melodies on the harmonica will be greatly facilitated, the attachment being adjustable for different persons.

Another object of the invention is to provide an instruction attachment for a harmonica which includes a slideable member that is adapted to be moved by the student so that notes on the harmonica can be accurately sounded so as to correspond to notes on an instruction card.

A further object of the invention is to provide an automatic harmonica instructor which is extremely simple and inexpensive to manufacture.

Other objects and advantages will be apparent during the course of the following description.

In the accompanying drawings forming a part of this application, and in which like numerals are used to designate like parts throughout the same:

Figure 1 is a front elevational view of the attachment of the present invention mounted on a conventional harmonica;

Figure 2 is a top plan view of the assembly of Figure 1;

Figure 3 is a sectional view taken on the line 3—3 of Figure 2;

Figure 4 is an elevational view of the pointer element;

Figure 5 is a sectional view taken on the line 5—5 of Figure 4;

Figure 6 is a rear elevational view of the mouthpiece;

Figure 7 is a sectional view taken on the line 7—7 of Figure 6;

Figure 8 is an elevational view of the card-holding frame;

Figure 9 is a sectional view taken on the line 9—9 of Figure 8;

Figure 10 is a rear elevational view of the body member;

Figure 11 is a sectional view taken on the line 11—11 of Figure 10;

Figure 12 is an elevational view of the trebler element;

Figure 13 is a sectional view taken on the line 13—13 of Figure 12;

Figure 14 is an elevational view of the indicating scale or card;

Figure 15 is a perspective view of a modified mouthpiece.

## 2

Referring in detail to the drawings, the numeral 30 designates a conventional harmonica or mouth organ, broken lines, Figure 3. The present invention is directed to an assembly for attachment to the harmonica 30, whereby a student can readily and quickly learn to play melodies or songs. The assembly includes a holder 31 U-shape in cross section which comprises a pair of spaced, parallel side walls 32 and 33 which are arranged on opposite sides of the harmonica 30. Each of the exterior surfaces of the side walls 32 and 33 is provided with a longitudinally extending trackway 34, Figure 2.

Slidably connected to the holder 31 is a body member 35, the body member 35 including a main portion 36, and projecting from the main portion 36 is a pair of spaced wings 37 each of which carries ball bearings 38 for slidably engaging the track-ways 34. The wings 37 are maintained connected to the main portion 36 by means of reinforcing strips 39.

Carried by the body member 35 is a trebler element 40, Figures 12 and 13. By means of the trebler element 40, the amount of air blown into or sucked through the harmonica can be regulated so that the user can accurately control the tone qualities of the melody being played. The trebler element is manually operated and includes a stationary housing 41 that has a bar 42 movably mounted therein. The bar 42 is provided with a plurality of spaced openings 43 that are adapted to move into and out of registry with the spaced openings 44 in the housing 41 upon movement of the bar 42 by means of the finger clip 45. A spring 46 normally urges the bar 42 into the position shown in Figures 12 and 13. The body member 35 is provided with a plurality of spaced openings 47, Figure 10, and a strip 48 divides the openings 47 into two parts. Suitable pieces of leather 49 are provided for preventing the body member 35 from accidentally scratching or otherwise damaging the harmonica.

Mounted on the front end of the body member 35 is a mouthpiece 50 which may be fabricated of any suitable material, such as plastic, the mouthpiece being provided with a socket 51, Figures 6 and 7, for receiving therein the projecting front portion of the body member 35. Thus, upon movement of the mouthpiece 50, there will be a corresponding movement of the body member 35. The mouthpiece 50 is provided with only a single opening 52, whereby only one note of the harmonica will be sounded at one time. If desired, the mouthpiece 53 which has the openings 54 therein, Figure 15, can be used in lieu of the

mouthpiece 50, but when the mouthpiece 53 is being used, there will be no instruction cards used with the assembly.

Projecting rearwardly from the bottom of the mouthpiece 50 is an elongated arm 57. A support member 55 is provided with a slot 56 for slidably receiving therein the arm 57, whereby the support member can be moved or adjusted longitudinally along the arm 57. It will be seen that as the mouthpiece 50 is moved along the harmonica 30 during the playing of a melody, the arm 57 will move, and this will cause corresponding movement of the support member 55.

Projecting rearwardly from the holder 31 or formed integrally therewith is a bracket 58 which is provided with a large rectangular cutout 59. The support member 65 is provided with a slot 60, Figure 5, for slidably receiving therein a portion of the bracket 58. The bracket 58 includes a web portion 61 that terminates in a vertically disposed, card-holding casing 62. The casing 62 includes retaining lips 29 and is adapted to releasably or detachably support the cord 63 therein, the card 63 having words and numbers thereon of the song or melody to be played, Figure 1. The card 63 can be readily replaced when desired, and certain of the numbers on the card 63 can be colored in distinctive colors or provided with stars so that the student will know when to blow in or suck air through the harmonica.

Formed integrally with the support member 55 or secured thereto is a movable pointer element 64, the pointer element 64 moving as the support member 55 moves. Extending upwardly from the rear of the support member 55 is a separate frame 65 and flanges 66 which are arranged along the edges of the frame 65 to define a casing for holding therein a card 67 having two sets of numbers 68 and 69 printed or stamped thereon. These sets of numbers 68 and 69 correspond to the numbers on the card 63 and also to the numbers on the holes of the harmonica. The pointer element is provided with a pair of windows 70 and 71 which are of sufficient size to permit only one of the numbers in the sets of numbers 68 and 69 to be viewed at one time.

A pin 72 projects through registering holes 73 and 74 in the support member 55, and the pin 72 also projects through a longitudinally extending slot 75 in the frame 65, whereby the support member 55 will be able to slide independently of the frame 65 and yet these parts will be maintained in their assembled relation. The frame 65 is also provided with attaching ears 76 for connecting this member to the other parts. Suitable arrows 77 surround the windows 71, while other arrows 78 surround the windows 72.

In use, the proper card 63 is positioned in the casing 65, according to the song that is to be played. Then, with the mouthpiece 50 in the user's mouth, the mouthpiece can be moved along the harmonica. This movement of the mouthpiece 50 by the user's mouth causes the body member 35 to move and also causes the arm 57 to move. As the arm 57 moves, a corresponding movement of the support member 55 is effected, and this results in the pointer element 64 moving. The pointer element 64 is moved until the windows 70 and 71 indicate or show that the pointer element 64 is located at the proper position. Thus, when the number appearing through the windows 70 or 71 corresponds with the number of the note on the card 63 then the pointer element 64 is properly located. The color of the note on

the card 63 indicates to the student whether to blow in or suck air through the harmonica, or stars may be used for the same purpose. Also, the pair of windows 70 and 71 enable persons having different qualities of vision, such as near-sighted persons, to use the attachment, and the pair of windows 70 and 71 also indicate to the user when the instrument is correctly aligned. The trebler element 40 provides a manually operable means for controlling the flow of air into and out of the harmonica, so that the tonal qualities can be regulated. Also, the support member 55 can be adjusted longitudinally along the arms 57.

For example, if the student is about to sound the note corresponding to the word "of" on the card 63, the pointer element 64 is located until the number "5" appears through the window 70 or the window 71. Then, the student either blows or sucks, depending upon the color of the number on the card 63. After that note has been sounded, the pointer element 64 is moved until it is positioned in the proper location for the next note.

The parts of the attachment can be made of any suitable material, such as plastic or metal. The card 63 is replaceable so that, depending upon the song being played, there will be a different card for each song.

I claim:

1. In combination, a harmonica, a hollow holder including a pair of spaced parallel side walls arranged on opposite sides of said harmonica, the front end of said holder being open, there being a trackway arranged in the exterior surface of each of said side walls, a body member having a pair of spaced wings projecting therefrom, ball bearing carried by said wings for engagement with said trackways, a trebler element carried by said body member, a mouthpiece mounted on said body member and provided with a single opening therein, an arm projecting rearwardly from said mouthpiece, a support member arranged rearwardly of said harmonica and mounted for longitudinal movement along said arm, a bracket projecting rearwardly from said holder and secured thereto, said support member being mounted for transverse sliding movement along said bracket, a stationary card-holding frame extending upwardly from said support member, a pointer element provided with a pair of spaced windows formed integrally with said support member, and a frame arranged rearwardly of said last-named card holding frame for supporting a card having musical indicia thereon.

2. In combination, a harmonica, a hollow holder including a pair of spaced parallel side walls arranged on opposite sides of said harmonica, the front end of said holder being open, there being a trackway arranged in the exterior surface of each of said side walls, a body member having a pair of spaced wings projecting therefrom, ball bearings carried by said wings for engagement with said trackways, a trebler element carried by said body member, a mouthpiece mounted on said body member and provided with a single opening therein, an arm projecting rearwardly from said mouthpiece, a support member arranged rearwardly of said harmonica and mounted for longitudinal movement along said arm, a bracket projecting rearwardly from said holder and secured thereto, said support member being mounted for transverse sliding movement along said bracket, a stationary card-holding frame extending upwardly from said support

member, a pointer element provided with a pair of spaced windows formed integrally with said support member, and a frame arranged rearwardly of said last-named card holding frame for supporting a card having musical indicia thereon, said last-named card holding frame being detachably supported in said support member.

3. A harmonica playing device comprising a holder U-shape in cross section having side walls positioned to extend on opposite sides of a harmonica, a body member having a pair of spaced wings extended over the side walls of the holder and slidably mounted on said side walls for longitudinal travel of the holder, a mouthpiece having a single opening therein mounted on said body member and having an arm extended therefrom, said arm positioned on one side of the holder and extended beyond the holder, a bracket extended from said holder and positioned parallel to said arm, a support member slidably mounted on both the arm and bracket spaced from the holder, an upwardly extended card holding casing carried by said support member, a pointer having spaced windows therein positioned to coact with a card on said card holding casing, and a stationary card holding frame carried by said bracket, spaced from said card hold-

ing casing and extended upwardly above said casing.

4. A harmonica playing device as described in claim 3, having a bar with spaced openings therethrough slidably mounted in said body member and positioned with the openings therein in registering relation with the opening of the mouth piece.

5. In combination with a harmonica playing device as described in claim 3, a card having spaced rows of numerals thereon positioned in the card holding casing, said numerals positioned to register with the windows of the pointer and a card having an arrangement of notes thereon positioned in said card holding frame and said notes numbered to correspond with the numerals of the card in said card holding casing.

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