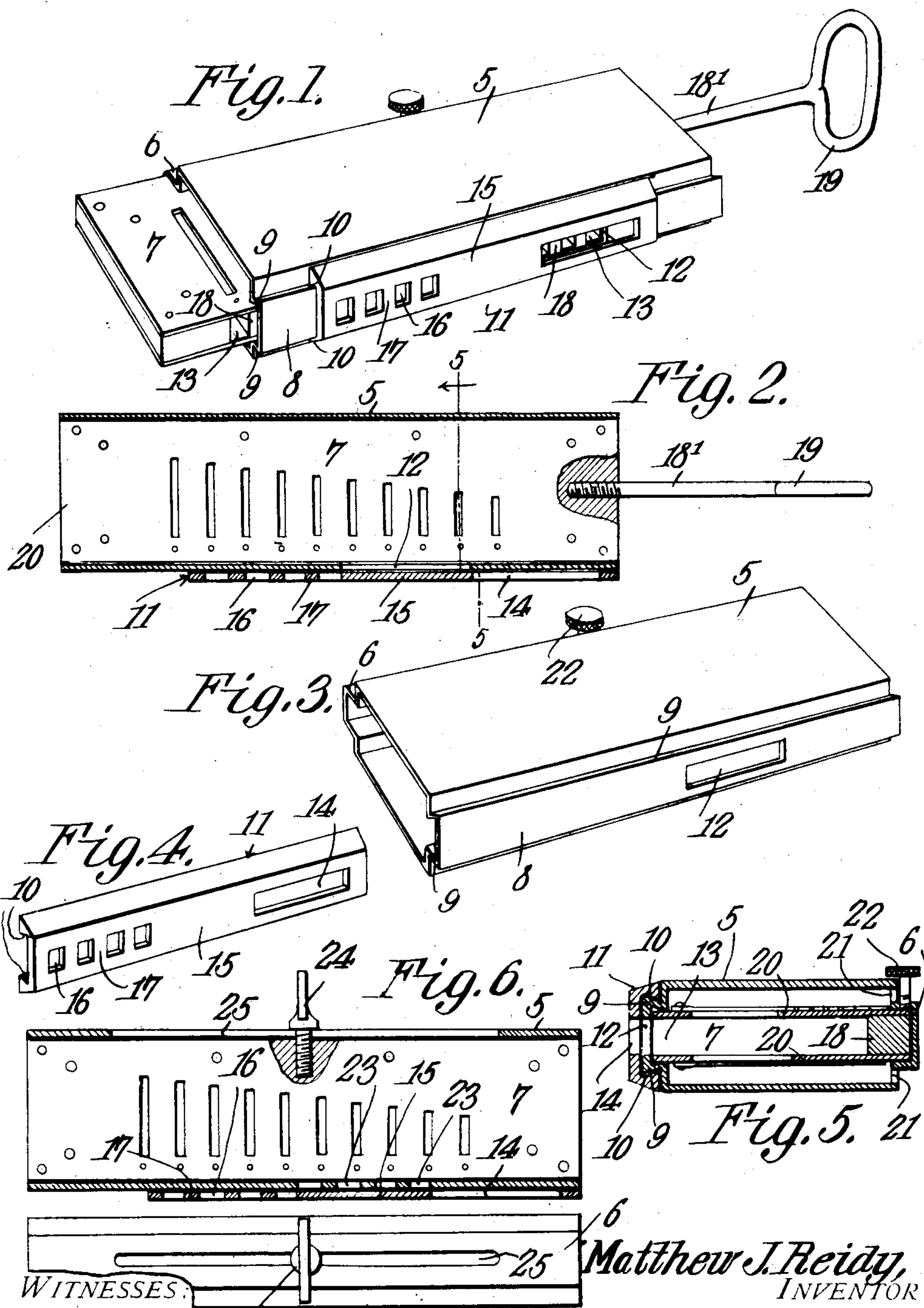


No. 872,083.

PATENTED NOV. 26, 1907.

M. J. REIDY.
HARMONICA.

APPLICATION FILED MAR. 27, 1907.



WITNESSES:

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Fig. 7.

By

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MATTHEW JOSEPH REIDY, OF MECHANICSVILLE, IOWA.

HARMONICA.

No. 872,083.

Specification of Letters Patent.

Patented Nov. 26, 1907.

Application filed March 27, 1907. Serial No. 364,929.

To all whom it may concern:

Be it known that I, MATTHEW J. REIDY, a citizen of the United States, residing at Mechanicsville, in the county of Cedar and State of Iowa, have invented a new and useful Harmonica, of which the following is a specification.

This invention relates to harmonicas and has for its object to provide means whereby danger of abrading or otherwise injuring the lips and corners of the mouth when playing the instrument is positively eliminated.

A further object of the invention is to provide a casing or housing having a mouth piece associated therewith and adapted to be held stationary in the mouth and the body of the harmonica reciprocated within the casing.

A further object is to provide a reversible mouth piece having spaced openings of different sizes formed therein and adapted to register with a corresponding opening in the harmonica casing thereby to protect the tongue from friction on the body of the instrument when the tongue is used to close certain air passages in playing an accompaniment.

A further object is to provide a mouth piece capable of being adjusted longitudinally of the casing or housing thereby to expose only a limited number of reeds for actuation at one time.

A still further object of the invention is to generally improve this class of devices so as to increase their utility, durability and efficiency.

Further objects and advantages will appear in the following description, it being understood that various changes in the form, proportions, and minor details of construction both in the casing and harmonica body may be resorted to within the scope of the appended claims.

In the accompanying drawings forming a part of this specification: Figure 1 is a perspective view of a harmonica constructed in accordance with my invention. Fig. 2 is a longitudinal sectional view of the same showing the harmonica body housed within the casing. Fig. 3 is a perspective view of the casing or housing detached. Fig. 4 is a similar view of the mouth piece detached. Fig. 5 is a transverse sectional view taken on the line 5—5 of Fig. 2. Fig. 6 is a longitudinal sectional view illustrating a modified form of the invention. Fig. 7 is a rear elevation of Fig. 6.

Similar numerals of reference indicate corresponding parts in all of the figures of the drawings.

The present invention consists of a tubular open ended casing 5 preferably stamped from a single sheet of metal although it may be made of celluloid, vulcanized fiber or other suitable material.

The casing 5 is preferably rectangular in cross section and is provided at its rear edge with a reduced extension 6 in which the back edge of the harmonica body 7 is received and also forms a guideway in which the harmonica body is adapted to slide longitudinally of the casing. The front edge of the casing is, also, provided with a reduced portion 8 to form a guide way for the reception of the front portion of the body of the harmonica, the longitudinal edges of the guide way being pressed inwardly to produce dove tailed flanges 9 for the reception of the correspondingly shaped flanges 10 of a mouth piece 11.

The reduced portion 8 of the casing 5 is provided with an elongated slot 12 adapted to expose a pre-determined number of the air-passages 13 in the harmonica body, there being a similar opening 14 formed in one end of the mouth piece 11 and adapted to register with the opening 12 in the casing, as will be more fully explained hereinafter.

The mouth piece 11 is provided with an intermediate imperforate portion 15 and a plurality of spaced openings 16 beginning near the middle of the mouth piece and extending towards one end thereof, and each preferably of a width equal to the width of one of the air passages 13 in the harmonica body, the vertical webs 17 dividing the openings 16 being of a width equal to and adapted to register with the vertical partitions 18 of the harmonica body when the mouth piece is adjusted so as to expose certain of the reed openings.

The mouth piece 11 is slidably mounted for longitudinal movement on the flanges 9 of the reduced portion 8 so that either the opening 14 or the spaced openings 16 may be caused to register with the opening 12 in the casing. When the opening 12 of the casing and the opening 14 of the mouth piece are in alinement as shown in Fig. 1, such air passages of the harmonica as are opposite the alined openings, are in position to be played upon and by moving the harmonica body back and forth in the casing any of the air passages may be brought into alinement

with the openings, whereby the harmonica may be played upon and manipulated in the usual manner without injuring the mouth of the player, as the casing and mouth piece remain stationary in the mouth. The opening 12 in the casing is preferably long enough to expose the reed openings ordinarily brought into use in producing the air or leading part of the music and the other tones which are employed to harmonize therewith, particularly the accompaniment. By adjusting the mouth piece longitudinally of the casing any number of reed openings or air passages may be closed so that a single reed opening may be exposed, as for instance, in playing the air or leading part of a piece, thus obviating the use of the tongue to close certain other of the reed openings.

When it is desired to play an accompaniment the mouth piece 15 may be reversed, if necessary, and placed in position on the flange 9 with the openings 16 registering with the opening 12 in the casing so that when the tongue is pressed against the mouth piece to shut off the tones intermittently in playing the accompaniment, liability of the tongue being caught under the adjacent edges of the mouth piece when the body portion is reciprocated within the casing is effectually eliminated. That portion of the mouth piece containing the openings is preferably of a sufficient thickness to prevent the tongue from coming in contact with the ends of the partition 18 when the openings 12 and 14 are in alinement with each other and the instrument adjusted to play an accompaniment to the air or leading part.

To facilitate the sliding movement of the harmonica body through the casing it is proposed to attach to one end of the harmonica body a suitable handle comprising a stem or shank 18' having one end thereof adapted for engagement with the body portion and its opposite end provided with a loop or eye 19 designed to receive the thumb or finger of the hand of the player or otherwise formed for manipulation, whereby the body may be conveniently reciprocated within the casing.

Attention is called to the fact that the upper and lower walls of the casing are spaced from the adjacent reed carrying plates 20 thereby to produce an intermediate air chamber, there being air apertures or openings 21 formed in the rear portion of the casing to permit the escape of air from the chamber when the instrument is played. A screw or similar fastening device 22 is carried preferably by the rear reduced portion or guideway 6 of the casing and is capable of being set against the body of the harmonica, preferably at the rear of the reeds, so as to prevent loosening of the body within the casing when the device is not in use.

It will here be noted that the casing 5 is

preferably of the same length as the harmonica body so that when the latter is telescoped within the former, the instrument will be in compact form. It will also be noted that the intermediate imperforate portion 15 of the mouth piece is of the same length of the opening 12 so that when the harmonica body is positioned within the casing with its opposite ends disposed flush with the adjacent ends of the casing and the mouth piece 11 adjusted longitudinally of the casing until the intermediate imperforate portion 15 registers with the opening 12 of the casing the reeds and air passages will be closed or housed so as to effectually prevent the entrance of dust and other foreign matter when carrying the instrument in the pocket, as best shown in Fig. 2 of the drawings. If desired, however, the perforations or openings in the casing and mouth piece may be otherwise spaced and the perforations and dimensions of said casing and mouth piece varied at will without departing from the spirit of the invention.

In Figs. 6 and 7 of the drawings there is illustrated a modified form of the invention in which the casing is provided with a plurality of spaced openings 23 instead of having a single elongated opening formed therein, as shown in Figs. 1 and 3. In this form of the device a screw or finger piece 24 is secured to the rear portion of the body of the harmonica and extended through an elongated slot or recess 25 formed in the adjacent longitudinal edge of the casing, said opening being preferably of a length equal to the length of the space required for the reed openings. This method of reciprocating the harmonica within the casing is principally designed for unusually long instruments or for players with small hands.

It will, of course, be understood that the devices may be made in different sizes and shapes so as to adapt the same to any form of mouth organ or harmonica with which it may be used, and, also, that the mouth piece may sometimes be omitted and the casing reversed upon the body. It will also be understood that instead of having the longitudinal edges of the mouth piece formed with dove tailed flanges the edges of the metal or other material forming the mouth piece may be bent upon itself to produce gripping flanges for engagement with corresponding flanges on the front portion of the casing.

I claim:—

1. A harmonica provided with a casing having an opening formed therein, and a mouth piece provided with spaced openings of different sizes adapted to register with the opening in the casing.

2. A harmonica provided with a casing having an opening formed therein and a reversible mouth piece slidably mounted on the casing and having spaced openings

formed therein and adapted to register with the opening in the casing.

3. A harmonica provided with a casing having an opening formed therein, a mouth piece adjustably mounted on the casing and having an intermediate imperforate portion, there being terminal openings formed in said mouth piece and adapted to register with the opening in the casing.

4. A harmonica provided with a casing having an opening formed therein, an adjustable mouth piece slidably mounted on the casing and having an elongated opening formed near one end thereof and adapted to register with the opening in the casing, there being a plurality of spaced openings formed near the opposite end of the mouth piece and adapted to register with the opening in the casing when the mouth piece is reversed.

5. A harmonica having a casing provided with an opening, a reversible mouth piece slidably mounted for longitudinal movement on the casing and having an opening beginning near the middle and extending toward one end thereof of the same length as the opening in the casing, and adapted to register therewith, there being a plurality of spaced openings beginning near the middle and extending towards the opposite end of the mouth piece, the combined width of the spaced openings being equal to the width of the opening in the casing.

6. A harmonica provided with a casing having an opening formed therein, a reversible mouth piece slidably mounted on the casing and having an intermediate imperforate portion, there being a single elongated slot formed in the mouth piece on one side of the imperforate portion and adapted to register with the opening in the casing when the mouth piece is supported in one position on the casing, and a plurality of spaced openings formed on the mouth piece on the opposite side of said imperforate portion and adapted to register with the opening in the casing when the mouth piece is supported in another position on said casing.

7. A harmonica provided with a casing through which the harmonica body is capable of being reciprocated, there being an opening in said casing, a mouth piece slidably mounted on the casing and provided with spaced openings adapted to register with the opening in the casing, and means for reciprocating the harmonica through said casing.

8. A harmonica provided with a perforated casing through which the harmonica body is capable of being reciprocated, and a reversible mouth piece slidably mounted on the casing and having an intermediate imper-

forate portion, there being openings formed in said mouth piece on each side of the imperforate portion and adapted to register with the perforated portion of the casing.

9. A harmonica provided with a casing through which the harmonica body is capable of being reciprocated, there being an opening formed in the casing, a reversible mouth piece slidably mounted on the casing and having an intermediate imperforate portion, and an elongated opening formed near one end of the mouth piece and adapted to register with the opening in the casing, there being a plurality of spaced openings formed near the opposite end of the mouth piece and adapted to register with the opening in the casing when said mouth piece is reversed.

10. A harmonica provided with a casing in which the harmonica body is capable of being reciprocated, said casing being provided with an opening near the middle thereof, and a reversible mouth piece slidably mounted on the casing and provided with an intermediate imperforate portion, and oppositely disposed openings adapted to register with the opening in the casing, one of said openings being divided by vertical webs.

11. A harmonica having a reversible casing provided with an opening, a mouth piece slidably mounted on the casing and having an intermediate imperforate portion adapted to form a closure for the whole or part of the opening in said casing, there being openings formed in the mouth piece on each side of the imperforate portion and adapted to register with the opening in the casing.

12. A harmonica having a casing the front of which is perforated, a reversible mouth piece of less length than the casing slidably mounted on the latter and provided with an intermediate imperforate portion adapted to form a closure for the perforated portion of said casing, there being a single elongated opening formed in the mouth piece on one side of the imperforate portion and adapted to register with the perforated portion of the casing when the mouth piece is supported in one position on the casing, and a plurality of spaced openings formed in said mouth piece on the opposite side of the imperforate portion and adapted to register with the opening in the casing when the mouth piece is supported in another position on said casing.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

MATTHEW JOSEPH REIDY.

Witnesses:

W. C. PAGE,

C. B. KAHLER.