

(No Model.)

M. MESSNER.
HARMONICA.

No. 555,610.

Patented Mar. 3, 1896.

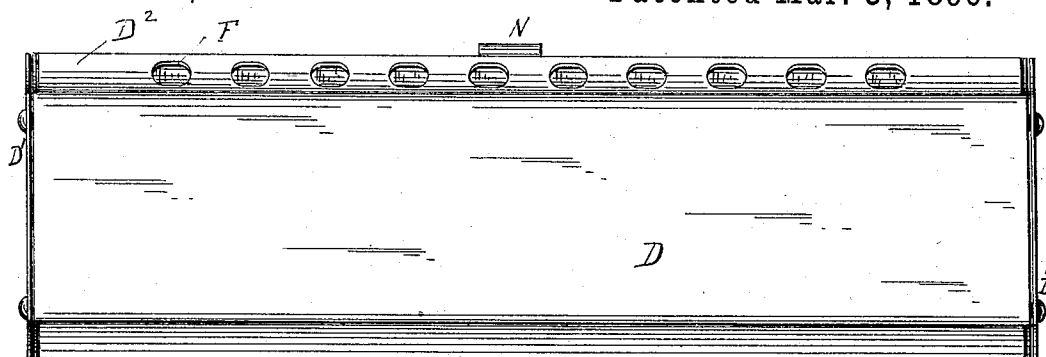


Fig:1.

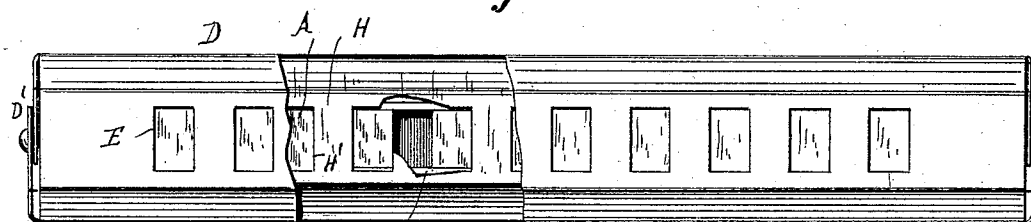


Fig: 2.

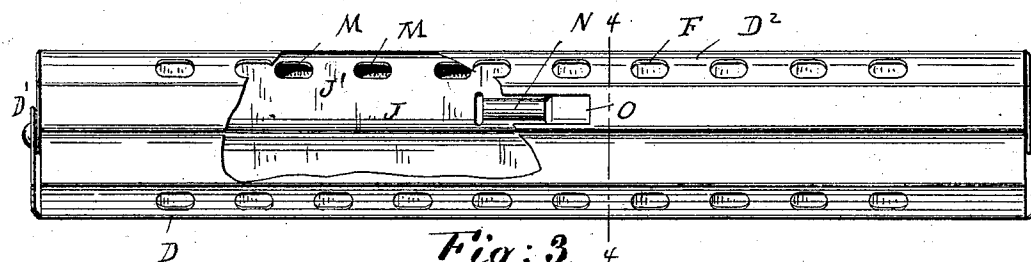


Fig: 3.

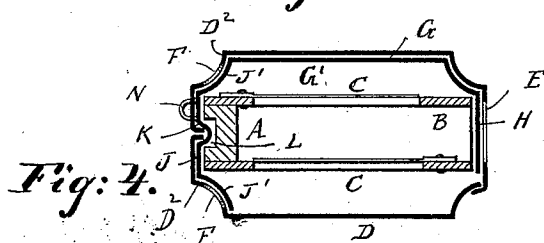


Fig: 4.

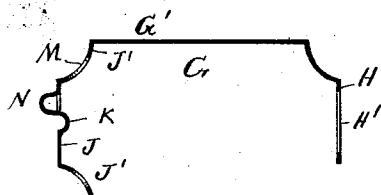


Fig: 5.

Witnesses
D. P. Palmer
E. J. [unclear]

M. Messner Inventor
By *his* Attorney *Oscar F. Tunn*

UNITED STATES PATENT OFFICE.

MATTHIAS MESSNER, OF TROSSINGEN, GERMANY.

HARMONICA.

SPECIFICATION forming part of Letters Patent No. 555,610, dated March 3, 1896.

Application filed September 26, 1895. Serial No. 563,700. (No model.)

To all whom it may concern:

Be it known that I, MATTHIAS MESSNER, a citizen of Germany, and a resident of Trossingen, Württemberg, Germany, have invented certain new and useful Improvements in Harmonicas, of which the following is a specification.

This invention relates to improvements in harmonicas.

10 The object of my invention is to provide a new and improved harmonica which is so constructed that the blow-holes through which air is forced to the reeds and the sounding-holes along the bottom part of the harmonica
15 can be closed very easily and readily, so as to exclude all dust, moisture, and dirt, so as to permit of carrying the harmonica in the pocket without the use of a box, and which holes can all be opened by a single operation when the
20 instrument is to be used.

In the accompanying drawings, forming a part of this specification, and in which like letters of reference indicate like parts in all the views, Figure 1 is a side view of my improved harmonica, inverted. Fig. 2 is a top
25 edge view of the same, parts being broken out. Fig. 3 is a bottom edge view, parts being broken out. Fig. 4 is a vertical transverse sectional view on the line 4 4 of Fig. 3. Fig. 5 is a vertical transverse sectional view of the sliding
30 shell.

The harmonica is constructed with the usual central block A, to which the two reed-plates B are fastened, on which latter the reeds C are
35 applied in the usual and well-known manner.

The block and reed-plates are surrounded by a sheet-metal casing D, the sides of which are held a greater or less distance from the reed-plates, and the ends of said casing are
40 folded over on the ends of the block A and tacked to the same by means of the tacks D' in the well-known manner.

The casing D is provided in its upper edge with the blow-holes E, which correspond in
45 position with the blow-holes in the upper edge of the block A. In the bottom edge the casing D is provided at each side of the block with the sounding-holes F, through which the wind and sound can escape.

50 A shell G, preferably made of sheet metal, but which can also be made of hard rubber, celluloid, or other suitable material, is mount-

ed to slide on the inner faces of the casing D, and said shell is composed of a side wall G', provided with a top flange, H, which is inter-
posed between the top edge of the block A and the apertured top edge of the casing D
55 and fits closely on both, said flange being provided with as many holes H' as there are blow-holes in the top edge of the casing G and in
60 the edge of the block A, the said holes H' being of the same size and located the same distance from each other as the blow-holes in the top of the casing and top of the block A.

At the opposite edge the plate G' is provided
65 with the bottom flange, J, which is shaped to fit on the bottom edge of the casing and has a longitudinal ridge K, which is mounted to slide in a guide-groove L in the bottom edge
70 of the block A, as shown in Fig. 4.

The flange J has the two curved parts J', which fit on the correspondingly-curved parts D² on the bottom of the casing D, and in
75 which curved parts D² the sounding-holes F are located.

The curved parts J' of the flange J have as many holes M as there are holes F in the parts D², and the holes M are of the same size
and the same distance apart as the holes F.

A lug N is punched or forced out of the
80 bottom part of the flange J of the plate G' and passes through a longitudinal slot O in the bottom of the casing.

When the harmonica is not to be used and is to be protected from dust, dirt, and moist-
85 ure the shell G is shifted by means of the lug N in such a manner that the several holes in the casing D and in the shell G do not register—that is, that the metal between the holes
90 in the shell closes the holes in the casing D, as shown, for example, in Fig. 3.

When the instrument is to be used the shell G is shifted longitudinally by pushing the lug
N in such a manner that the holes in the shell
95 are brought in register with the holes in the casing D.

As all the holes are opened or closed at the same time, the instrument is rendered absolutely dust and moisture proof by the sliding
100 shell and no box is required for the harmonica when the same is to be carried in the pocket. The reeds are thus fully protected, their tone is not impaired, and the life of the instrument is prolonged to a great extent.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a harmonica, the combination with a
5 block and reeds thereon, of an exterior casing
surrounding the same and permanently fastened to said block, which casing has blow-
holes and sounding-holes, and a shell mounted
10 to slide longitudinally between the block and
the casing, for closing the blow-holes and
sounding-holes in the casing, substantially as
herein shown and described.

2. In a harmonica, the combination with a
15 block and reeds thereon, of an exterior casing
surrounding the same and permanently fastened to the block, which casing has blow-

holes and sounding-holes, a shell mounted to
slide longitudinally between the block and
the casing for closing the blow-holes and
sounding-holes in the casing, and a lug pro- 20
jecting from said shell through a slot in the
casing, substantially as herein shown and
described.

In testimony that I claim the foregoing as
my invention I have signed my name, in pres- 25
ence of two witnesses, this 26th day of Au-
gust, 1895.

MATTHIAS MESSNER.

Witnesses:

PAUL KOHLER,
MAX SCHÖPFER.