

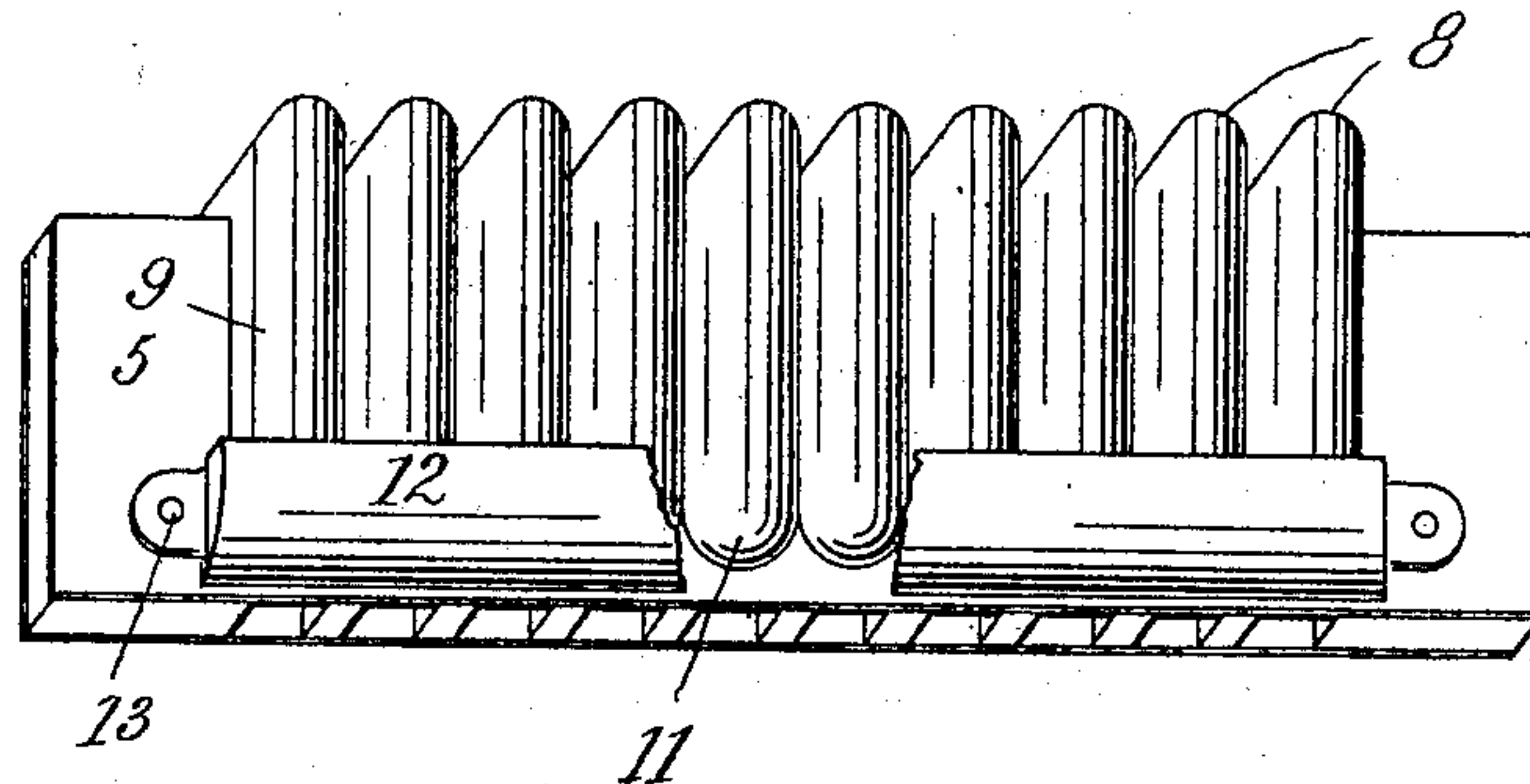
No. 837,076.

PATENTED NOV. 27, 1906.

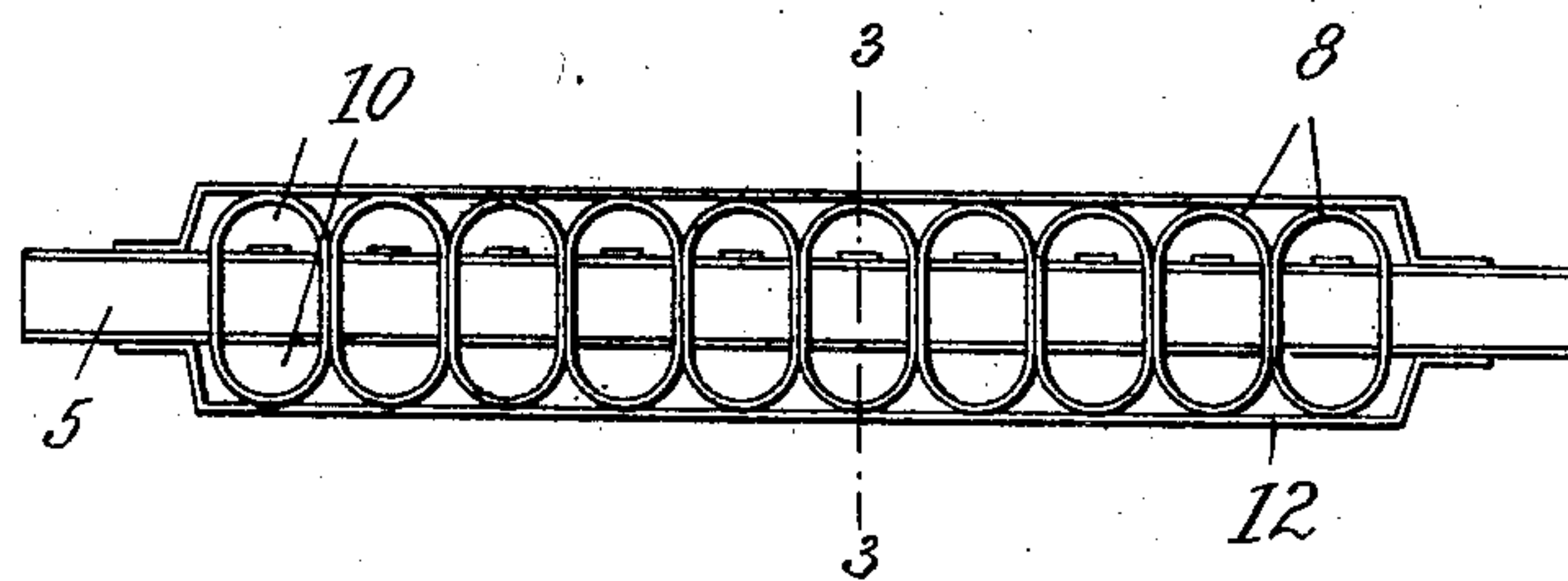
E. KOHLER.  
HARMONICA.

APPLICATION FILED MAR. 31, 1906.

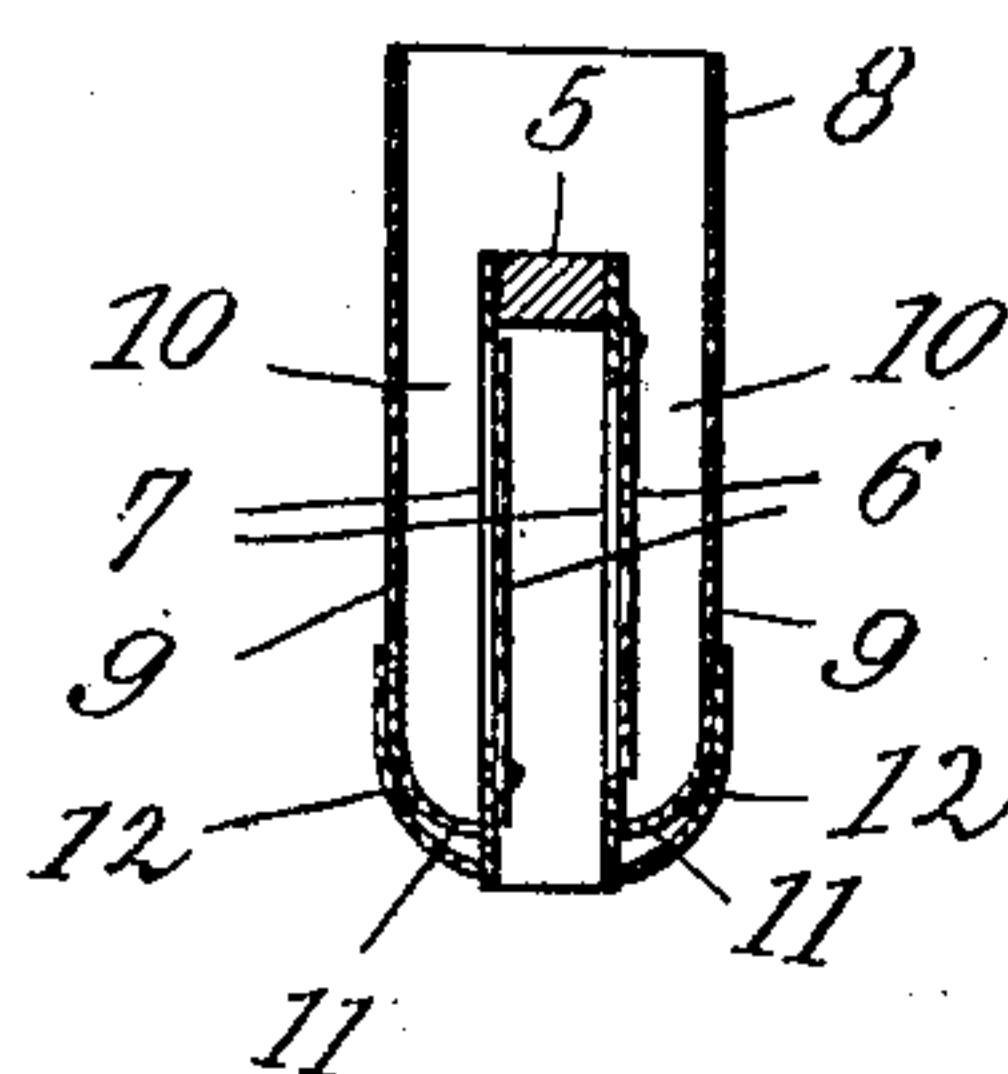
*Fig. 1.*



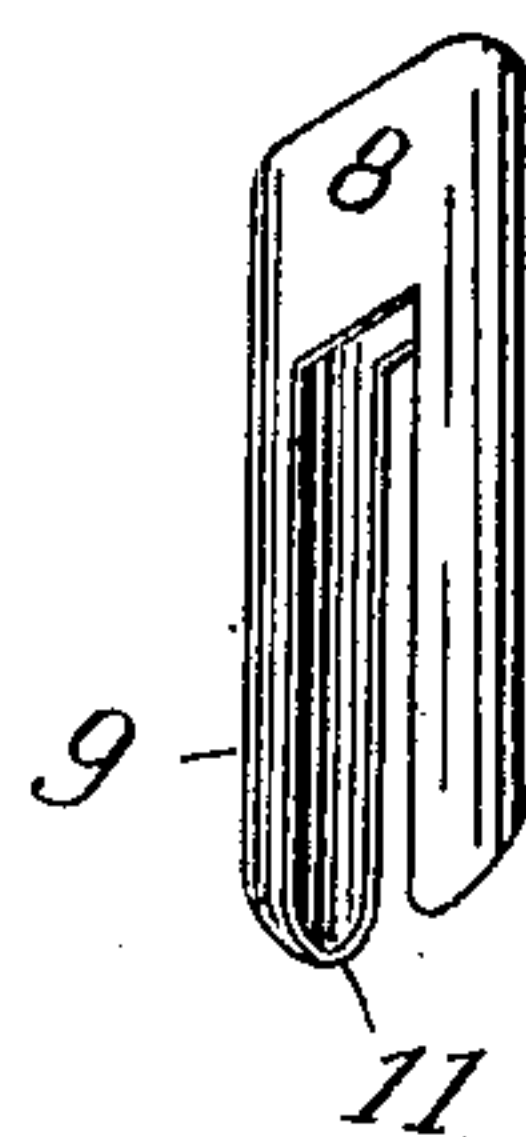
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses:  
Arthur Zump.  
William Schuly.

Inventor:  
Elias Kohler  
by Frank P. Bieren Atty.

# UNITED STATES PATENT OFFICE.

ELIAS KOHLER, OF NEW YORK, N. Y., ASSIGNOR TO HANS HOHNER, OF  
NEW YORK, N. Y.

## HARMONICA.

No. 837,076.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed March 31, 1906. Serial No. 309,062.

*To all whom it may concern:*

Be it known that I, ELIAS KOHLER, a citizen of Great Britain, residing at New York city, Brooklyn, county of Kings, State of New York, have invented new and useful Improvements in Harmonicas, of which the following is a specification.

This invention relates to a harmonica of improved construction, the invention having for its object more particularly to provide novel and efficient means for increasing the volume of tone emitted.

In the accompanying drawings, Figure 1 is a perspective view, partly broken away, of my improved harmonica; Fig. 2, a rear view thereof; Fig. 3, a cross-section on line 3 3, Fig. 2; and Fig. 4, a perspective view of one of the slotted sound-tubes.

The cell-block 5 of the harmonica is provided at both sides with the usual reeds 6 and wind-openings 7, the openings 7 on one side being alined with those on the other side. Block 5 is straddled by a number of separate tubes 8, which are preferably of elliptic shape in cross-section and of a length to project beyond the back of block 5. Each tube 8 is slotted through both sides for nearly its whole length to accommodate block 5 and to form a grooved arm 9, having an air-duct 10 at each side of said block. These air-ducts are closed in front, as at 11, and merge at their back into the rear cylindrical section of the tube. The tubes 8 are so arranged with relation to block 5 that each of the wind-openings 7 is centered within one of the arms 9. In this way each tube 8 forms a duct 10 for each of two alined wind-openings, the sound-waves flowing from the ducts into the rear cylindrical section of the tube and thence into the air, whereby the volume of tone emitted is considerably increased.

The harmonica is of great strength and compactness and may be readily cleaned and repaired by first removing the tubes.

Lip-guards 12, flanking the cell-block 5 and secured thereto by screws 13, cover the front ends of arms 9.

What I claim is—

1. A harmonica cell-block, combined with a series of slotted tubes straddling said block, substantially as specified.

2. A harmonica cell-block, combined with a series of slotted tubes straddling said block and projecting beyond the back thereof, substantially as specified.

3. A harmonica cell-block having a pair of alined wind-openings, combined with a slotted tube straddling the block and having a grooved arm opposite each of said openings, substantially as specified.

4. A harmonica cell-block having a pair of alined wind-openings, combined with a slotted tube straddling the block and projecting beyond the back thereof, the tube having a grooved arm opposite each of said openings, substantially as specified.

5. A harmonica cell-block having a pair of alined wind-openings, combined with a slotted tube straddling the block and projecting beyond the back thereof, the tube having a grooved arm opposite each of said openings, which arm is closed at the front.

6. A harmonica cell-block, combined with a series of slotted tubes straddling the same, and a lip-guard extending over the front ends of said tubes, substantially as specified.

Signed by me at New York city, (Manhattan,) New York, this 30th day of March, 1906.

ELIAS KOHLER.

Witnesses:

WILLIAM SCHULZ,  
FRANK V. BRIESEN.