E. D. TUTTLE.

HARMONICAS.

No. 182,617. Patented Sept. 26, 1876.

Fig. 1.

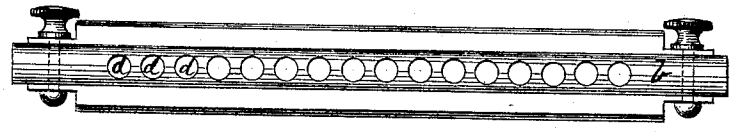


Fig. 2.

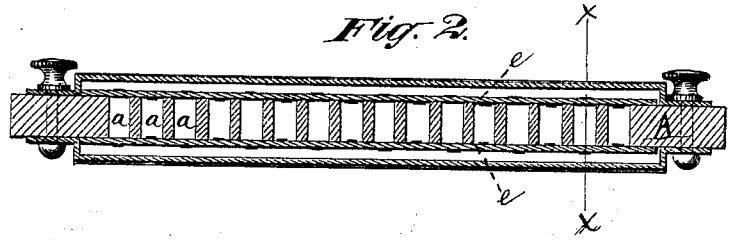


Fig. 3.

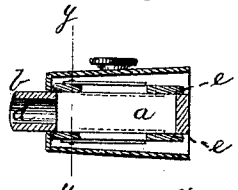
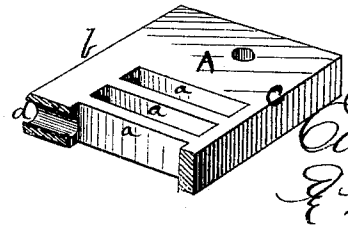


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

EDWARD D. TUTTLE, OF WATERBURY, CONNECTICUT.

IMPROVEMENT IN HARMONICAS.

Specification forming part of Letters Patent No. **182,617**, dated September 26, 1876; application filed July 8, 1876.

To all whom it may concern:

Be it known that I, E. D. TUTTLE, of Waterbury, State of Connecticut, have invented Improvements in Harmonicas, of which the following is a specification:

The object of my invention is to make of a single piece of wood a harmonica-block, with projecting mouth-piece.

The block A has cells *a a a* cut through it, but they do not extend to either edge *b* or *c*: Through the edge *b* are made the openings *d d d*, &c., to the cells *a a a*. The edge *b*, so pierced, constitutes the mouth-piece. The reed-blocks or plates *e e* are attached as usual.

By this method of construction the harmonica is composed of fewer parts. It is not liable to leak through warping or shrinkage. It is much stronger, all of its edges being unbroken; and it removes the lips from contact with the metal composing the reed-block or plate without the interposition of a separate mouth-piece.

Figure 1, mouth-piece, &c.; Fig. 2, section on *y y*, Fig. 3; Fig. 3, section on *x x*, Fig. 2; Fig. 4, perspective view of block partially broken away.

It is not necessary that the cells *a a a* should be cut completely through the block A, as a partition could be left between those on opposite sides, as is done in those heretofore made. This, however, is done to strengthen the block, whereas my block, having all of its edges unbroken, does not need it.

If reeds are attached to but one side of the block the piercings or cells *a a a* do not extend entirely through, the opposite side being left solid.

I claim as my invention—

In a mouth-harmonica, the block A, provided with a projecting mouth-piece, *b*, formed and being a part of the said block, substantially as described.

EDWARD D. TUTTLE.

Witnesses:

GEO. WHEELER,

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