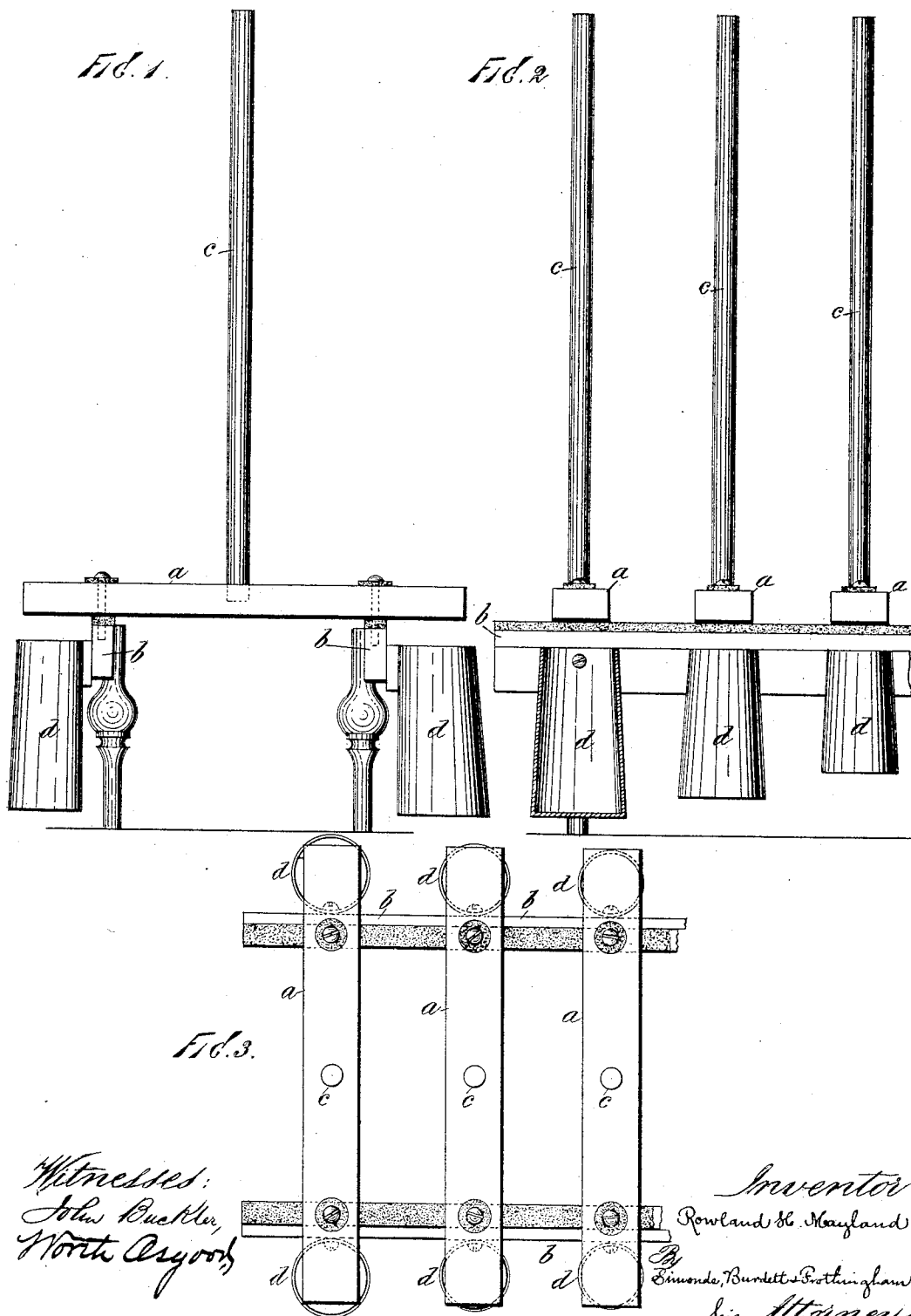


(No Model.)

R. H. MAYLAND.  
MUSICAL INSTRUMENT.

No. 531,323.

Patented Dec. 25, 1894.



# UNITED STATES PATENT OFFICE.

ROWLAND H. MAYLAND, OF FREEPORT, NEW YORK.

## MUSICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 531,323, dated December 25, 1894.

Application filed May 2, 1894. Serial No. 509,755. (No model.)

*To all whom it may concern:*

Be it known that I, ROWLAND H. MAYLAND, a citizen of the United States, residing at Freeport, in the county of Queens and State of New York, have invented a certain new and useful Improvement in Musical Instruments, of which the following is a description, reference being had to the accompanying drawings, wherein—

Figure 1 is an end view. Fig. 2 is a side view. Fig. 3 is a top view.

The figures of the drawings show only three of the vibratory bars and their appurtenances; but it will be readily understood that the series can be extended to any desired reasonable extent.

The letters *a* denote vibratory bars of wood, metal or other suitable material, and it is the vibration of these bars that is the main agent in producing the musical tones. These bars rest on supports *b*, which furnish supports for the vibratory bars at what are practically the nodal points or points of vibratory rest.

The letters *c* denote friction rods or "communicators," attached to the vibratory bars central of the supports *b* and at substantially right angles to these bars. The vibration of the bars *a* is attained by rubbing these rods longitudinally, the effectiveness of which rubbing is increased by using resin upon the fingers of the operator, or upon the fingers of a glove worn by him, or by the use of a special rubbing device or attachment.

The letters *d* denote tubes with closed lower end in the nature of a resonator, located at substantially right angles to the vibratory bars, and fulfilling the function cognate to that of an organ pipe. These resonators, although just described as having the lower end closed, may be made with both ends

open by suitably increasing the length, and such construction is an equivalent one; but the preferable mode is to close the lower end in order to save the extra length of pipe.

When a single resonator is used it may be located at the center of the vibratory bar, or at either end (that is, outside of the nodes); but in using two, as shown in the drawings, they are both located outside of the nodes; and this use of two resonators so located avoids interference in their action and practically doubles the resonating capacity.

The dimensions of the vibratory bar determines its pitch, and the resonator is attuned thereto.

I claim as my improvement—

1. The vibratory bar, supported at the nodes, combined with a frictional rod attached thereto at substantially right angles, all substantially as described and for the purposes set forth.

2. The vibratory bar, supported at the nodes and combined with the frictional rod attached thereto centrally of the nodes, and at substantially right angles to the bar, all substantially as described and for the purposes set forth.

3. The combination of the vibratory bar, the frictional rod and a resonator, substantially as described and for the purposes set forth.

4. The combination of the vibratory bar, the frictional rod, and two resonators located outside of the nodes, all substantially as described and for the purposes set forth.

ROWLAND H. MAYLAND.

Witnesses:

N. L. FROTHINGHAM,  
A. C. TANNER.