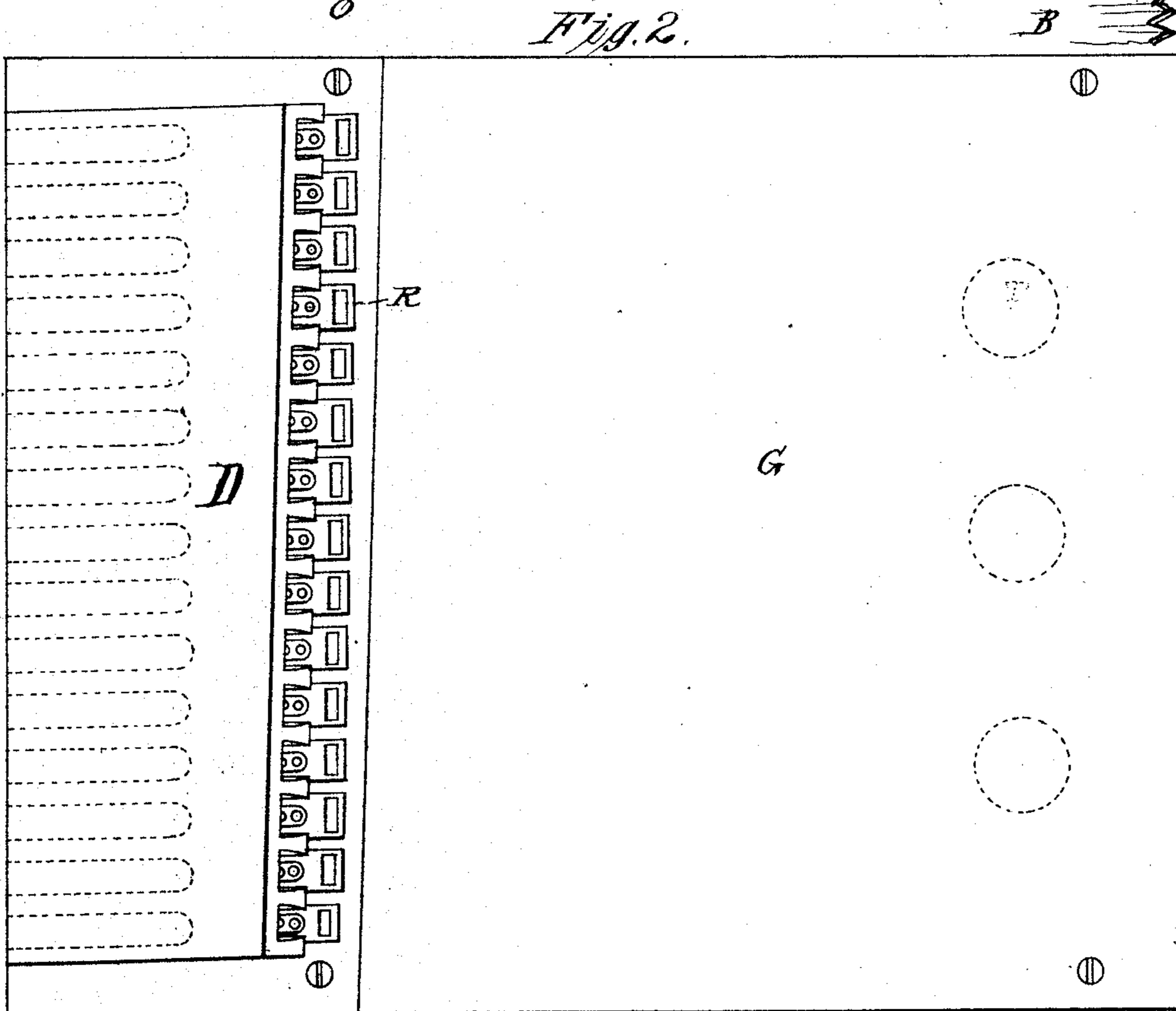
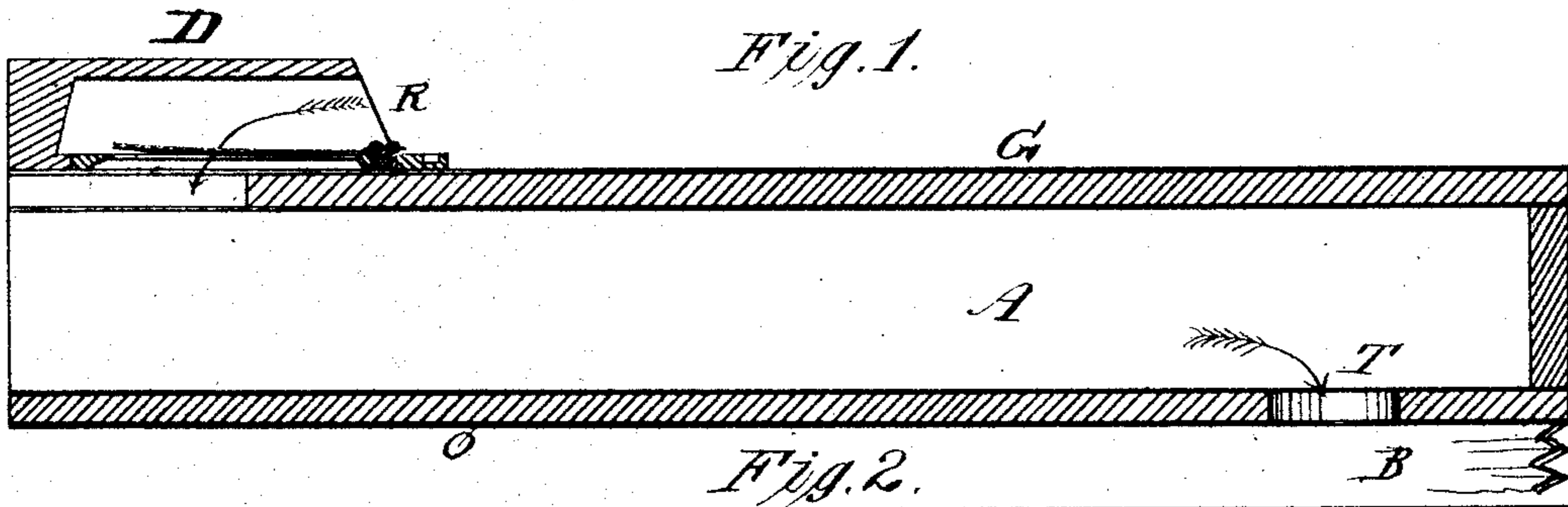


J. R. LOMAS.
Reed-Organ.

No. 161,134.

Patented March 23, 1875.



Witnesses

Frederick Spier
Nathan Spier

Inventor

J. R. Lomas

UNITED STATES PATENT OFFICE.

JOHN R. LOMAS, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO BERNARD SHONINGER, OF SAME PLACE.

IMPROVEMENT IN REED-ORGANS.

Specification forming part of Letters Patent No. **161,134**, dated March 23, 1875; application filed November 23, 1874.

To all whom it may concern:

Be it known that I, JOHN R. LOMAS, of the city and county of New Haven, in the State of Connecticut, have invented a new and useful improvement in Air-Chambers of Musical Instruments, and that the following specification, taken in connection with the drawing forming a part of the same, is a full, clear, and exact description thereof.

My invention relates to sounding-boards and air-chambers of reed-instruments.

The drawing, Figure 1, shows a vertical central section of that part of an organ embodying my invention.

All organs and reed-instruments, as usually constructed, are provided with an air-chamber, as shown at A, into which the air is drawn through the reeds R of the reed-board D, and out of which it is drawn into the bellows B. The top G of this air-chamber constitutes what is known as the sounding-board of the instrument, while the bottom of the chamber O furnishes the top to the bellows-chest B. This air-chamber A is constantly subject to an exhaust force of air when the bellows is in operation, and it is necessary to the proper working of the instrument that this chamber should be air-tight, and that no air enter or escape except through the proper openings R and T. The top and bottom each present an extended surface, and they are almost invariably made of thin soft wood. One of the greatest annoyances experienced by organ-makers is the warping and shrinking of these boards, whereby they are cracked, separated from the reed-board, or their pores or joints are opened and leaks caused in the air-chamber A. Changes of heat and moisture greatly affect these boards by swelling or shrinking them.

My invention consists in constructing the

boards which form the top and bottom of this air-chamber, and upon which the reed-board D is secured, in such a way that this warping and cracking will be prevented and their pores rendered more impervious to the air. It is accomplished as follows: To the ordinary thin soft-wood board I add veneers of other wood, (hard wood is preferable,) the grain of the veneers running crosswise with the grain of the soft wood over its surface. The veneers may be added either above or below the soft wood, but I prefer to use them on both sides. An instrument with its air-chamber constructed of boards prepared as above described is perfectly protected against injury from any ordinary changes of temperature; it cannot warp, and the air cannot leak through the pores of the wood.

I am aware that two layers of woods have been joined together for the purpose of preventing warping in other devices and that such woods have been used for chair-seats and sounding-boards for pianos, &c., but in none of those cases prior to my invention has the purpose or result been to secure air-tight, resonant, and durable properties, which are eminently requisite in a wind-instrument. I do not claim the above described method of joining woods together, nor the compound wood produced by gluing two or more woods together; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

In a reed-organ, the wind-chest A, provided with the veneered top G, and the reed-board D, all combined and arranged substantially as shown, for the purposes described.

J. R. LOMAS.

Witnesses:

SIEGWART SPIER,
NATHAN SPIER.