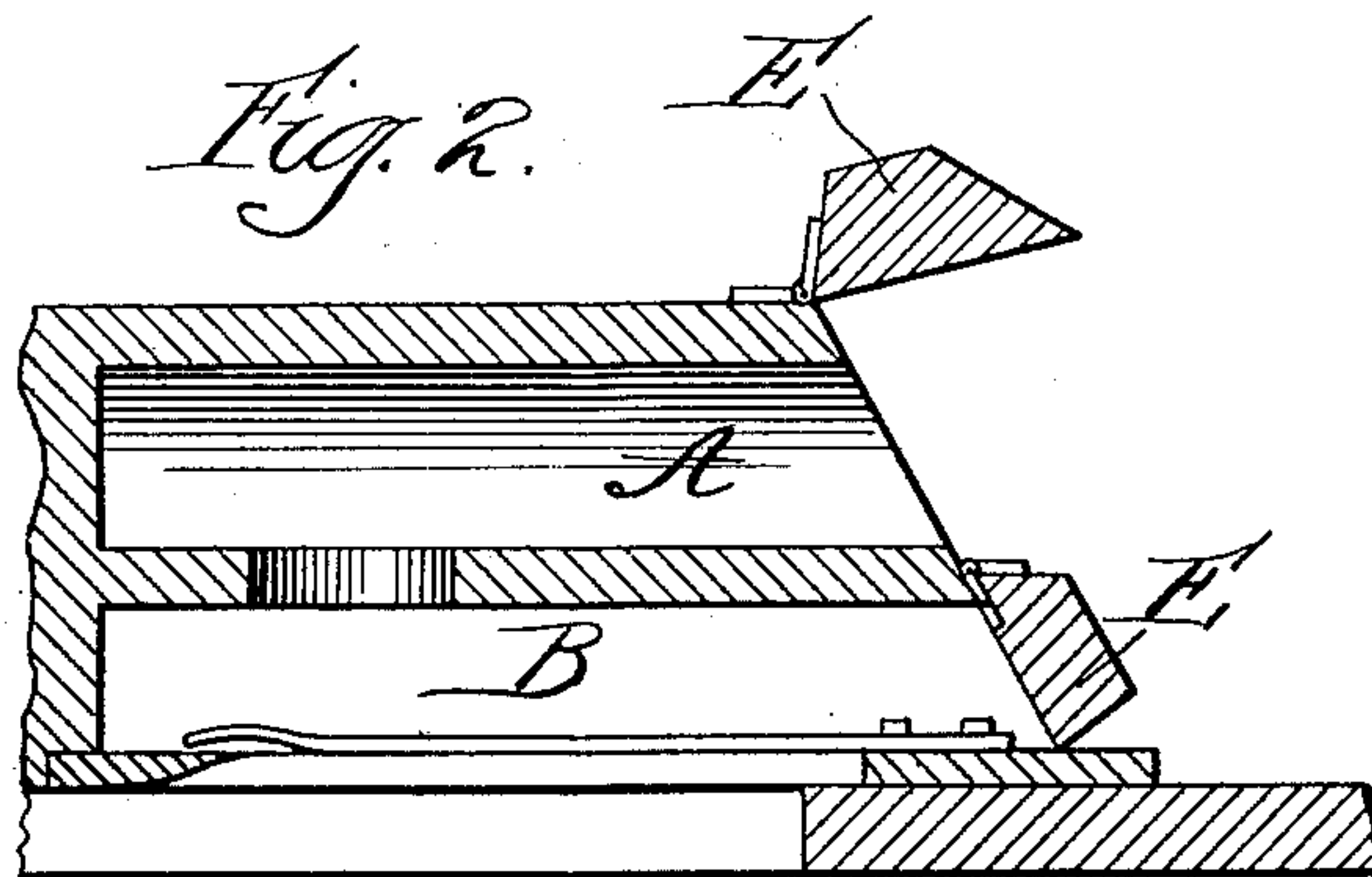
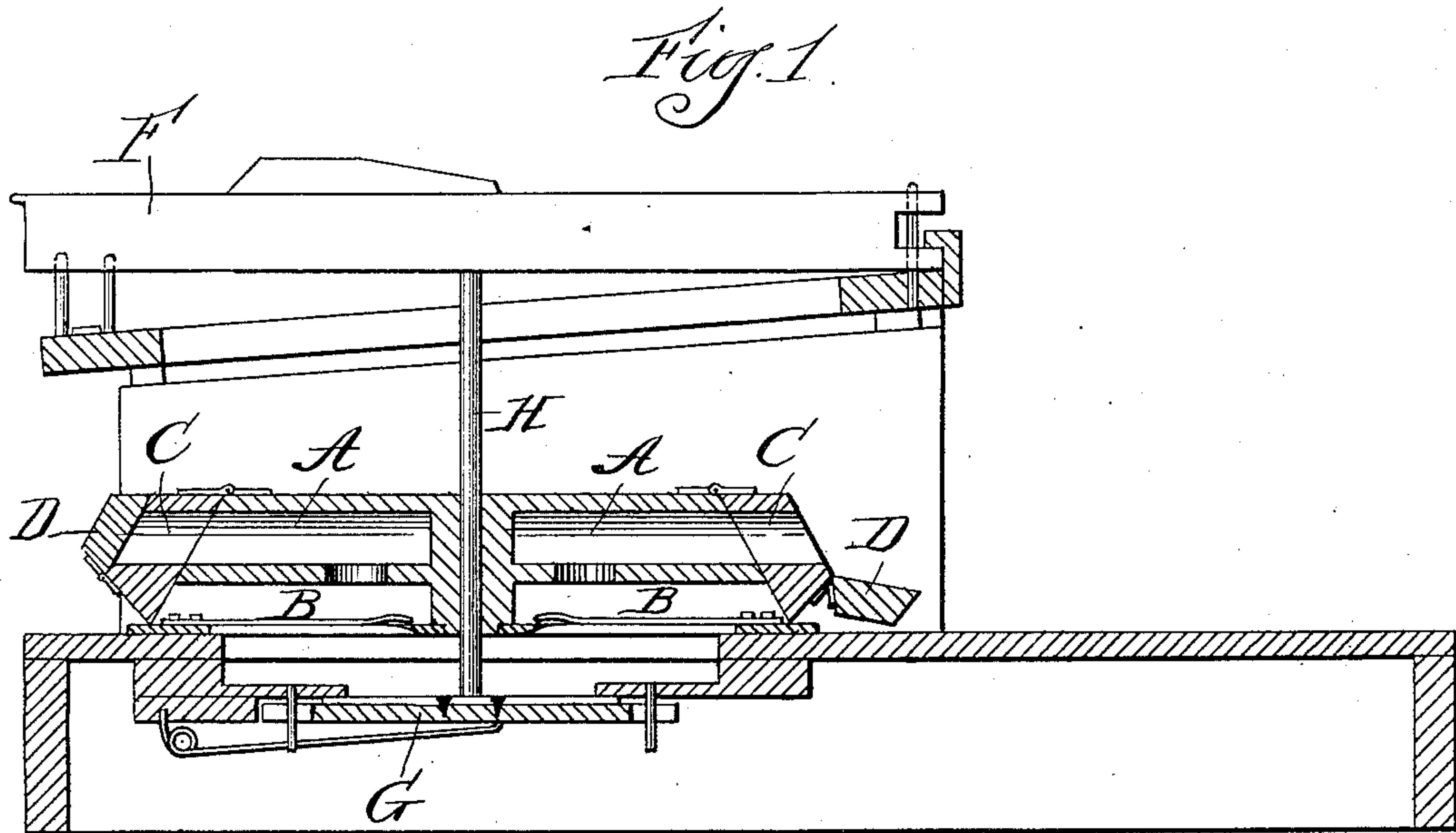


(No Model.)

A. L. WHITE.  
REED ORGAN ACTION.

No. 559,014.

Patented Apr. 28, 1896.



Witnesses  
Wm. J. Fleming  
M. L. Cavanagh.

Inventor  
Albert L. White  
by Brown & Darby  
Attys



# UNITED STATES PATENT OFFICE.

ALBERT L. WHITE, OF CHICAGO, ILLINOIS.

## REED-ORGAN ACTION.

SPECIFICATION forming part of Letters Patent No. 559,014, dated April 28, 1896.

Application filed September 23, 1895. Serial No. 563,383. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT L. WHITE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Reed-Organ Actions, of which the following is a specification.

This invention relates to improvements in reed-organ actions.

10 The object of the invention is to improve the tone of a reed-organ so as to make it similar to the tone of a pipe-organ.

Like letters refer to the same parts in both figures of the drawings, in which—

15 Figure 1 represents a vertical longitudinal section of a preferred form of the invention. Fig. 2 represents a vertical longitudinal section of a part of a reed-organ embodying a modified form of the invention.

20 It is a well-recognized fact that the tone of a pipe-organ is superior in fullness, softness, and other respects to that of the ordinary constructed reed-organ; but of course the comparative compactness and cheapness of the latter have heretofore made it preferable for general use.

25 The present improvement is designed to be embodied in a construction which will obviate many defects in the tone of an ordinary reed-organ, and, in fact, make it difficult, if not impossible, for the human ear to detect the difference between this reed-organ and the pipe-tone.

30 The principle of the improvement resides in the employment of what may be properly termed an "overdraft-pipe cell" in connection with a reed-cell, although of course other details add to the beneficial effect. This overdraft-pipe cell is illustrated in both figures of the drawings and designated by the letter A. In this organ-action there is, first, the reed-cell proper, which is designated by the letter B, and is in essential respects like the ordinary reed-cell; second, there is a tube or hole extending directly over the reed-cell and parallel thereto at the bottom, and near the back end of which is a graduated throat or opening, which permits the air to pass through the pipe-cell and enter the reed-cell over the reed and directly on the point of the tongue of such reed, which upper cell may be technically designated as the "overdraft-pipe

cell." It is found in practice that a reed-organ constructed with this overdraft-pipe cell is much improved in tone, and, in fact, made to 55 closely resemble a pipe-organ in the quality of its tone. Dead or tuning mutes are hinged to the cells and used to close the open ends thereof, as shown in both figures of the drawings; but an increased effect is gained by using 60 a double mute of the kind illustrated in Fig. 1 of the drawings, in which the upper portion, or that portion in line with the pipe-cell, has a hole bored through it and separately covered, thus making the pipe-cell much longer 65 than the reed-cell or reed, and thereby subduing any possible rankness remaining in the tone. This double tuning-mute is, as shown in Fig. 1, hung over the heel of the reed, covering both the reed-cell and the pipe-cell. 70 Then a set of graduated tube-holes are bored through the top of such mute directly in line with the pipe-cell, and, finally, a speaking-mute is hung over the tube-holes on the inner mute, thus making it a double mute. In the 75 drawings the double mute is designated by the letter C, and the outer speaking-mute, which is hinged to such inner or double mute, is designated by the letter D. The plain ordinary form of dead mute, which is illustrated 80 in Fig. 2, is designated by the letter E.

The organ contains the same number of stops as is usual and is employed in the customary manner, and in the respects and particulars not described specifically it is constructed in the well-known manner. 85

In Fig. 1 of the drawings there is shown a view of auxiliary parts of the reed-action, such as the key F and the valve G, connected by the rod H, and all mounted upon the main 90 body of the instrument in accordance with the usual construction.

It will be readily understood that many changes and variations may be made by those skilled in the art in the construction specifically illustrated and described without departing from the principle of the invention. I do not wish, therefore, to be limited to such exact construction. 95

What I claim, and desire to secure by Letters Patent of the United States, is— 100

1. In a reed-organ action, the combination with a reed-cell, of an overdraft-pipe cell, having a graduated throat forming an air



communication between the two cells and a compound mute arranged to control both of said cells; substantially as and for the purpose set forth.

5 2. In a reed-organ action, the combination of a reed-cell, of a superposed parallel pipe-cell, having a graduated throat formed in the wall between the cells and constituting a communicating passage for the air and a single  
10 compound mute arranged to control both of said cells; as and for the purpose set forth.

3. In a reed-organ action, the combination with a reed-cell, of an overdraft-pipe cell, each cell being open at one end, and a mute hung  
15 over the said open ends and provided with a graduated opening forming an extension of said pipe-cell; substantially as and for the purpose set forth.

4. In a reed-organ action, the combination  
20 with a reed-cell and an overdraft-pipe cell, communicating with such reed-cell, both cells being open at one end, and a double mute hanging over the open ends of both cells said mute provided with an opening communicat-  
25 ing with said pipe and with the outer air; as and for the purpose set forth.

5. In a reed-organ action, the combination with a reed-cell and an overdraft-pipe cell, having an air-passage through its wall, com-  
30 municating with the reed-cell directly over the point of the tongue of the reed and a mute arranged to control both of said cells, said mute provided with an opening communicat-  
35 ing with said pipe-cell and the outer air, and means for controlling said opening; substantially as and for the purpose set forth.

6. In a reed-organ action, the combination with a reed-cell and an overdraft-pipe cell, each open at one end and having an air com-

munication between them near their other  
40 ends, of a double mute covering both the reed-cell and the pipe-cell, and having its top portion formed with a hole therethrough, and a second mute hung over the hole thus formed in the inner mute; substantially as and for  
45 the purpose set forth.

7. In a reed-organ action, a series of reed-cells, a corresponding series of pipe-cells, an air-passage formed in the wall intervening between each reed-cell and its corresponding  
50 pipe-cell, a mute arranged to control the entrance to both sets of cells, and provided with a series of apertures corresponding in number and arrangement to said pipe-cells and forming extensions thereof, said apertures being  
55 graduated from bass to treble, and means for controlling said apertures, as and for the purpose set forth.

8. In a reed-organ action, a series of reed-cells, a corresponding series of pipe-cells, an  
60 air-passage formed in the wall intervening between each reed-cell and its corresponding pipe-cell, said passages being graduated from bass to treble, a mute arranged to control the entrance to both sets of cells, and provided  
65 with a series of apertures corresponding in number and arrangement to said pipe-cells, and each forming an extension of a pipe-cell, said apertures being graduated from bass to treble, and a second mute arranged to con-  
70 trol said apertures, as and for the purpose set forth.

In witness whereof I have hereunto set my hand this 21st day of September, 1895.

ALBERT L. WHITE.

Attest:

FRANK T. BROWN,  
M. I. CAVANAGH.