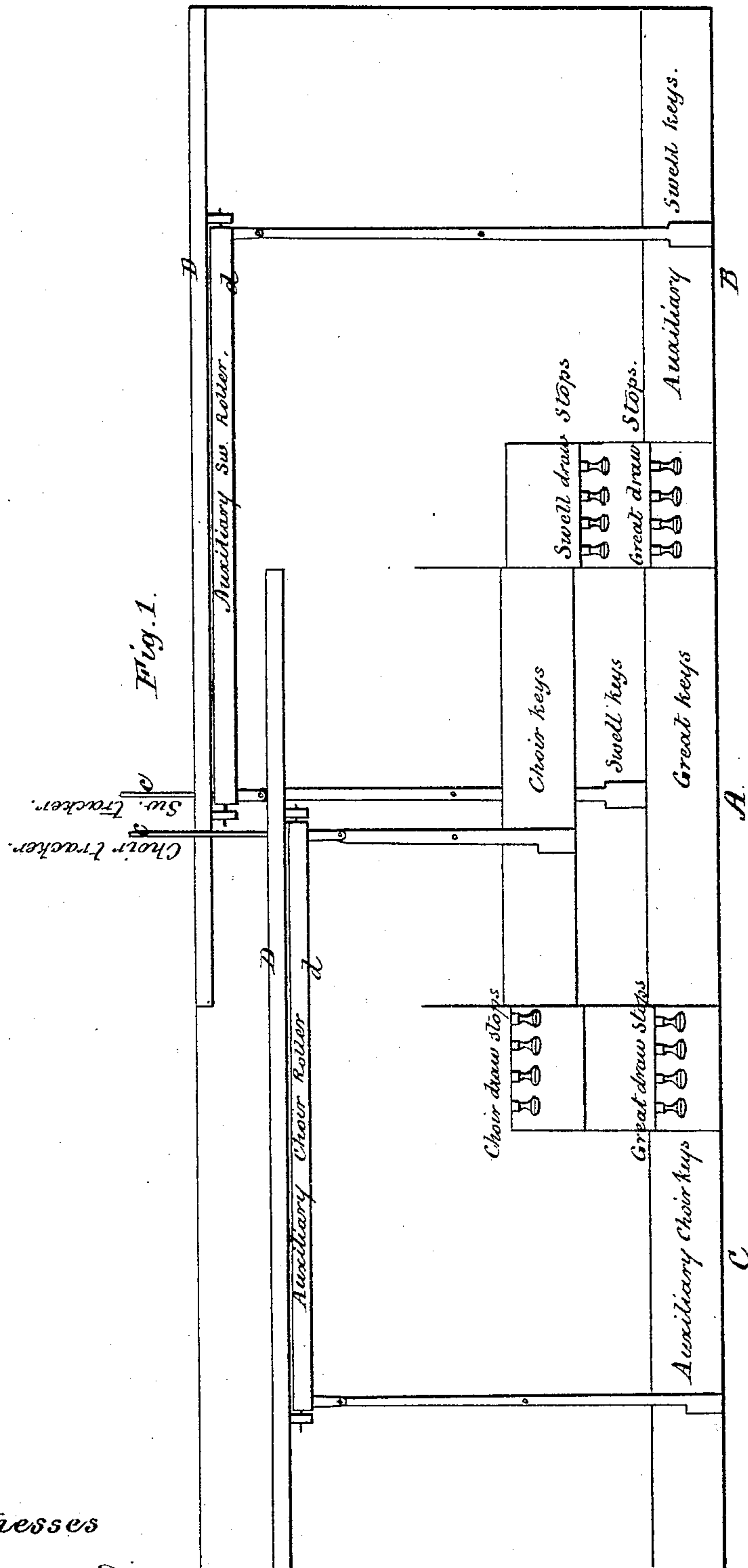


T. WINANS.
ORGANS.

No. 182,259.

Patented Sept. 12, 1876.



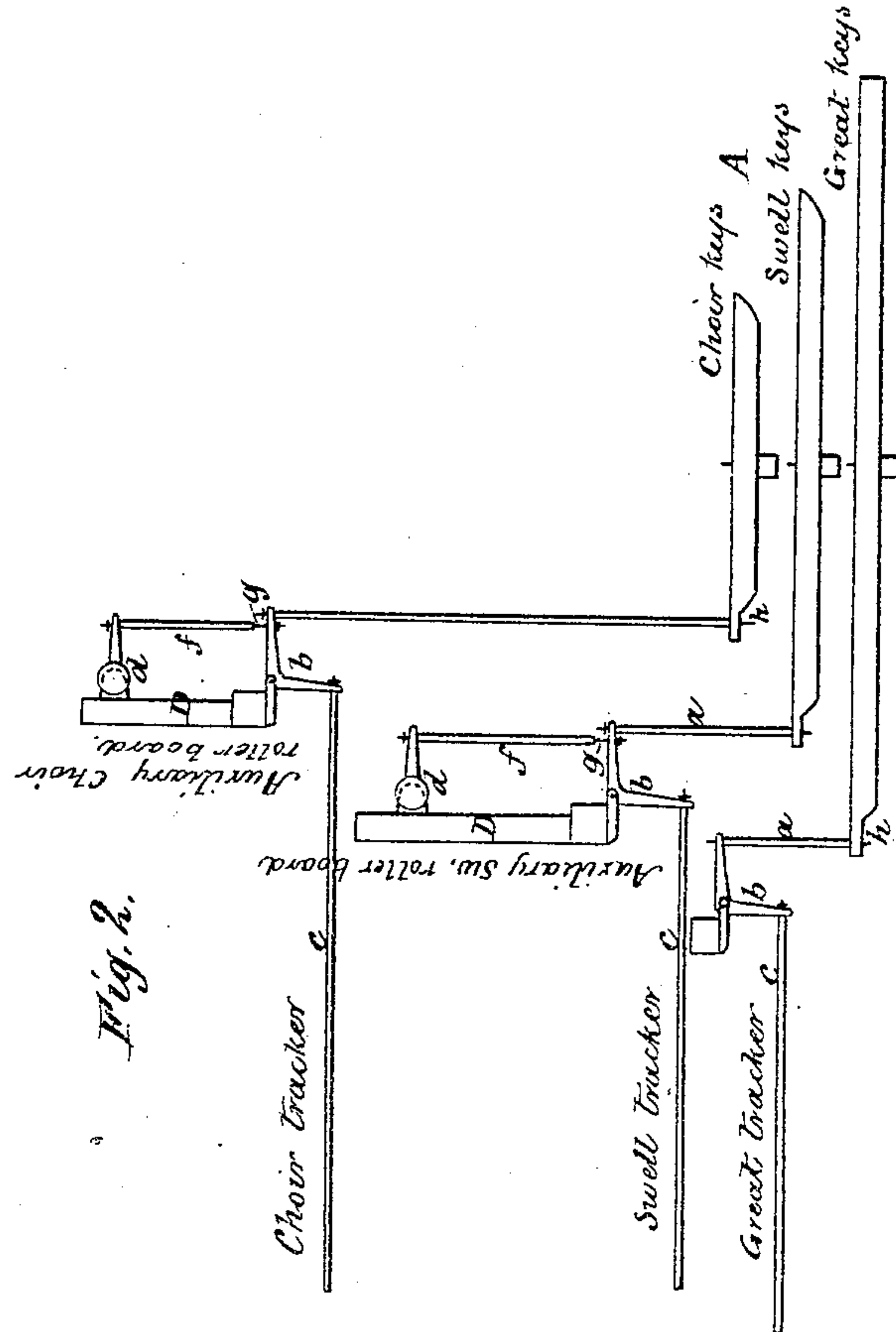
Witnesses
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UNITED STATES PATENT OFFICE.

THOMAS WINANS, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN ORGANS.

Specification forming part of Letters Patent No. **182,259**, dated September 12, 1876; application filed June 14, 1876.

To all whom it may concern:

Be it known that I, THOMAS WINANS, of Baltimore, Maryland, have invented certain new and useful Improvements in Organs, of which the following is a specification:

It is my object to provide an organ with two or more independent and separate key-boards, each adapted to be used by a performer, so that two, three, or more performers may play the same organ simultaneously. To do this without unduly multiplying or complicating the mechanism, through the intermediary of which the keys connect with the pipes, I use but one set of pallets or valves, such as in an organ with one key-board, and I connect the corresponding key of the auxiliary key-board or key-boards with these same pallets or valves, the connection being such that each key in the several key-boards may act on its pallet or valve without disturbing or moving the keys of the other key-board or key-boards. I find that in this way I am enabled, without materially complicating the action, to greatly increase the capacity of the instrument, and obtain new and most pleasing effects beyond anything of the kind that can be attained with the single key-board.

Let us suppose an organ consisting of what may be termed four partial organs—viz., the grand, the choir, the swell, and the pedal. An organ of this capacity is not at all unusual. Ordinarily the keys for this organ are all comprised in a single key-board—viz., three banks of keys, one above the other, for the grand, swell, and choir organs. There is also a row of pedals.

To carry out my invention the most perfect way, theoretically, would be to add two distinct and independent key-boards, counterparts of the first, these additional key-boards being located in any convenient position; and each of the three key-boards having independent connections with the same pallets or valves, so that each might operate independently of and without interference with the others. To each key-board might also be added pedals, having a like independent action.

This mode of construction, however, would be necessarily expensive. It will suffice, practically, that the additional key-boards consist

of two, or perhaps even one, bank of keys each, or but one additional key-board might be provided, which should be a duplicate of the first, or should consist of only two banks of keys—say the choir and swell. It is, however, unnecessary to run the changes on the combinations that may thus be made, for manifestly there may be a very great variety of arrangements, depending upon the number of banks of keys, the capacity of the organ, the number of additional key-boards desired, &c.

It is manifest that my invention is applicable to all types of organs, whether those having the ordinary mechanical action or those having either a pneumatic or an electric action, so called.

In the accompanying drawings, in illustration of my invention, I have shown one simple way in which the result I aim at can be obtained.

Figure 1 is a plan, and Fig. 2 is a side elevation, of so much of an organ as is needed to illustrate my invention.

The main key-board is marked A, consisting, in this instance, of three rows or banks of keys, the one for the choir, the next for the swell, and the third for the great organ. These keys communicate with the proper pipes and registers by means of stickers *a*, square *b*, and trackers *c*, in any ordinary or suitable manner. If the organ has a pneumatic action the trackers may lead to double plug or spool valves, such as shown in my Letters Patent No. 162,450 of April 20, 1875.

On one side of the main key-board is an auxiliary key-board, B, which can be used to play the swell-organ. On the other side of the main key-board is a second auxiliary key-board, C, which operates the choir-organ. The draw-stops of the main key-board are arranged as shown, viz., with the choir draw-stops on the side next to the auxiliary choir key-board, and the swell draw-stops on the side next to the auxiliary swell key-board. The keys of the auxiliary key-boards connect with the main-organ action by roller-boards D, as shown, the communication between each roller *d* and its proper main action being established by a rod, *f*, which connects with the same arm of the square *b*, with which the sticker of the corresponding key of the main key-board is connected. From

the lower end of the rod *f* projects a wire, *g*, which passes freely through the arm of the squares and has a nut or head on its lower end, so that it will draw up the arm when the roller is rotated in the proper direction by the pressure of the auxiliary key which operates said roller. The wire *g* may have sufficiently loose play through the arm, and may be of sufficient length, as shown, to allow the square, when operated by the main key, to move without moving the rod *f*. In this way the main key-board can be used without operating the auxiliary keys.

The same kind of connection might, if desired, be established between the squares and the stickers of the main keys, to permit the auxiliary keys to be used without actuating the main keys. The same result, however, can be attained in the manner shown in the drawing—that is to say, by providing the sticker at its lower end with a wire, *h*, that passes into and through the key, and is of such length as will permit the sticker, when the square is actuated by the auxiliary key, to rise and fall without moving its key.

Under the arrangement thus described it will be seen that each key-board is capable of acting upon the organ-pipes independently of the others, and that they are adapted for simultaneous use by as many performers as there are key-boards. At the same time, if there be but one performer, the main key-board can be used by him just as the key-board of any ordinary organ.

It will also be noted that additional pallets or valves are not required for the auxiliary key-boards. Their keys connect with the main-organ action, and the connection is such that any of the keys of each key-board can be operated without disturbing corresponding keys of the other key-boards.

It is manifest that the details of construction and arrangement may be very widely varied from what I have shown without departure from the principle of my invention. I do not, therefore, limit myself to the particular mechanical details described in illustration of my invention; but

What I claim, and desire to secure by Letters Patent, is—

The combination in one organ, with the main key-board, and the pallets or valves operated thereby, of one or more auxiliary key-boards, whose keys operate the same pallets or valves that are operated by the corresponding main keys, the parts being arranged and connected, substantially as described, so that each key in the several key-boards may act on its pallet or valve without disturbing or moving the keys of the other key-board or key-boards.

In testimony whereof I have hereunto signed my name this 7th day of June, A. D. 1876.

THOMAS WINANS.

Witnesses:

GEO. WORTHINGTON,
W. S. WILKINSON.