

T. A. Rousseau,

Reed Organ,

N^o 23,884.

Patented May 3, 1859.

Fig. 1.

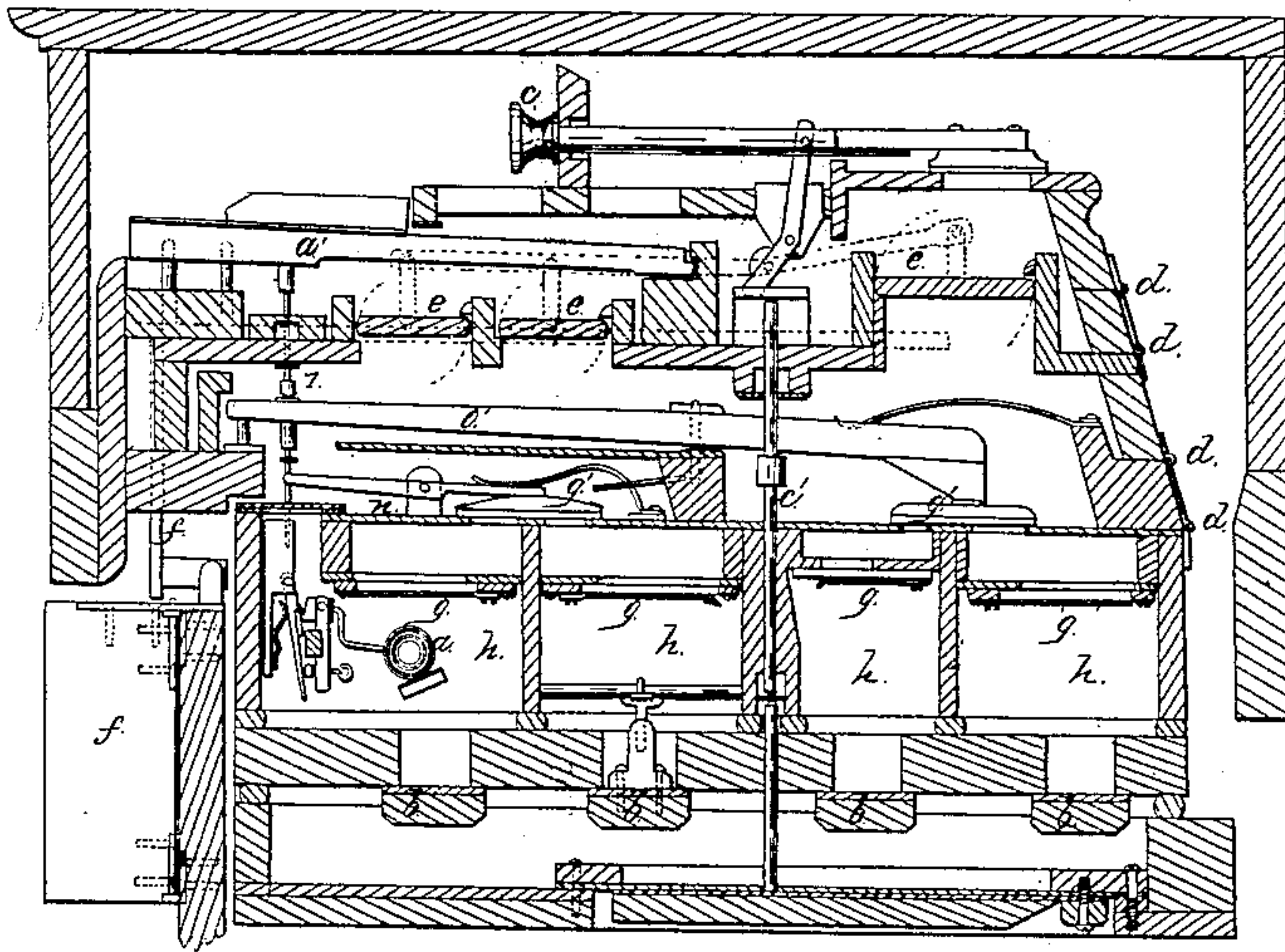
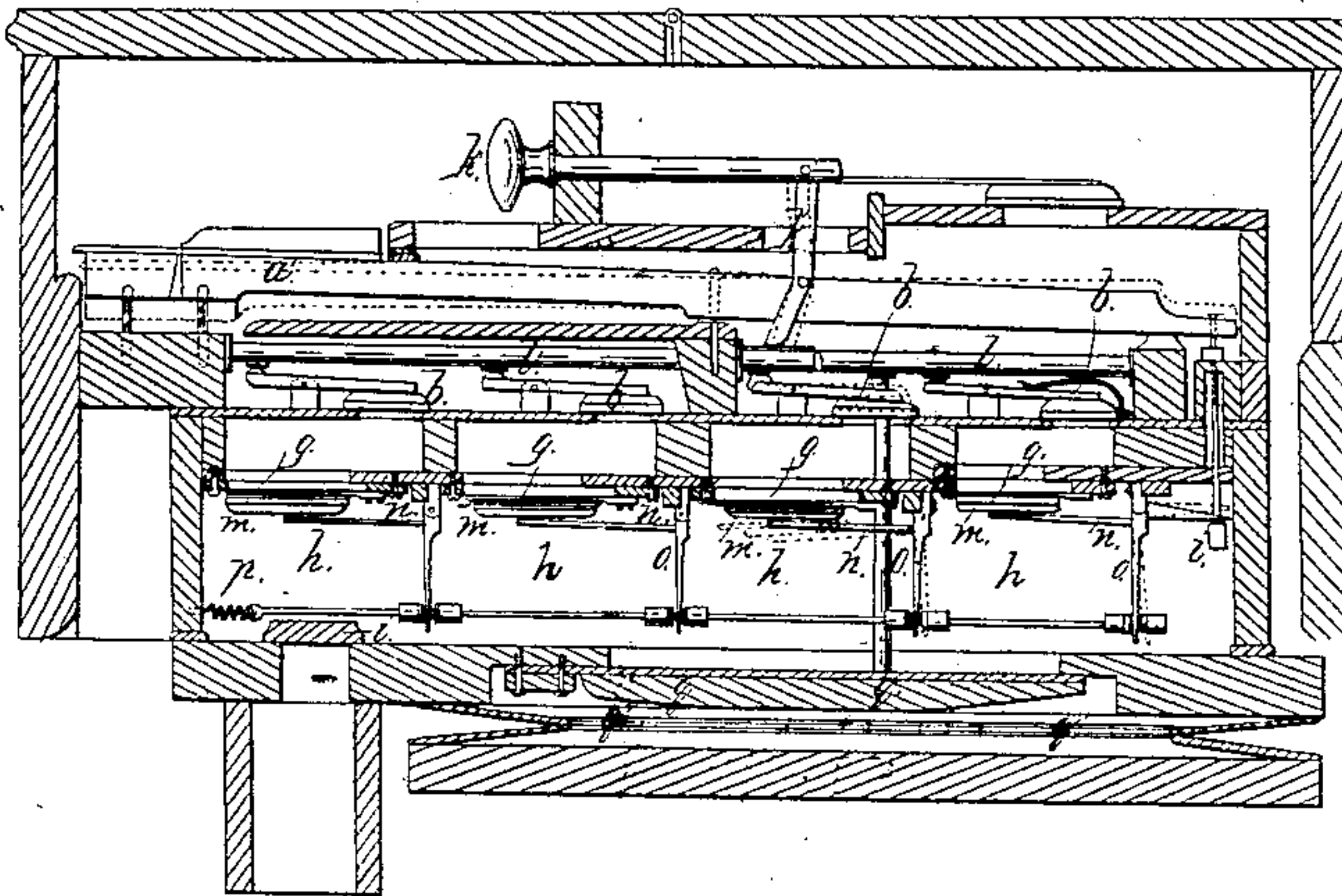


Fig. 2.



Witnesses:
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THÉOPHILE AUGUSTE ROUSSEAU, OF BELLEVILLE, NEAR PARIS, FRANCE, ASSIGNOR TO
EDOUARD ALEXANDER, OF PARIS, FRANCE.

REED-ORGAN.

Specification of Letters Patent No. 23,884, dated May 3, 1859.

To all whom it may concern:

Be it known that I, THÉOPHILE AUGUSTE ROUSSEAU, of Belleville, near Paris, France, have invented new and useful Improvements in the Manufacture of Organs and other Similar Musical Instruments; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a vertical and transverse section, Fig. 2 a vertical section.

In these figures the same letters of reference are marked on the same parts.

The nature of my invention refers to an improved construction of portable organs in which the blast is given by means of either treadles or a crank; and a keyboard is provided of the desired size and the desired stops. My improvements may also be applied both to instruments upon which music is performed in the most complete manner and on the highest pitch, and to smaller portable instruments, which are held upon one's lap or upon a table.

One part of my invention consists in the application to the said portable organs of certain valves worked by treadles or "knee-pieces," so called from their being worked by the knee, and suitably connected to the said valves. Fig. 1, in the annexed drawing, is a vertical and transverse section showing an arrangement which admits of such a combination. It is therein shown that a portion of said instrument is on the percussion principle, and admits of a series of hammers *a* for the different notes *g*. Every stop is provided as usual with its valve *b*, opened or moved by means of registers operated upon by knobs *c*, motion being imparted by the usual treadles or connections *c'*. In order to allow an easy examination of the various parts in the instrument, the various plans or stories are hinged, as shown at *d*, and the joints are secured by hooks, which allows an instantaneous view of all the various parts, and the putting of those various parts together again without any trouble or expense. My bladed or valve boxes are represented at *e* Fig. 1, and are generally shut up, but they readily yield and are opened by turning on their center axis, when they are acted upon by the levers

shown in dotted line; these levers are disposed, so that upon being worked by one or two pieces *f* which may be named treadles or knee pieces, as they are operated by the knee, the moving of either of said pieces *f* will cause the valves *e* to open more or less rapidly according to the rapidity of the imparted motion. Only one of these knee pieces *f* is represented in the drawing, but it will be easily understood that one may serve for the high notes and another for the low ones, or that a single one may be employed in an instrument for all or part of the stops. The bladed valves are chiefly calculated to produce musical effects at a distance, and to impart to the sounds more or less duration according to the operator's desire, still allowing at will the swelling of the said sounds.

Another part of my invention consists in the use of a valve for each vibrative reed, and consequently each key when touched will act upon as many valves as there are stops in the instrument; but these stops will not allow any sound to be produced unless the registers *c* corresponding to the stops *b* are opened. Upon reference to Fig. 1, it will be seen that the keys *a'*, acting through the damper 1, levers *o'*, and *n*, upon the valves *g'*, *g'*, said valves are opened, but unless the stops *b*, to either or all of the chambers *h*, *h*, be open, the blast will not reach the reeds *g*, *g*, and no sound will be produced; the same feature is shown in Fig. 2, in which the position of the stops or registers *b*, is inverted, in this instance. The reeds *g* which constitute the stops are in a chamber *h* full of air, through which the blast gets into the instrument by lifting the valve *i*. The blast is blown by any suitable blowing apparatus. When any of the stops is to sound I open the corresponding register *b* which is shown in dotted lines, for the third stop, where the register is supposed to be open, the other stops being completely mute so long as their corresponding registers *b* are shut up. In order to open the registers, the knob *k* is drawn, the shank of which is jointed to a lever *k'* vibrating on a pivot, and the opposite end of which rests upon a cross piece mounted on a horizontal bar *l* which carries, opposite to a corresponding register, another cross piece resting upon the register which is to be acted upon. The reeds *g* are each of them covered by a valve

m bound squarely to the lever *o* by a rod *n*.
 The valves of the same note, corresponding
 to the different stops, are all connected to
 the same key, but these notes will give no
 5 sound unless the stops *b* are opened, thus in
 the instance shown at Fig. 2, although the
 four valves *m* are open, the one correspond-
 ing to the stop supposed to be open will
 sound alone, but were two, three, or even the
 10 four stops open, then the four reeds would
 sound. The valves may be kept shut up,
 either as shown in the drawing by a spring
p or by any other suitable arrangement.
 The valve *q* of the reservoir *q'* intended for
 15 expression, is opened at will by a knob as
 the registers are.

Instead of an arrangement, for effecting
 the blowing by means of treadles, the mo-
 tion may be imparted by one hand while the
 20 other hand is acting upon the keyboard.

Having thus described the nature of my
 invention and the manner in which the same
 is or may be carried into effect, I wish it to
 be distinctly understood that what I claim

as my invention, and desire to secure by 25
 Letters Patent, is,—

1. The arrangement of the wind chambers
h, and registers or stops *b*, in combination
 with the reeds *g*, *g*, as set forth, whereby
 each key (*a'*) operates as many valves as 30
 there are stops in the instrument but only
 those notes are caused to sound where the
 register (*b*,) is open as set forth, thus ren-
 dering the fingering easy whatever may be
 the number of stops. 35

2. I claim the arrangement of the valves
e, *e*, and knee pieces *f*, *f*, in the manner and
 for the purposes specified.

3. I claim the manner herein specified of
 arranging the various plans or stories of the 40
 instrument as shown in Fig. 1, and hinging
 the same together for affording access to the
 different parts as set forth.

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Witnesses:

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