

(No Model.)

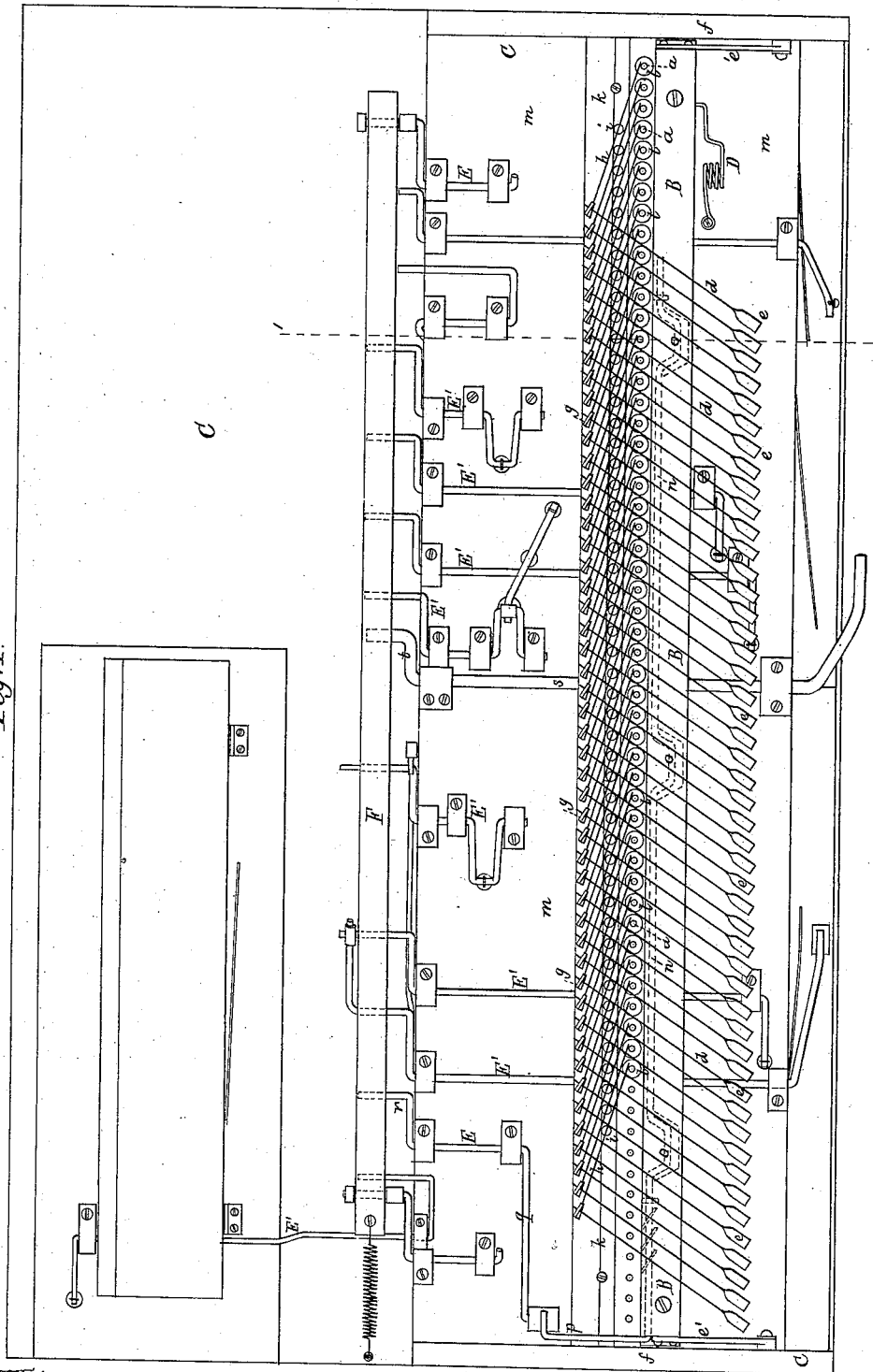
3 Sheets—Sheet 1.

I. B. TAYLOR.
REED ORGAN.

No. 382,018.

Patented May 1, 1888.

Fig. 1.



Witnesses
C. F. Smith
R. B. Torrey

Inventor
Israel B. Taylor
by *Singletton & Piper atty.*

(No Model.)

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Fig. 4.

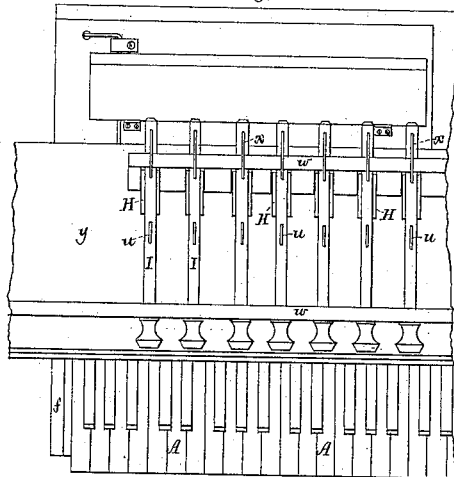


Fig. 5.

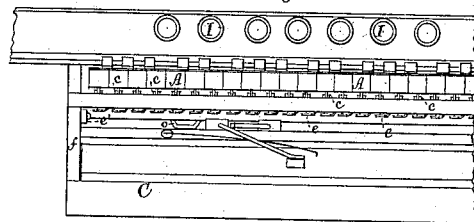
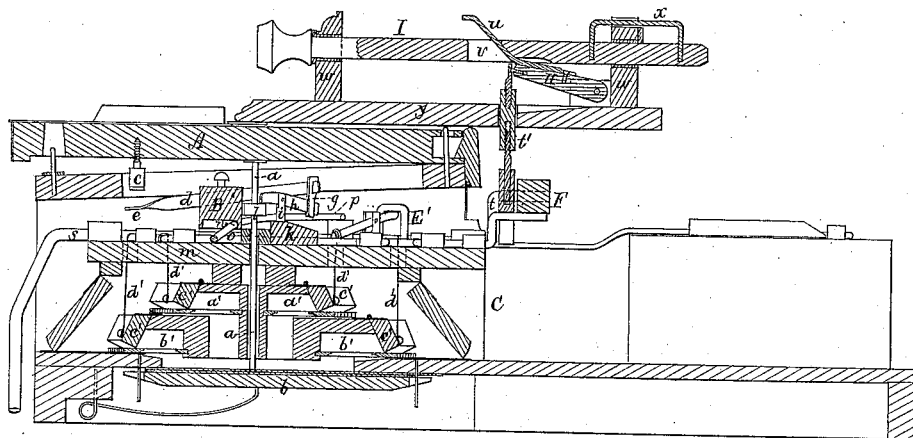


Fig. 2.



Witnesses.
C. F. Daniels.
R. B. Torrey.

Inventor.
Israel B. Taylor.
by Singleton & Piper attys.

(No Model.)

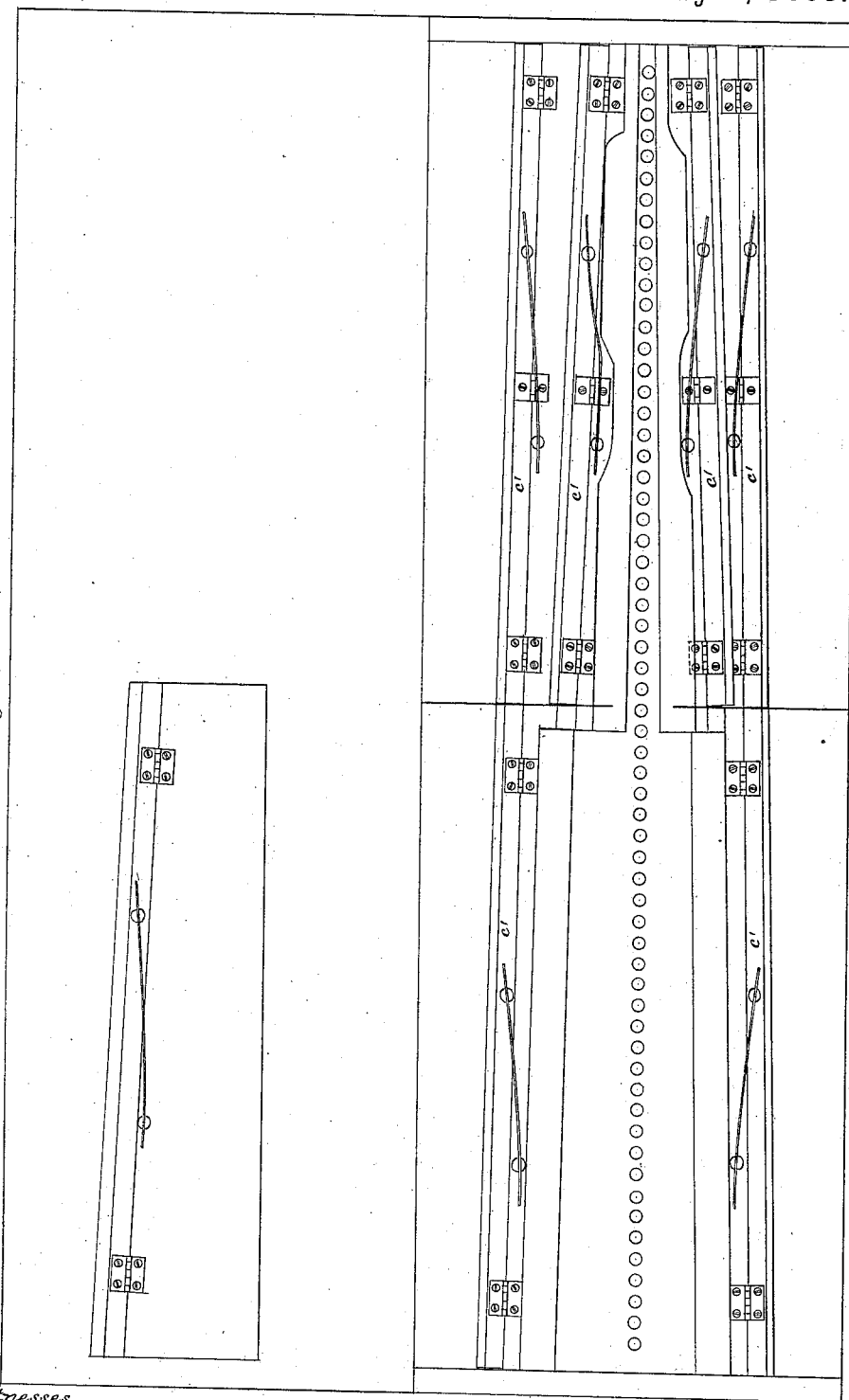
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Fig. 3.



Witnesses
C. F. Davis.
R. B. Torrey.

Inventor
Israel B. Taylor.
by Singleton & Piper attys.

UNITED STATES PATENT OFFICE.

ISRAEL BARKER TAYLOR, OF BOSTON, MASSACHUSETTS.

REED-ORGAN.

SPECIFICATION forming part of Letters Patent No. 382,018, dated May 1, 1888.

Application filed June 27, 1887. Serial No. 242,628. (No model.)

To all whom it may concern:

Be it known that I, ISRAEL BARKER TAYLOR, of Boston, in the county of Suffolk, of the Commonwealth of Massachusetts, have invented a new and useful Improvement in Reed-Organs; and I do hereby declare the same to be described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a top view of the octave-coupling mechanism, and also parts of the mechanism for actuating the stop-valves of the various reed-chambers. Fig. 2 is a transverse and vertical section taken through one of the keys, one of the stops, and the series of reed-chambers and their accessories immediately below such key and stop, the plane of section being on the line 1 1 of Fig. 1. Fig. 3 is a top view of the series of stop-valves, part of which are shown in Fig. 2. Fig. 4 is a top view, and Fig. 5 a front elevation, of some of the keys and stops and sundry parts adjacent thereto.

The nature of my invention is defined in the claims hereinafter presented.

The first part of it relates to what I term the "octave-coupler," or means by which each key when depressed is caused not only to actuate or force downward the push-pin of its own valve but that of the octave-valve.

In Fig. 2 one of the keys is shown at A, its push-pin at *a*, and the valve of such push-pin at *b*. The said key has an adjustable button, *c*, extending down from it, the shank of such button being screwed into the key in order to admit of the button being properly adjusted in altitude with reference to the octave-coupler lever *d*, whose head *e* is immediately beneath the button. There is to each key to be coupled with an octave push-pin such a button and such a lever. The several levers *d* extend through saw-kerfs made obliquely in a bar, B, each being fulcrumed to such bar, which, as shown in Fig. 1, is supported by two arms, *c'*, fixed to it at its ends and pivoted to the ends *ff* of the organ-case C, the same being to allow of the bar B being moved upward for the purpose of raising the levers *d* sufficiently for them to be depressed by the keys when struck by a performer. On the bar B being lowered the levers *d* will be so moved downward as not to be actuated by the keys

when the latter are being played on. Each lever *d* at its rear end is coupled with another oblique lever *h* by a link or connection-piece, *g*. Each lever *h*, arranged at an obtuse angle relatively to its lever *d*, or, as shown, is fulcrumed in a short standard, *i*, extending upward from a stationary bar, *k*. The anterior arm of each lever *h* extends directly over and upon a button, *l*, concentric with and fixed to the push-pin *a* of the octave-valve *b*. Thus when a key is struck by a performer, provided the levers *d* are raised to their higher positions, it will not only actuate or depress the push-pin of its own valve, but through two of the levers *d* and *h* and their connection-piece and a button, *l*, it will simultaneously depress the push-pin of the octave-valve.

There is to the bar B mechanism not only for depressing it, but other mechanism for forcing it upward by means of a stop. That for depressing it is a spring, D, suitably applied to the bar and the wood-work or stationary board *m* through which the push-pins pass, as shown in Fig. 2. The mechanism for forcing the bar B upward consists of a shaft, *n*, (shown in dotted lines in Fig. 1,) provided with three cranks, *o*, and pivoted to the bar. The wrists of the cranks bear on the top of the board *m*. At its left end an arm, *p*, extends from the shaft *n* at a right angle and projects over the inner arm, *q*, of a bent lever, E, fulcrumed on the board *m*. The arm *r* of said lever E is cranked and extends directly underneath a bar, F, movable vertically by means of a shaft, *s*, arranged as shown in Fig. 1, and provided with a crank, *t*, to enter the said bar. Furthermore, there straddles and rests on the wrist of the cranked arm *r* a push-pin, *t'*, (see Fig. 2,) which, constructed so as to be capable of being lengthened or shortened, as may be required, has connecting with it at its upper end an arm, H, provided with a gooseneck, *u*, projecting upward from it and through a slot, *v*, in a stop, I, all being arranged as shown in Fig. 2, such stop being adapted to slide lengthwise of it in standards *w*, extending upward from a stationary platform or board, *y*. A staple, *x*, fixed in the stop and arranged with one of the standards *w*, in manner as shown in Fig. 2, serves to limit the movements of the stop. On pulling the stop for-

ward the goose-neck *u* will be so acted on as to cause the arm *H* and push-pin *t'* to be moved down upon the cranked arm *r*, whereby the lever *E* will be moved so as to effect the upward movement of the bar *B*.

In Fig. 2 of the drawings some of the reed-chambers are shown at *a'*, *a'*, *b'*, and *b'*, there being to each set thereof a valve, *c'*, as usual, such valve in practice being operated by means of a stop, a goose-neck, a furcated push-pin, and a cranked lever, essentially as hereinbefore described, a wire or cord, *d'*, (see Fig. 2,) connecting the valve with the cranked lever. These several cranked levers (shown at *E'* in Fig. 1) have the wrists of their cranks extended directly underneath the bar *F*, in order that by depressing the said bar all the valves of the several sets of reed-chambers may be simultaneously opened for the playing of the full organ to be effected.

I claim—

1. In a reed-organ, the combination, with each stop *I*, having the slot *v*, as described, and with the valve-operating lever *E'* of such stop,

of the goose-neck *u*, arm *H*, and push-pin *t'*, the latter being applied to the said lever, as specified.

2. The combination of the key *A*, having the adjustable button *c*, the push-pin *a*, valve *b*, lever *d*, fulcrumed in the movable bar *B*, said bar being supported at its ends in the arms *e'*, which arms are pivoted to the ends of the case, the lever *h*, connected to lever *d* by link *g*, and the button *l* on the push-pin *a* and concentric therewith.

3. The combination of the movable bar *B*, shaft *n*, having an arm, *p*, provided with cranks *o*, and pivoted to the bar *B*, board *m*, arm *q* of the lever *E*, which lever has an arm, *r*, the bar *F*, operated by the arm *b* of shaft *s*, and the series of crank-levers *E'*, whereby all the valves of the several sets of reed-chambers can be simultaneously opened.

ISRAEL BARKER TAYLOR.

Witnesses:

R. H. EDDY,

R. B. TORREY.

It is hereby certified that in Letters Patent No. 382,018, granted May 1, 1888, upon the application of Israel Barker Taylor, of Boston, Massachusetts, for an improvement in "Reed-Organs," an error appears in the printed specification requiring correction, as follows: In line 40, page 2, the reference letter "b" should read *t*; and that the Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 8th day of May, A. D. 1888.

[SEAL.]

D. L. HAWKINS,

Assistant Secretary of the Interior.

Countersigned :

BENTON J. HALL,

Commissioner of Patents.