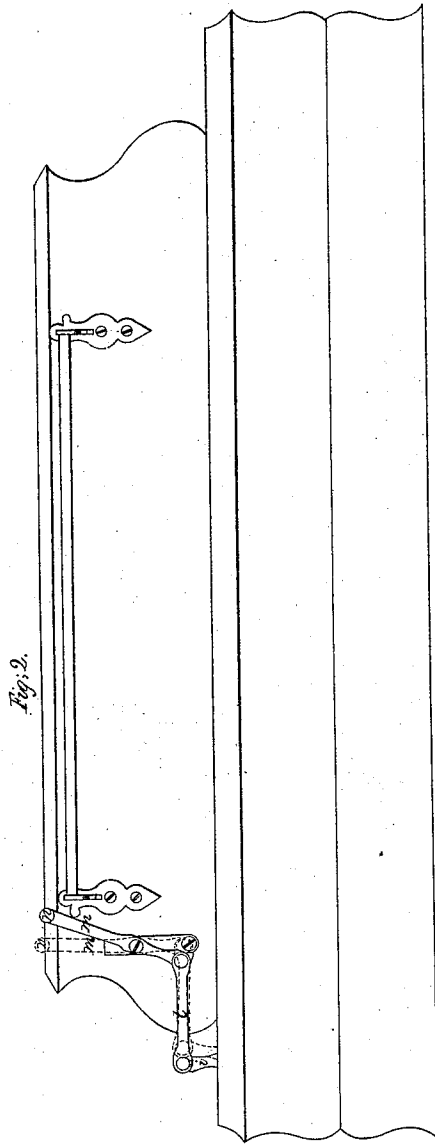
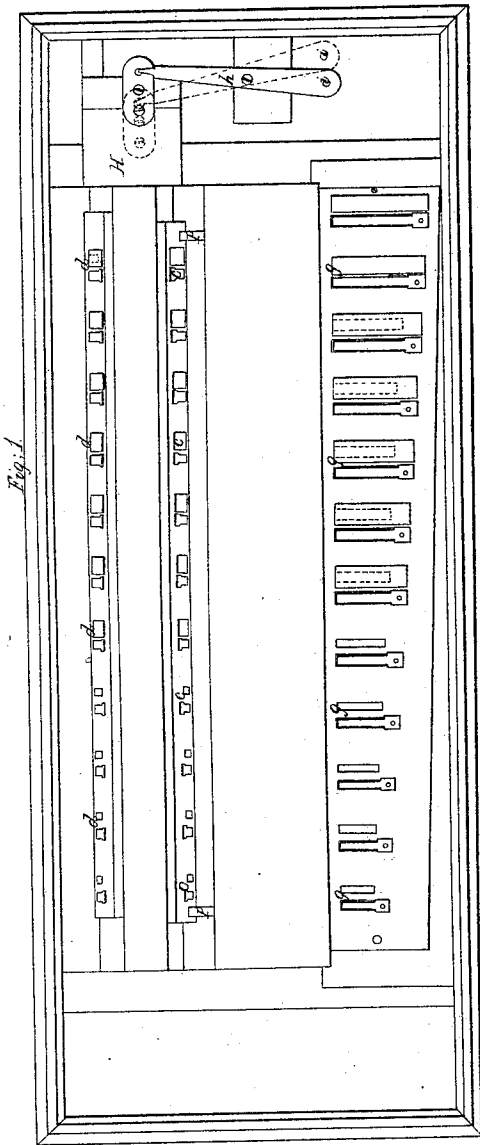


A. Foss,

Accordion.

N<sup>o</sup> 11,062.

Patented June 13, 1854.

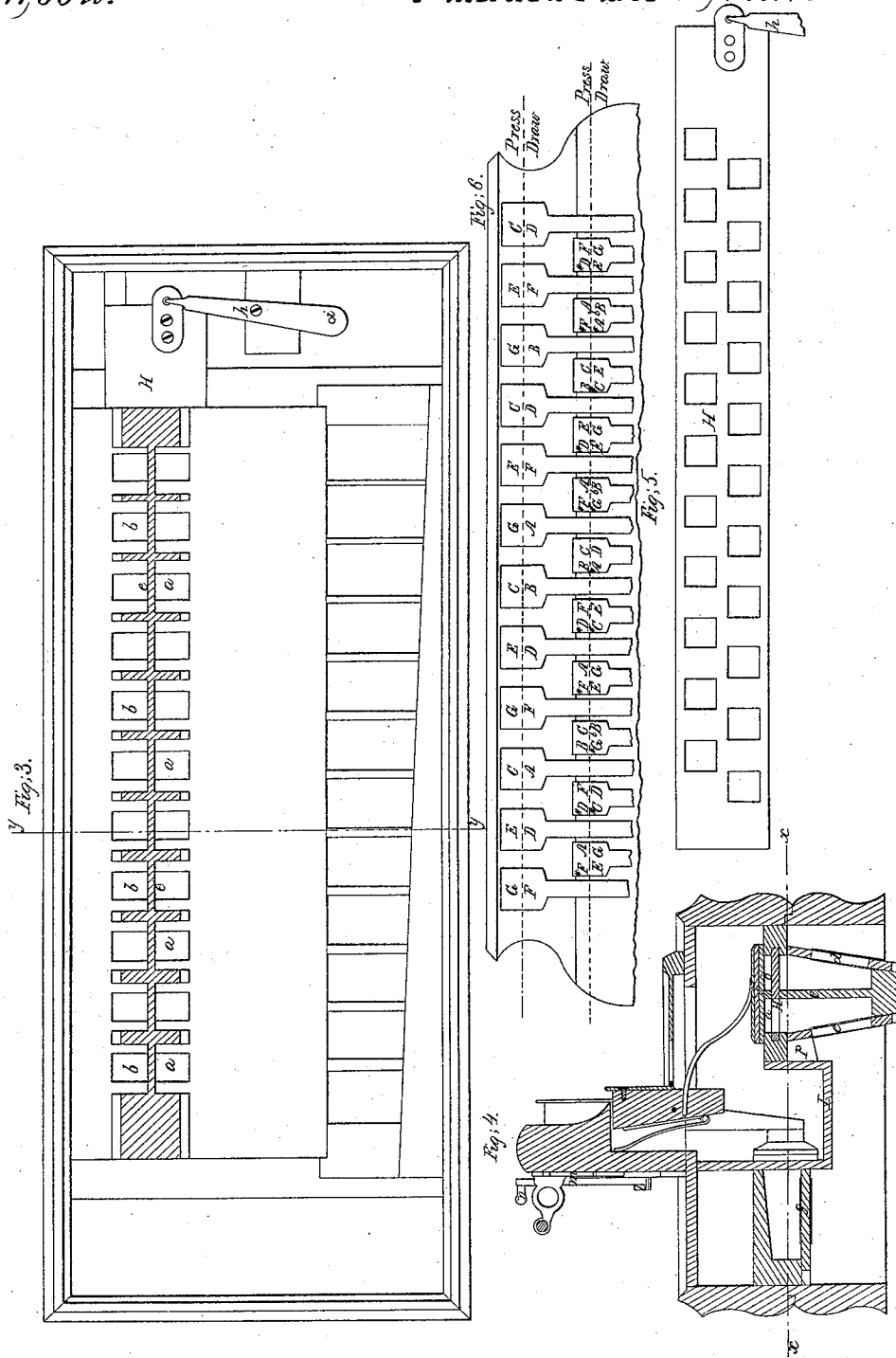


A. Faas,

Accordion.

N<sup>o</sup> 11,062.

Patented June 13, 1854.



# UNITED STATES PATENT OFFICE.

ANTHONY FAAS, OF PHILADELPHIA, PENNSYLVANIA.

## CONSTRUCTION OF ACCORDIONS.

Specification of Letters Patent No. 11,062, dated June 13, 1854.

*To all whom it may concern:*

Be it known that I, ANTHONY FAAS, of the city and county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Accordions; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Figure 1, being an interior view of the top or reed portion of my improved accordion; Fig. 2, a side elevation of the same; Fig. 3, a section thereof, in the line *x x*, of Fig. 4; Fig. 4, a transverse section, in the line *y y*, of Fig. 3; Fig. 5, detached view of the sliding wind-stop; and Fig. 6, a view of the keys, marked with the respective letters of the scale, corresponding with the sounds which they produce.

Like letters designate corresponding parts in all the figures.

My first improvement consists in combining with the diatonic scale of the large keys two other scales, viz, one for producing all the intermediate notes, or semitones, and the other founded upon the subdominant of said diatonic scale; and both arranged so as to be fingered by a single set of small keys in the manner hereinafter specified; for the purpose of enabling the instrument to produce full and correct harmony in any key.

My second improvement consists in providing the accordion with a sound-board, substantially as hereinafter described, for the purpose of producing more strength, fullness and resonance of tone with the instrument.

In order to afford a correct idea of the nature of my first improvement, it will be proper to premise that the peculiar construction of the accordion, by which half the notes are produced only by pressing, and the other half only by drawing, renders it impossible to produce all the sounds of the scale simultaneously either by pressing or drawing; and consequently very few perfect chords can be produced on the ordinary instrument. But by means of my said improvement, I am enabled to produce all the sounds, both of the diatonic and chromatic scales in such a manner that, either by pressing or drawing, full and perfect chords may be produced, and consequently compositions may be performed with correct harmony, in any key.

The series of reeds *g, g, &c.*, composing the common arrangement of the notes of the diatonic scale, are fingered by the upper, or large keys of the instrument in the usual manner. The several sounds produced by them, both in pressing and drawing, are represented by the appropriate letters in Fig. 6, in the manner indicated.

The valves *f, f, &c.*, of the lower, or small keys, stop two series of apertures *a, a, &c.*, and *b, b, &c.*, opening from the bellows below. These two series of apertures are alternately opened and closed by means of a wind-stop H, constructed, as shown in Fig. 5, with two rows of apertures arranged in alternate order; so that when the said wind-stop is moved outward into the position shown by black lines in the drawings, the series of apertures *a, a, &c.*, will be opened, and the other series *b, b, &c.*, closed. Hence, when it is in said position, the series of reeds *c, c, &c.*, will be sounded by fingering the keys, and will produce the notes represented by the black letters on the small keys in Fig. 6. But when the wind-stop is moved into the position indicated by red lines in the drawings, the apertures *a, a, &c.*, will be closed, and *b, b, &c.*, opened; consequently then the series of reeds *d, d, &c.*, will be sounded, when the small keys are fingered, thus producing the notes represented by red letters in Fig. 6. In order to enable the performer to bring either scale into action readily, vibratory levers *h, i, l, m*, are jointed to the wind-stop H, and to one another, in the manner clearly shown in the drawings; the last lever *m*, being provided with a knob *n*, and so situated that the performer can easily reach it with his right hand while playing. The positions of said levers represented in black lines, correspond with the position of the wind-stop shown by black lines in the drawings, and with the notes represented by black letters on the small keys; and the positions of said levers in red lines, in like manner, correspond with the position of said wind-stop indicated by red lines, and with the notes of the red letters on said keys, in Fig. 6.

When the notes produced by the large keys are those of the diatonic scale in the key of C, as represented in Fig. 6, the scale, represented by black letters on the small keys, (it will be seen,) gives all the intermediate semitones of that scale, and also the notes B, and E; so that, with these two

scales, all the notes of the chromatic scale may be produced. Of themselves alone the black notes of the small keys give the diatonic scale in the key of B, arranged in the same manner as the scale in C, of the large keys. Thus far, my accordion has nothing more than the ordinary semitoned accordion. But by the addition of the scale represented by the red letters on the small keys, I obtain a diatonic scale in the key of F, *i. e.* founded upon the subdominant of the scale of the large keys. It will at once be seen, on inspection, that this scale, when used in connection with said scale in C, will enable the performer to produce chords which could not otherwise be obtained. Thus, for instance, the chord of the dominant seventh to the key of C, consisting of the notes G, B, D, F, may thereby be produced, which would be impossible without this third scale.

My second improvement provides the accordion with a sound-board I, for the purpose of giving more strength, fullness and resonance to the tones; and it also enables me to arrange my first improvement more conveniently by giving me more space; and besides to arrange the valves within the instrument, where they are not exposed, and whereby the instrument acquires a neater appearance. As represented in the draw-

ings, the reed-boards of the two scales *c, c,* &c. and *d, d,* &c., are not immediately connected with the sound-board; but in such a case wedges *p, p,* (Figs. 1, and 4,) may be driven into the intervening space; which will thus form a vibratory connection, and improve the quality of the tone.

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

1. Combining with the diatonic scale of the large keys, two other scales, viz, one for producing all the intermediate notes, or semitones, and the other founded upon the subdominant of said diatonic scale; and both arranged so as to be fingered by a single set of small keys, substantially as herein described; for the purpose of enabling the instrument to produce full and correct harmony in any key.

2. I also claim, providing the accordion with a sound-board substantially as herein set forth, for the purpose of producing more strength, fullness and resonance of tone with the instrument.

The above specification of my improvements in accordions signed and witnessed this 7th day of April 1854.

ANTHONY FAAS.

Witnesses:

Z. C. ROBBINS,  
J. S. BROWN.