

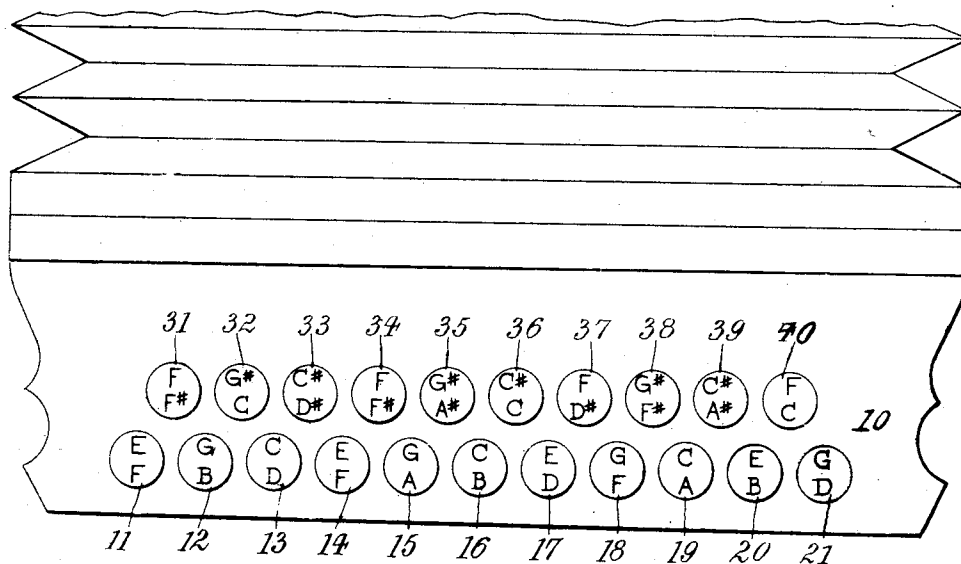
No. 869,227.

PATENTED OCT. 29, 1907.

E. E. BRAENDLE.

ACCORDION.

APPLICATION FILED MAR. 11, 1907.



Witnesses:
Arthur E. Zuehlke
William Schultz

Inventor:
Edward E. Braendle
by *Frank W. Bienen* Att'y.

UNITED STATES PATENT OFFICE.

EDWARD E. BRAENDLE, OF NEW YORK, N. Y., ASSIGNOR TO HANS HOHNER, OF
NEW YORK, N. Y.

ACCORDION.

No. 869,227.

Specification of Letters Patent.

Patented Oct. 29, 1907.

Application filed March 11, 1907. Serial No. 361,634.

To all whom it may concern:

Be it known that I, EDWARD E. BRAENDLE, a citizen of the United States, residing at New York city, Manhattan, county and State of New York, have invented new and useful Improvements in Accordions, of which the following is a specification.

This invention relates to an improved accordion, and more particularly to a novel construction of the treble keyboard, by means of which a chromatic scale is obtained and at the same time the ordinary arrangement of the keys, to which accordion players are accustomed, is retained.

The accompanying drawing represents a plan of part of an accordion embodying my invention.

The treble key-board 10 is provided with an outer row of keys 11—21 which correspond to the keys as generally used in accordions and to which the players of such instruments are accustomed. That is to say, each key actuates two reeds, one note being produced by contracting the bellows, while a second note is produced by expanding the bellows. The reeds are so toned, that by alternately contracting and expanding the bellows the C-major scale is obtained, excepting that for consecutive notes A and B, the bellows must be expanded. This arrangement is rendered necessary on account of the odd number of the notes in the scale, so that the tonic note is always sounded by compressing the bellows, and that chords will always be produced when the bellows are compressed or expanded, irrespective which particular keys are depressed. The notes C, E, G, formed by compressing the bellows are marked in the drawing on top of their respective keys, while the notes D, F, A, B, formed by expanding the bellows are marked at the bottom of such keys, it being observed that the notes A, as well as B, are marked at the bottom. In addition to the outer row of keys 11—21, the key-board is provided with an inner row of keys 31—40, the latter being arranged to intercalate with the keys of the outer row. Each of the keys 31—40 also sounds two different notes, one by contraction and the other by expansion of the bellows.

The tuning is such that the note produced by any one inner key on compression of the bellows is a semitone higher than the note of the preceding outer key produced on such compression. In like manner, a note produced by any one inner key on expansion of the bellows is a semitone higher than the note of the preceding outer key produced by such expansion. Thus, as indicated by the upper row of figures on keys 31—40, the latter, upon compression of the bellows, produce successively the notes C $\sharp$, F, G $\sharp$, while the same keys, upon expansion of the bellows, produce the notes D $\sharp$, F $\sharp$, A $\sharp$, C, as indicated by the lower row of figures on keys 31—40. In other words, key 33, upon successive compression and expansion, forms the two

notes C $\sharp$, D $\sharp$, key 34 forms in similar manner the notes F, F $\sharp$, key 35 the notes G $\sharp$, A $\sharp$, of a C $\sharp$ scale. It will be observed that in carrying out this arrangement, the tonic notes C, and the sub-dominant notes F, are duplicated, they being formed upon the outer as well as upon the inner rows of keys, the note C, on any one inner key being the sharp of B, on the preceding outer key. So also, the note F, on any one inner key is the sharp of E, on the preceding outer key.

With the example illustrated, a proper manipulation of the outer row of keys will produce a diatonic C major scale as already described. If the keys of the inner row are manipulated in like manner, a diatonic C $\sharp$ major scale is produced, it being thus seen that the diatonic scale produced by the inner row of keys is pitched a semitone higher than that produced by the outer row. By proper manipulation of the outer row is meant that the bellows are first contracted and then expanded for each of the keys 13, 14 and 15, to successively sound the notes C, D, E, F, G, A. For producing the seventh and eight notes B, C, by key 16, the bellows must first be expanded and then contracted for the reason previously stated. In like manner, the diatonic C $\sharp$ major scale is produced by the inner row of keys 33, 34, 35 and 36, the bellows being first contracted and then expanded for keys 33, 34 and 35, to sound the notes C $\sharp$, D $\sharp$, E $\sharp$ (F), G $\sharp$, A $\sharp$. For key 36, the bellows are first expanded and then contracted to successively sound the seventh and eighth B $\flat$ notes (C), C $\sharp$.

By the construction described, a chromatic scale is obtained with all the advantages flowing therefrom. At the same time the keys 11—21 of the outer row are not in any way changed from those which are generally found on accordions. In this way the instrument may be used equally well by a player accustomed to the old style only, and by one who is sufficiently skilled to avail himself of the chromatic arrangement.

I claim:

1. An accordion having a first and a second row of keys, and a pair of differently tuned sound producers actuated by each of said keys, the sound producers of any one key in the second row being pitched a semitone higher than the sound producers of the preceding key in the first row, substantially as specified.
2. An accordion having a first and second row of keys, and a pair of differently tuned sound producers actuated by each of said keys, four successive keys of the first row actuating the sound producers of the notes C, D; E, F; G, A; C, B; and four successive keys of the second row actuating the sound producers of the notes C $\sharp$, D $\sharp$; F, F $\sharp$; G $\sharp$, A $\sharp$; C $\sharp$, C, substantially as specified.

Signed by me at New York city, (Manhattan,) N. Y., this 7th day of March, 1907.

EDWARD E. BRAENDLE.

Witnesses:

WILLIAM SCHULZ,
FRANK V. BRIESEN.