

UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN MUSICAL NOTATION FOR THE BLIND.

Specification forming part of Letters Patent No. 25,657, dated October 4, 1859.

To all whom it may concern:

Be it known that I, CORNELIUS MAHONEY, of the city, county, and State of New York, have invented or discovered a new and useful Musical Notation in Raised or Embossed Letters and Characters for the Use of the Blind; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying illustrations thereof, forming a part of this specification.

The following is a description of said invention.

In the old system of writing music five parallel lines, with the intermediate spaces, called a "staff," are used. On these lines and spaces certain characters, called "notes," which are the representatives of the length of sound, are placed. These lines and spaces are named from the first seven letters of the alphabet. Instead of the lines and spaces, I employ the letters, notes, or characters themselves, raised or embossed, attaching to those letters all the various sounds and signs used in the old system to indicate all the various changes which may take place in any musical composition.

My improvement consists in the combination of raised or embossed letters and notes, so as to represent music for the blind.

To enable others skilled in the art to use my invention, I will proceed to describe the same with reference to the illustrations.

Central C is taken by all the composers as the dividing-line between the bass and treble. In my system a line is drawn between F-sharp and G-flat, the first above central C, which serves as the treble-staff. Then a line drawn between F-sharp and G-flat, the first below central C, serves as the bass-staff, all the notes occurring between the first F-sharp above central C and G-flat, an octave above, to be written horizontally above the treble-line; all the notes occurring between the first G-flat above central C and the first F-sharp, an octave below that G-flat, to be written horizontally below the treble-line; all the notes occurring between the first F-sharp below central C and the first G-flat, an octave above that note, to be written horizontally above the bass-line; all the notes occurring between the first G-flat below central C and the first F-sharp, an octave below that note, to be written horizontally below the

bass-line. Notes occurring in octaves ascending or descending above or below those already described may be horizontally written above an additional line in the treble or below an additional line in the bass.

Lines may be drawn between any other two notes on the piano, as well as between F-sharp and G-flat, and music written in the same manner. My object in having my line between F-sharp and G-flat, as before described, is to have the bass and treble staff in the old system more at my command to copy music from.

Examples in the bass and treble staff.

T	bG
{	Central C #F
B	bG #F

The T at the end of the upper line is the sign for the treble, or the part to be played with the right hand. The B at the end of the lower line is the sign for the bass, or the part to be played with the left hand.

Example in G major, written in octaves commencing at the first G below central C for the right hand, and at the second G below central C for the left, and running three octaves to the right.

T#	g a b c d e f g a b c d e f
{	g a b c d e f
B#	g a b c d e f g a b c d e f
	g a b c d e f

Examples in harmony.

T	g-b a-d c-e g-c e a-c-f b-d-f
{	g-b a-d c-e g-c e a-c-f g
B	g-b a-d c-e g-c e a-c-f g

If two or more notes in different octaves are struck together, they are represented thus:

T	g g g g g g-c g-c
{	e d c b-c-e e c-e
B	g g g g g g-c c
	e d c b c-e e c

Example in octaves.

}	T <i>g a b c d e f</i>
	<i>g a b c d e f</i>
	B <i>g a b c d e f</i>
	<i>g a b c d e f</i>

Example in full chords and sevenths.

}	T# $\frac{1}{4}$ <i>g-b-d-f</i> <i>a-c-e</i> <i>g-b-d</i> <i>a-c</i> <i>g-b</i> <i>f-a</i> <i>g</i>
	<i>e</i> <i>d</i> <i>d-f</i> <i>b-c</i> <i>c</i> <i>g-b-d</i>
}	B# $\frac{1}{4}$ <i>g</i> <i>a</i> <i>g</i> <i>d</i> <i>e</i> <i>d</i> <i>g</i>
	<i>g</i> <i>a</i> <i>g</i> <i>d</i> <i>e</i> <i>d</i> <i>g</i>

Of the notes and rests.

A semibreve is designated thus: *a*

A minim is designated thus: *a*

A crotchet is designated thus: *a*

A quaver is designated thus: *a*

A semiquaver is designated thus: *a*

A demisemiquaver is designated thus: *a*

A hemidemisemiquaver is designated thus:

a

A semibreve rest is designated thus: *1*

A minim is designated thus: *—*

A crotchet is designated thus: *┌*

A quaver is designated thus: *┐*

A semiquaver is designated thus: *┘*

A demisemiquaver is designated thus: *┘*

A hemidemisemiquaver is designated thus:

┘

Thus the embossed letter represents the sound of the note or the key of the organ or piano, or the string of the violin, or hole of the flute, &c., and the embossed note or character attached to the letter designates the length of that sound.

Having thus fully described the nature and object of my invention, what I claim therein as new, and desire to secure by Letters Patent, is—

The combination of letters and characters or notes in embossed print, so as to represent music for the blind, substantially as set forth.

CORNELIUS ^{his} X MAHONEY.
mark

Witnesses:

A. B. STOUGHTON,
E. COHEN.