

(No Model.)

L. J. DE MEULES.
MUSIC CHART.

No. 554,172.

Patented Feb. 4, 1896.

Fig. 1.

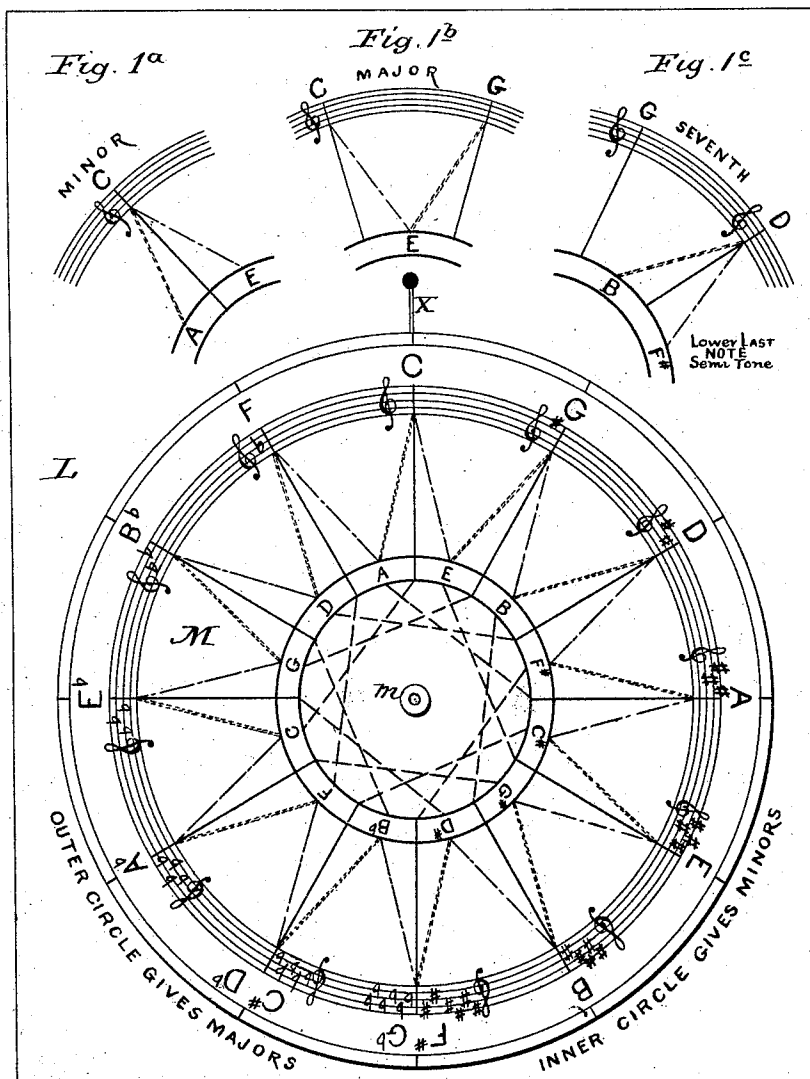
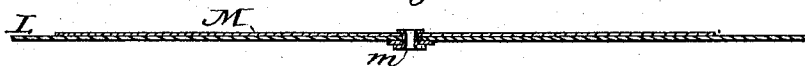


Fig. 2.



WITNESSES

A. D. Digges
L. D. Heinrichs

INVENTOR :

Louis J. DeMeules,
by E. E. Masson, Attorney.

UNITED STATES PATENT OFFICE.

LOUIS J. DE MEULES, OF ST. PAUL, MINNESOTA.

MUSIC-CHART.

SPECIFICATION forming part of Letters Patent No. 554,172, dated February 4, 1896.

Application filed October 26, 1895. Serial No. 566,976. (No model.)

To all whom it may concern:

Be it known that I, LOUIS J. DE MEULES, a citizen of the United States, residing at St. Paul, in the county of Ramsey, State of Minnesota, have invented certain new and useful Improvements in Music-Charts, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in music-charts; and the object of this improvement is to form a simple and easily-understood chart presenting to the eye of a musician the various paths leading to combinations of harmony in the various chords of music, and indicating also the relationship of musical chords, and the combinations which result in musical harmony.

In the accompanying drawings, Figure 1 represents a front view of the chart and its revoluble disk having thereon a twelve-point star and paths leading from each point. Fig. 2 is a transverse section of the same through the center of the disk. On the upper portion of the face of the chart is also shown a diagram, Fig. 1^a, indicating the mode of forming minor chords, a diagram, Fig. 1^b, indicating the mode of forming major chords, and a diagram, Fig. 1^c, indicating the mode of forming the seventh chord, commonly called the 'leading chord.'

In said drawings, L represents the chart, which may be of any convenient size, and M a disk or revoluble dial secured to said chart by a flanged pivot or eyelet *m*. These two parts L and M are preferably of pasteboard to permit their construction at little expense. Upon the disk M there is marked an outer circle having twelve divisions or stations of major chords, and an inner circle having the same number of divisions and stations of minor chords; but the latter are intermediate of the radii leading from the outer stations, and within the space inclosed by the inner circle are a series of indicated paths within said space, leading the student to musical harmony. The dial M is revoluble to bring into convenient position the various musical keys, and upon said dial is a twelve-pointed star, each point of which has a radial line and two converging lines, and all said lines are

paths to indicate all of the departures from the given key which will result in musical harmony.

For instance, if the dial M is revolved so that its letter C coincides with the indicator designated by letter X, it places it in such a position that the relationship of the different chords of music harmonizing with the key of C can be readily traced and executed upon the musical instrument—that is to say, that following the converging dot-and-dash line departing from one of the star points in the outer circle (marked C) to the point marked E on the inner circle, and from thence upward upon the converging double-dot line to the point G in the major circle forms the tonic chord of C major. From thence following the converging dot-and-dash line leading into the minor circle to the point marked B, thence along the converging double-dot line to the point D in the major circle, the student has the dominant chord of C major. Starting from the point C in the major circle along the converging double-dot line to the left and downward to the point A in the minor circle, and upward on the converging dot-and-dash line to the point marked F, the student has the subdominant chord of C major. These three chords—that is, the tonic, the dominant, and subdominant—form the chords of the major key of C. By this method and means major chords are obtained from any starting-point on the outer circle.

The method of obtaining minor chords of the relative key of C is as follows: Commencing at C and descending on the left converging double-dot line, into the minor circle, it leads to the letter A, which is the name of the key that is the relative of C. This letter A is now the starting-point of A minor.

To form the chords of A minor the student proceeds as follows: Commencing at A in the minor circle, following upward the converging double-dot line to the letter C in the major circle, then descending from C on the converging dot-and-dash line into the minor circle to the letter E forms the tonic chord of A minor. To obtain the dominant chord of A minor, commence at E in the minor circle, on the right-hand side of A, and follow within the area of said minor circle the dotted line

ending to the inner end of the radial full line leading to E in the major circle, adding the G sharp and B, forms the dominant chord of A minor. (The reason for departing from E of the minor circle to the E of the major circle is that the law of harmony demands that the dominant chord of either of the major or the minor must always be a major chord.)

To obtain the subdominant chord of A minor, commence at A in the minor circle, proceed upward on the left-hand side converging dot-and-dash line to the letter F in the major circle, then descend on the left-hand converging double-dot line to the letter D in the minor circle, which forms the subdominant chord of A minor. These two modes of forming the three chords of C major and A minor are the six moves required to form all other chords of the major and minor keys.

Upon the disk of this chart the five lines on the outer circle are the five lines and four spaces required to constitute the musical staff. The sharps and flats on these lines and spaces are the characters used to designate the number of sharps or flats that exist in the key immediately below the letter above such characters. The letters on the outer circle are the names of the twelve major keys in music. The inner circle is the minor circle and the letters found in said minor circle are the names of the twelve minor keys, both circles having the names of the twenty-four keys in music.

The diagram represented in Fig. 1^a shows in a simple manner the mode of forming minor chords.

The diagram represented in Fig. 1^b shows the mode of forming major chords.

The diagram represented in Fig. 1^c shows the mode of forming the seventh chord, commonly called the "leading chord."

Some of the converging lines or paths may be in bright colors—for example, what I called the "double-dot" line may be a red line and the dot-and-dash line a blue or a green line—in the formation of the points of the star, said lines as well as the radial line of each point of the star, the inner circles and the dotted lines inclosed by said circles constituting the paths which the students are taught to follow to reach the different entrances in musical modulation.

Having now fully described my invention, I claim—

A music-chart having pivoted thereto a dial, and upon said dial a circular musical staff having twelve keys of majors, an inner circle having twelve minors, radial lines or paths leading from the outer circle of majors to spaces between the minors on the inner circle, and paths leading across the space inclosed by said inner circle, with outwardly-converging lines on each side of the radial lines or paths, said converging lines constituting the twelve points of a star substantially as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

LOUIS J. DE MEULES.

Witnesses:

ANDREW C. ROBERTSON,
ANDREW W. KRAEMER.