(No Model.)

H. L. TURNER.

COLOR CHART.

No. 418,146. Patented Dec. 24, 1889.

Fig. 1.

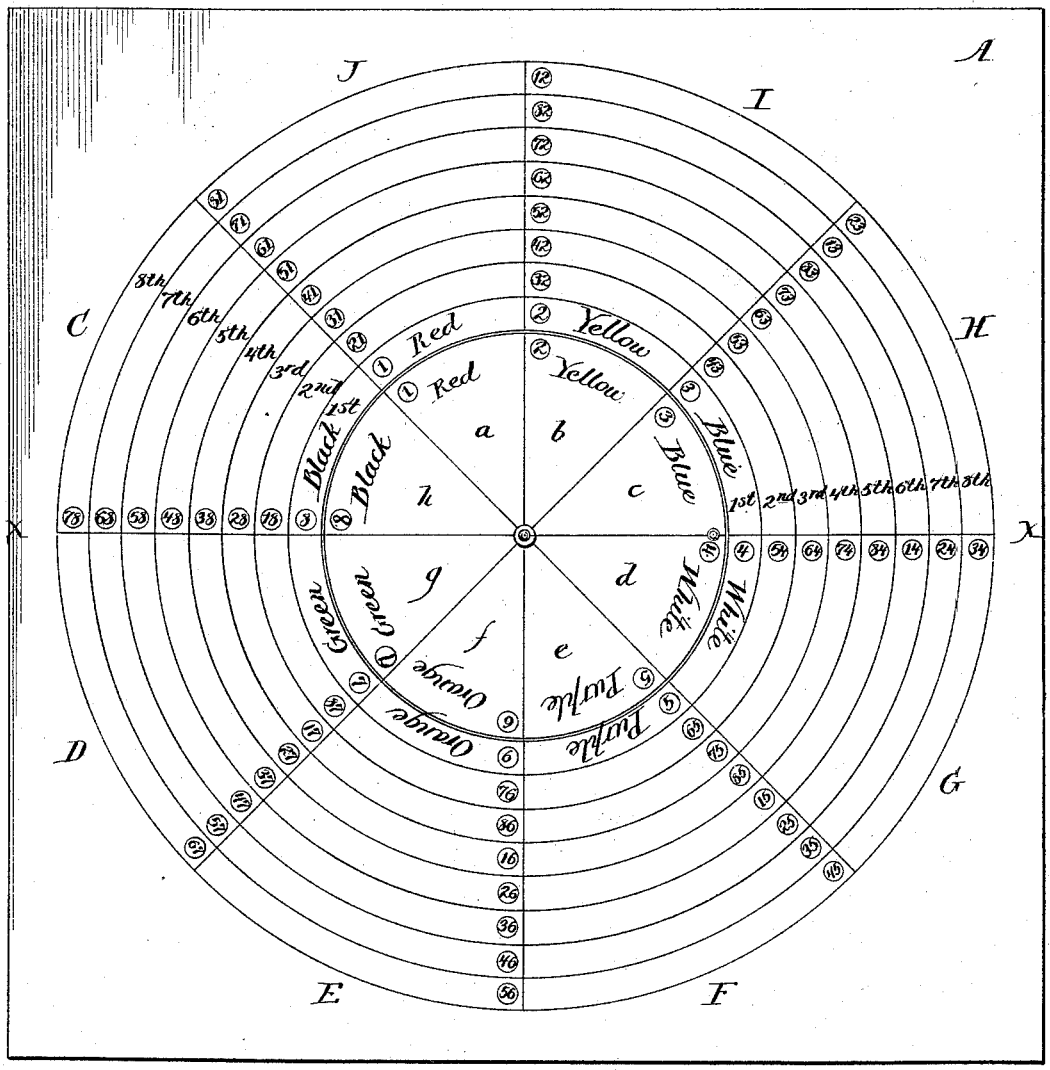

Fig. 2.

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HENRY L. TURNER, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE WESTERN PUBLISHING HOUSE, OF SAME PLACE.

COLOR-CHART.

SPECIFICATION forming part of Letters Patent No. 418,146, dated December 24, 1889.

Application filed September 24, 1889. Serial No. 324,957. (No model.)

To all whom it may concern:

Be it known that I, HENRY L. TURNER, residing at Chicago, in the county of Cook and State of Illinois, and a citizen of the United States, have invented a new and useful Improvement in Color-Charts, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a plan. Fig. 2 is a central section at line *x* of Fig. 1.

The object of my invention is to provide a chart by the use of which the color resulting from the mixture of two colors can be readily determined and indicated by the eye; also, by the use of which it can be readily determined what two colors were used in forming a given resulting color, which I accomplish as illustrated in the drawings and hereinafter described.

That which I claim as new will be pointed out in the claim.

In the drawings, A represents a suitable board, which may be made of several thicknesses of paper properly glued or cemented together, or of other suitable material. The central portion of this board A is recessed to receive a rotating disk B, which is pivoted at its center to the board A. The disk, as shown, is divided into eight parts, each of which is to be differently colored. For example, the section *a* of the disk B may be colored red; the section *b*, yellow; the section *c*, blue; the section *d*, white; the section *e*, purple; the section *f*, orange; the section *g*, green; the section *h*, black. For convenience I have caused the names of these several colors to be written on the sections of the disk, although in actual use this will not be necessary. Each one of these sections and colors I have designated on the disk by a figure, 1 being on the red section, 2 on the yellow section, 3 on the blue, 4 on the white, 5 on the purple, 6 on the orange, 7 on the green, and 8 on the black. That portion of the surface of the board A which is used and which is outside of the disk by concentric lines is divided into eight concentric parts, designated first, second, third, fourth, fifth, sixth, seventh, and eighth. The same portion of the board is also divided into eight parts or section by lines which are a continuation of the lines which divide the disk B into sections. These sections are indicated by the letters C, D, E, F, G, H, I, and J. The sections of the first concentric portion are to be colored with colors corresponding with those upon the sections of the disk. For example, that portion of the concentric part marked "first" which adjoins the red section of the disk is to be red, and that portion is to have upon it the figure 1, corresponding with the figure 1 on the red section of the disk. That portion of the concentric part marked "first" which is adjoining the yellow section of the disk is to be yellow, that portion of such concentric part opposite the white portion of the disk is to be white, that portion which is opposite the blue portion of the disk is to be blue, that portion which is opposite the purple portion of the disk is to be purple, that portion which is opposite the orange portion of the disk is to be orange, that portion which is opposite the green part of the disk is to be green, and that portion which is opposite the black part of the disk is to be black. I have caused the words "red," "yellow,"&c., to be written upon these several parts outside of the disk for designation; but in use it will not be necessary to do this. The remaining parts of the several sections C to J, inclusive, are to be colored with the colors resulting from the mixture of two colors, which, for the purposes of this description, are supposed to be mixed in equal quantities, one of which colors is on the disk, the other on the first concentric part outside of the disk. When the disk is in its normal position, the several colors thereon will be opposite the corresponding colors in the first concentric portion of the board. Now, if the disk be turned to the left one-eighth of a revolution, the red on the disk will be opposite to the black portion of the first concentric part of the board, and the second concentric part of the section C, being that which is adjoining to the black, is colored that color which results from the combination of red and black in equal parts, the combined colors being numbered 1 and 8, and these figures 18 are places on such color resulting from the

combination of red and black. If the disk be again moved one-eighth of a revolution to the left, the yellow portion of the disk will be opposite to the said black outside of the disk, and the third concentric part of section C is colored that color which results from the mixture of yellow and black, which two colors are indicated by the figures 2 and 8, and these figures 28 are placed on the color resulting from the mixture of yellow and black. If the disk be again moved to the left one-eighth of a revolution, blue on the disk will be opposite to black on the body of the board, and the fourth concentric part of the section C is colored the color resulting from the mixture of blue and black, which colors are indicated by the figures 3 and 8, which figures 38 are placed upon the last-mentioned resulting color, and so on with the remaining colors on the disk; white and black, or 4 and 8, producing a resulting color indicated by 48; purple and black, or 5 and 8, producing a color indicated by 58; orange and black, or 6 and 8, producing a color indicated by 68; green and black, or 7 and 8, producing a color indicated by 78. All of the other sections are prepared in a similar manner and designated by the proper figures.

In reading the figures on the several resulting colors the first figure always refers to the corresponding figure on the disk and the second figure to the corresponding figure in the first concentric portion outside of the disk.

My colored chart is designed for use in two ways. It can be used for the purpose of ascertaining the resulting color following from the mixture of any two of the colors on the disk, which can be done by rotating the disk until the selected color thereon is opposite to the other selected color on the first concentric portion of the board outside of the disk. The figures on the disk and on the other selected color will be found on the resulting color in the appropriate section. For example, if it be desired to know what color will result from the mixture of blue and red, rotate the disk until blue (3) on the disk is opposite to red (1) just outside of the disk. That portion of the section J which has upon it the figures 31 will show the resultant color.

The chart can also be used to determine what colors will make any one of the resulting colors which may be selected. For example, the resulting color 62 in section I is formed by the combination of the color 6 (orange) on the disk and the color 2 (yellow) in the first concentric part of the chart outside of the disk.

In the foregoing description the disk has been rotated to the left; but the same resulting colors will be indicated by rotating the disk to the right, always reading the disk-figure first.

If desired, a chart constructed according to my plan might be made which would indicate colors resulting from a mixture of any two colors in some given proportion other than equal parts; but this, I think, will not be required, because it is apparent that any one of the resulting colors can be made lighter or darker by mixing the selected colors in different proportions.

This chart will be found useful in schools and families. It will also be useful for artists, decorators, &c., in determining readily what two colors to use to form any one of the designated resulting colors.

What I claim as new, and desire to secure by Letters Patent, is as follows:

A color-chart consisting of a rotatable disk divided into a number of sectors which are differently colored, in combination with a base A, provided with a series of concentric parts surrounding the disk and divided into sectors corresponding with the sectors on the disk, the parts of any sector on the base being colored with the color on some one of the sectors of the rotatable disk and with the combination of that color with all the other colors on the disk in succession, substantially as and for the purpose specified.

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Witnesses:
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