May 19, 1931. G. FOX 1,806,156

CHART

Filed July 30, 1930

Fig. 1.

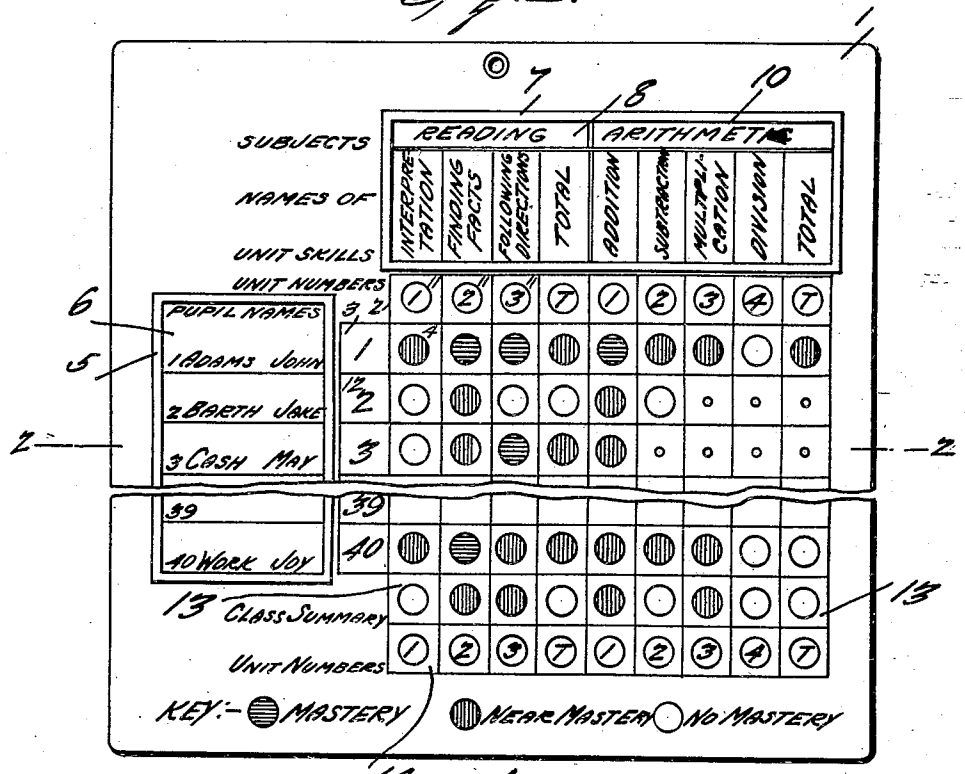


Fig. 2.

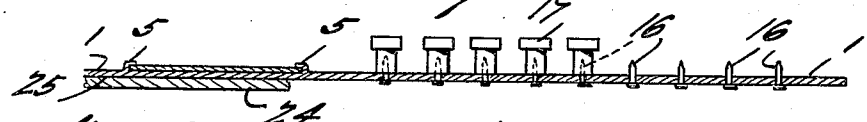


Fig. 6.

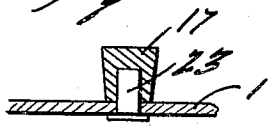


Fig. 3

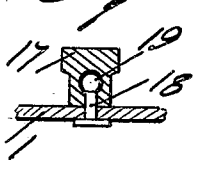


Fig. 5.

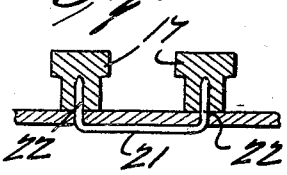


Fig. 7.

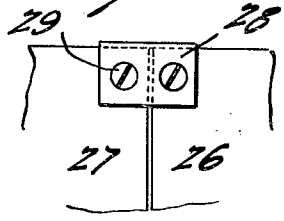


Fig. 4.



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UNITED STATES PATENT OFFICE

GUY FOX, OF DENVER, COLORADO

CHART

Application filed July 30, 1930. Serial No. 471,774.

This invention relates to an improvement in charts wherein, through the use of selectively applied indicators, graphic records of fact or conditions with relation to the subject-matter with which the chart is particularly concerned may be readily and easily inaugurated, maintained or changed at will.

In connection with charts of such character, it has been proposed heretofore to indicate facts or conditions with removable members which may be selectively associated with a certain space or spaces on the chart, with such members integrally formed or constructed to indicate selective facts or conditions.

The present invention is more particularly concerned with a chart with which the indicators may be readily and conveniently associated and maintained in position against casual separation, with such indicators individually of a particular type or formation which readily provides for individual characteristics to facilitate predetermined indication by a particular indicator.

The invention is illustrated in the accompanying drawings, wherein:—

Figure 1 is a view in plan, partly broken out, showing a chart with certain of the indicators in place.

Figure 2 is a section on the line 2—2 of Figure 1.

Figures 3, 4, 5 and 6 are sectional views showing modified arrangements of indicator-receiving members carried by the chart.

Figure 7 is a sectional view of the base of the chart construction.

The chart here illustrated is designed more particularly for use in connection with a class undergoing instructions, it being, of course, understood that the chart may be arranged for use in connection with any selected function wherein it will be evident that the chart markings, of a more or less permanent character and which form no particular part of the present invention, will be correspondingly changed.

In the instance illustrated, the chart comprises a base 1 of any appropriate material and in any requisite or desired size. This chart throughout an appropriate area will be divided by vertical and horizontal lines 2 and 3 to indicate individual spaces 4. Arranged on the base beyond and preferably at the left of the spaces 4 is secured a frame, preferably formed by appropriate strips 5 secured to the base, and designed in the instance illustrated to receive a strip 6 on which, for example, is indicated in horizontal divisions aligning with the spaces 4 of the chart the names of the pupils. A similar frame, indicated at 7, is arranged transversely above the spaces 4, this frame 7 being designed for the reception of strips 8 on which in vertical columns 9 are indicated the subjects. The strips 8 for the frame 7 may, if desired, and as shown in the instance selected, have a major indication, indicated at 10, for the general subject covered by the vertical columns of such strip.

The important detail in this connection is the provision of the frames at the respective side and end of the indicating section of the chart, which frames are designed to removably receive and more or less fixedly support sections or strips on which are inscribed the various details or data with which the chart is to be associated. In the instance shown, it is preferred that the dividing lines 2 and 3 of the chart provide intermediate the spaces 4 and the transverse frame 7 a series of spaces 11 corresponding to and in vertical alignment with the spaces 4 and with the divisions on the strip 9, such spaces 11 being numbered to indicate subjects, with the final space of each subject being indicated for a total. If desired, and as preferred, a series of spaces 12 in horizontal alignment with the spaces 4 and with the individual names of the pupils may also

be numbered to facilitate reading. Lower spaces 13 and 14 below the indicating spaces and in vertical alignment therewith may be provided and utilized to indicate in the upper series of such spaces a summary for the entire class and in the lower set of such spaces a line of indication similar to that in the spaces 11 to facilitate reading of the summary.

The spaces 4 are the indicating spaces for the individual pupils, while spaces 13 are the indicating spaces for the entire class, that is, the spaces in which the appropriate indicators are to be removably applied to indicate for the pupil and the class for the subject defined by each particular space the desired facts, such, for example, as standings in connection with the particular subject. Spaces 11 and 14 are to receive numbered or lettered indicators to facilitate the reading of the chart.

The base 1 is formed in each of said spaces with an upstanding stud 16. These studs may be simply projections extending upwardly at right angles to the surface of the base and preferably arranged centrally of the particular spaces 4, 11, 13 and 14. A series of indicators 17 are designed for removable connection with these studs. These indicators are preferably flexible bodies, as rubber or the like, and formed with an opening extending through their lower surfaces of a size and character to grip the stud 16 when applied thereto and hold the indicator in position in the spaces 4, 11, 13 and 14, as the case may be, against casual displacement.

If will, of course, be understood that the indicators 17 may be in any particular outline or form, may be colored to indicate distinctive markings, or their upper surfaces may bear distinctive markings in order that the indicators may be readily distinguishable to the eye and may convey the desired information. The characteristic feature is the provision of an indicator in the form of a more or less flexible body which may be readily applied to or removed from an element forming a fixed part of the chart and which, when in position, will conceal that element, be held against casual separation therefrom, and clearly and distinctly indicate to the eye the fact which the particular indicator in its characteristic form, coloring or marking is intended to indicate.

The studs 16 may be merely pins fastened in the base or such studs, as indicated at 18 in Figure 3, may be headed, as at 19, to more securely grip the indicator; or such studs may be formed, as indicated as 20 in Figure 4, by cutting from the material of the base and bending up the solid portion to form an integral stud, or such studs may be formed, as indicated in Figure 5, by staples 21 forced through the base and forming a pair of studs 22, or such studs, as indicated in Figure 6, may present pins, indicated at 23, of comparatively large diameter as compared with that of the indicators, or studs similar to any of these may be cast as an integral part of the base.

The base proper may, if desired, be formed of, for example, a cardboard section 24 on which is secured a metallic base 25 with the various studs secured in or formed from such metallic section. Furthermore, the base as an entirety may, if desired, be formed in sections, as indicated at 26 and 27 in Figure 7, and clips 28 used to unite the sections into base-forming relation with the clips secured by screws 29 or other appropriate fastenings. This division into sections along vertical lines is to permit flexibility in the size and adaptability of a chart. The first section on the left (and, in large charts, possibly the first section on the right also) will be organized with spaces for names of pupils and other basic data, as illustrated in Figure 1. Additional sections to an indefinite number may then be added, these sections containing only vertical columns of spaces corresponding to 4, 11, 13 and 14, with provisions at the top for indicating the subjects to which these spaces are to be related. Thus basic data, such for example as pupil names, need be written but once in summarizing the data of many subjects—the number of subject divisions to vary according to the desire of the one using the chart.

It is, of course, to be understood that the chart of the present invention is designed for any and all purposes and that the various parts, divisions and record spaces may be formed as found expedient, the characteristic feature residing in the provision of pins or studs in the particular record spaces and the cooperation therewith of indicators of individual characteristics in order to graphically indicate a particular fact or condition for which the chart is arranged or designed.

I claim:—

1. A chart including a series of record spaces, each having an upstanding stud, and a series of flexible indicators formed with openings to engage said stud.

2. A chart including a series of record spaces, each having an upstanding stud, and a series of flexible indicators formed with openings to engage said stud, said indicators having individual characteristics to differentiate their record indication.

3. A record chart having a series of record-receiving spaces, each having an upstanding stud, a frame arranged vertically of said spaces to removably receive sections for indicating fixed data with respect to the spaces, a frame arranged above and transversely of the spaces to removably receive

sections carrying data controlling said spaces, and indicators including flexible bodies formed with openings to receive said studs, said indicators being individually distinguishable for different fact indications.

4. A chart including a series of record spaces, each having an upstanding stud, a series of flexible indicators formed with openings to engage said studs, said chart being made up of different sections, the first complete in itself, and each additional section supplementing the first basic section, thus permitting charts of different sizes to be organized to meet varying needs.

In testimony whereof I affix my signature.

GUY FOX. [L. S.]