Nov. 22, 1938. H. DE HAVEN 2,137,477

EDUCATIONAL PALETTE OR VALUE CONTROL PALETTE

Filed Feb. 15, 1936

Fig. 1.

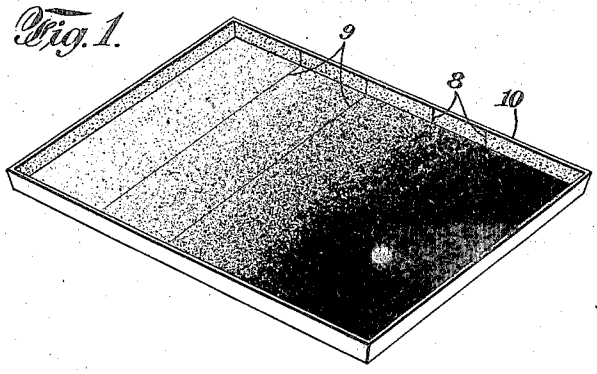



Fig. 2a.

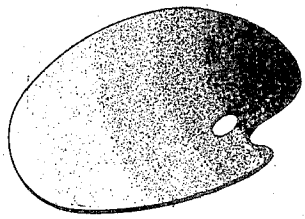


Fig. 2.

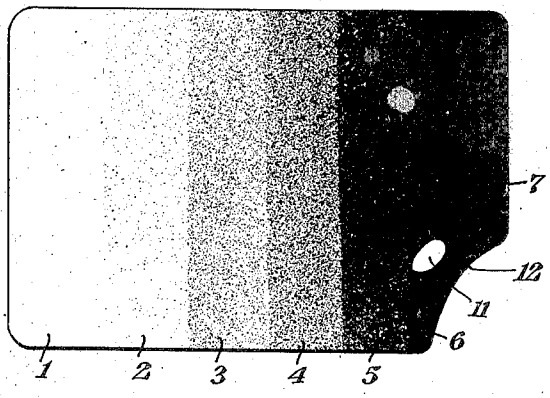



Fig. 3a.

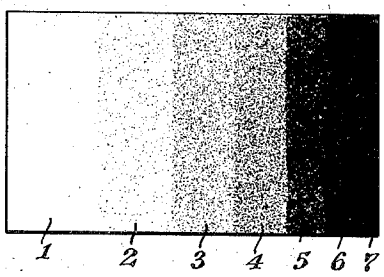



Fig. 3b.

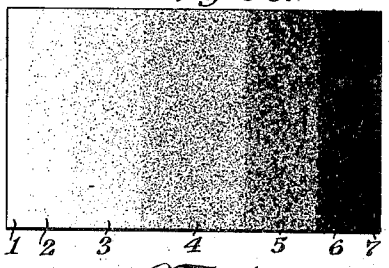



Fig. 3.

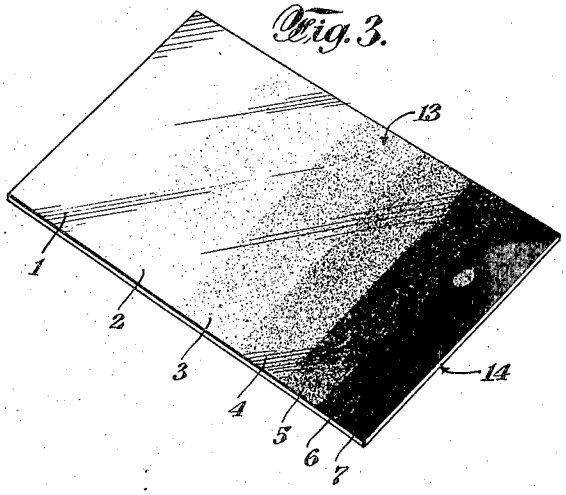
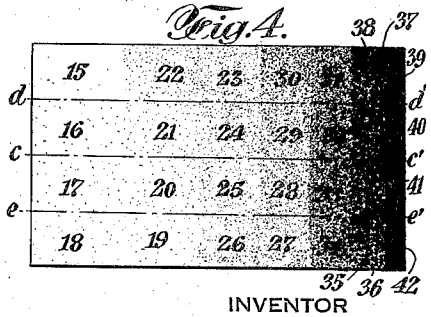



Fig. 4.




INVENTOR

Hugh de Haven

Patented Nov. 22, 1938

2,137,477

# UNITED STATES PATENT OFFICE

2,137,477

## EDUCATIONAL PALETTE OR VALUE CONTROL PALETTE

Hugh De Haven, New Canaan, Conn.

Application February 15, 1936, Serial No. 64,111

20 Claims. (Cl. 41—5)

This invention relates to painters' palettes or surfaces on which colors are to be mixed and their values determined.

The usual palette or surface upon which an artist mixes his colors has a definite color of its own, usually the color of the wood of which it is made. This is most often a red, brown or yellow tone which has, due to the natural law of contrasting color, a definite influence on the eye of the artist thereby conveying an effect into the colors mixed on such a surface.

Thus, against a common wooden palette of a reddish brown color low in value, all pigments mixed thereon will be influenced by the color contrast resulting from the reddish brown background or environment. But also and at the same time, these pigments will appear to have a higher or lower value while they are being mixed, due to the contrast in value caused by the background of the palette; except, and unless, these pigments happen to be of the same value as that shown by the surface on which they are mixed.

Also it is quite apparent that a white or black palette will influence the eye due to the contrasts set up and thus affect the apparent value of the color being mixed. Against a white surface anything other than white appears to be dark, and against a dark surface anything other than black appears to have more brilliance than it really has, due to the effect of contrast.

It is therefore obvious that, in the use of these usual types of palettes or mixing surfaces, no thought has been given as to whether the character of the background or surface of the palette is of advantage or disadvantage to the purpose for which it is to be used.

According to my invention I provide a painter's palette which will eliminate the confusion caused by color contrast and value contrast while mixing pigments thereon and at the same time reveal and emphasize the importance of values and facilitate their comparison and control.

It is also an object of my invention to provide a palette showing a surface that will be of assistance to an artist not only by eliminating misleading contrasts but also by providing fixed contrasts and shaded surfaces against which the contrasts and values he desires to use can be accurately mixed and judged.

The utility of such a palette in the hands of an experienced artist as well as the educational value of the same in the hands of a novice will be readily understood by one familiar with the problems involved in painting.

Thus, if a palette showed a surface of neutral middle grey, confusion to the eye due to color contrast would be eliminated because the palette or background is without color. At the same time this surface would afford the artist a middle value as a background for mixing his colors which would serve as a single value control.

For example, if such a palette were surfaced, or showed a surface, of neutral middle grey having a value of about 5 in the Munsell scale, any color or pigment mixed on this surface that did not look lighter or darker than the surface background would have a value approximating the value of the surface itself.

But, on this same palette, colors or greys having values higher or lower than this one, single background-value would seem to be brighter or darker than they actually were, due to the result of value contrast set up by the middle background against which they were mixed.

In order to overcome the confusion resulting from these contrasts, I propose to make a palette having a surface which exposes to the eye a plurality of shades of neutral grey thereby providing a shaded background affording the user a number of different degrees of surface brightness against which to mix and evaluate his pigments; the surface, at the same time, having no color to induce a color confusion due to color contrast.

According to my invention, in order to overcome the value-altering surface reflections and glare that result when a glass-like or glossy surface is used, the surface finish of the preferred form of my palette is mat-type and is such that there is no concentrated reflection of light therefrom.

An important feature of the invention lies in the arrangement of the values and the areas in which they are exposed: preferably only a small portion of the palette area is devoted to the lower values.

Another feature of the invention is a palette of the type described having a surface of a character to withstand damage when scraped with a palette knife and preferably one adapted for maintaining pigments in a condition to be used.

Further objects and advantages of the present invention will be apparent from the following description, reference being made to the accompanying drawing wherein preferred embodiments of the invention are clearly shown.

Fig. 1 is a perspective view of a mixing surface in the form of a tray palette having a raised edge.

Fig. 2 and Fig. 2*a* are plan views of mixing surfaces in the usual forms of palettes.

Fig. 3 is a form of the invention using a glass overlay as a mixing surface.

Figs. 3*a* and 3*b* show two sides of a shaded background for use under a transparent surface or otherwise.

Fig. 4 is a preferred form of continuously shaded surface affording all values as well as contrasts in values and a control scale.

The surfaces of these various palettes present areas of progressive shades or values preferably of neutral greys. The series of progressive neutral shades form a graduated scale upon which colors may be applied directly for comparison and evaluation. The surface may have a continuously progressive shading as shown in Fig. 1, but for general use it is considered more desirable to break or graduate the shading into bands of shades or values thereby forming a scale as shown in Figs. 2, 3, etc. This progression of values is represented in Fig. 2 by a white in band **1**, a very light shade of grey in band **2**, a slightly darker value of grey in band **3** and thus through the darker shades **4**, **5**, and **6** to band **7** which in the drawing is represented by black.

If scale markers are desired on a continuously shaded surface as shown in Fig. 1, they may be placed on the edge as indicated by **8** or by the unobtrusive lines **9**.

The banded and graduated form of surface scale shown in Fig. 2 is preferred for several reasons among which is that ready reference can be made, either mentally or physically, to a known and set value and departures made from that value as a fixed point.

The surface finish of the palettes is quite important for reliable working and for general use I greatly prefer that the surface be of a mat, eggshell or paperlike finish as it is obvious that a high gloss surface will assume lights and reflections that will give the surface a misleading value effect. Thus a transparent surface, such as glass or Cellophane, backed with a shaded surface becomes in effect a mirror in certain lights and assumes as many different values as there are different reflections on its surface. Constant care should be exercised to avoid misleading reflections when this type of surface is being used.

For this and other reasons the palettes shown in Figs. 1 and 2 are preferably of mat-finished vitreous enamel; but as this may be too expensive for student use, it is probable that a hard rubber, baked enamel or other surface exposing shaded areas for the purposes herein disclosed would be found satisfactory.

In order to further reduce the invention to inexpensive forms for student use, I propose to manufacture surfaces of paper or other inexpensive material which, though not durable in themselves, will serve the purposes of the invention when protected by glass or other suitable transparent material. As this embodiment of the invention is not a preferred form on account of the alteration of apparent values due to the high lights and reflections referred to above, it may be more desirable to treat some inexpensive surface such as cardboard, cloth etc. so as to make it resistant to oil or water or both and thereby obtain a very inexpensive surface, mat-like in finish and sufficiently durable for the desired purpose.

The palette may, of course, take many different forms. All the palettes may have a raised edge **10** thus forming a tray into which water can be poured for the purpose of preventing paints mixed thereon from hardening and drying where the user wishes to retain his palette in working condition over night or longer.

The surface of the palette shown in Fig. 2 has a thumb hole **11** and a cut away portion **12** and in this regard is similar to palettes in general use.

The surface shown in Fig. 1 has a border of continuous value, preferably a neutral middle grey, which serves as a control as well as emphasizing the contrast in light and shade where it adjoins the higher and lower values.

The palette shown in Fig. 3 is composed of a piece of glass or other transparent material **13** having a shaded background **14**. This background has two sides on which are disposed different arrangements of greys varying in value and in the areas in which these values are exposed. It is to be noted that in Fig. 3*a* which represents one side of the background shown in Fig. 3 more area is devoted to values **1**, **2**, and **3**, than to values **5** or **6** while on the side represented by Fig. 3*b* more area is exposed by value **2** than by value **1**, while in Fig. 2 there are constant progressive steps in both value and area moving from black to white.

It is apparent that, in the arrangement of the shading of a surface to be used for the purposes disclosed, it is preferable that more area should be provided for mixing certain tones or values than should be provided for others and it is evident that these areas and values should, in a measure, correspond to the general values to be used in painting. Sides **3***a* and **3***b* of the background shown in Fig. 3 give a choice of arrangements of value areas; the selection being dependent on the general key to be used in the painting. Surface **3***a* would naturally be selected for use in painting a picture in which the value plan or key indicated the predominating use of larger areas of the higher values and lighter shades while arrangement **3***b* would be more suitable for a painting in which the deeper values or tones were to require a larger mixing area.

The surface shown in Fig. 4 exposes a shaded sinuous band in which the shading is continuous and progressive from the area represented by white **15** through the darker shades **16**, **17**, **18**, **19**, and **20** and so on through the increasingly darker shades to area **42** which is represented by black. It will be noted that this band preferably decreases in width as the shade darkens and that sections of it are disposed against other sections to afford step-like contrasts to accent its shaded, gradual progress. The line *c*—*c'* cuts across the central area of the surface in such a way as to form a scale somewhat similar to the banded type of scale shown in Fig. 2. But in addition to the advantages possessed and described in reference to the palette surface exposed in Fig. 2, the sinuous band surface exposed in Fig. 4 has important advantages over the more simple, banded surface in Fig. 2. For example the lines *d*—*d'* and *e*—*e'* cut across areas of alternate contrast and the surface is disposed by these lines into a great number of useful, easily placed, transitional values other than those readily apparent along the scale line *c*—*c'*.

The importance and use of these transitional value areas and the means of fixing and denoting them will be readily realized by anyone experienced in the subtle progressions in color and value encountered in, for instance, figure painting or in painting as an example, sand, sky or

sea. It will be noted that a color can be mixed on the area shown at 20 and that a very subtle change of value, or of color and value, can be made by altering the color value to conform with the areas shown at 19 and 21, while stronger comparative, adjacent contrasts can be effected by evaluating the colors mixed to conform to the values disclosed in the general areas numbered as 16, 24 or 26.

Although it is apparent that the selection of an arrangement of the shaded areas of the background of the mixing surface would materially influence the ultimate tone of the colors mixed thereon and thus reflect this influence in the picture, the importance of having a complete, preconceived value plan before undertaking a color plan can not be overemphasized. In this regard it is interesting to note that many of the old masters painted their greatest works first in a neutral underpainting and thereby created a brilliant value design before applying any color. A photograph of a master work at this stage of its development would show all the values of the finished work after the color plan had been applied. It is this close attention to the fundamentals of light and shade that leave the elements of greatness in the works of many of the old masters long after the color plan has faded from the picture.

Experienced artists will utilize a palette of the type disclosed by adopting its inherent advantages to their individual requirements in the more advanced study and control of light in complementary, analogous and monochromatic color harmonies and contrasts, and each artist will find special uses and individual advantages according to his work.

On the other hand, its more obvious and primary advantages will be of use to form a basis of cooperative understanding between a teacher and his pupils.

As an example in demonstrating the importance of a fundamental value plan, a group of students can be given line sketches representing the same general scene. If the students are now asked to color the sketch according to their own ideas and resources, the average students will proceed to a color plan with very little thought as to a suitable or interesting plan in light and shade, or values. For instance, if the sketches outline a scene having water, trees, sky, grass and buildings, the student will usually set these elements of the sketch in their approximate colors, but very often the values will not be good and may even be so false that a photograph of the result would show as an almost even, flat grey. Such a picture will have to be worked over with great patience before the values can be adjusted and inter-related so as to give an interesting, brilliant effect.

In handling the same scene, an experienced artist will mentally or actually shade the scene, rendering it in regard to value and setting the light and shade while giving consideration to the color plan.

It is obvious that a color-value understanding is an essential part of competent painting and that this form of palette will contribute materially in assisting teachers not only in conveying to pupils the importance of the color-value relation but also in suggesting the best values to use to alter or obtain an effect.

It is apparent that a better understanding and control of color values can be maintained by mixing the colors against backgrounds having the approximate values desired than would be possible if the same colors were mixed on a surface exposing strong contrasts to the eye.

In the above description it will be noted that I use the term "palette" in a generic sense to designate the various implements employed by artists for holding the mixing paints and kindred uses that is the surface itself, apart from any paint receptacle and apart from any paints, shades, oils or the like which may be added to the surface by the artist in using the palette in his work.

Although the foregoing specification has disclosed and described several embodiments of my invention, it is obvious that many other specific forms and modifications may be made and it should therefore be understood that I desire the invention to be constructed as broadly as the following claims taken in conjunction with the prior art will allow.

I claim:

1. An artist's palette exposing paint receiving areas presenting progressive shades in successive areas.

2. An artist's palette presenting a progressively shaded area.

3. An artist's palette having a surface resistant to paint and presenting shaded portions varying in value and area.

4. An artist's palette having a surface presenting paint receiving areas of progressive shades commonly used in painting.

5. A palette surface exposing a sinuous band presenting different shades in different portions thereof.

6. A palette surface presenting a banded value scale in which the bands are shaded.

7. A continuously shaded neutral palette having marks thereon to graduate the surface into a scale for the purpose of evaluating colors, the shades between the marks being different.

8. A shaded background for evaluating pigments having shaded areas on different parts thereof, one part having greater areas devoted to shades of higher values and another part having lesser areas devoted to shades of lower values.

9. An evaluating surface exposing a progression in values and a progression in the size of the areas of value exposure.

10. An evaluating surface exposing shades and areas of grey arranged to provide the greatest areas for the values between the extremes of values.

11. An artist's palette comprising a visible shade or value scale and a surface resistant to paint protecting the scale whereby paints may be mixed directly on the surface while surrounded by a predetermined shade or value.

12. An artist's palette comprising a surface resistant to paint and presenting a progression of visible values whereby pigments can be mixed with the progression of values as backgrounds to control the values of the pigments mixed on the surface.

13. A palette surface resistant to paint exposing to the eye a series of neutral shades as background areas upon which paints can be mixed and the values compared.

14. A painter's palette having a surface resistant to paint and presenting progressively dark bands of neutral values adapted to receive deposits of paint on said bands whereby said bands form backgrounds upon which paint may be simultaneously mixed and evaluated.

15. An artist's palette comprising a body and a surface resistant to attack by paints placed

thereon, said surface presenting to the eye areas of different values forming a value scale whereby deposits of paint may be placed on the surface within said areas and the paint compared as to value.

16. A palette having a shaded band exposed thereon said band being longer than the said palette and bending back near the edges of the palette to form adjacent portions of the band.

17. A palette presenting to the eye a progressively shaded area said area being cut by a line to form a value scale presenting different values.

18. For use with an artist's palette, a sheet of flexible material having on one surface thereof areas of different values forming a value scale, said sheet being adapted to be attached to said palette so that colors may be mixed over and compared with said value scale.

19. An evaluating surface exposing shades of grey in which any lighter shade occupies a greater area than a darker shade.

20. A palette having a shaded band thereon exposing a progression of values, said band decreasing in width as it decreases in value.

HUGH DE HAVEN.