- 11, 12, 13. Explain the nature of the simultaneous contrast of colours, and the double modification juxtaposed coloured surfacos undergo.
- 14. What is observable when complementary hues of colour are viewed in juxtaposition?
- Describe the effect of the complementary colours Yellow and Purple.
 Are colours in juxtaposition equally en-vicible when the statistical description of the statistical sta
- riched when a tint is placed beside a full hue of its complementary? Name the law in this case
- 17. What effect has the simultaneous contrast on inharmonious hues? Are Purple and

- on inharmonious hues? Are Purple and Blue enriched by juxtaposition?
 18. What effect has the Purple on the Blue?
 19. How is the Purple changed by its contiguity to the Blue?
 20. What effect has the interposition of White?
 21. How is colour affected when it is placed on a White ground?—And why?
 22. Describe the offect of colour placed on a Black ground.
 23. Why should colours which have a luminous
- 23. Why should colours which have a luminous
- complementary not be opposed to Black grounds?
- 24. Describe the effect produced on a Black ground by the introduction of Blue forms upon it.
- 25. Why does the introduction of Orange rendor a Black ground more intense?

- 26. What colours should be opposed to cold. noutral grounds? 27. Why are Red and Groy agreeable in com-
- bined arrangements? 28. What is the effect of Grey in juxtaposition
- 29, 30. What harmonious arrangements may
- be formed with the various classes of colours and Grey ?
- 31. What offect has Black in combined arrangemonts with the primaries? 32. What classes of harmonious arrangements
 - may be formed with Black and the vari-ous hues and tints of colour?
- 33. How should we treat coloured ornamental forms on a ground complementary to thom?
- Why is it necessary to border such forms with a lighter or darker tint?
 Why is this especially necessary with full hues of Red and Green?
 How should we treat luminous comple-mentary forward on a dark second?
- mentary forms on a dark ground? 37. Should the same treatment be followed with dark complementary forms on a light ground?
- Do these laws refer to self-tints also?
 Do these laws of simultaneous contrast agree with the Oriental and Mediæval practice?
- 40. How did the Oriental and Mediæval artists treat Gold, in respect to colour?

SECTION III

BEFORE concluding this short Catechism of Colour, it is necessary to add a few remarks on other varieties of combination, and on the harmonies of tints and shades.

The simplest arrangements of colour, combinations of the primaries and secondaries in their perfect state as full hues, are those which are most obvious and perhaps most commonplace, and were those used in the earliest ages, as well as at present among the least cultivated races of mankind. Yet even these combinations, to be perfectly harmonious, require great skill in their distribution, otherwise their characteristic simplicity speedily degenerates into coarse vulgarity.

The relative numerical value of full hues of the primary, secondary, and tertiary colours, both to each other and to their complementaries, has already been given. (See 16-20, 33-35, Sect. I.)

1. But there are many other combinations of great refinement, and which are productive of the most beautiful effects when skilfully treated :

2. Such are those of mixed hues, of tints, and of shades, either separately or combined. Gradations of tint, shade and hue, must be numerous, according to the power of perceiving them; and this power greatly varies in different individuals. Much of the refinement of colouring depends on a keen and delicate perception of gradations. Those totally unused to study the refinements of colour in Nature or ... Art rarely go beyond the perception of the primary and secondary hues, with two or three tints or shades of each; while it is possible that between White and either of the darker primaries a hundred tints might be plainly discernible by those skilled in the choice of colours, since they certainly distinguish tints of colour which are wholly imperceptible to others. To the painter and ornamentist the study of gradations is of the greatest importance.

3. Combinations of the mixed primaries (primaries slightly tinged with other primaries, see Sect. I. 29), with secondaries of different numerical proportions to those which form them in their perfect state (see Sect. I. 18-20), require a nice sense of relation, and in the present state of the science of colour depend more on the educated eye, or a fine organisation, to regulate their harmonies, than on any fixed rules of proportion. In the harmonies of tertiary hues as well as of tints, or of tints and hues, some of the most refined and beautiful arrangements will be found. Field tells us ("Chromatography," p. 149) that "the infinite variations of tint, hue, and relation, of which the tertiaries are susceptible, and which actually occur in nature, give a boundless license for the display of the