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G03C 5/02

(52) UK CL (Edition J)
G2X X35

(56) Documents cited
GB 0465961 A US 4529301 A
A. Holloway, "Handbook of Photographic Equipment
and Techniques" 1981, Pan Books, p 182

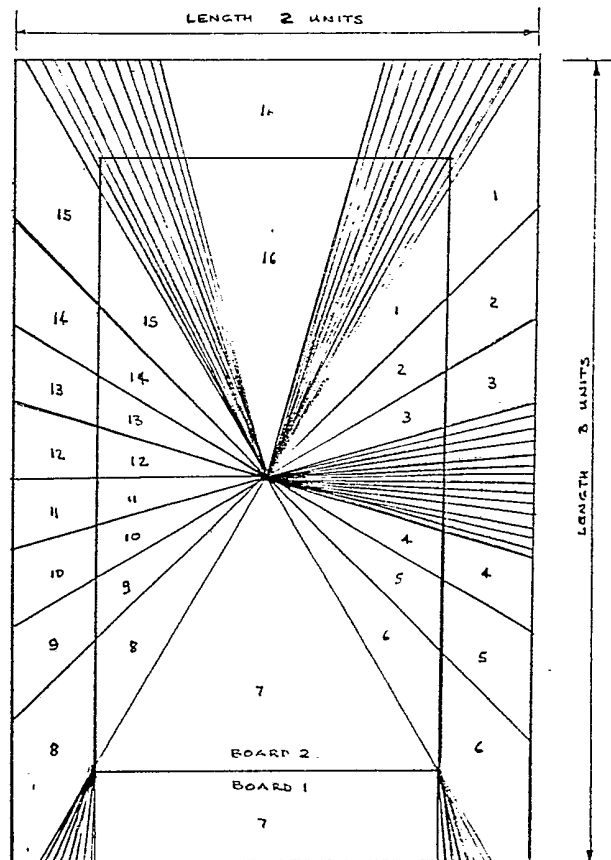
(58) Field of search
UK CL (Edition J) G2X X35
INT CL' G03C

(54) Colour comparison chart for photographs

(57) The colour comparison chart is a plain rectangular white card on to which colours 8-16 and shades of grey 1-6 are painted in segments from a central point to the edge of the chart, the chart consisting of an inner area, board 2, and an outer frame, board 1, which may be used separately.

The chart is photographed noting all technical details marked at 7 on the base of the chart prior to exposure. The test photographs are now applied to the centre of the chart and because the colours of the test chart and photograph all go to a central point, then the colour segments on both will line up exactly thus ensuring easy comparison of all colours simultaneously.

The photograph with the best colour match is the one that is correctly exposed. Technical details can be read off the bottom of this photograph and used for future exposures.



3 : 2 SIDE RATIO

BOARD 1 & 2

FIG. 3.

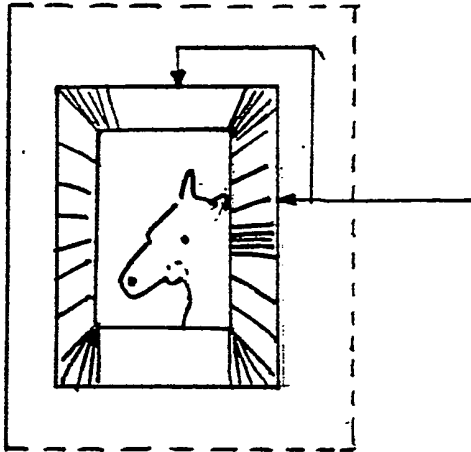
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APPENDIX TO DRAWINGS

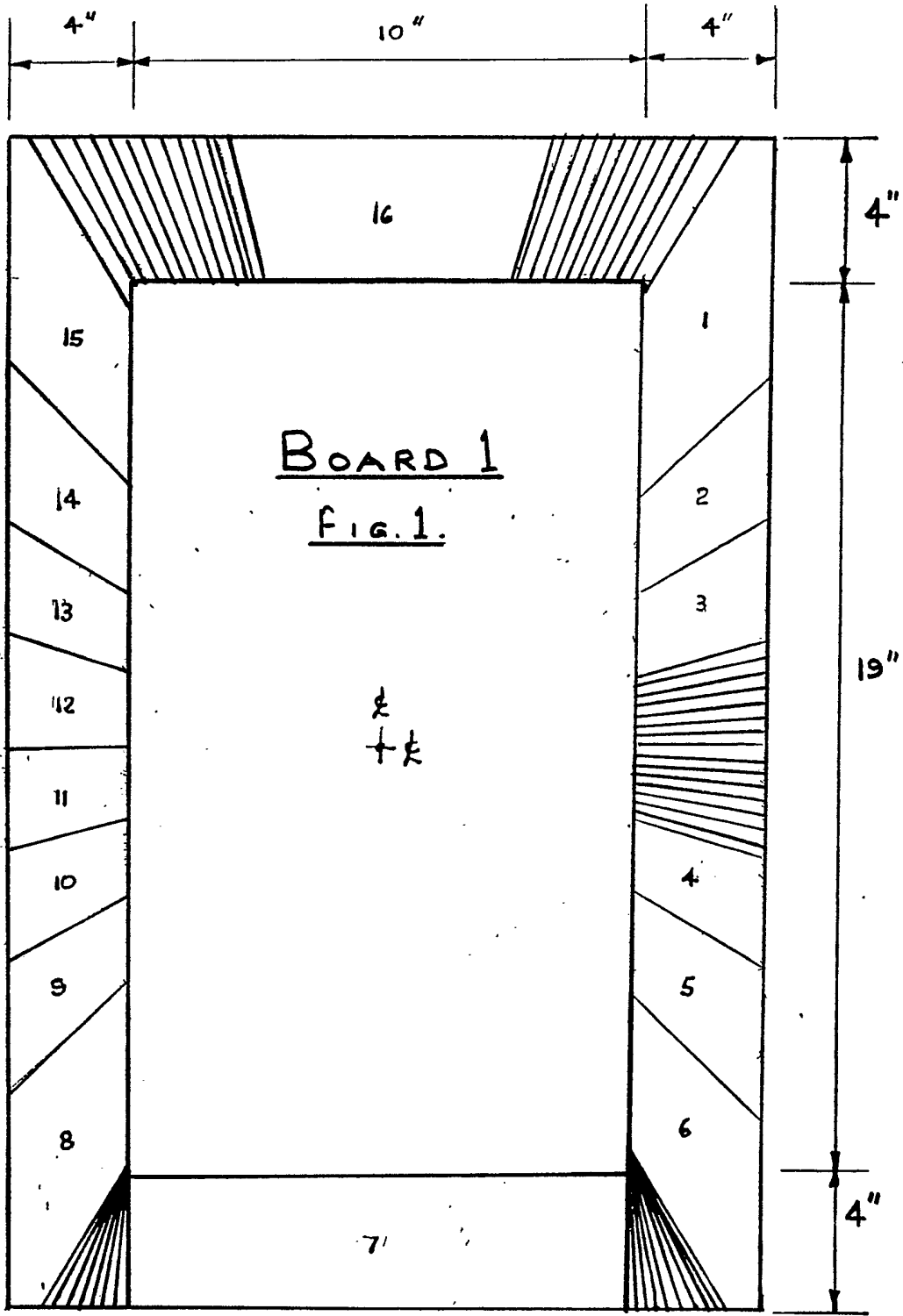
COLOUR SECTOR REFERENCE

Sectors 1 - 6	Shades of grey. Matt black to pure white.
Sector 7	Wipe clean area for exposure details
Sector 8	Violet
Sector 9	Indigo
Sector 10	Blue
Sector 11	Green
Sector 12	Yellow
Sector 13	Orange
Sector 14	Red
Sector 15	Brown
Sector 16	Standard Grey

Note: Colours may alter position but principle of patent holds.

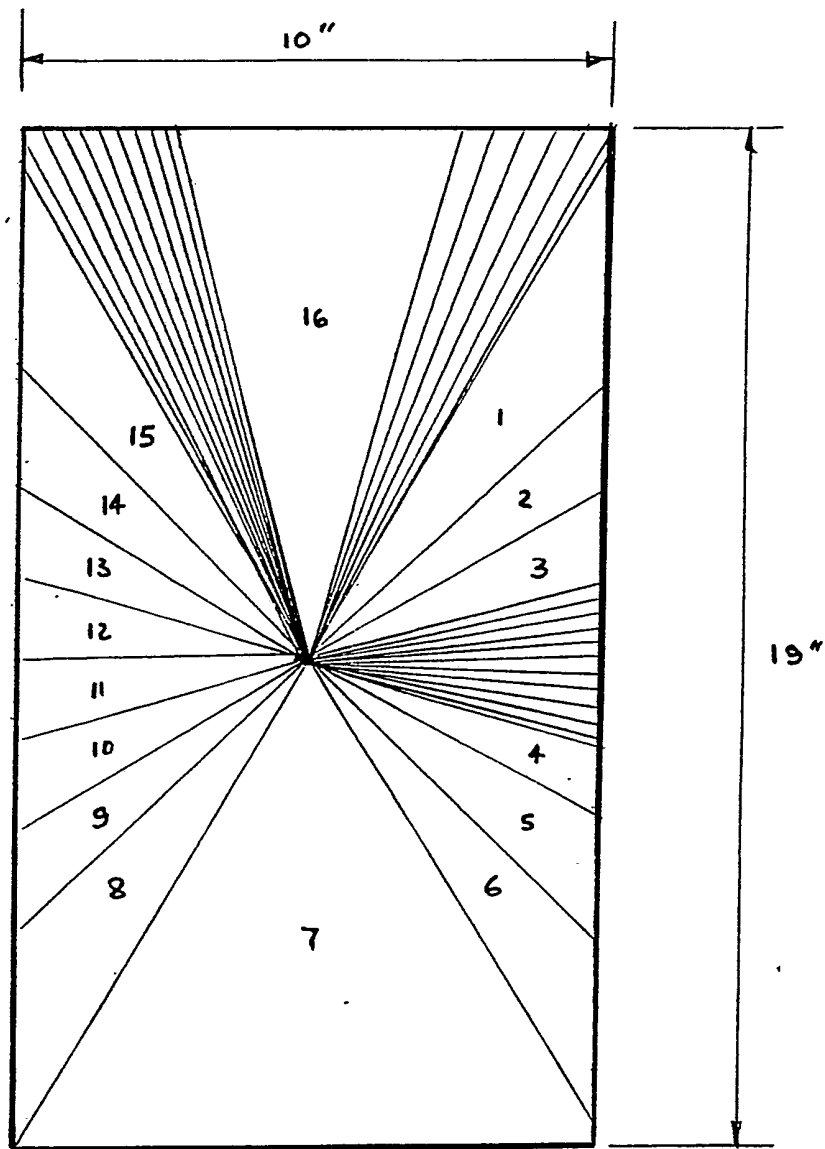


CUT PHOTOGRAPH - TRIM TO
FRAME EDGE AND PLACE ON
BOARD 1 & 2
MATCH COLOURS OF PHOTO
TO ORIGINAL TEST CHART

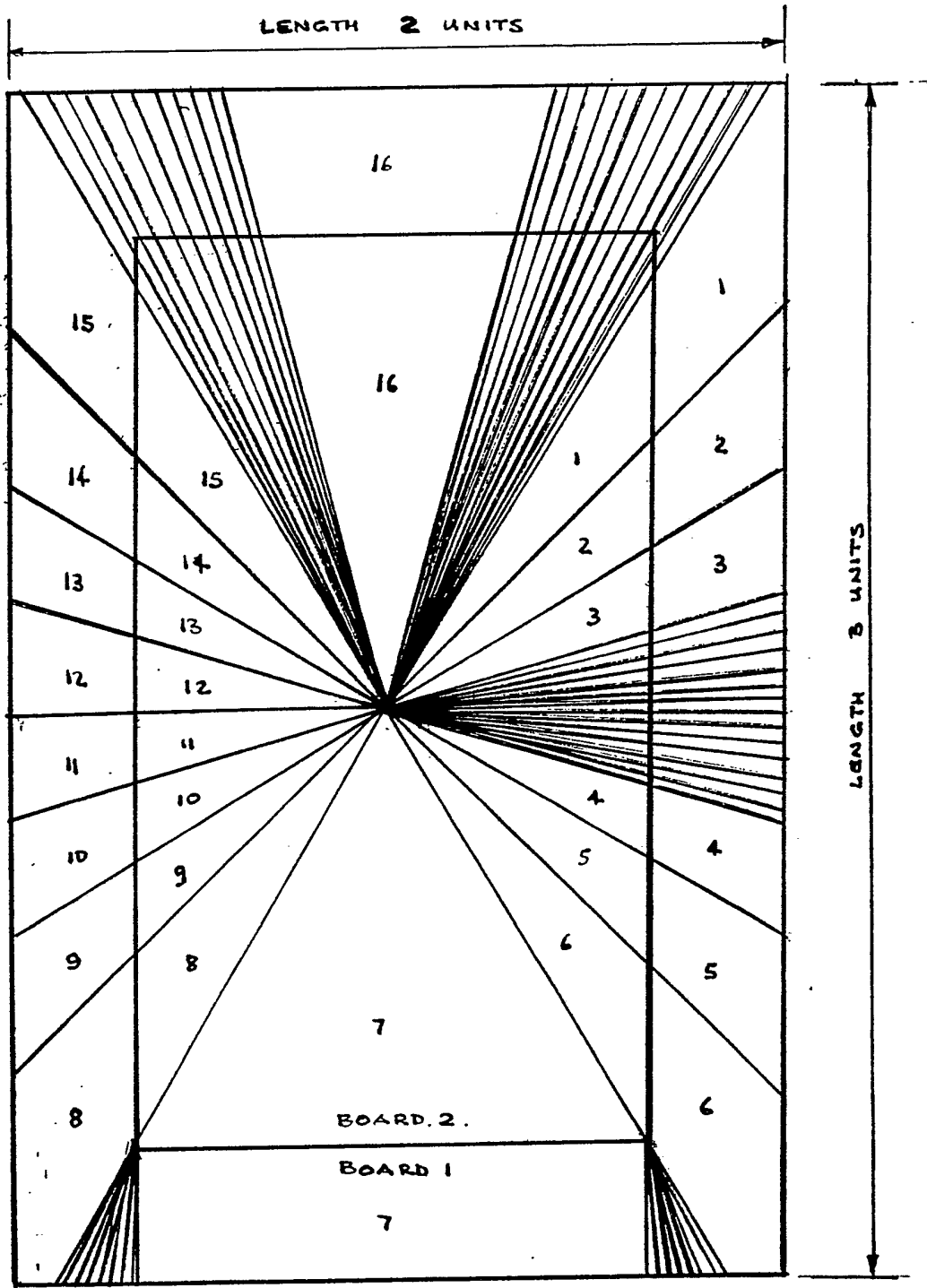


BOARD. 2.

FIG. 2.

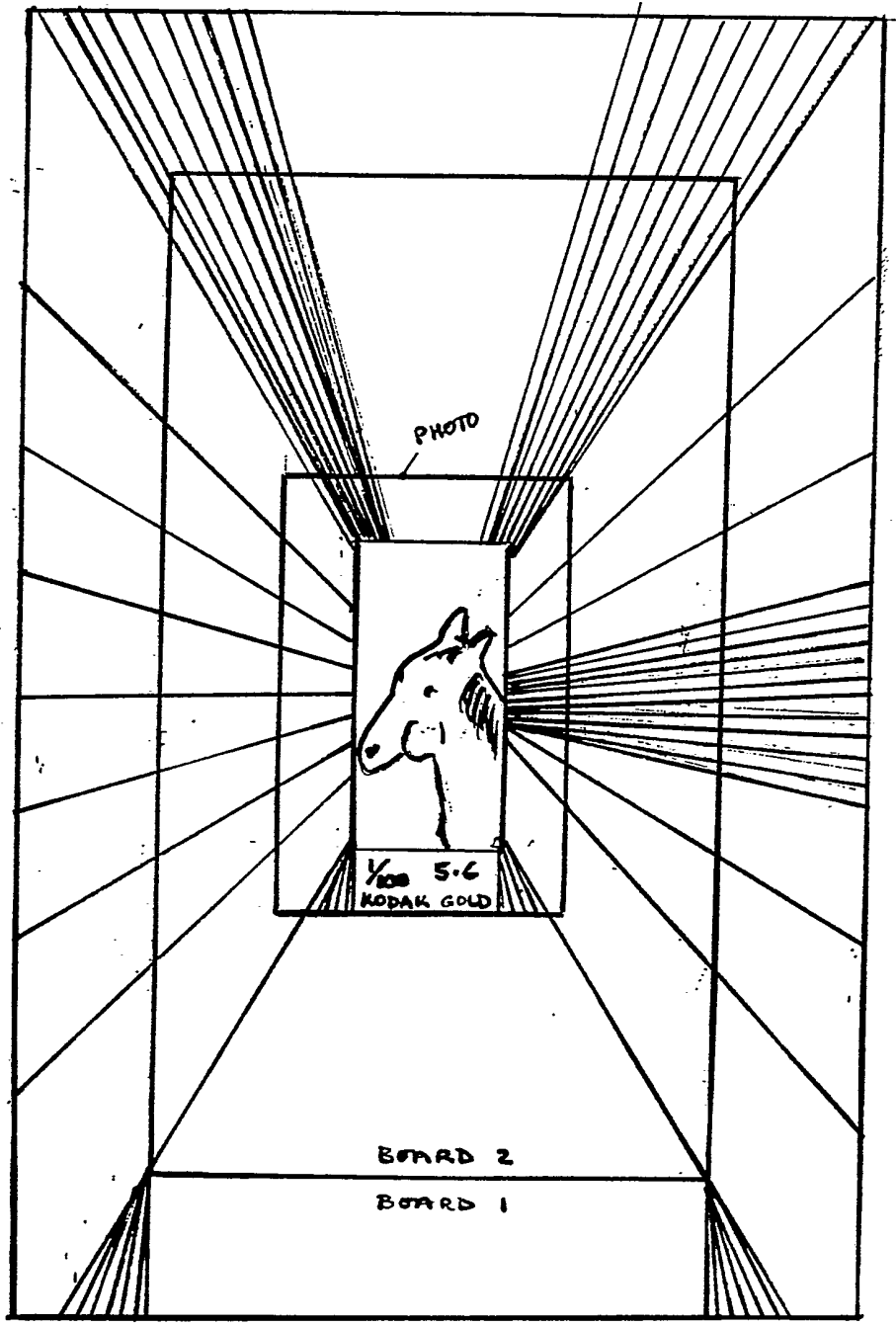


SECTOR COLOURS MATCH
UP TO BOARD No. 1.



3:2 SIDE RATIO
BOARD 1 & 2
FIG. 3.

FIG. 4.
PHOTO PLACED ON BOARD 1 & 2



This invention relates to a Photographic Print/Slide Comparison Chart.

This chart can be used by printers or photographers in assessing the reproduction efficiency of their photographic films or printing papers in both colour and monochromatic work when examined against the Comparison Test Charts.

The photographic industry produces many different types of films and papers for both colour and monochromatic work which lose the accuracy to reproduce identical colour matching through either inconsistent exposure in the camera or in the subsequent development of the photographic material.

Charts are available for testing lens performance but not for laboratory colour matching efficiency.

PRINCIPLE

THE PRINCIPLE OF THE INVENTION USES GRID LINES RADIATING OUT FROM A CENTRAL POINT TO THE EDGE OF A BOARD WHICH IS COLOUR GRADUATED.

ANY PHOTOGRAPH TAKEN OF THE ORIGINAL BOARD LAID ON TOP OF THE SAME, WILL MATCH UP EXACTLY THE GRID LINES AND COLOUR SEGMENTS.

The Photographic Print/Slide Comparison Chart takes the form of two pieces of flat board/card/plastic numbered 1 & 2 which are used as follows:-

Board 1 (See Fig. 1) Construction

Board 1 is shaped like a picture frame with primary colours and shades of grey painted around the frame structure like a colour chart from a paint manufacturer.

Other stripes are filled with grid lines of various size and shape for testing photographic lens efficiencies.

The side ratio is that of 3:2 to match the format of a 35 mm negative.

Method of use:-

The frame is held over the subject matter, which could be human, to assess accurate skin tones or other matter where colour prints must be produced and colours and shades matched to the original.

The subject matter can now be photographed using various exposure settings and the film processed normally.

Before each exposure the camera/flash and lighting equipment settings are marked clearly on the wipe clean area at the base of the Board 1 frame so that each test photographic print will show as a permanent record the basis on which the photograph was taken.

A series of test prints are now made and available for comparison to the matching colours of Board 2.

Whilst the Board 1 size corresponds to a side ratio 3:2 which is 35 mm film format any camera and print can be used provided the whole of Board 1 frame is in the picture - the print can then be trimmed to the edge of the Board 1 frame and used on Board 2

Board 2 (See Fig. 2) Construction

Board 2 is constructed of the same material as Board 1 and is rectangular in shape to exactly fit into the hole in the frame of Board 1 like a jigsaw piece.

From a point central in Board 2 colours are radiated out in segments to match up with the colour bands in Board 1 (similar to the construction of a Dart Board - but rectangular in shape).

Board 1 & 2 Method of Use

Board 1 & 2 are now placed together on a flat surface, Board 2 in Board 1 (see Fig. 3) and the colour/shade comparison chart is now ready for use. Any print of any size that has been trimmed down to the frame of Board 1 shown on the photograph (see Fig. 4) can now be placed centrally on Board 2 and the colours on the print matched to the colours of the original.

Because the presented test print when trimmed will have a side ratio of 3:2 any size print up to ratio of the physical size of Board 2 can be compared.

Board sizes can be limitless dependent upon demand provided side ratio remains 3:2.

Should special boards of specific size be required then the principle of the invention holds.

Apart from the advantage that any size print can be compared with the colours and shades of the original Board 1, the additional, if not prime, advantage would be that the colour of the "briginal" subject in the frame can now be accurately matched provided the combined frames match in colour and shade saving time and money in printing inaccurate reproductions.

Note on Board 1

Board 1 can also be used for testing slide films by use of the inventors photographic slide of Board 1 and then projecting the original and the test slide through a projector onto a screen for comparison - the principle of the invention holds.

CLAIMS

- 1 The colour comparison chart comprises a card on to which specified colours and shades of grey are printed for the testing and comparison of various films of different manufacture.
- 2 The colour comparison chart as claimed in Claim 1 is capable of ensuring that the reproduced colour image of the subject being photographed is accurate by comparison of the colours on the chart Fig. 1 to the colours of the photograph.
- 3 The colour comparison chart, as claimed in Claim 1 & 2, is capable of testing the performance of cameras, lenses and electronic flash equipment.
- 4 The colour comparison chart, as claimed in Claim 1, 2 & 3, is capable of testing the performance of both colour print, colour slide and black and white films.
- 5 The colour comparison chart as claimed in Claim 1, 2, 3 & 4, is capable of setting a 'standard' against which all photographers and photographic laboratories can use to provide consistent results.
- 6 The colour comparison chart substantially as described herein with reference to Fig. 1 & 2 of the accompanying drawings.
- 7 The colour comparison chart can be used by method as shown in Fig. 3 of the accompanying drawings