

937.603



# PATENT SPECIFICATION

NO DRAWINGS

937.603

Date of Application and filing Complete Specification Aug. 4, 1962.

No. 30086/62.

Complete Specification Published Sept. 25, 1963.

© Crown Copyright 1963.

Index at acceptance:—Class 106(1), B5(G28:GX).

International Classification:—G06g.

## COMPLETE SPECIFICATION

### Perspective Drawings—Apparatus for Locating Measuring Points

I, JOHN ANTONY DUNKIN WEDD, of Tye Cross, Chiddingstone, Edenbridge, Kent, a British subject by birth, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

A known method of obtaining correct foreshortening is by way of intersecting lines to measuring points and vanishing points. Constructions for locating these have been published, and correspond to the formulae  $m = \frac{1}{2} \cdot 3 \frac{1}{2} \cdot p (\operatorname{cosec} a - \cot a)$  and  $v = \frac{1}{2} \cdot 3 \frac{1}{2} \cdot p \cdot \cot a$  where  $m$  and  $v$  are the off-centre distances of measuring and vanishing points,  $p$  is the picture width for a  $60^\circ$  angle of view, and  $a$  the angle between the picture plane and the line to be foreshortened.

An instrument for solving these equations consists of a cylinder with a transparent sleeve free to slide along or rotate around it. Marked circumferentially on the cylinder are:—

- (1) A line indicating picture width,  $p$ .
- (2) A linear scale giving the angle,  $a$ .

The sleeve is marked lengthwise with a logarithmic scale. This is slid lengthwise along the cylinder to register the correct value for  $p$ , and rotated around the cylinder to register the correct value for  $a$  on the angle scale. It then indicates distances for  $v$  and  $m$  opposite

(3) Two curves marked on the cylinder, crossing at  $a = 60^\circ$ .

The instrument may be varied or extended as follows to accommodate alternative input or additional output data:

- a. Duplication of the graph and logarithmic scale in respect of other vanishing points.
- b. Addition of curve or curves to give distance between vanishing points.
- c. Additional curve or scales to indicate position of  $45^\circ$  vanishing point or other diagonals.

#### WHAT I CLAIM IS:—

(1) A calculator for determining measuring and vanishing points in perspective drawings comprising a cylinder on which an angle scale is marked circumferentially and on the surface of which is inscribed a first curve given by

$$v = \frac{1}{2} \cdot 3 \frac{1}{2} \cdot p \cdot \cot a$$

and a second curve given by

$$m = \frac{1}{2} \cdot 3 \frac{1}{2} \cdot p \cdot (\operatorname{cosec} a - \cot a)$$

where  $a$  is the angle between the picture plane and the line to be foreshortened, and  $p$  is an arbitrary picture width; and a transparent cylindrical cursor on which is marked a logarithmic scale.

(2) A calculator substantially as herein described.

J. A. D. WEDD,  
23 June 1963.

Leamington Spa: Printed for Her Majesty's Stationery Office by the Courier Press.—1963.  
Published at The Patent Office, 25, Southampton Buildings, London, W.C.2, from which copies may be obtained.

[Price 4s. 6d.]