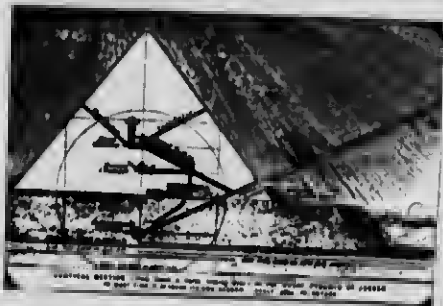
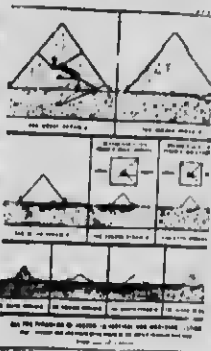
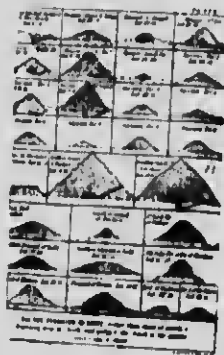
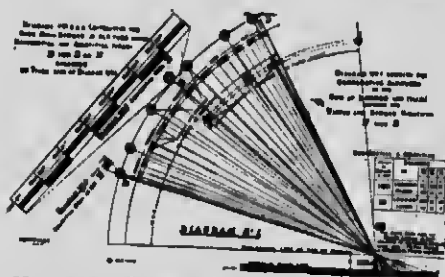


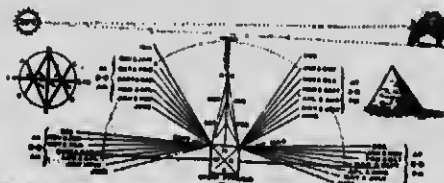
(Plate "P") SECTIONS of EGYPTIAN PYRAMIDS with DIAGRAMS of their Observatory Tubes, Shadow Floors, and Lengths of the shortest final Shadows



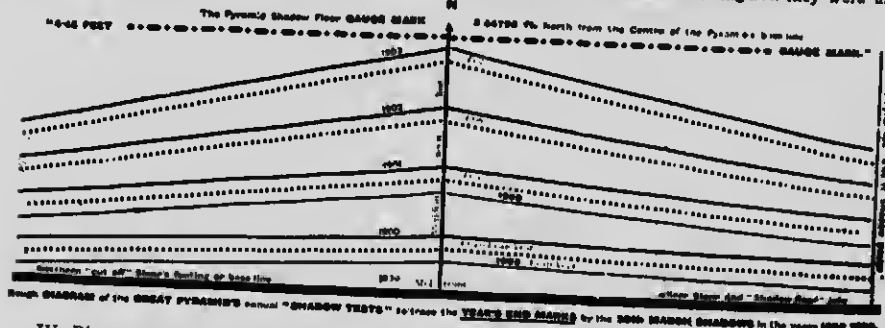
I. Vertical Sections of PYRAMIDS showing their North-pointing Tubes, used as telescopes to locate stars.



II. Diagram showing how the Sun's noon-rays at the Equinoxes indicated the Slope for Pyramids from their mid-point of Seasonal Elevations between Mid-Winter and Mid-Summer (shown for London and Cairo) as the Sun crosses the Equator thus:



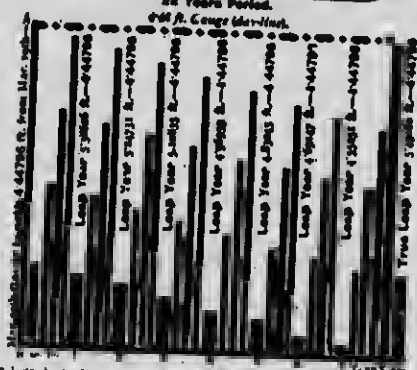
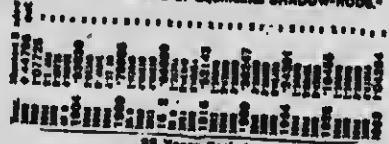
III. Seasonal Ray-lines of Pyramid Shadows, roughly diagrammed for the months, and the Season-dividing points, "Quartering the Year."



IV. Diagram of the Great Pyramid's "Day-gauge" of 4.45 feet, showing the differing lengths of the Shortest-noon Shadows measured on the Meridian Floor-line during 10 successive years. They repeat approximately in 32 year-periods (as indicated by Fig. VI), but more precisely in 128 years.

V. VERTICAL SECTION of the GREAT PYRAMID showing the Observatory passages (used as telescopes) and secret chambers for storing records. But the most significant feature is the "Shadow-floor" purposely levelled on the North side—shown to the right—on which the Meridian-Line extends to the end of that ledge where the longest but feeblest Noon Shadows every day near the "Shortest Day" are too vague for observers to thereby find the Year's length

VI. TABLE of SHORTEST YEARLY SHADOW LENGTHS cast from the GREAT PYRAMID, shown in a proportional "SCALE of Equatorial SHADOW-RODS."



3' 8 days + the fractional day length of the rod = leap year's length. 3' 8 days + the fractional day length of the rod = ordinary year's length. See Pyramid description, Plate 2, for photographs of Meridian Rods "in situ," showing how they were used.