

Fig. 5: Geometry, Hartmann

"The first simplification we may make (see Danjon et Couder, 'Lunettes et Télescopes,' p. 507) is to dispense with one of the plates, and to substitute for it the diaphragm itself (at s_2). Since we have constructed the diaphragm with reasonable accuracy, we know immediately the values of a_2 , or the separations of the two holes corresponding to the given zone. a_2 is then the distance of the diaphragm from the pinhole, or, with sufficient accuracy, the radius of curvature of the mirror. Thus, it is sufficient to take only one plate, inside focus, and to compute once and for all the factors a_2/a_2 , by which the separations on the photographic plate, a_1 , must be multiplied to give the distance from the plate to the intersections of the rays with the optical axis.

For Fixed Source:
Source & Reflected
Rays Are
Not Coincident
Not Similar Triangles
d1 = d2*a1/a2

