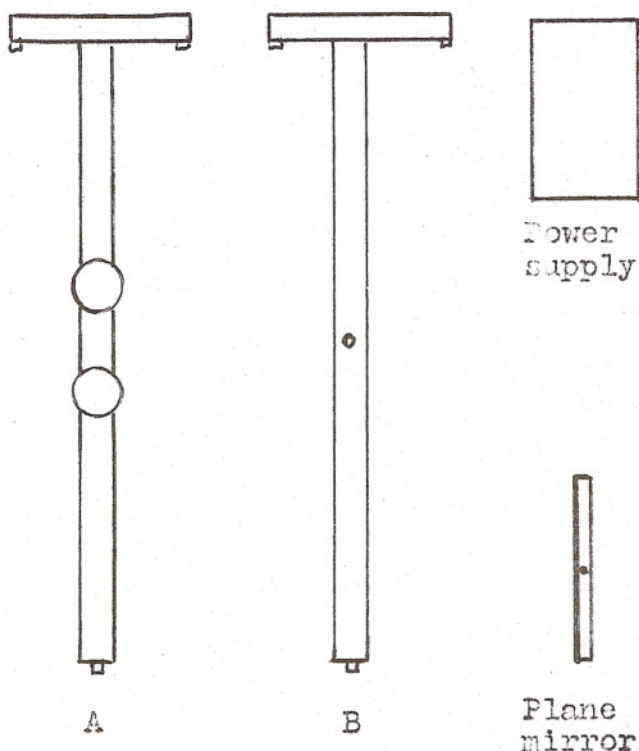


A & B: E-6 End
All Else: L-3 S-1

1A (10-ft)



Hang power supply at extreme left end of rod below chalkboard. Hang support A from the two rods, slightly to the right of the power supply, and support B approximately 60 cm to the right of A. Mount the plane mirror on support B. Darken the room as desired. (The darker the room the better the light rays show up, but some light is helpful in seeing the apparatus.)

Although the lecturer will probably wish to improvise frequently, the following basic demonstrations are suggested:-

1. Shine on the mirror a single ray as indicated in Fig. 1 (see back of sheet), rotate the mirror into several positions, and note that for each position the angle of reflection is equal to the angle of incidence.
2. Using two rays (from S_1 and S_2) which cross appropriately before striking the mirror, as indicated in Fig. 2, observe the virtual, erect image formed behind the mirror, and note that the image is the same size as the object and the same distance behind the mirror as the object is in front.
3. Shine on the mirror a divergent beam nearly filling the mirror as indicated in Fig. 3, rotate the mirror into several positions, and note that for each position the divergent reflected beam forms a virtual image as far behind the mirror as the object (S) is in front.

