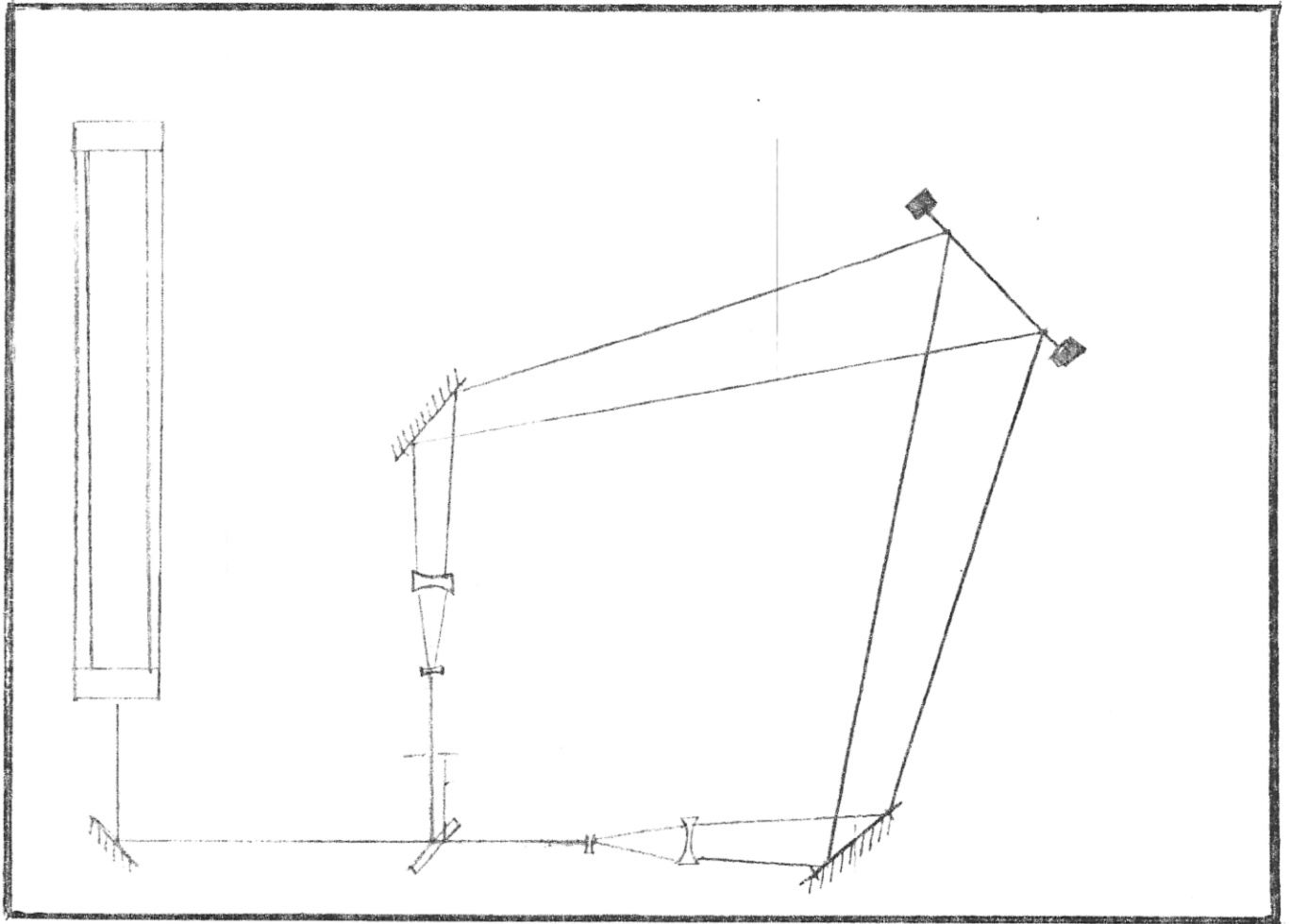


Diffraction Grating Set up



notes

THE ANGLES AT WHICH THE BEAMS HIT THE FILM HOLDER ARE NOT CRITICAL UNLESS YOU ARE INTERESTED IN A SPECIFIC SPATIAL FREQUENCY. HOWEVER, IT IS VERY IMPORTANT THAT THE BEAM PATH LENGTHS ARE THE SAME FOR THE SHARPEST INTERFERENCE FRINGES.

set up steps

- I. PUT SMALL MIRROR AT LASER EXIT TO LET LIGHT RUN ALONG EDGE OF TABLE.
- II. PUT BEAM SPLITTER IN BEAM PATH ABOUT A THIRD OF THE WAY DOWN THE TABLE.
- III. PUT DOWN TWO BIG MIRRORS EACH THE SAME DISTANCE FROM THE BEAM SPLITTER.
- IV. PLACE FILM HOLDER AT A POINT THAT IS EQUIDISTANT FROM BOTH MIRRORS.
- V. SPREAD BEAMS WITH LENSES.
- VI. TAKE EXPOSURE READING WITH BOTH BEAMS HITTING THE LIGHT METER.
- VII. EXPOSE AND PROCESS THE FILM.