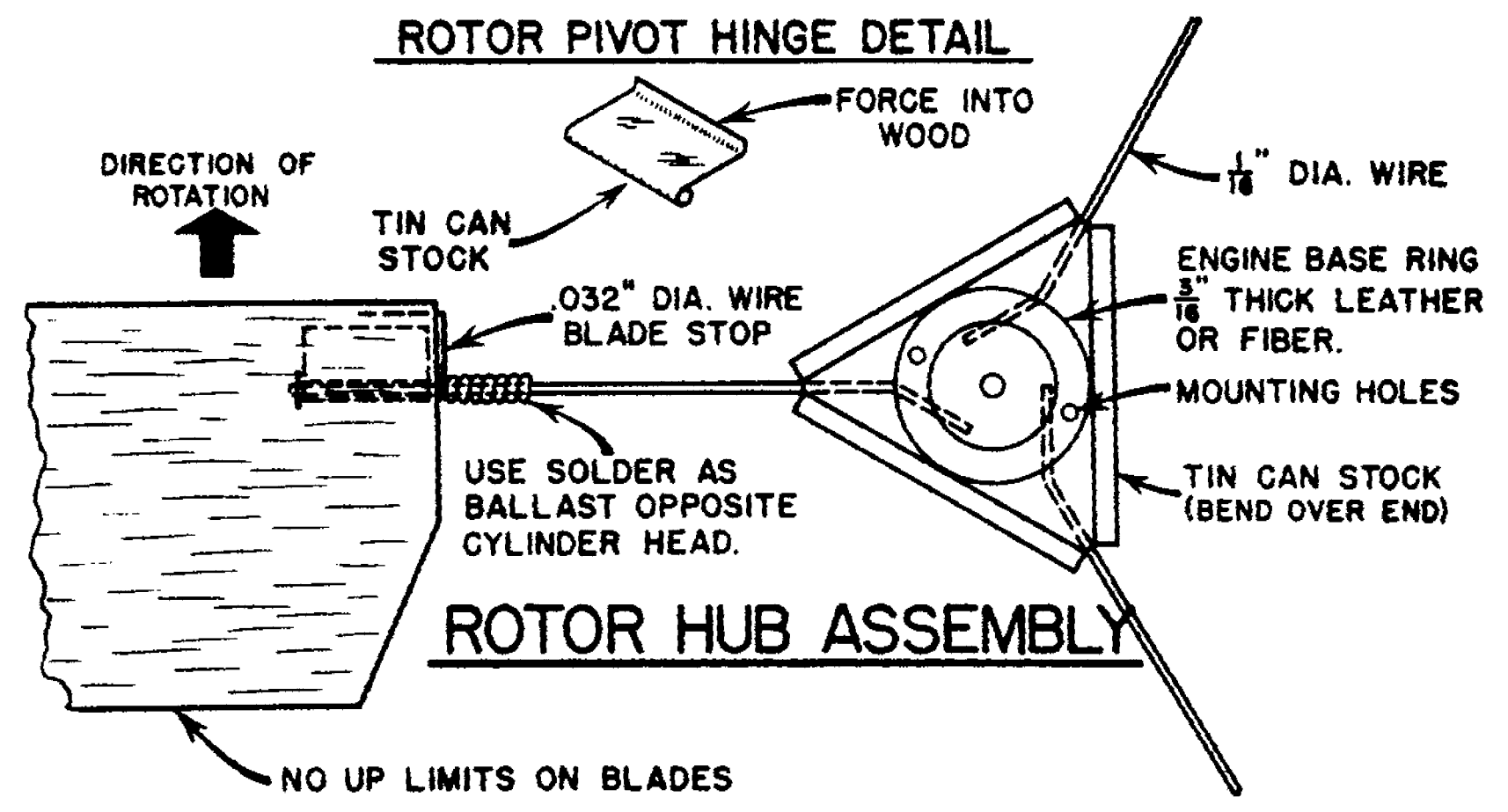
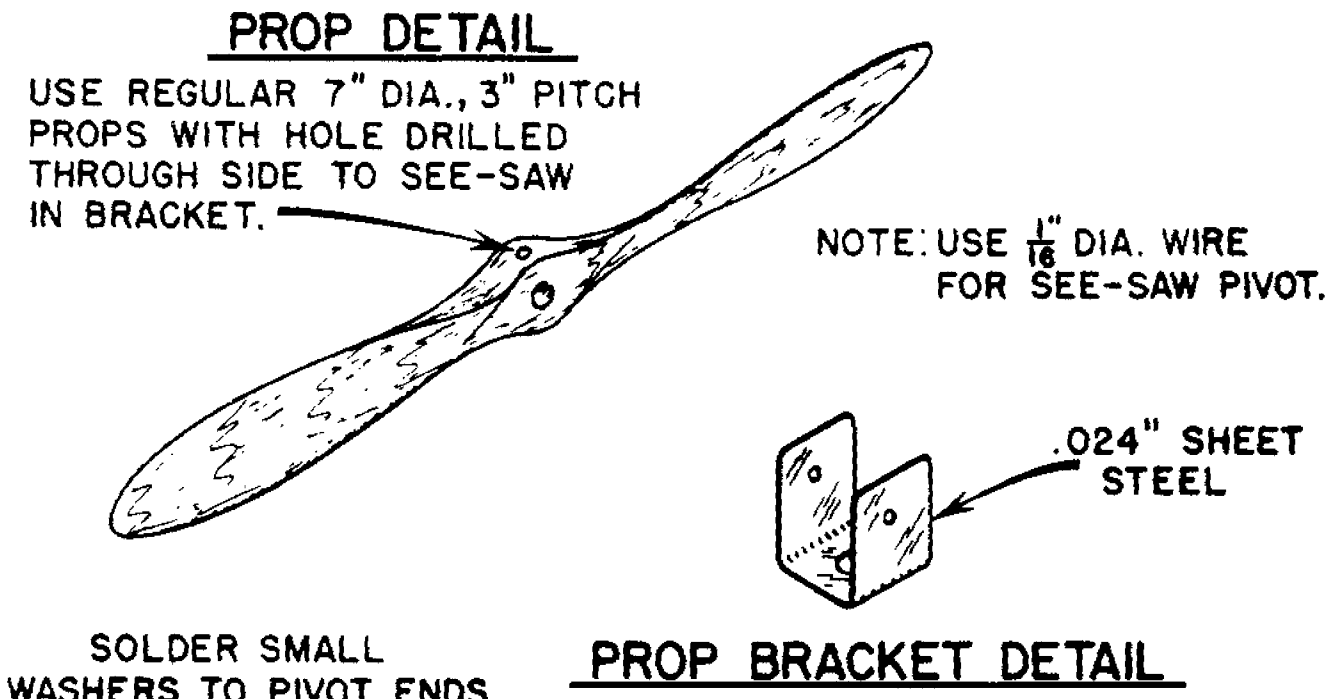


HOW IT WORKS

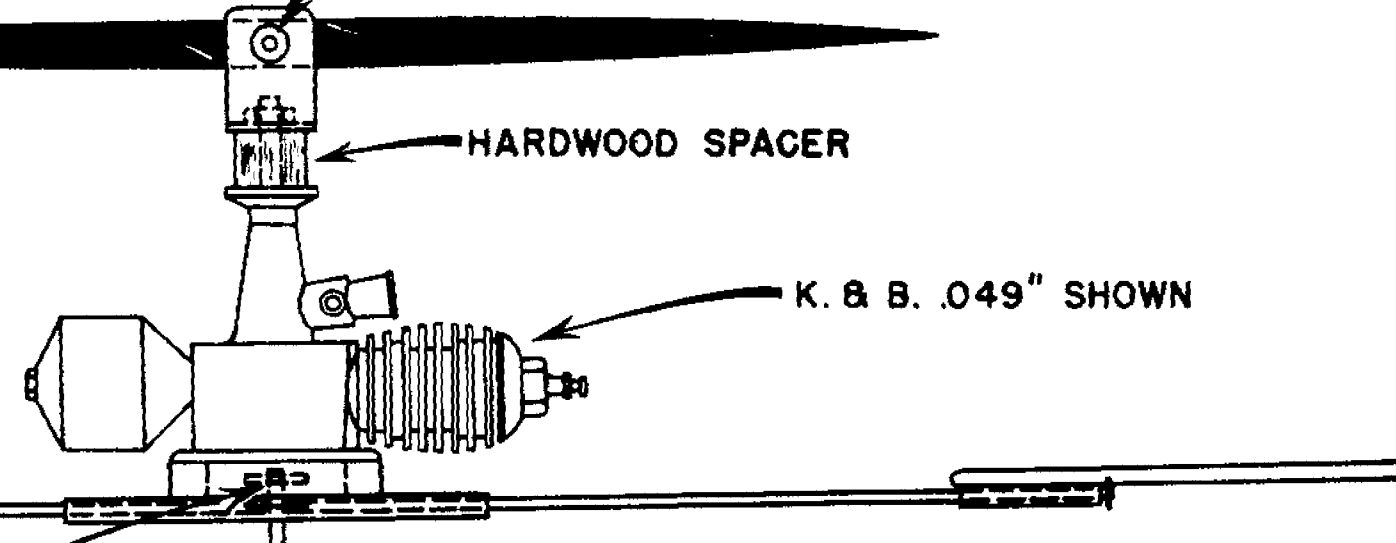
POWER ON **POWER OFF**

UNDER POWER, CENTRIFUGAL FORCE INCREASES PITCH OF MAIN ROTOR ABOVE HORIZONTAL, CONTRIBUTING TO LIFT OF SMALL PROP. WHEN POWER IS OFF, THE ROTOR CONTINUES TO SPIN IN THE SAME DIRECTION DUE TO AIR PRESSURE ALTERING ANGLE OF BLADE, PLUS DYNAMIC WEIGHT SERVING AS A "GOVERNOR" ON ROTOR SPEED.

WITH POWER ON IN FLIGHT, ANY GUST DISTURBANCE IS MET BY SHIFTING OF BLADE POSITION, WHICH CREATES AN OPPOSING FORCE. THUS THIS MODEL CAN BE FLOWN UNDER POWER IN A WIND WITH GOOD RESULTS, HOWEVER, WHEN POWER IS OFF STABILITY IS CONSIDERABLY LESS, INCREASING THE RISK OF DAMAGING THE MODEL ON LANDING DUE TO EXCESSIVE DRIFT. THEREFORE FLY IN CALM OR "LIGHT AIR" WEATHER, AND KEEP AWAY FROM TREES AND BUILDINGS AS ROTOR WILL "SUCK IN" DUE TO LOW PRESSURE AT THE TIPS.



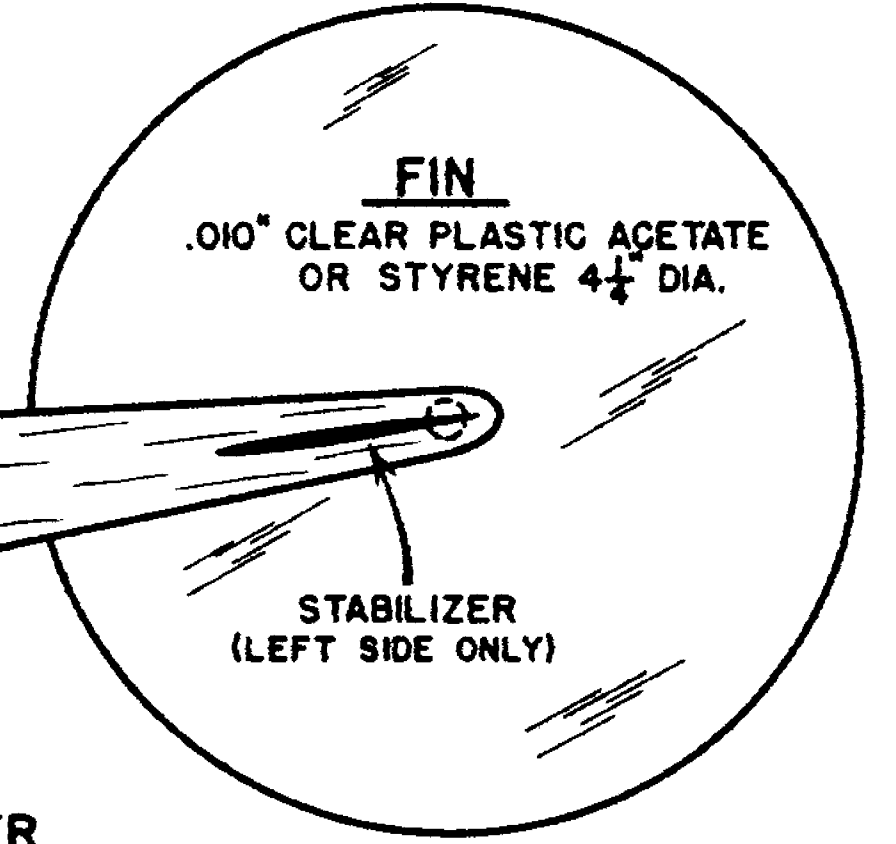
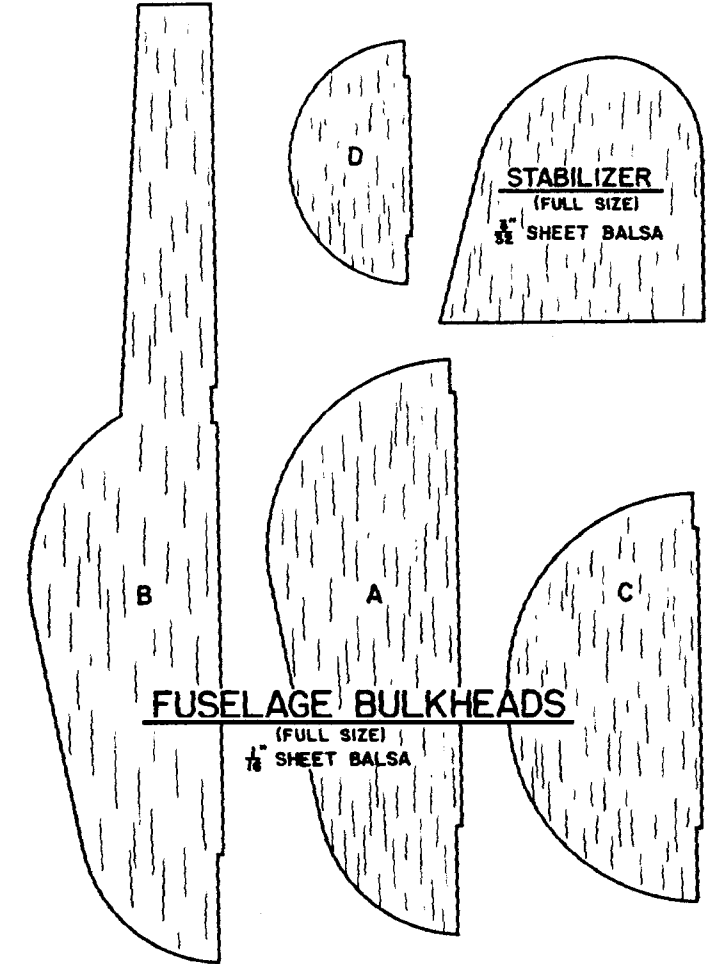
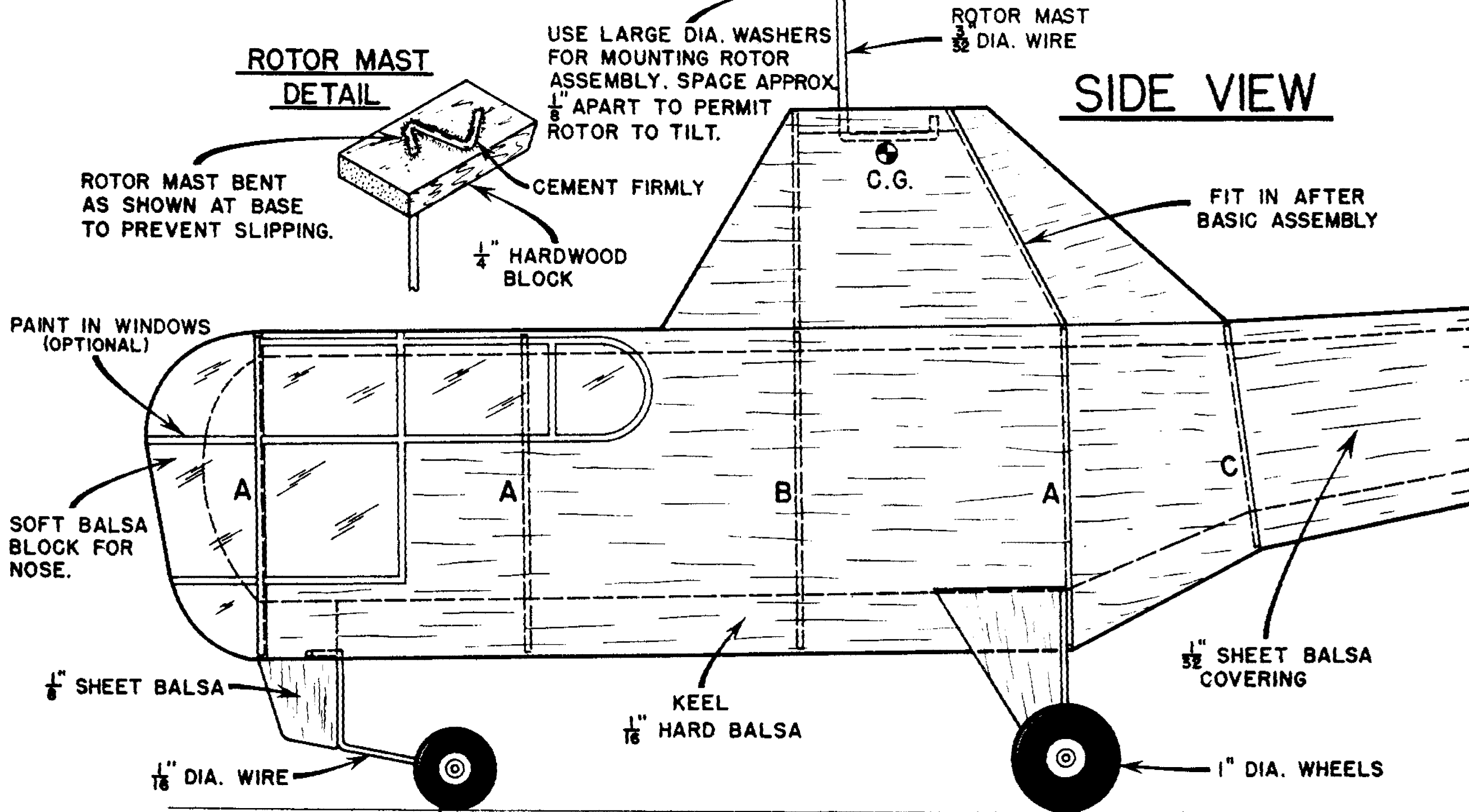
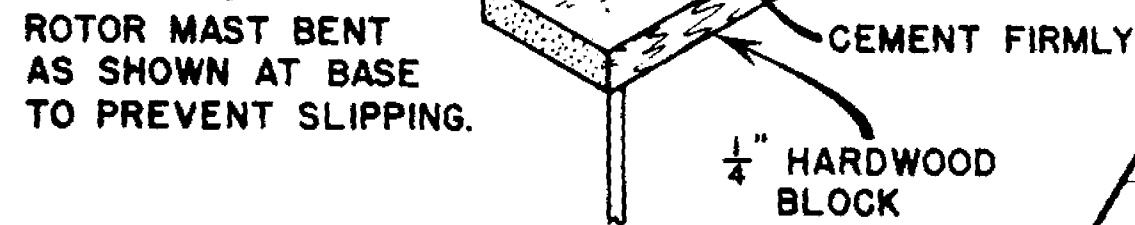
NOTE: FOR ENGINES OTHER THAN K. & B. .049", ALTER ROTOR HUB PLATE ASSEMBLY TO SUIT.



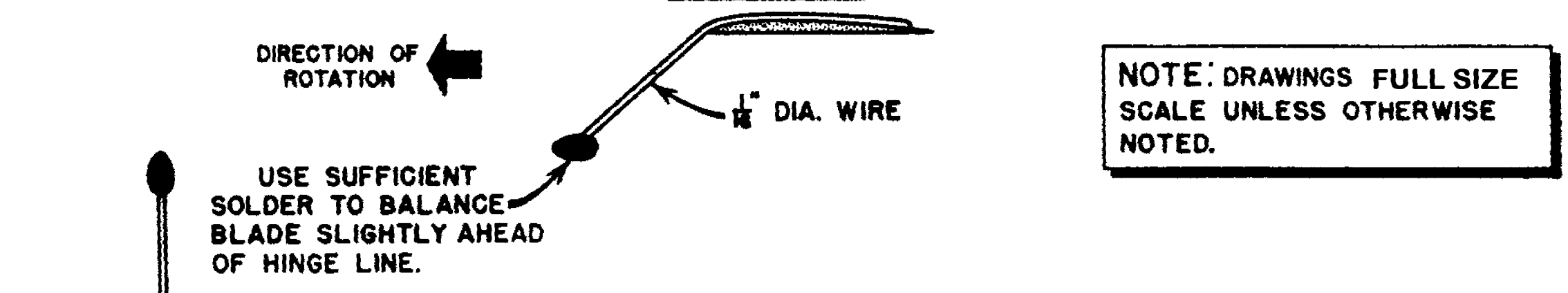
SIKORSKY S-51

by Roy L Clough, Jr.
FLYING MODELS FEBRUARY 1953

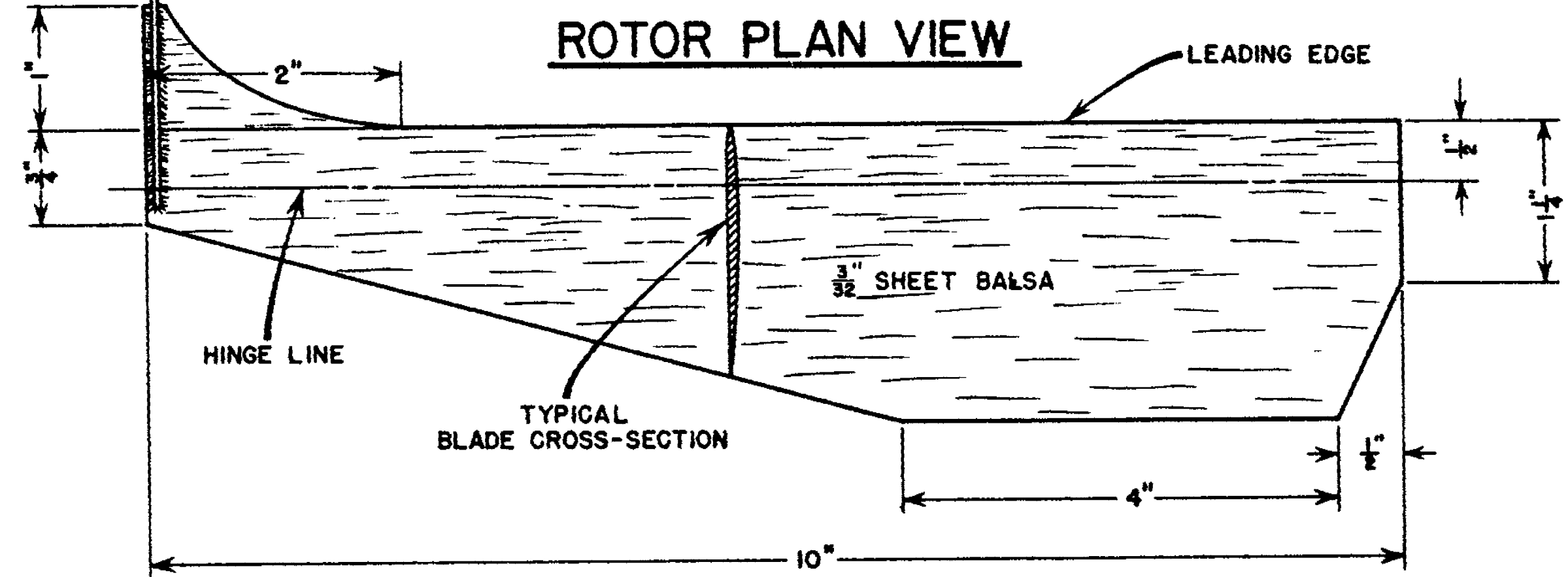
ROTOR MAST DETAIL



DYNAMIC STABILIZER SIDE VIEW



ROTOR PLAN VIEW



FOR THE EXPERIMENTER

ORDINARILY A BRAKE IS REQUIRED ON DRIVES OF THIS TYPE TO PREVENT FUSELAGE FROM SPINNING IN BLAST OF SMALL PROP. THIS DESIGN IS NOT SUBJECT TO THIS CONDITION BY REASON OF ITS SHAPE. HOWEVER, FOR AN ORIGINAL DESIGN YOU MAY REQUIRE ONE.

