

May 1961?

Mr. A. J. Higgs:
Radio Physics, C.S.I.R.O.
University Grounds
Chippendale, N.S.W.

Dear Higgs:

Things are going along at a slow pace. The road is still being built and poles are being cut.

Soon after arriving here I reconsidered the whole matter and decided to abandon the cross idea. At 2mc it is not a suitable instrument. Firstly, the atmospheric will make the spot go both ways from center. If the spot will stand still at center long enough to make an image, OK; however I doubt this condition will be achieved much of the time. Secondly, the cross compares center lobe with background. The size of background opening will be continually changing with ionospheric circumstances and a lot of spurious ups and downs will be recorded.

In view of the above, I decided to fall back on an array. It will consist of 96 full wave dipoles arranged in the usual plane but with circular instead of a square boundary. The taper is to be 3 DB from center to edge. Diameter of array is eight wavelengths. The beam should be about $8^\circ \times 8^\circ$ at the zenith and about $8^\circ \times 12^\circ$ at 45° from the zenith. A signal level of 100 microvolts or more is anticipated, so abundant use is to be made of resistors for decoupling and broadbanding.

If the results warrant, there is ample room and adequate time to expand the array as far as money becomes available. In the general redesign, I have arrived at a lot of small fittings which need to be made for the tops of poles. We are peddling the drawings around here with indifferent results. If convenient, I'd like to have you try to get some quotes for comparative purposes on time and cost up there. Enclosed are four copies of the drawings.

Also enclosed is a copy of Reversed Bean Vines. Please remember me to Bowen and Pawsey.

73, (best regards)

Grote
Grote Reber



COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANIZATION

AJH.ER

DIVISION OF RADIOPHYSICS

TELEGRAMS: CORESEARCH, SYDNEY
TELEPRINTER: SYD 248
TELEPHONE: MW 0566

UNIVERSITY GROUNDS,
SYDNEY, N.S.W.

REFER TO A1/3/1

11th May, 1961.

Mr. Grote Reber,
Tasmanian Regional Laboratory,
C.S.I.R.O.,
"Stowell House",
Stowell Avenue,
HOBART, Tasmania.

Dear Grote,

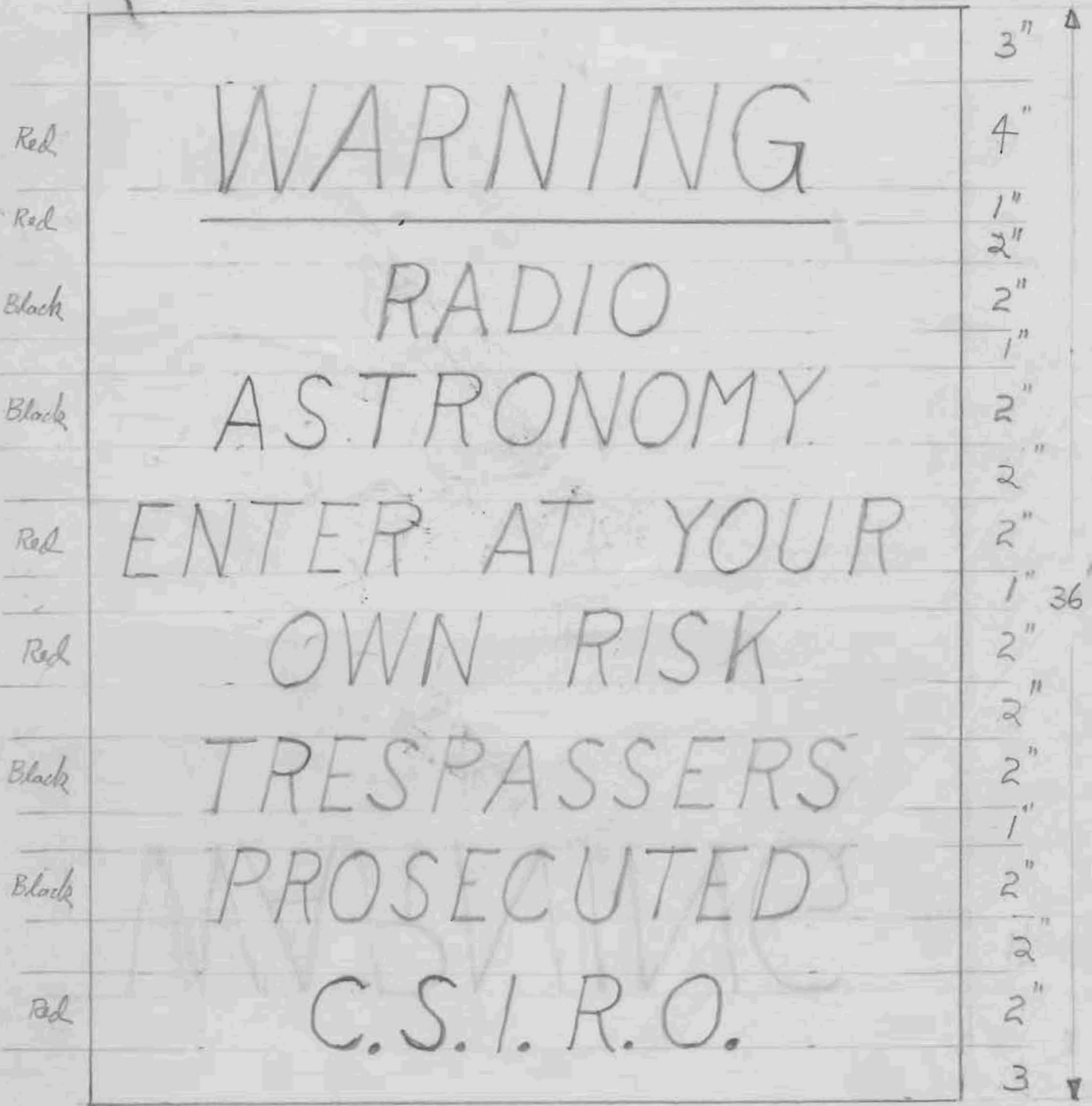
You did not date your recent letter to me but we are trying to obtain some quotes for you for the various small fittings you need in connection with your aerial array and will let you know the outcome in due course.

I was intrigued to read your note on clockwise versus anti-clockwise climbing beans! I have always wondered about this and must remember to do some experimenting myself next time my beans are coming through.

Kind regards,

Yours sincerely,


(A.J. Higgs)
TECHNICAL SECRETARY

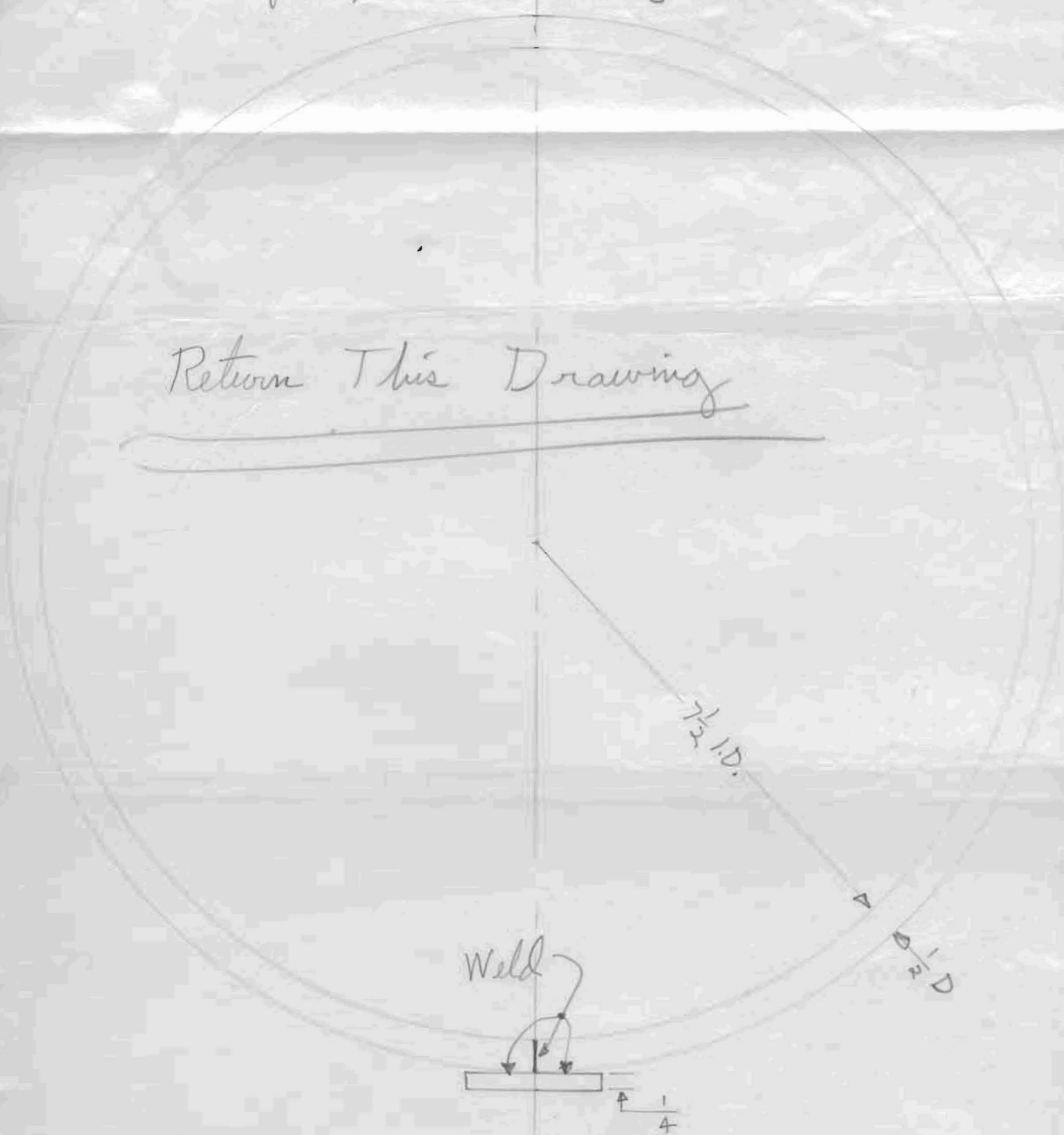


Scale $\frac{1}{4}'' = 1''$

Grote Reber
3/8/62

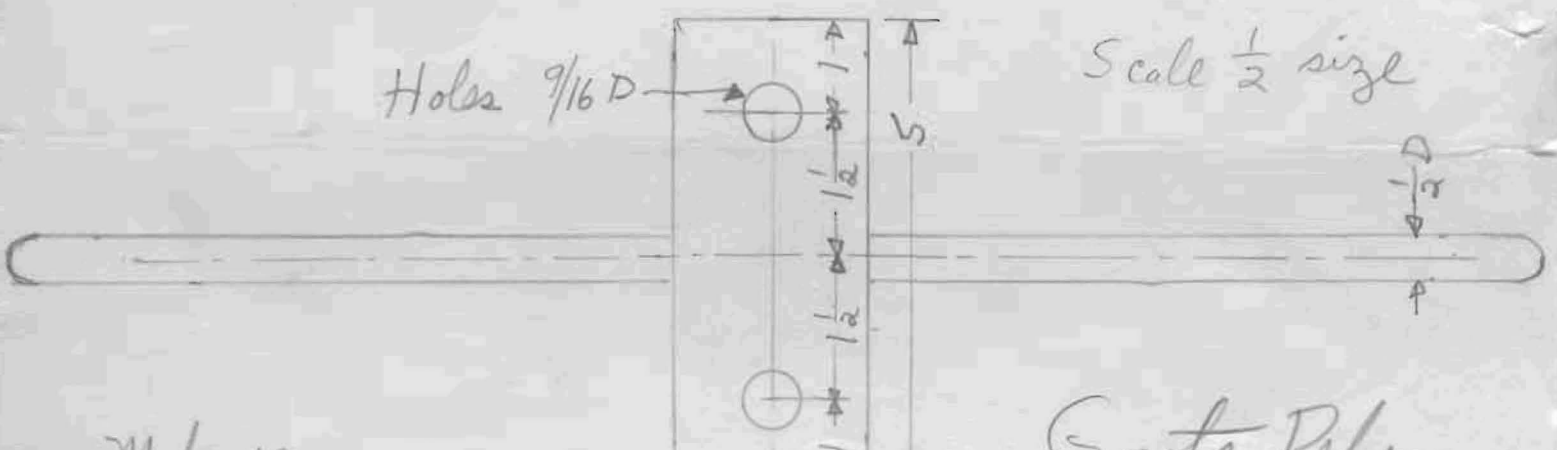
Wire Rope Guides for Flag Poles

Return This Drawing



Holes $\frac{9}{16} D$

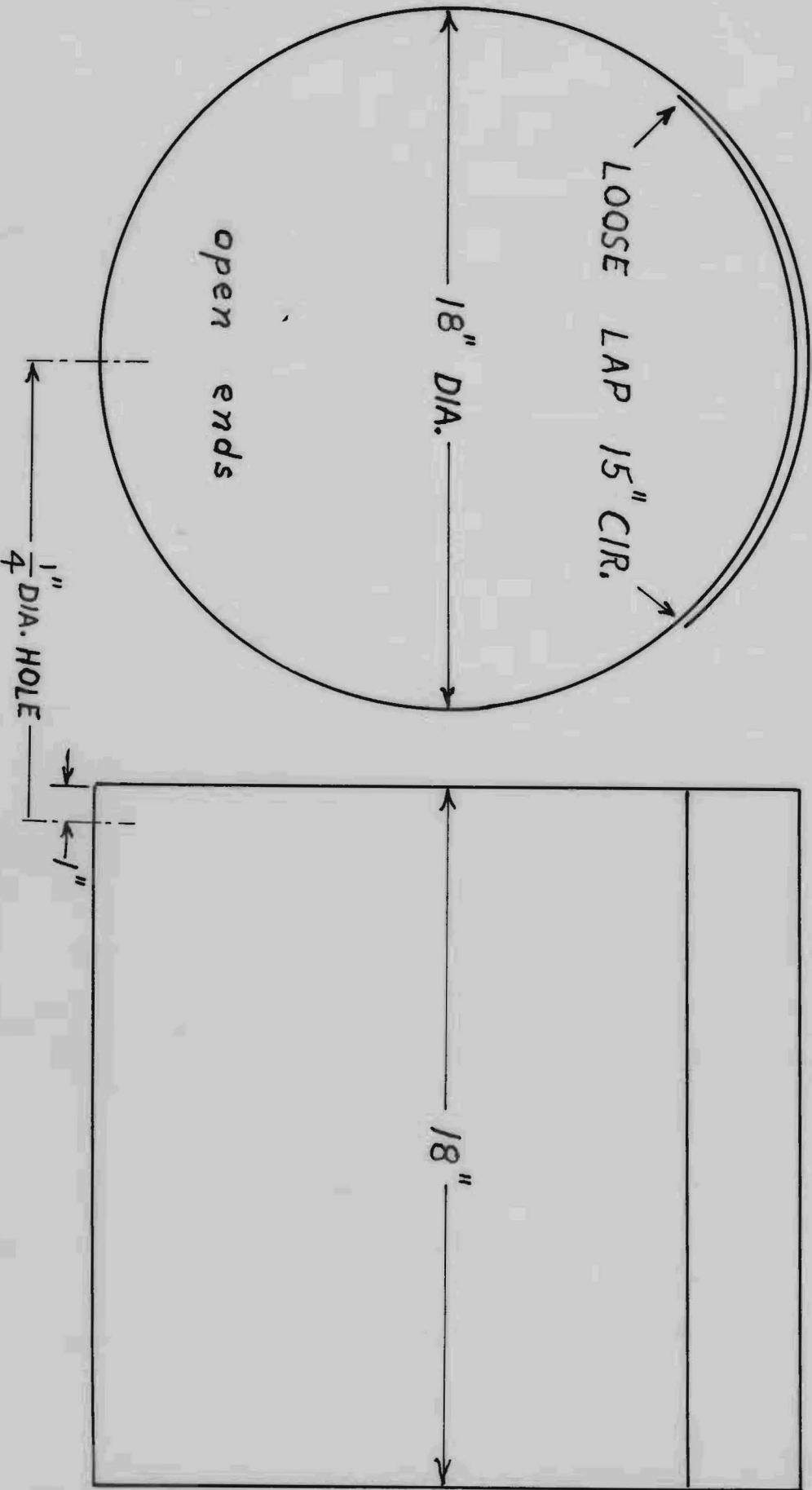
Scale $\frac{1}{2}$ size



Note Refer

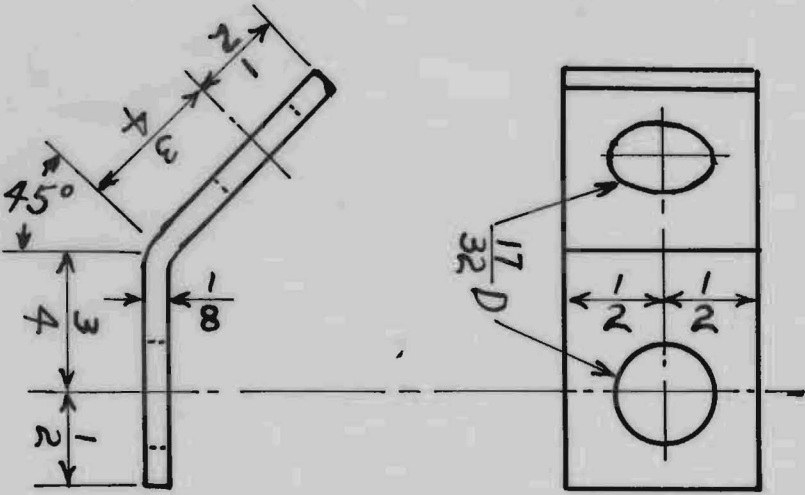
M 6/15

GUARD RING

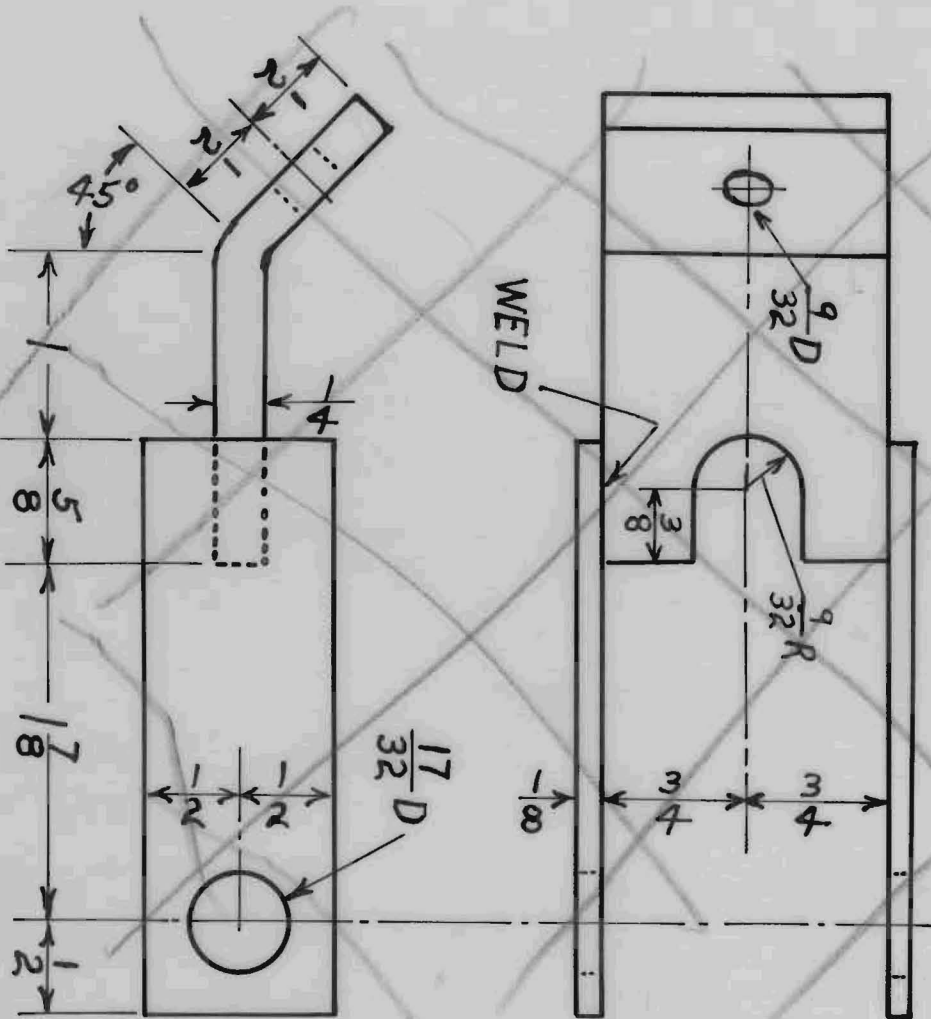


Make two from 3' x 6' pc. 22 ga. galvanized

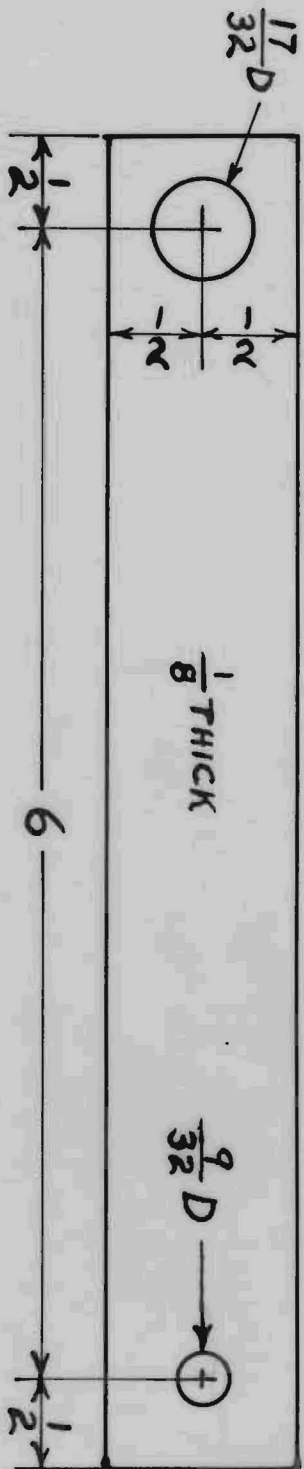
LUG



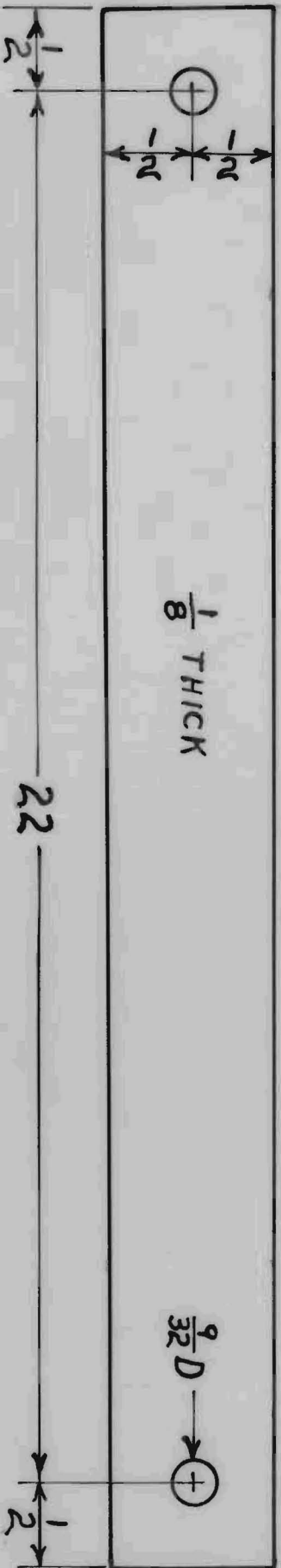
ANGLE HANGER



LINK

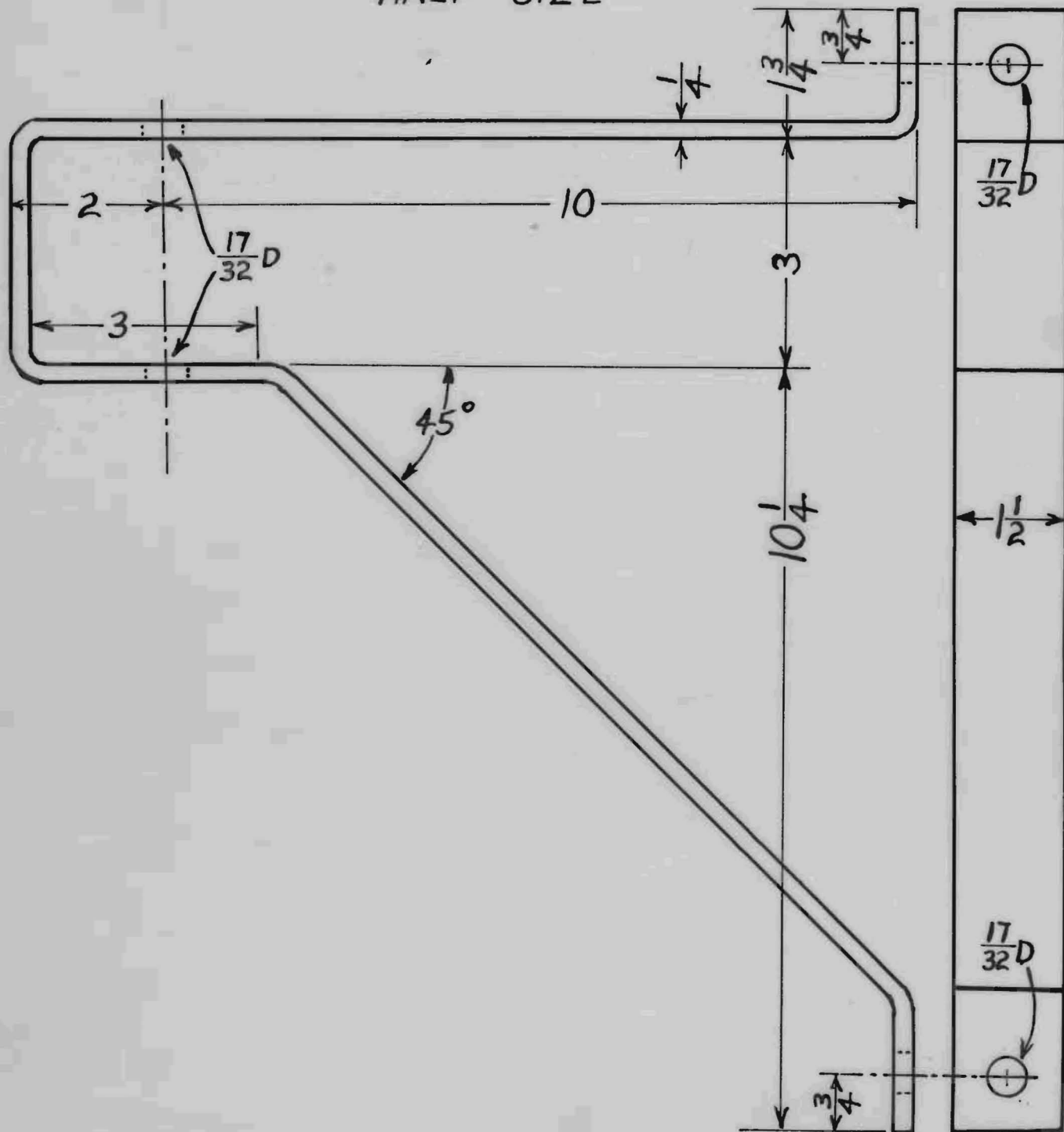


BRACE

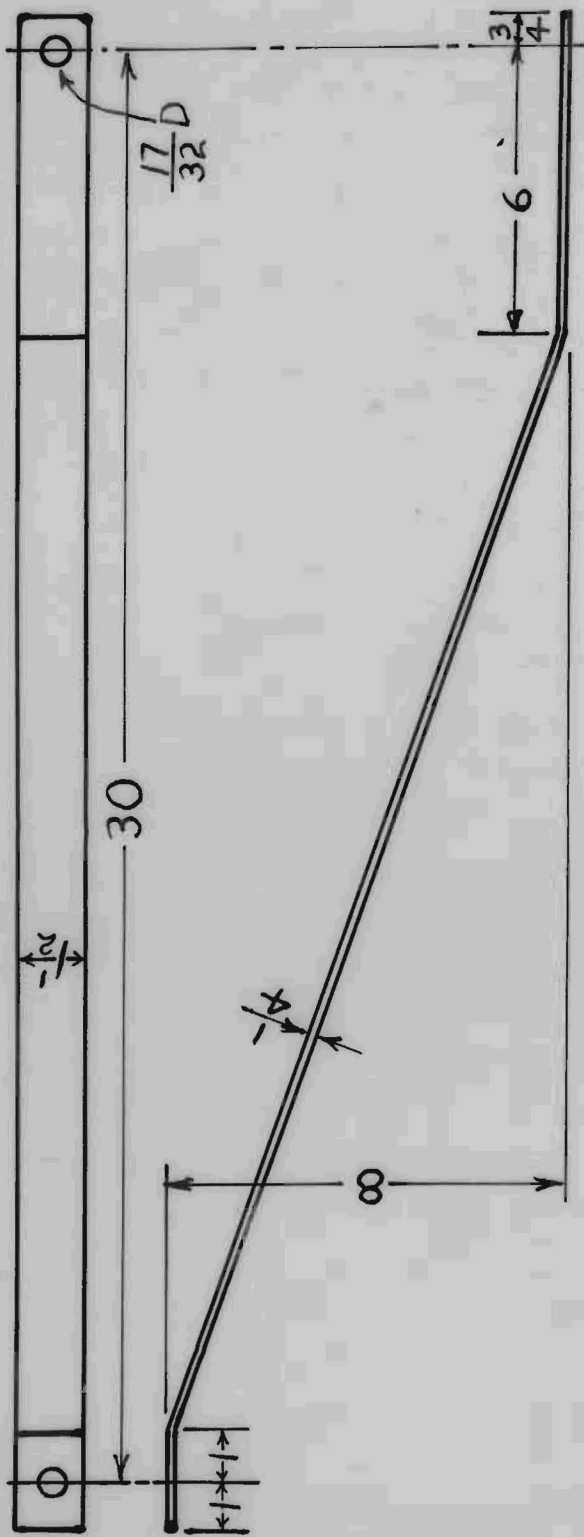


BRACKET

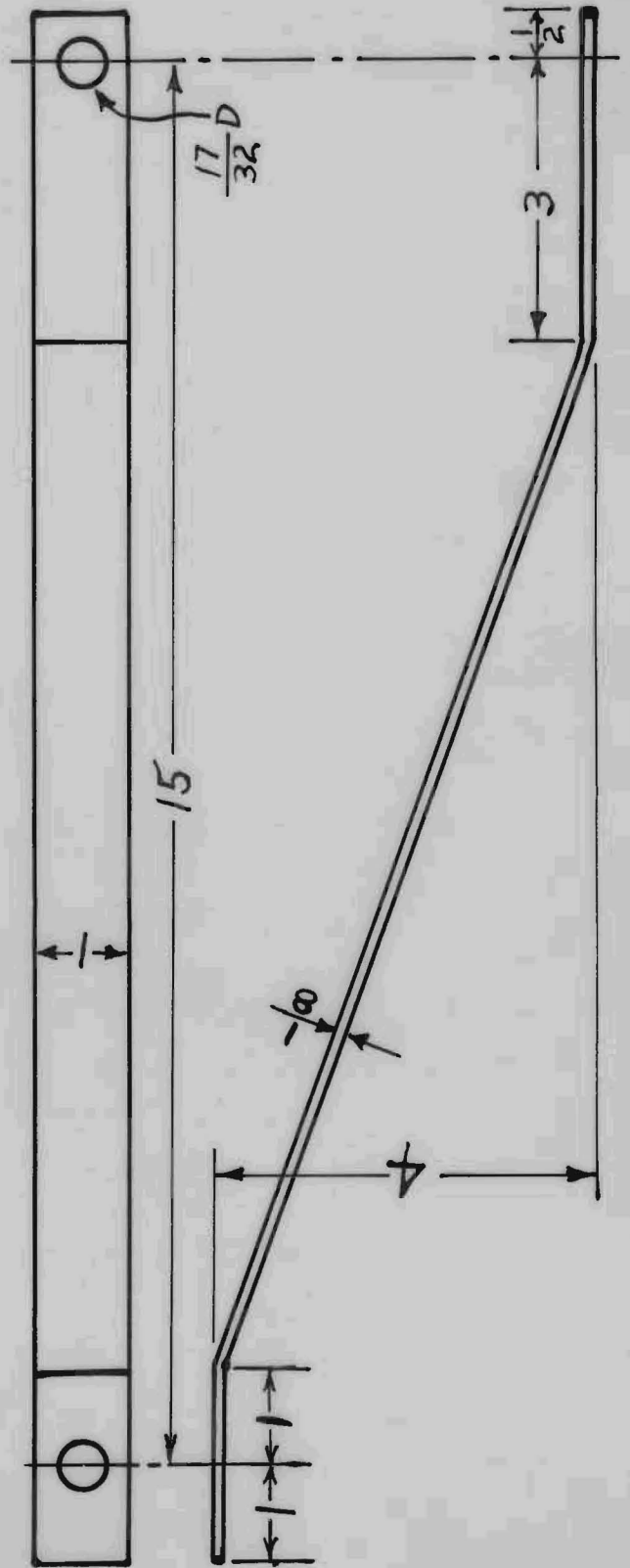
HALF SIZE



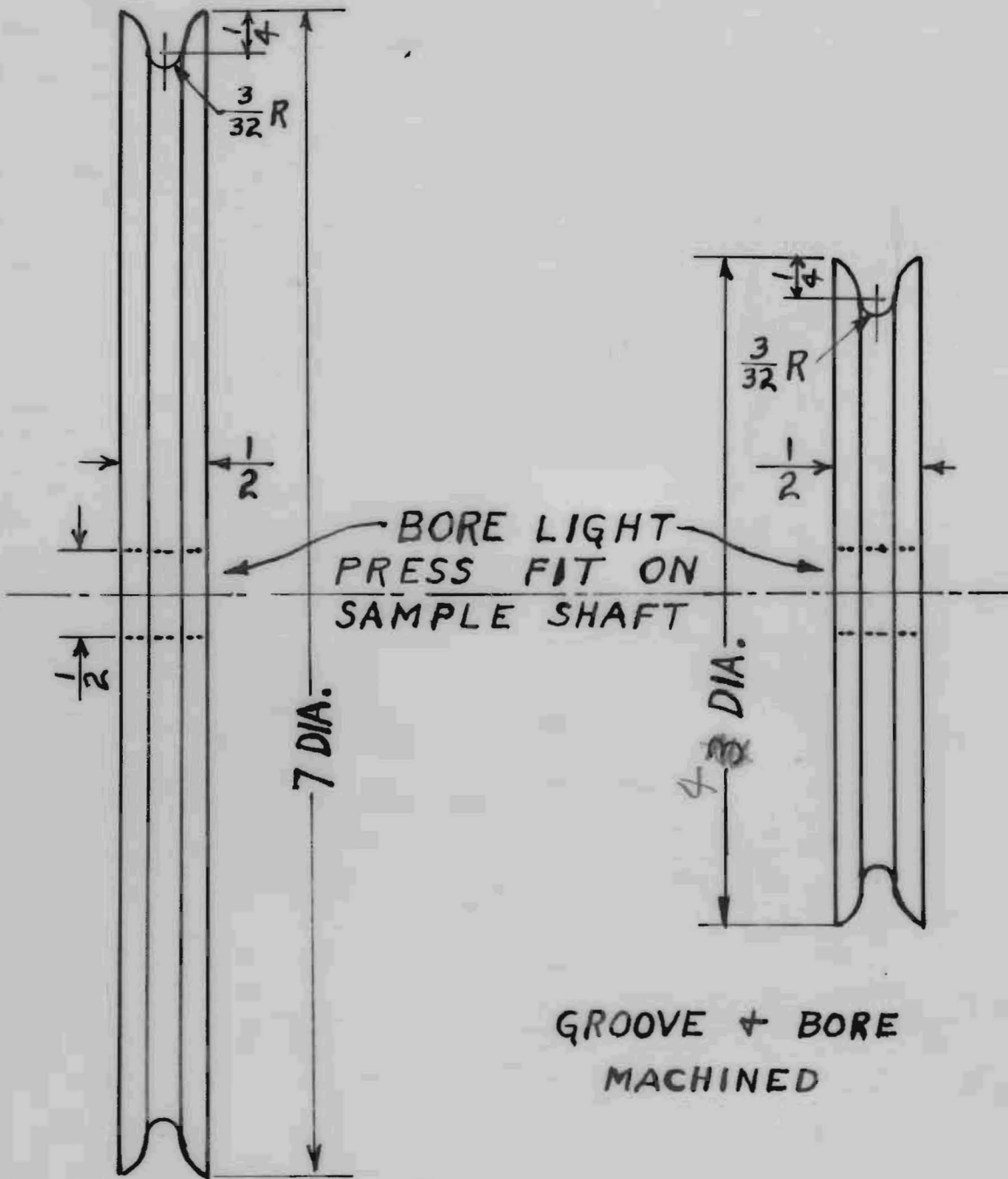
LONG LEVER QUARTER SIZE



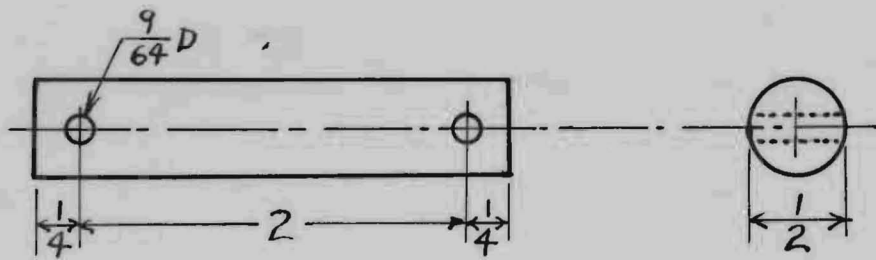
SHORT LEVER HALF SIZE



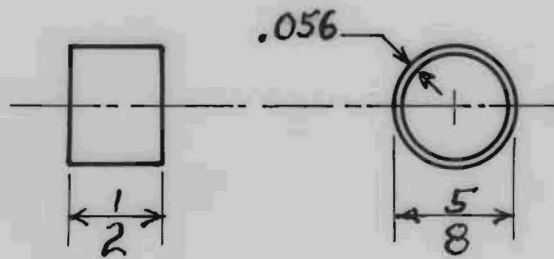
PULLEY WHEELS



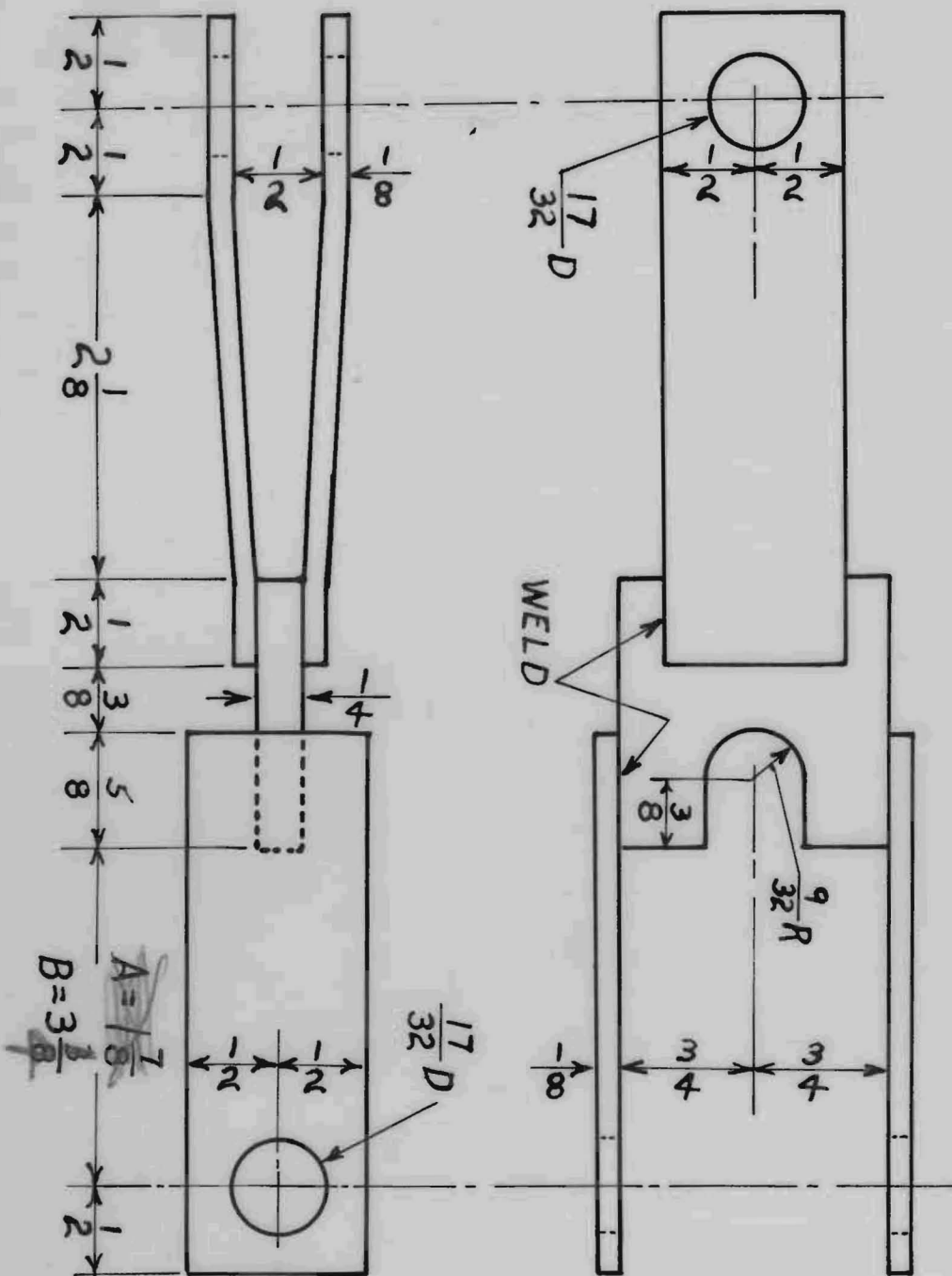
PIN



BUSHING

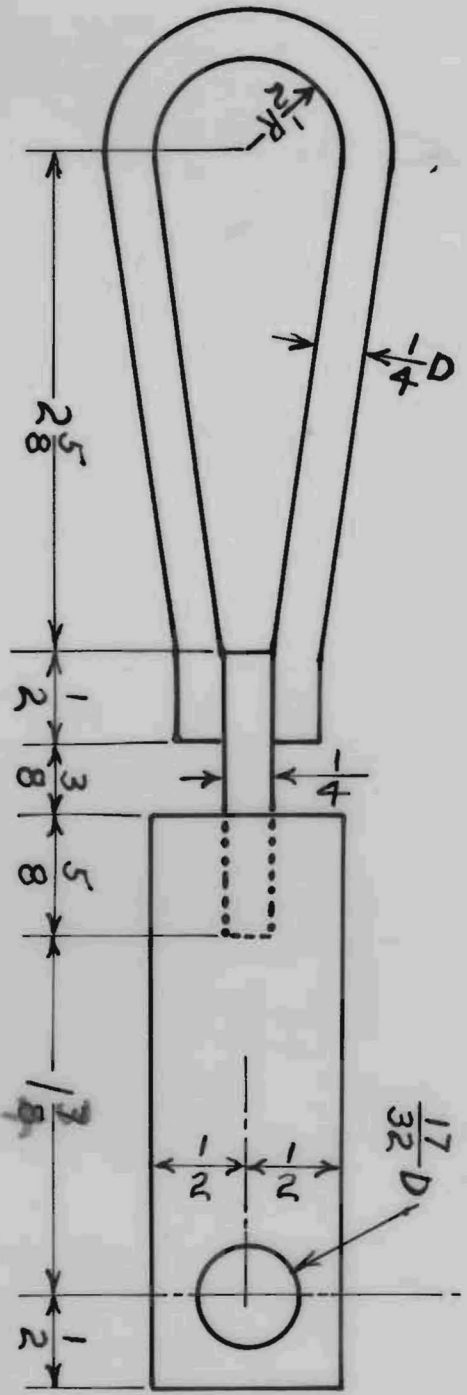
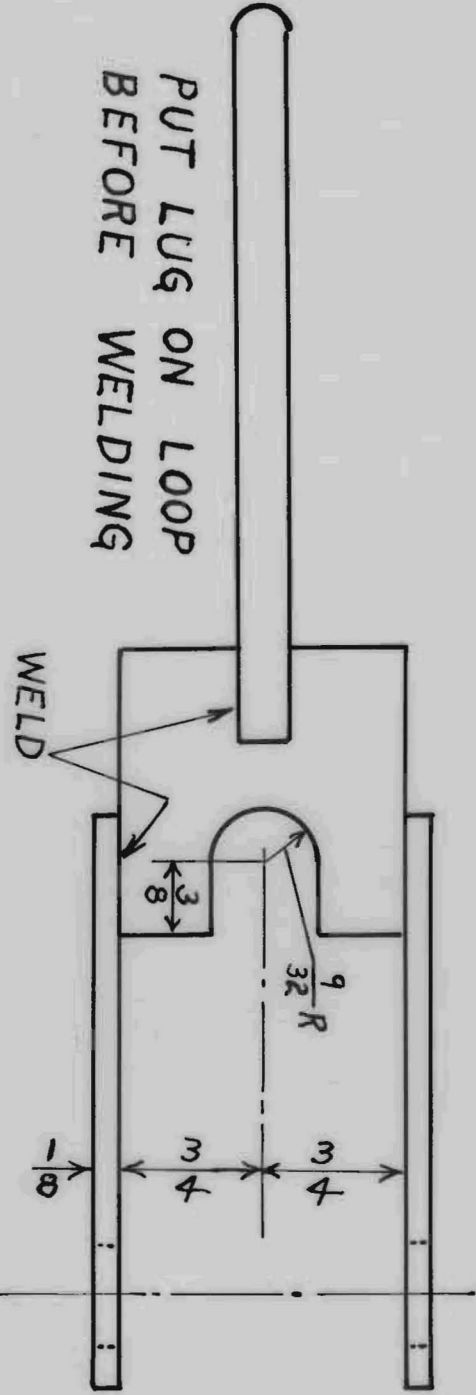


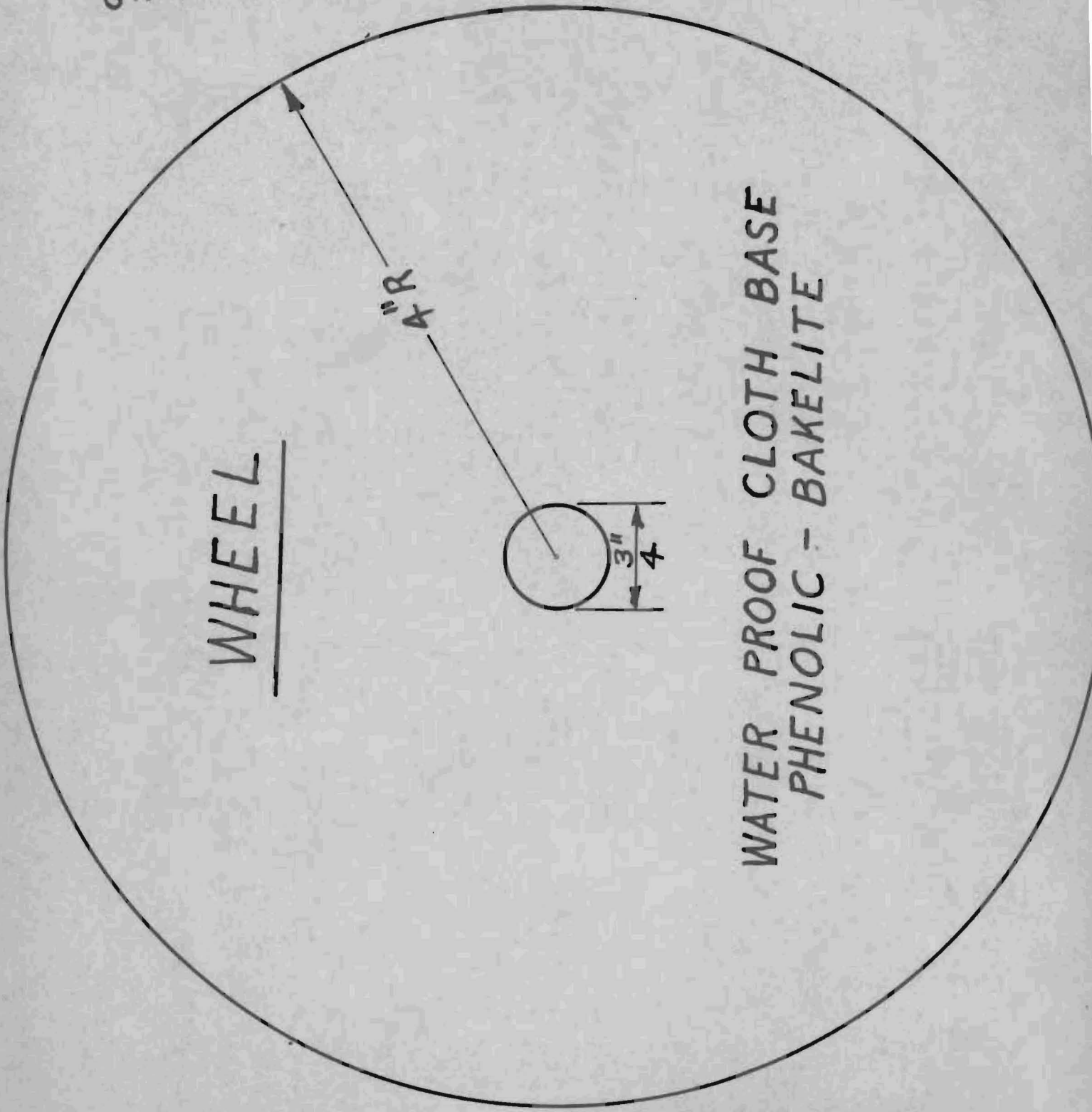
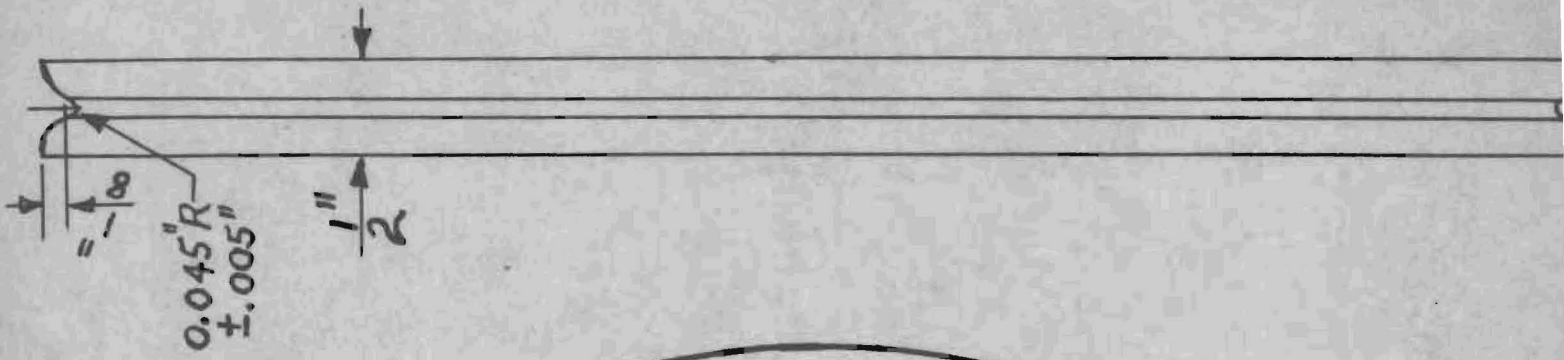
FORK HANGER



LOOP HANGER

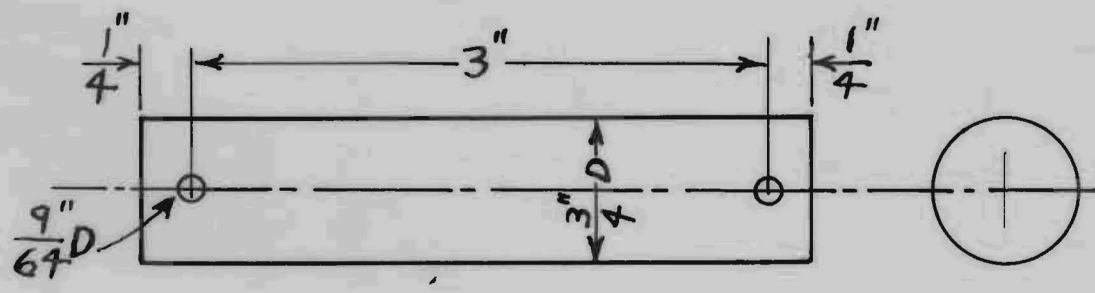
PUT LUG ON LOOP
BEFORE WELDING



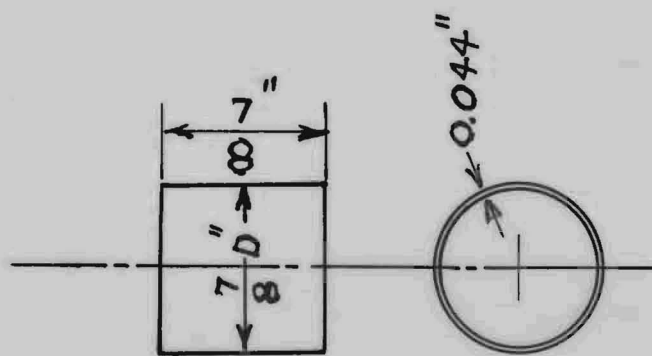


WHEEL

WATER PROOF CLOTH BASE
PHENOLIC - BAKELITE

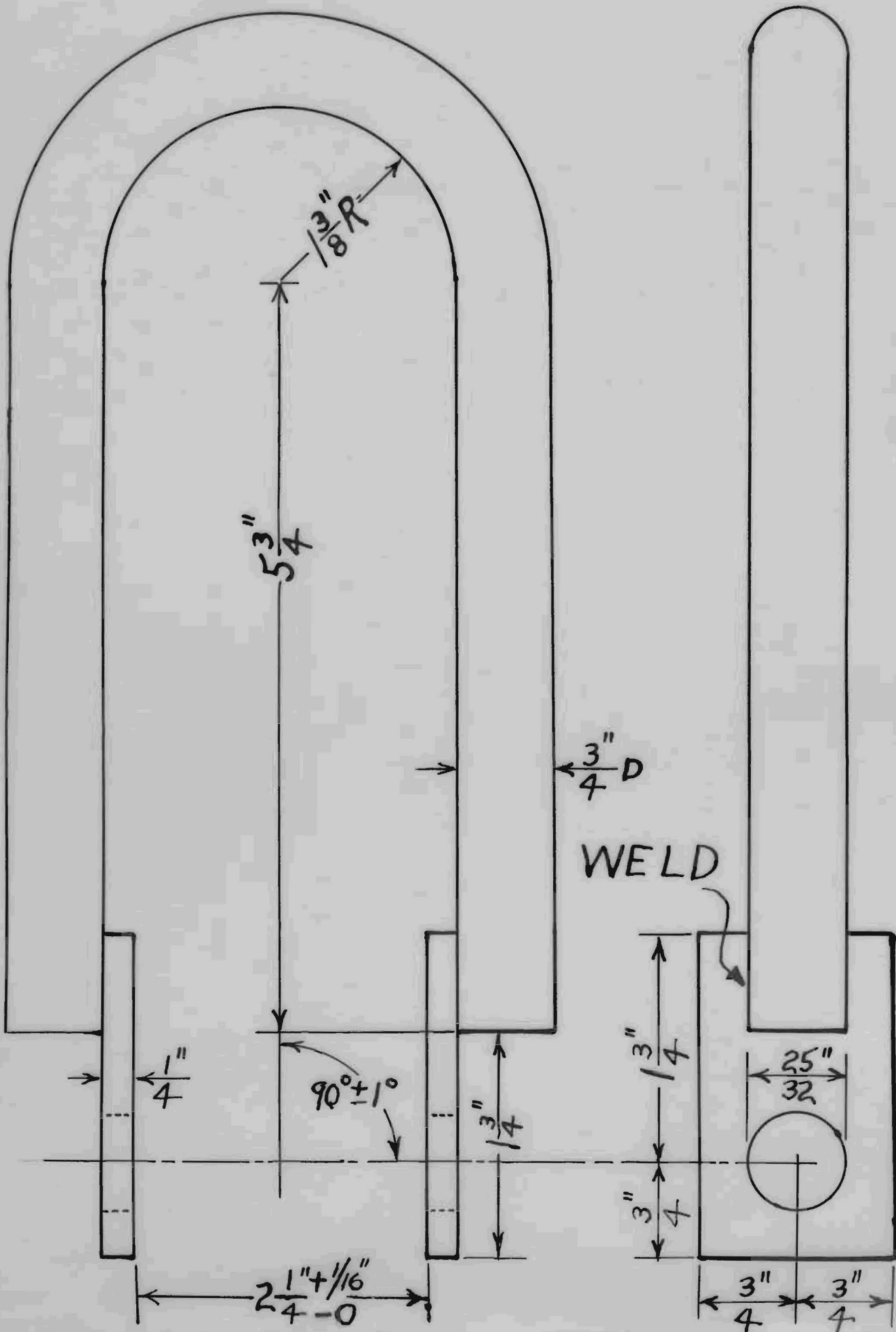


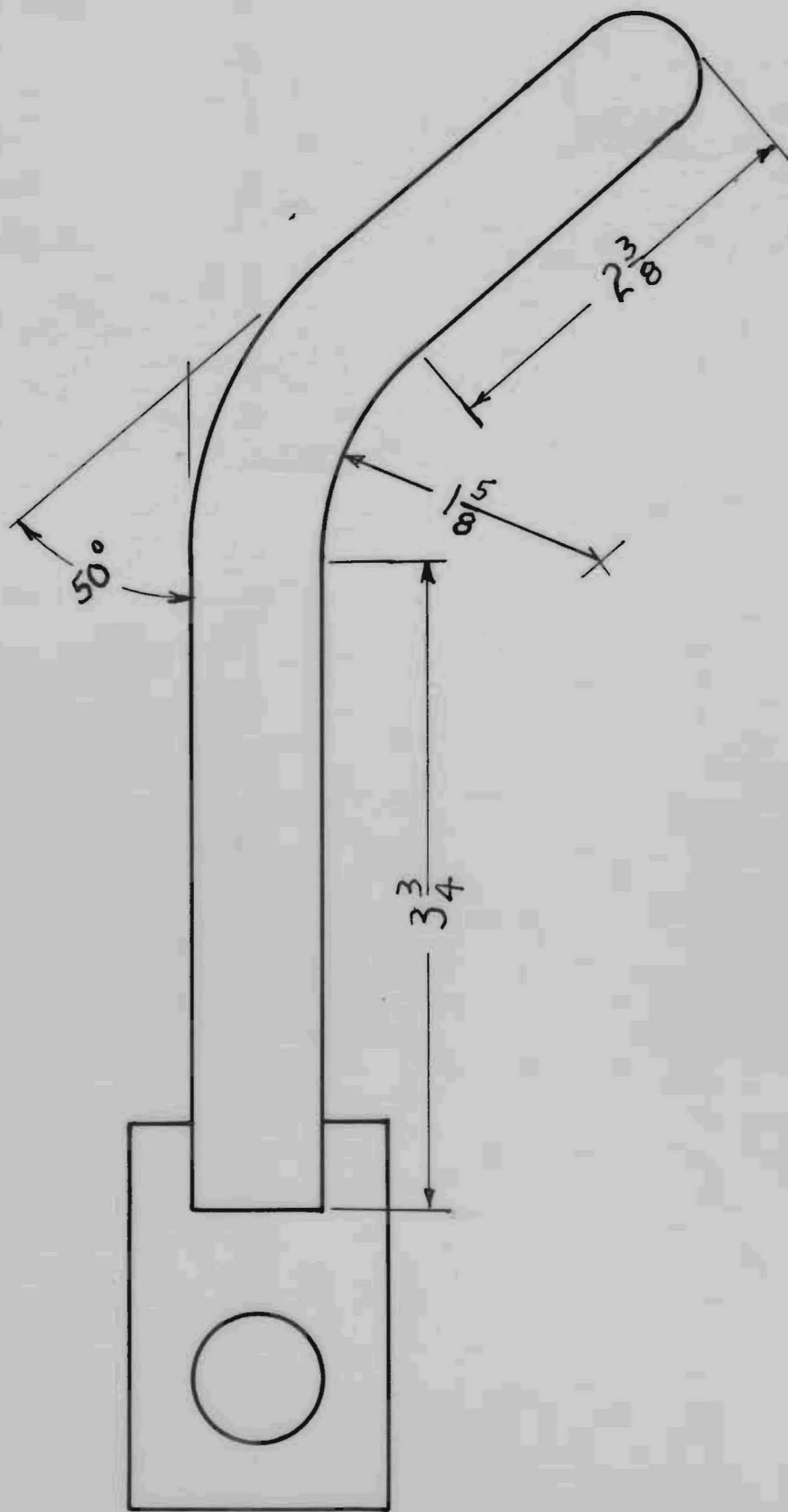
STAINLESS



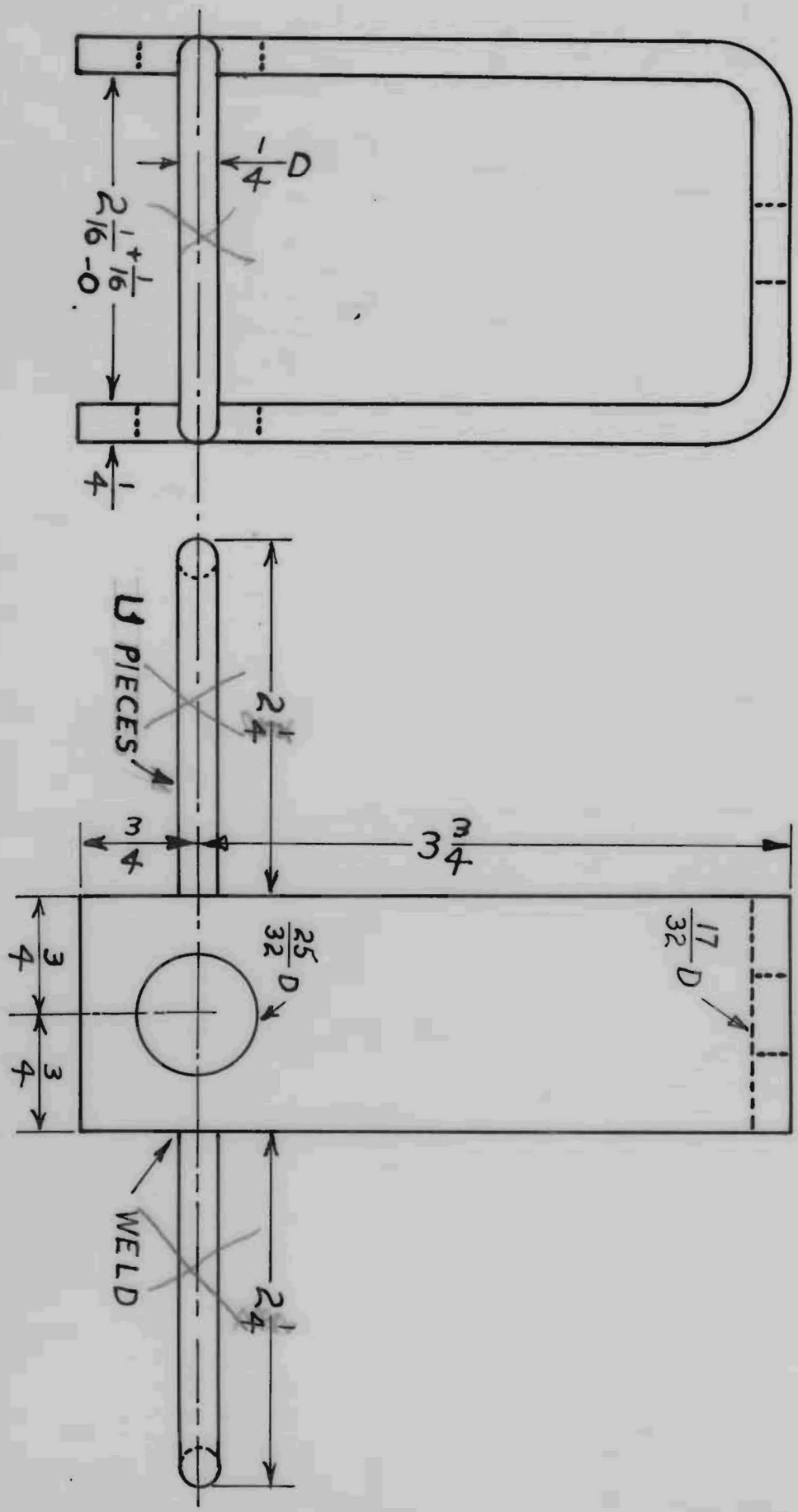
STAINLESS

SHACKLE

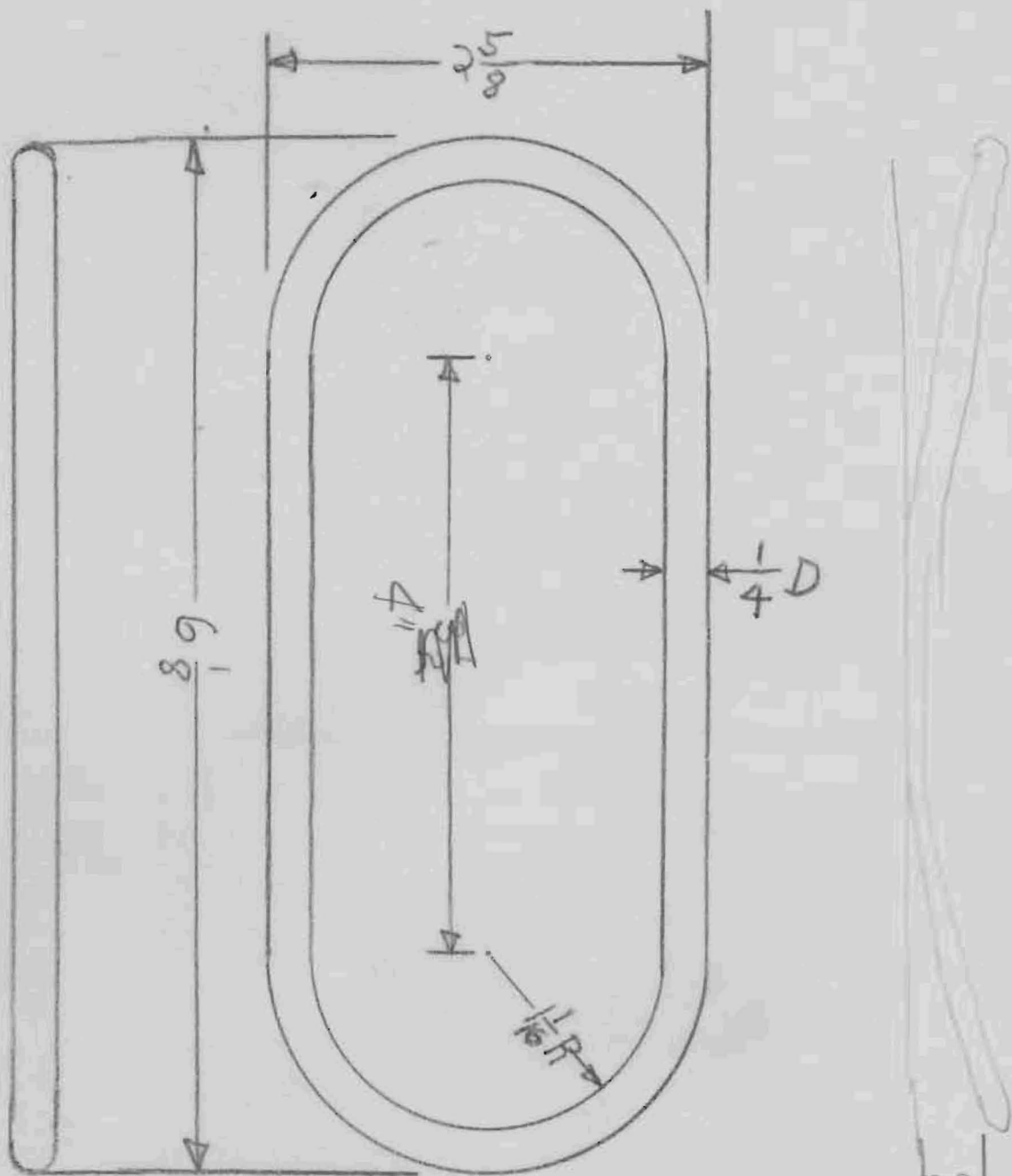




YOKE



Redesigned for link across end

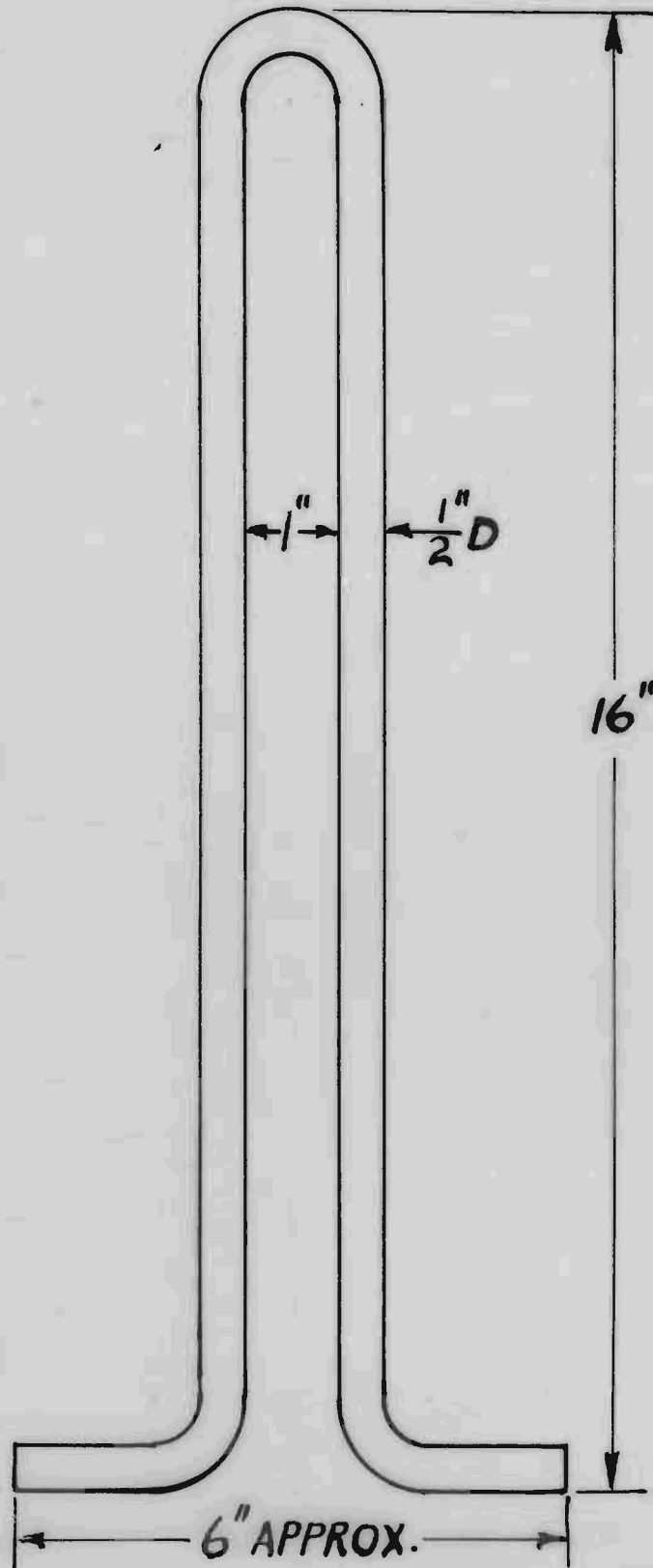


Link for end of yokes.

$\frac{3}{4}$

*This goes in top
of counterweights*

ANCHOR



FORM FROM ROD 3 FT. LONG