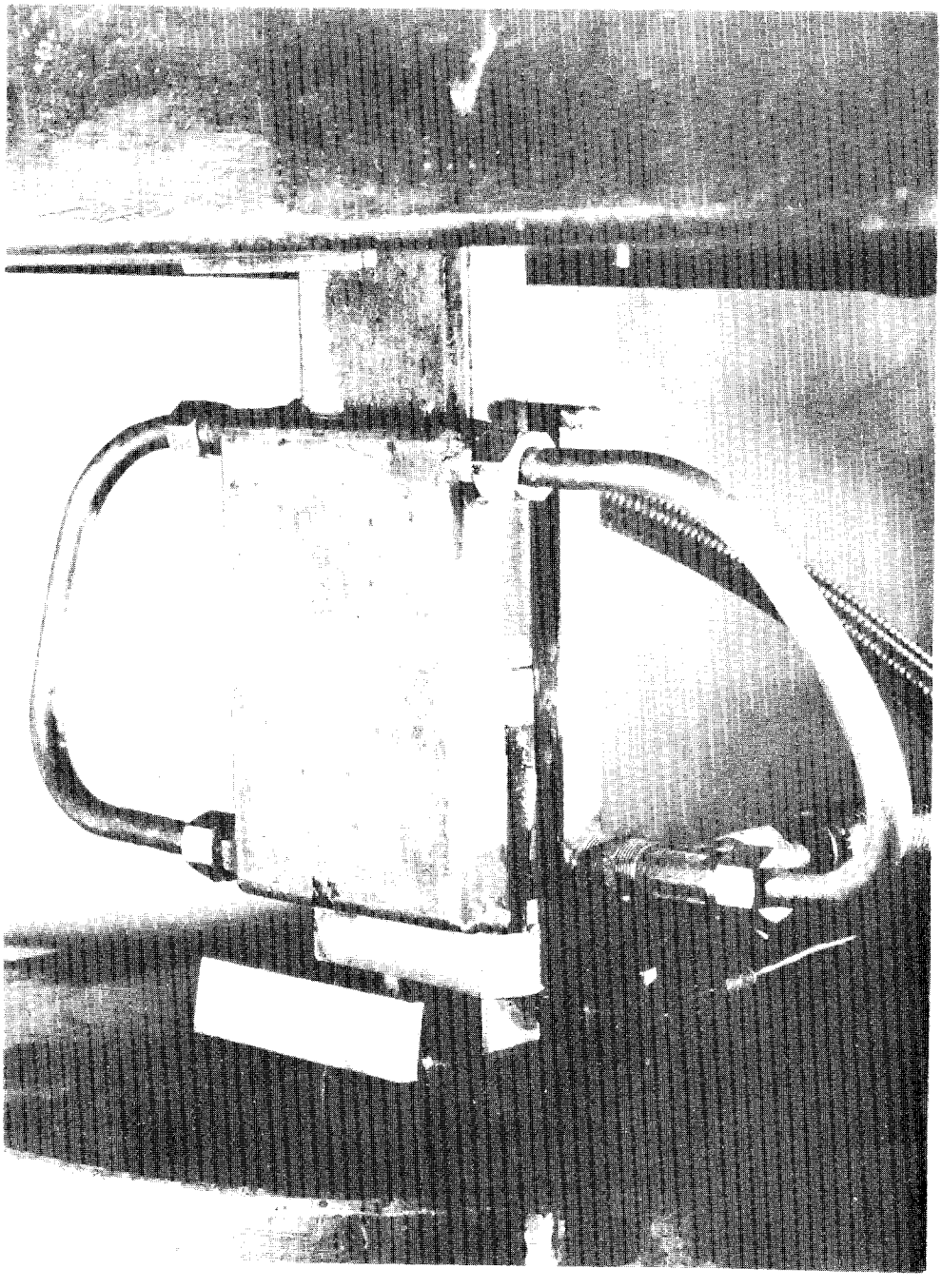


FIG. 67 EDGE NOTCH SPECIMEN, VIEW OF COOLING JACKET AROUND A 3-INCH EDGE NOTCHED BAR

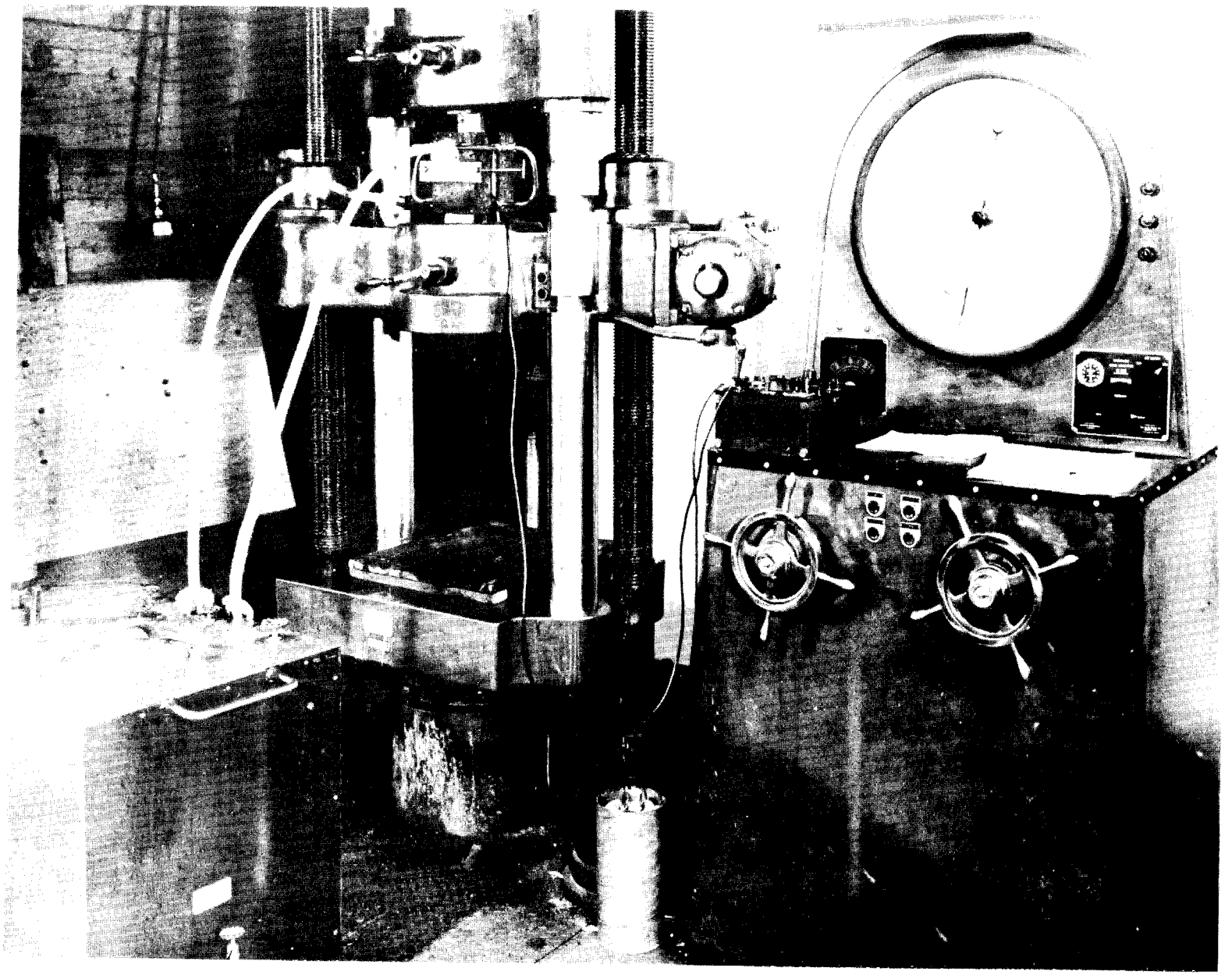


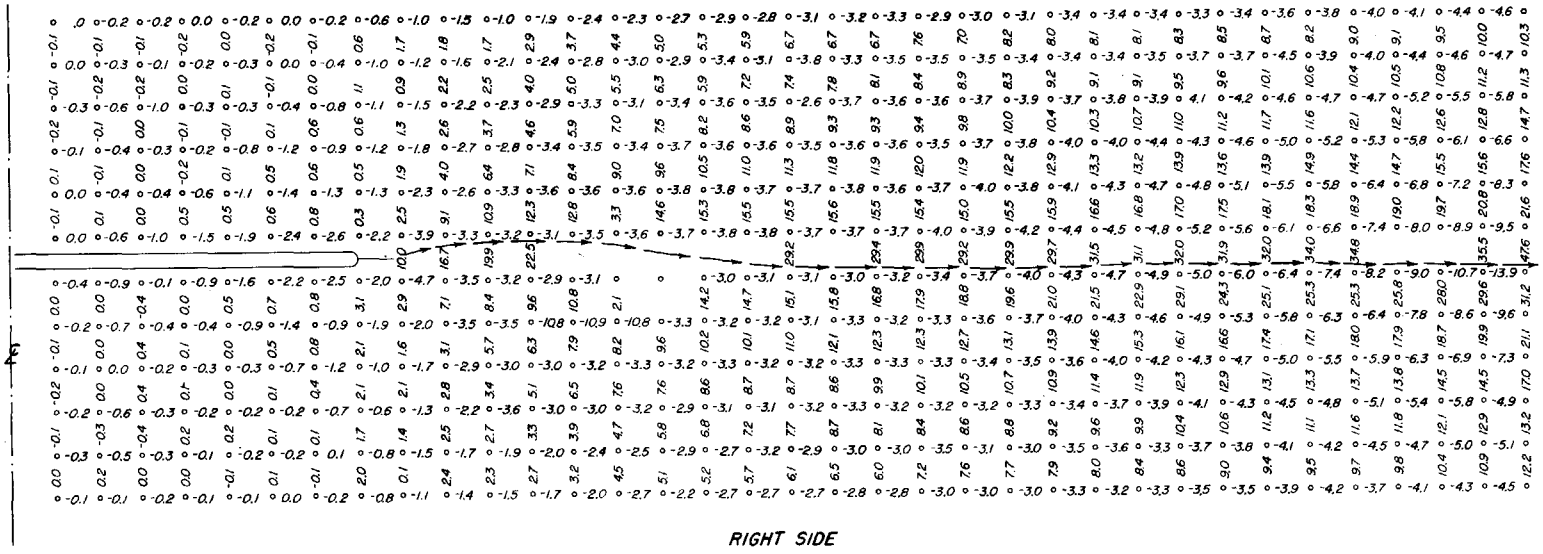
FIG. 68 GENERAL VIEW OF 3-INCH BAR TEST STATION

NOTE: TEMPERATURE CONTROL APPARATUS IN FOREGROUND

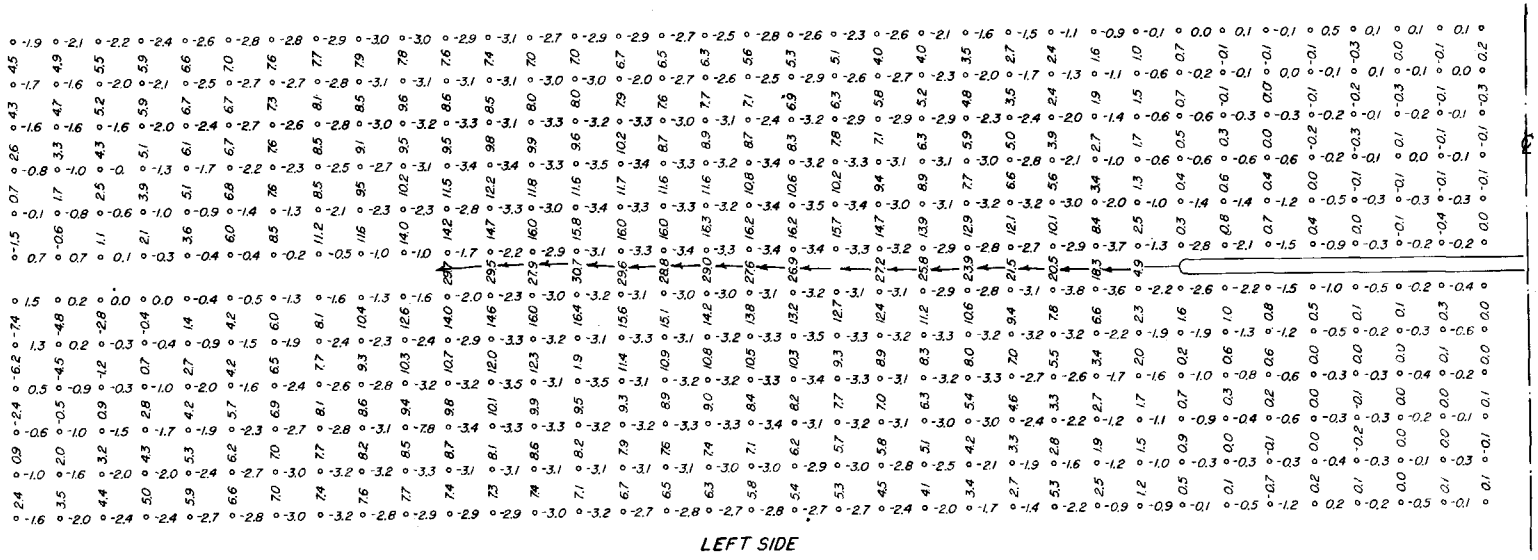
APPENDIX A

Residual Strain Distribution in Notched Flat Plate after Fracture

A system of rectangular grids shown in Fig. 5 was applied to one face of all the wide notched flat plates that were tested. Readings reproducable to ±0.002 in. were taken by means of a special strain gage prior to loading and after the fracture; percent elongations were calculated and are presented in Figs. A-1 through A-67. Lines of fracture are also shown in all of the figures. It is to be noted that the values shown in the figures do not include the elastic elongations or the plate separation at fracture. Also, since the residual elongations were measured on one face only, the effect of distortion of plate during fracture may be included in the values shown, although in most cases this distortion was fairly small.



RIGHT SIDE



LEFT SIDE

FIG. A-1 PERCENT ELONGATION PLATE A-1A (1-IN. GRID)

"A" STEEL, 72 INCH WIDE PLATE — NOMINAL STRENGTH - 38.5 KSI

TEMPERATURE 75°F — 100% SHEAR

FIG. A-1

44E132