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LAWRENCE BERKELEY LABORATORY - UNIVERSITY OF CALIFORNIA ENGINEERING NOTE		MME Book No. 477	FILE NO. MT 298	PAGE 1 of 2
SUBJECT Consultation/Equipment Loan for Measurement of a Variable Gap 5 x 30 cm SmCo ₅ Magnet			NAME D.H. Nelson & E.A. Cyr	DATE July 7, 1981

Requirements:

Stan Glaros, Physics International, requested assistance from LBL Magnetic Measurements Engineering in testing a permanent magnet designed with assistance from Klaus Halbach.

S. Glaros wished to measure magnetic induction to "a few percent" along the path charged particles will traverse. We (Ed Cyr and I) provided S. Glaros with equipment to facilitate mapping the field on a cartesian coordinate system. Ed assisted with measurements.

Equipment:

Figure 1 shows the test equipment used by Ed Cyr and Stan Glaros in testing the magnet. Table I lists specific equipment.

Test Results:

All data and plots were retained by Stan Glaros. The work is complete and account no. 8075-09 may be closed unless Stan Glaros has further plans.*

*Mr. Glaros reported that he modified his original design in consultation with Klaus Halbach. Crude remeasurements (using MME Gaussmeter) and numerical integration indicated the magnet is now approximately the correct strength (~June 25, 1981).

Distribution: S. Glaros (Physics International, Gull Group, 661 A Bay Street,
San Francisco, CA 94133)
M.I. Green
K. Halbach
E.C. Hartwig/L.J. Wagner/W.H. Deuser
G.J. Moore
Magnetic Measurements Engineering (4)
Master File

ENGINEERING NOTE

SUBJECT

Consultation/Equipment Loan for Measurement of a
Variable Gap 5 x 30 cm SmCo_5 Magnet

NAME

D.H. Nelson & E.A. Cyr

DATE

July 7, 1981

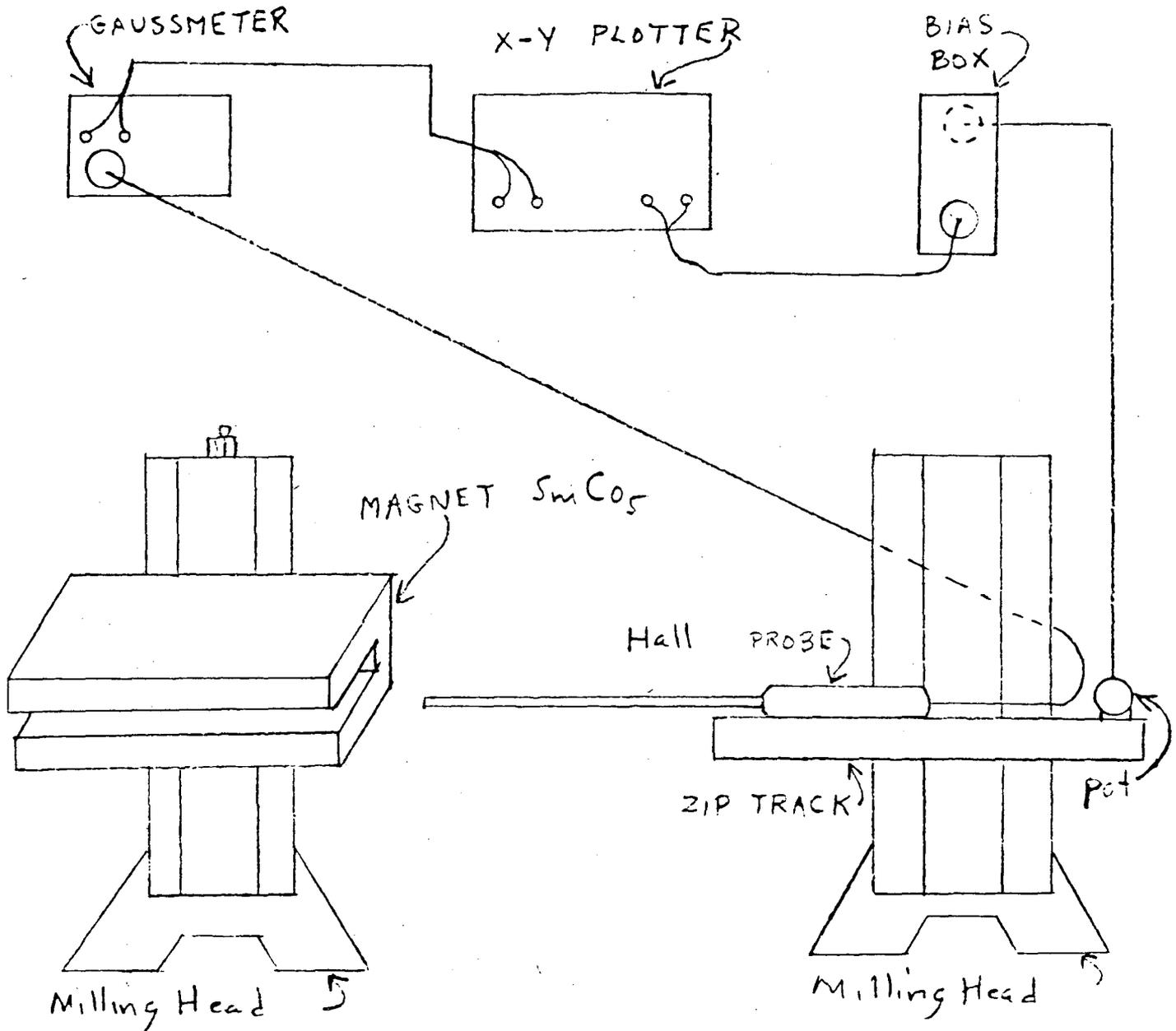


FIGURE 1 TEST SET-UP

EQUIPMENTIDENTIFICATIONIDENTIFICATION NO.

Milling Heads

Two Each LBL

--

Probe Positioner

16" Linear Positioner

--

Bias Box

Drawing No. 6V0832

Gaussmeter

F.W. Bell Model 620

AEC No. 501586

Probe

F.W. Bell Model HTJ4-0618

S/N 110242

xy Plotter

AEC No. 159260

TABLE I EQUIPMENT LIST

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