## ROYAL SOCIETY OF CANADA

Outline of Method:—The intention was to make determinations of the specific resistance at a considerable number of different temperatures, but lack of time confined the observations to five particular points—namely, that of liquid air, about —185° C., that of carbonic acid snow and ether, about 77° C., that of melting ice, boiling water, and that of paraffin heated to  $160^{\circ}$  C.

No. of alloy.	Percentage Composition.			Atomic ratio of A to Mn.
	A1. 8.0	Mn. 32.1	Cu. 59.8	.51
2, 2A	9.7	25.6	64.6	.77
3, 3A, 3B	14.3	28.6	57.1	1.01
4, 4A	15.9	23.9	60 3	1.92

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Eight rods each about 15 ems. long, whose distinguishing marks are 1A, 2, 2A, 3, 3A, 3B, 4, 4A, and whose percentage composition is shewn in Table I were examined.

Before beginning the study of the resistance of the samples their permeability was roughly determined for purposes of comparison. To do this a ballistic method was employed, the rods being placed in a glass tube wound with a secondary coil, which was itself in turn placed inside a standard primary. No correction was made for end effects as a comparison of the relative magnetization values of the different specimens was all that was desired.

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