## CONTENTS

PAGE
Rankin, R. A. On the representations of a number as a sum of squares and certain related identities ..... 1
Kibble, W. F. An extension of a theorem of Mehler's on Hermite poly- nomials ..... 12
Harding, J. W. and Sneddon, I. N. The elastic stresses produced by the indentation of the plane surface of a semi-infinite elastic solid by a rigid punch ..... 16
Sneddon, Ian N. The symmetrical vibrations of a thin elastic plate. ..... 27
JaEger, J. C. Conduction of heat in a slab in contact with well-stirred fluid ..... 43
Girding, Lars. Relativistic wave equations for zero rest-mass. ..... 49
Powell, F. C. The dynamics of a simple system. I. Observables ..... 57
Research Notes:
Todd, J. A. The 'odd' number six ..... 66
Piagaio, H. T. H. Expansions of coordinates of points of a plane curve in terms 8 or $\psi$ ..... 68
Bartlett, M. S. Negative probability ..... 71
Erdelyi, A. and Kermack, W. O. Note on the equation
$f(z) K_{n}^{\prime}(z)-g(z) K_{n}(z)=0$ ..... 74

