

CONTENTS



| | |
|--|-----|
| INTRODUCTION | 9 |
| I. THE SCIENTIST AND SCIENCE. | |
| I. THE SELECTION OF FACTS | 15 |
| II. THE FUTURE OF MATHEMATICS | 25 |
| III. MATHEMATICAL DISCOVERY | 46 |
| IV. CHANCE | 64 |
| II. MATHEMATICAL REASONING. | |
| I. THE RELATIVITY OF SPACE | 93 |
| II. MATHEMATICAL DEFINITIONS AND EDUCATION | 117 |
| III. MATHEMATICS AND LOGIC | 143 |
| IV. THE NEW LOGICS | 160 |
| V. THE LAST EFFORTS OF THE LOGISTICIANs | 177 |
| III. THE NEW MECHANICS. | |
| I. MECHANICS AND RADIUM | 199 |
| II. MECHANICS AND OPTICS | 213 |
| III. THE NEW MECHANICS AND ASTRONOMY | 235 |
| IV. ASTRONOMICAL SCIENCE. | |
| I. THE MILKY WAY AND THE THEORY OF GASES | 253 |
| II. FRENCH GEODESY | 270 |
| GENERAL CONCLUSIONS | 284 |