## **CONTENTS**

|   | Page |
|---|------|
| I. EARLY DEVELOPMENTS                     |      |
| Beginnings of the Incandescent Light      | 7    |
| State of the Art in 1877                  | 11   |
|   |      |
| II. EDISON'S WORK                         |      |
| The Famous Laboratory Notebooks           | 15   |
| Edison's earliest experiments, 1877-1878  | 16   |
| Light experiments Resumed                 | 19   |
| Edison Electric Light Company Organized   | 21   |
| <b>Experiments on Platinum Lamps</b>      | 26   |
| A 90-Percent-Efficient Generator          | 31   |
| Low-Current Platinum Lamps                | 32   |
| The All-Glass Bulb                        | 34   |
| A Progress Report                         | 34   |
| Better Vacuum Pumps                       | 35   |
| Return to Carbon                          | 36   |
| Carbonized Paper Filaments                | 39   |
| New year's Eve Demonstration              | 39   |
| Bamboo Replaces Paper                     | 40   |
| Other Lamp Problems                       | 42   |
| Manufacture of Lamps and System Equipment | 44   |
| Early Applications                        | 46   |
| "I Have Accomplished All I Promised"      | 50   |
| Patent Difficulties                       | 52   |
|   |      |
| III. ADVANCES SINCE 1882                  |      |
| Today's Lamps Still Resemble Edison's     | 55   |
| "Treated" Carbon Filaments                | 56   |
| The "Edison Effect"                       | 58   |
| Squirted Carbon Filaments                 | 59   |
| The Tungsten Filament                     | 59   |
| Improved Vacuum; Getters                  | 59   |
| Gas-Filled Lamps; Other Advances          | 61   |
| IV. THE EDISON METHOD                     |      |
| Complete System Visualized                | 67   |
| r   | 0.7  |
| V. CONCLUSION                             |      |
| Who Will Be the Next, and When?           | 75   |