forms, which come and go. Those which are not quite so ephemeral remain and can be observed at any time.

For the last four years, collections of the red algae, *Compsopogon coeruleus,* have been made there. It is one of the rarer members of the family, and it is especially interesting to observe it spreading among local indoor pools and aquaria.

In January, 1934, approximately, *Lophopodella carterii,* the bryozoan, first appeared in the warm water of the greenhouse pools, and since has spread throughout northern Ohio. I have actually seen many plants covered with this beautiful form being sent to water-garden enthusiasts in various sections of the country. Interestingly enough, too, this same company has its main plant, seventeen acres of growing pools and greenhouses, located at Saddle River, New Jersey, the same state in which Dr. Dahlgren, of Princeton University, observed the animal.

CHARLES OTTO MASTERS
WESTERN RESERVE UNIVERSITY

COLLECTION OF UNORTHODOX CURIOSA

THE writer has in his possession about two cubic feet of pamphlets and books, nearly all "published by the author," which fall in the category perhaps most charitably designated as unorthodox hypotheses in science (they bear earmarks which scientific men will recognize from this description), and which he has thought of donating to some institutional library where there might be a special interest in the history of science. The collection, for its possible value as curiosa, may not be considered worth shelf room, but, on the other hand, it might prove to be of interest or value to future historians of science and civilization, showing as it would that ours was not yet altogether an age of science, and that there existed among the public considerable opposition to what is often sarcastically described as "orthodox science."

ALBERT G. INGALLS
SCIENTIFIC AMERICAN

SCIENTIFIC BOOKS

THE PAGEANT OF ELECTRICITY

The Pageant of Electricity. By ALFRED P. MORGAN. xxvi + 363 pp. D. Appleton-Century Company. 1939.

THIS book is one in the series of "Science for the Layman." The author has written numerous books on popular science and has been an editor of a boys' magazine. However, this book is for mature readers.

The pageant of electricity is a brilliant and fascinating exhibition from whatever angle it is viewed. Here is pictured chiefly the application of electrical principles in commerce, industry, human affairs. The body of the text is preceded by eight pages of chronology of important dates (about 120) in the history of electricity from Roger Bacon to the present time. Three chapters, seventy pages, suffice to bring the story up to Faraday. In these chapters brief, very qualitative statements are made concerning electrical principles. Then the author turns to applications, the development of the telegraph, the career of Edison, the history of the telephone, "electrons dispel darkness" or the story of electrical illumination, electricity carries burdens, electricity and chemistry (the story of aluminum), electron bullets or x-rays, Hertzian waves and radio (100 pages), Doctor Electron or electricity in the hospital.

The story is well told. There is a wealth of historical material, quite a little of which is not found in histories of physics. The author is obviously well acquainted with the commercial side of electricity, and with museums in which are kept models of early forms of telegraph and telephone instruments, early incandescent lamps, electric generators, electron tubes, etc. Many interesting cuts illustrate these devices. Any one desirous of reading the story of the evolution of electrical applications will find these pages appealing and instructive.

The book can not be regarded as a history of electricity from the point of view of a physicist. For example, in the first few pages the author discusses the electron theory of matter. Here he is at least eight years behind the times. For, according to him, the nucleus still consists of electrons and protons instead of neutrons and protons. The term neutron appears once, but there is no place for it in an atom. A conventional model of a hydrogen atom is shown as consisting of two positive and two negative charges. There are other minor criticisms which may be made by a physicist.

But when the author turns to the development of commercial electrical devices, he is at home. Especially is this true in dealing with the contribution of Edison, of Bell, Marconi, DeForest and Major Armstrong. The patent litigation between the last two *inventors* requires several pages for its telling. Here the author very vigorously takes sides. He intimates that the Supreme Court was incapable of understanding the point upon which judgment was to be rendered. "Decision was rendered in favor of De Forest on a matter of *law,* the court not undertaking to *pass on the facts*" (italics are the author's). "But Armstrong had