Brief mention should be made of some of the salient points brought out by the survey. On the basis of expenditures, more than two-thirds of the research was in the fields of forest products and utilization. Forestry schools play a major role in training research personnel and in the conduct of basic research. There is need for fellowships of $3000 to $4000 per year to attract qualified men for graduate training in sciences basic to statistics, silviculture, and other specialties. Agencies with adequate financing were conducting more quality research than those with limited funds. A serious shortage of qualified and well-trained personnel is critical in most fields, especially genetics, soils, and and wood technology. Cooperation in research dealing with forestry and related fields is as yet poorly developed. There appeared to be no lack of publication outlets for short papers, but a serious problem exists with long papers. Most scientific journals have considerable backlogs of manuscripts. Without reservations, I believe that this book will offer to all foresters, as well as to specialists in related fields, a rich background in the research that will be needed for the future development of one of the nation's greatest resources.

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**The History of the Telescope.** Henry C. King. Sky Publishing, Cambridge, Mass.; Griffin, London, 1955. xvi + 456 pp. Illus. $12.50.

A number of books, both popular and advanced, have included sections on the history of the telescope. However, H. C. King's book is the first major work devoted exclusively to its history. In 19 chapters averaging more than 20 pages each, King covers astronomical observations from pretelescopic times to the latest developments in optical and radio-telescopes. The book is profusely illustrated with drawings and photographs. Detailed references at the end of each chapter (for example, 90 at the end of Chapter I, 42 at the end of Chapter II) make the work invaluable for any professional astronomer or serious amateur.

Chapter I is a discussion of observational astronomy prior to the invention of the telescope, which culminated in the monumental work of Tycho Brahe. Chapter II is a discussion of the history of optics. Here King tries to evaluate the evidence regarding the identity of the true inventor of the telescope. Chapter III describes Galileo's construction of the first astronomical telescope and the work he did with it. Chapter IV and the following chapters describe the inventions and technologic improvements that have led to the large telescopes of the present day. Attention is paid to the specialized optical needs of different branches of observational astronomy. The book concludes with a 13-page index.

Everyone who is interested in the history of the telescope is indebted to King for writing such a fine book and to the Sky Publishing Corporation for producing it in such attractive form.

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**Problems and Control of Air Pollution.** Proceedings of the First International Congress on Air Pollution held in New York City, 1–2 March 1955 under the sponsorship of the Committee on Air-Pollution Controls of the American Society of Mechanical Engineers. Frederick S. Mallette, Ed. Reinhold, New York; Chapman & Hall, London, 1955. vi + 272 pp. Illus. $7.50.

In recent years, the interest of scientific and technical groups in air pollution has increased rapidly, resulting in an epidemic of symposia at which the expanding activities in this field are reported and discussed. The proceedings of many of these meetings have been published as pamphlets, as special sections of technical magazines, and occasionally in book form, as in the present instance. F. S. Mallette has assembled the 25 papers presented at the First International Congress on Air Pollution, held at the American Society of Mechanical Engineers 75th anniversary meeting in New York, 1–2 March 1955.

The book was therefore written by 30 authors in addition to the editor, since several of the papers were written by two or more persons. Each paper comprises a chapter in the book. Four of the authors are from England, two from Canada, two from the Netherlands, and one each from Portugal, Italy, and France, and the rest from the United States. The group consists of distinguished experts.

The first two chapters deal with the history of the subject, with public opinion, and with the role of industrial management. The next five chapters were grouped together by the editor because they all stress the gaps in existing knowledge regarding air pollution and the need for futher research. However, these five chapters are very diverse, dealing with biological, geographic, engineering, meteorological, and health aspects of air pollution.

The next four chapters describe current developments, again in diverse fashion, from diesel exhaust and incinerators to optical measurements of aerosol particle size, and an atmospheric survey of Sarnia, Ontario.

The next eight chapters are less diversified, for they all relate to sulfur, sulfur dioxide, and hydrogen sulfide. Three discuss power plant stack gases, one deals with oil refineries, one with the steel industry, one with coke ovens, and one with the chemical industry. The initial chapter in this group is concerned simply with the world supply of sulfur, with air pollution as an incidental consideration.

The final five chapters relate to experience in air pollution abroad, in Holland, Portugal, Italy, and France. The first chapter in this group connects the the efficiency of a Cyclone with the size of its outlet pipe. The third chapter describes forest damage by air pollutants from a smelter and from oil engine exhaust. The other three chapters are more general in scope.

The book should be a valuable and convenient reference for the large and growing group interested in this subject.

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**Chemistry and Chemical Technology of Cotton.** Kyle Ward, Jr., Ed. Interscience, New York–London, 1955. xix + 782 pp. Illus. $20.

Textile technologists have been exceptionally fortunate in the past 2 years in having had made available to them three quite exceptional surveys of the properties of textile fibers. The first of these, *Textile Fibers, Yarns & Fabrics,* by Ernest R. Kaswell, presented a broad review of fiber properties in relation to the functional characteristics of textiles with special reference to wool. The second, *Harris' Handbook of Textile Fibers,* is more a compendium of data from various sources on fiber and fabric properties without special orientation toward particular materials. The third, which has now become available, is, in a sense, a corresponding volume on cotton fibers and fabrics.

A comparative study of the three works shows interesting relationships as well as contrasts. The Kaswell book places much emphasis on the physical and mechanical properties of textile fibers. The new book by Kyle Ward on cotton, in contrast, is focused to a large extent on the chemistry of cotton. Perhaps this is the more important approach to the study of cotton, and readers will certainly be grateful to Ward for the comprehensiveness with which he has surveyed the field and brought together