of California officials are about ready to adopt for their publication material of all departments the settled policy of curtailing or excluding generally explanatory discussion which is plainly redundant or needlessly explicit, and of curtailing or excluding tabular, statistical or other exhibitive matter which is likely to receive little or no attention from most readers. But, in order that such exhibitive material shall not be lost to permanent record (where its value may be far superior to mere textual discussion) it is expected that limited numbers of copies of such matter will be mimeographed or otherwise duplicated and placed in certain repositories designated because of their accessibility to those persons most likely to need such records.

Such a plan seems to offer the best possibilities for meeting the adverse conditions mentioned, but since it is probable that in many or most cases the individuals or organizations concerned will be expected to arrange matter for deposit there is danger of much confusion in the process of accumulation at points of deposit.

Possibly the National Research Council can give early assistance in the matter by obtaining the consent of available institutions to act as repositories and also by classifying them according to local interests if that should seem desirable. For example, an institution in Indiana would not be very favorable as a place of deposit for most marine material.

Provision should also be made for putting deposited documents in fairly uniform packages. In the case of statistical tables such as my own the ordinary typewriter sheets (8 x 11 inches) would probably be most satisfactory. It would then be an easy matter for the institution of deposit to tie them up or put them in clip binders for convenient and economical storage.

If definite plans can be made for some such dispersal they will surely greatly expedite the issuance of papers using large volumes of quantitative and statistical records. Such papers may then get into print and into use while still comparatively fresh. Furthermore the worker in such lines will not have so much reason to be discouraged by long delay in publication, following the monotony (and sometimes dreary drudgery) of making, accumulating and interpreting the records.

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ALFRED GOLDSBOROUGH MAYOR

TO THE EDITOR OF SCIENCE: When I saw the name "Alfred Goldsborough Mayor" at the head of Dr. Woodward's most interesting and appreciative notice of his late associate I suspected a typographical error, but when I saw the same name "Mayor" throughout the article and found it the same in "Who's Who" and in the list of members of the National Academy of Sciences, I realized that a change, which had escaped my notice, in the spelling of this well-known name had been made by the son of my old friend, Professor Alfred M. Mayer, the charming and accomplished professor of physics who for so many years was the head of that department at the Stevens Institute of Technology.

One would like to know the reason for this, which may have been due to the not infrequent pronunciation of the original spelling as if it were "Myer," but this seems an insufficient excuse for abandoning a form so long and so well known in the world of science and art.

Besides the distinguished father of the late biologist, his uncle, Frank Blackwell Mayer, was an eminent artist who studied in Paris, exhibited in the French salon, won a prize for his paintings at the Centennial exhibition in Philadelphia and made special studies of Indian types in the west.

His father's uncle, Brantz Mayer, was a distinguished historian and archeologist, the author of numerous volumes and the founder of the Maryland Historical Society.

Alfred M. Mayer also studied in Paris and always exhibited a fondness for and even a prejudice in favor of French men, methods and books, and I had always assumed that the family was of French origin, a hypothesis which received some confirmation in the fact that one "Constant Mayer," a French artist, came to this country about the middle of the

last century and rose to distinction in his profession, though I have no evidence of his being closely related to the Maryland Mayers.

By all of the latter, except the subject of Dr. Woodward's sketch, the name was invariably spelled with an "e" in the last syllable. The future student of heredity is very likely to be misled by this change, which seems unfortunate unless there existed some sufficient reason, not apparent at this moment.

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SCIENTIFIC BOOKS

Terrestrial and Celestial Globes, their history and construction including a consideration of their value as aids in the study of geography and astronomy. By EDWARD LUTHER STEVENSON, New Haven, Yale University Press, published for the Hispanic Society of America, 1921, Volume I, xxvi + 218 pp., 95 plates; Volume II, xii + 292 pp., 72 plates.

These magnificent volumes present in a most interesting way the development of globes from earliest times up to the nineteenth century. The first volume treats terrestrial globes in antiquity, celestial in antiquity, globes of the Arabs, globes of the Christian middle ages, those constructed in the period of the great discoveries, and in four further chapters globes of each quarter of the sixteenth century. The second volume discusses globes of the seventeenth and eighteenth centuries in two chapters each, with a final chapter on the technic of globe construction, including materials and methods particularly of making the gores.

A bibliographical list, which makes no pretense of being exhaustive, gives approximately 600 titles; an "Index of Globes and Globe Makers" occupies 25 pages; and finally a "General Index" follows, occupying 16 pages. For use as an ordinary index the inclusion of items of the bibliographical list and names given in the index of globes and globe makers would have been highly desirable. As it is all three indices must be consulted to determine whether given items are mentioned in the work.

The section devoted to Arabic globes and the section relating to globes in antiquity are based upon material of thirty years ago and longer. There is more recent material, and the use of modern works would have improved these chapters. In particular no mention is made of Suter's great work on the mathematicians and astronomers of the Arabs[1] which includes the references of the Fihrist. Suter mentions as writers on the use of the armillary sphere, or on the planisphere or astrolabe, Al-Sufi and Al-Fazari (p. 3) of the eighth century, Al-Nairizi of the tenth (p. 45) and also Al-Biruni, Al-Zarkali of the eleventh, and Ibi- al-Bannah, whose activity extended into the fourteenth century. Al-Zarkali's instruments were famous and one of his works discussing instruments was published in Latin translation by Johann Schoner at Nürnberg in 1534.

With reference to the Greek conception of a globular earth the works of both T. L. Heath[2] and of the late Pierre Duhem[3] contain the latest and best information by the highest authorities on these matters. It may be of interest to note that Theon of Smyrna C. 150 A.D. (ed. J. Dupuis, Paris, 1892, p. 287) states that the Babylonians "explained celestial phenomena" and were able "to predict celestial phenomena to come, the Chaldeans by the aid of arithmetical methods, the Egyptians by graphical methods."

The bibliography could easily have been extended to give more adequate conception of the wide interest in globes, and the large amount of literature bearing directly upon globes in works of the sixteenth to nineteenth centuries.

Probably the most notable omission is that of any reference to one of the earliest works in the English language containing an extensive discussion of both celestial and terrestrial globes. Robert Recorde, an English physician,

[1] Suter: "Die Mathematiker und Astronomen der Araber," *Abhandl. zur Geschichte der Math. Wissenschaften*, Vol. 10, 1900.

[2] T. L. Heath: "Aristarchus of Samos, . . . A History of Greek Astronomy to Aristarchus, etc.," Oxford, 1913; "A History of Greek Mathematics," Oxford, 1921, 2 vols. In Vol. II, pp. 17-18, Heath states that Archimedes wrote a work on *Sphere-making* which is lost.

[3] "Le Système du Monde," 5 vols., Paris, 1913-1917.