INVESTMENTS IN SCIENCE AND SCIENTIFIC PUBLICATIONS

DONATIONS for the advancement of science may properly be considered as investments and hence to be guided by the practice which sound business experience has established to safeguard both principal and interest. To be justified in receiving benefactions, a scientific organization should satisfy the following requirements: (1) The funds made available should render a service of distinct value. (2) Evidence should be at hand that the funds will be administered economically. These two requirements may be summed up by saying that an investment in the way of donations for the advancement of science should be subjected to as careful checks, both by the recipient and by the donor, as would be a financial investment in order to ensure a profitable yield in the way of scientific dividends. (3) There should be as adequate and permanent recognition of the service rendered as is given to memorial buildings or to signed articles which embody the discoveries in science.

Let us see how these principles might be applied to an investment in the publication of a scientific society devoted, let us say, to biological interests. (1) An outstanding need in science is an increase in the facilities for making known the results of research, a need which appears less well recognized outside of active investigators than the need for buildings and salaries. (2) Let us assume that our biological journal under discussion had a wide circulation so that its contributions were readily available to biologists throughout the scientific world. Let us assume further that it could be shown that the journal was managed economically and that its editorial policies were such that the articles published were of high quality. (3) The third requirement of recognition to the donor might be met by a statement on the cover of the journal regarding those who had subscribed to certain units which might read somewhat as follows: "The publication of this journal has been aided in part by the income from the John Doe Fund." This statement might or might not be accompanied by a medallion such as appears on the title page of all publications of the Carnegie Institution of Washington and of some other organizations. Such a statement would be an enduring recognition of a continuing service. Units might be established at $25,000 each which at four per cent. should yield $1,000 or, in terms of publication, a total of upwards of 200 additional pages of the usual format. Units of less amount might not be desirable since the number of units would probably be limited. A unit would bear the donor's name beginning with the subscription, or it might remain anonymous during his life time. Arrangements for a unit could also be made in one's will. A unit would be a fitting investment of a fund in memory of one whom a number of contributors wished to unite in honoring.

Among the specific needs which are likely to be felt by a scientific society such as we are discussing may be mentioned the following: (1) Facilities for publishing more papers. (2) Better illustrations. (3) A monograph series for important papers of greater length than can be handled in its journal. (4) Payment of some salary to the editor-in-chief as is done for a certain few other journals. The editor's work is probably entirely voluntary and a society can not keep a good editor for long periods on this basis, especially if his labors were to be increased by an enlargement in the size of the journal made possible by an endowment.

The desire to have one's name perpetuated in after life in some material way is a normal characteristic of the human mind and is to be commended. The builders of the pyramids expressed this desire in huge piles of stones which endure to this day as gigantic tombstones in the desert. The modern world is more practical. It desires its memorials to have a large element of service. Science can be of help to those seeking a substitute for tombstones and memorial buildings by offering opportunities for enduring recognition of service rendered and by insisting that benefactions received shall be considered as investments with high dividend yields in service to science.

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PUBLICATIONS OF THE U. S. NATIONAL MUSEUM

I HAVE recently received the report of the U. S. National Museum for 1935. In it, I read (page 2):

> The only slightly increased allotment for printing and binding was little beyond the amounts absolutely required for the annual report and for blanks, forms, labels and similar routine printing. Researches on the extensive collections of the museum form important contributions to all branches of science and are of wide application in the progress and welfare of our country. At present while our research work progresses steadily, only a very small fraction of the new information gained can be issued because of lack of funds for printing. The result is a definite public loss. And again (p. 13) On account of the greatly reduced allotments for printing for the museum, the publications output of the editorial office was small. Only eight publications [all small, none of 100 pages, except the Annual Report] were issued during the year.

It seems incredible that the U. S. Government, certainly not averse to large expenditures, should feel

unable to furnish the relatively small amount necessary to render fruitful the work of the museum. One consequence is that the research work does not go on as it should, and in particular those specialists who would gladly cooperate with the museum have to turn elsewhere, often to foreign institutions, as I could readily explain in detail. There is, underlying these matters, a not unnatural difference of opinion. Most of the output of the museum ministers to the cultural side of life, to the advancement of knowledge, without obvious immediate economic significance. The ultimate economic significance of such knowledge can be urged with every reason, but this does not interest the man whose needs are pressing at the present moment. Much of the work, however, has a cultural purpose, giving real value to those who can utilize it but barren to those who can not.

Recently I took part in a symposium on adult education, held in Denver. I ventured to urge the publication of a series of small books, designed to interest the public in the natural history and physical features of the state. Directly I sat down, I was confronted by a prominent trades union representative, who exclaimed, with some show of emotion, that all those things were useless, if a man did not have a job. I could understand his point of view, but it seems to me that we must continually urge the importance of the cultural side of life, without which the economic security we all desire will prove a qualified blessing.

T. D. A. COCKERELL

THE FALL OF BROWN SNOW IN NEW HAMPSHIRE

DURING the early morning of February 25, 1936, about 2 cm of sleet and hail fell at Hillsboro, N. H., following about 10 cm of light snow the evening before. The hail had a distinctly brownish, purple color, and contrasted strongly with the pure white new snow beneath when the crust was broken. Close examination revealed that the color was due to minute particles of soil. The day before newspapers had reported severe dust storms in Colorado and other parts of the West. Connection between the two occurrences seems generally accepted. In order to determine the amount of silt deposited, 3 samples 1 sq. m. in area were laid out on level ground about 100 m. apart, and away from trees or buildings near Hillsboro, N. H., alt. 800′. All the snow and hail showing discoloration was removed from the sample areas with a clean plate and placed in clean enameled kettles. When melted the resulting water was distinctly dirty and some sediment quickly settled out. Dark purple, oily bubbles were common on the surface. After standing one week in a large graduate the suspension had cleared partially, but the purplish film persisted on the surface. The water from the meter-square samples was evaporated by boiling and the sediment collected in a Gooch crucible in sample I and in weighed filter papers in II and III after it had proven extremely slow work to get water to pass through the soil collected in crucibles. The samples were then oven-dried, cooled in a desiccator and weighed. The results were as follows:

	Wt. of silt deposited on 1 sq. m.
Sample I	1.6192 grams
Sample II	1.1600 grams
Sample III	1.6682 grams
Av.	1.3825 grams

This is at the rate of 1,382 kg. per sq. km. and roughly equivalent to 12.3 lbs. per acre or almost 4 tons per sq. mile.

HENRY I. BALDWIN

HILLSBORO, N. H.

THE OSBORN LIBRARY OF VERTEBRATE PALEONTOLOGY

AMONG other interests the late Professor Henry Fairfield Osborn was deeply concerned with the problem of making the literature of vertebrate paleontology accessible to workers, not only through bibliographies in which he strongly believed, but by collecting the actual volumes and separata in one departmental library. To that end he established the Osborn Library of Vertebrate Paleontology in 1908, presenting his personal library as a nucleus. To this the American Museum of Natural History added such volumes as it already possessed, its very excellent file of paleontological periodicals which it has kept up to date, and continued purchasing such new volumes as its funds made possible.

As in any departmental library, however, the separata are the greatest needs of the worker, Professor Osborn continued to turn over to the Osborn Library files of those papers which he received from his colleagues. Among the minor results of his death is the fear that this library which he founded will have its usefulness diminished because comparatively few of those actively engaged in paleontological publication realize that securing author's separata is an almost impossible task without the author's cooperation.

It is earnestly urged that those who have exchanged papers with Professor Osborn during his life will continue to keep the Osborn Library on their lists. It will be at once a tribute to Professor Osborn's memory and a service to fellow-workers since the Osborn Library is open to all. To those who are newcomers in the field it may be said that the gift of their papers will be a courtesy which will be deeply appreciated.

BARNUM BROWN