

few independent journals for general zoological papers, such as the *American Naturalist* and the *Biological Bulletin*, both intended for shorter contributions; and the more recent *Journal of Anatomy*, which is limited, however, mainly to vertebrate anatomy. Foremost among the independent journals is the *Journal of Morphology*. It has done its duty nobly; we are proud of it and ready to maintain it; but it should have two or three volumes a year, instead of a single one, and as many more as may be necessary.

That these avenues of publication are far from sufficient for the amount of investigation is shown by the fact, already mentioned, that a large number of American papers are being published abroad, and that American editors are obliged to insist upon small volume of text and paucity of illustrations. Occasionally a Mæcenas has come forward and made possible the publication of a large work; but obviously investigation cannot depend upon such sporadic aid. Contrast our relatively small number of journals with those in Germany. There, in addition to the publications of societies, which are more numerous than our own, and some of them much more sumptuous, are a large number of independent journals: the *Anatomischer Anzeiger*, *Zoologischer Anzeiger*, *Biologisches Centralblatt*, and others intended for shorter papers; and for larger monographs the *Zeitschrift für wissenschaftliche Zoologie*, *Archiv für mikroskopische Anatomie*, *Morphologisches Jahrbuch*, *Jena'sche Zeitschrift*, *Zoologische Jahrbücher*, *Anatomische Hefte*, *Ergebnisse der Anatomie und Entwicklungsgeschichte*, *Archiv für Naturgeschichte*, *Archiv für Protistenkunde*, and others. America can make absolutely no comparison with that array, which includes only the more notable journals. France and Austria also outdo us in facilities for publication.

To our shame it must be said that our avenues of publication by no means keep pace with the increase in work of investigation. It is not a new fact; it is a case of bringing owls to Athens to recall this state of affairs to the readers of SCIENCE. But the condition of apathy that has existed in regard to it

needs to be replaced by one of activity. There are rich men who can finance our zoological publications if the matter be brought to their attention in the right way; an ample endowment fund for large monographs, safeguarded by a competent board of critical editors, is not chimerical, but entirely feasible. The society should feel itself honored by the tender of a good monograph, and not the author by its acceptance for publication; good work should not go a-begging. There should be a concerted attempt to strengthen all the present journals, by increasing already existing publication funds and by multiplying the number of subscribers. Can not the matter be so presented to rich men that they may see an endowment fund for publication is of greater service than the founding of a university? Few men are so made that they have so much delight in the discovery itself, that the charm is not enhanced by making it known to others; obstacles in the way of publication, such as there are to-day without need, may do much to dishearten research.

One word of warning must be said: we do not need new journals, but a financial strengthening of those that we already have. And because, first, we owe support to the journals that have stood by us; second, because concentration is wiser than extensification, and, third, because a new journal, whose name has not yet become known, means practical burial for the papers contained in its earlier issues.

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THE BISHOP COLLECTION OF JADE AND HARD-STONE OBJECTS.

HEBER R. BISHOP was born March 2, 1840, at Medford, Mass., and died in New York City, December 10, 1902, at the age of sixty-three years. Mr. Bishop recently presented his famous collection of jade and hard-stone objects to the Metropolitan Museum of Art, New York City, and gave the sum of \$55,000 for its installation in suitable cases, to be made in Louis XV. style by Allard, of Paris, one of the leading artisans of France.

And if this is not enough his estate will add to this.

A special hall will be set aside for it, to be known as 'Bishop Hall,' where it will be displayed in the finest solid gilt-bronze, plate-glass cases, but it will not be upon exhibition until a year from this time.

This is the finest collection of jade objects, engraved and jeweled, that exists in any public museum or private collection. It numbers more than one thousand specimens and fully represents all phases of the artistic development of this interesting material. The collection was started by the purchase of the Hurd jade vase from Messrs. Tiffany & Co., in 1878. This was one of the finest pieces that ever left China, and led to Mr. Bishop's taste for collecting such objects.

The collection will be described in a volume, which when published will probably be one of the most remarkable, expensive and sumptuous books ever issued, limited to an edition of one hundred copies.

Nearly ten years ago, Mr. George F. Kunz began the preparation of a mineralogical, geological and archeological description of the collection, to be published in this great catalogue, upon which Mr. Bishop had expended more than \$100,000 at the time of his death. The scientific investigation was given entirely to Mr. Kunz, and he associated with him about twenty of the most eminent men in various related lines upon both sides of the water; and a more thorough investigation of this mineral has been made than was ever perhaps undertaken upon any other known mineral. The specific gravity, the tensile strength, the compression test, the sonorousness of the mineral from a musical point of view; a chemical investigation, a microscopical study, a microscopical examination of the thin sections; the origin of the mineral, the mining, the archeological history; the cutting, drilling, polishing, and many other phases, were gone into most thoroughly; and where a specialist existed who more minutely understood any special branch, he was called upon by Mr. Kunz to carry out the work.

The volume upon publication will go only to public institutions. The foreign etchings by French and Chinese colonists are unequalled. Many of the color illustrations are by Prang, who made those in 'Gems and Precious Stones of North America,' so well known by our readers. It was this work that suggested the color illustrations for the Bishop book on Jade, as well as for the magnificent Walters book on Chinese porcelains.

SCIENTIFIC NOTES AND NEWS.

THE Nobel Prizes, if the statement now cabled from Sweden is correct, have been awarded as follows: *Medicine*, Major Ronald Ross, of the School of Tropical Medicine, Liverpool. *Chemistry*, Professor Emil Fischer, of Berlin. *Physics*, divided between Professors Lorenz and Zeemann, of Holland.

THE Cambridge Philosophical Society has elected as honorary members Professor H. F. Osborn, Bayley Balfour, A. H. Becquerel, E. Fischer, Richard Heymons, J. H. van't Hoff, M. Jordan, W. K. von Röntgen, Corrado Segre and Hugo de Vries.

MR. PHILIP MACMILLEN, director of the Queensland Botanic Garden at Brisbane, has been elected a corresponding member of the Royal Botanic Society of London.

W. H. OSGOOD, of the U. S. Biological Survey, has just returned from a biological exploration of the base of the Alaska Peninsula and the region between Lake Clark and Nushagak River. This work is in continuation of his previous explorations of the Yukon River and Cook Inlet regions, the results of which have been already published in North American fauna.

PROFESSOR J. C. ARTHUR has been granted a month's leave of absence by the authorities of Purdue University, and will spend January at the N. Y. Botanical Garden in researches on the genera of the Uredineæ and their types.

DR. M. A. HOWE, assistant curator of the N. Y. Botanical Garden, has returned from a six week's collecting trip along the coast of Florida, bringing a large number of specimens of the algal flora of the Keys. Professor