translation remarks as to this that the vinegar of the present day does not have any such property. If this commentator, however, had had even a little knowledge of chemistry, he might have remembered that the acid of vinegar may cause a considerable effervescence of carbonic acid when brought into contact with chalky or calcareous soils.

In testing the purity of minerals and precious stones the ancients seem to have acquired considerable dexterity. The use of the touch-stone (Coticula) for determining the purity of precious metals and their ores was well known to the Romans and employed with such accuracy, according to Pliny (book 33, ch. 43), that the proportion of gold, silver or copper could be told instantly, even to the smallest fraction. In detecting the imitation of gems and precious stones—concerning which Pliny (book 37, ch. 75) states that most colossal deceptions were practised and in no other kind of fraud greater profits made—the ancients were in many ways as skillful as the jewelers of to-day. They employed the balance, tested certain optical properties, and even used a scale of hardness (book 37, ch. 76), it being recognized that some stones could be scratched with a blunt knife, while others could not be marked with the hardest obsidian.

Lack of space forbids giving other examples of the methods employed by the ancients in testing the purity of the commodities of life. The examples cited however show that the fragmentary records of ancient science preserved by Pliny, full as they are of inaccuracies and absurdities, contain a large amount of reliable chemical knowledge. And if the 474 authors whom Pliny consulted in the preparation of his "History" had come down to us intact we may be sure that our knowledge not only of historical, but also of practical, chemistry would be greatly enriched.

C. A. Browne

New York

Evolutionary Collections as Monuments to Darwin

To the Editor of Science: In connection with the recent announcements that special collections in honor of Darwin are to be formed at the American Museum of Natural History, and that Haeckel intends to devote the remainder of his life to his phylogenetic museum, I venture to call attention to the subjoined selections from my address, "Educational Museums of Vertebrates," before the Biologic Section of the American Association for the Advancement of Science in 1885 (see the *Proceedings*, vol. 34, and abstract in Science, September 11, 1885):

A statue of Darwin has been unveiled in London with honorable ceremonies. What monument to his memory could be more appropriate or lasting than the formation, in all educational institutions, of collections especially designed to exhibit the facts which he made significant, and the ideas which his knowledge, his industry and his honesty have caused to underlie the intelligent study of nature throughout the world. Such collections should particularly embrace series illustrating human peculiarities, not only as to skeleton, but as to brain, heart and other organs; human resemblances to mammals in general; features that unite man with the tailless apes, and separate them from all other mammals; transitory human organs and conditions that resemble the permanent organs and conditions of other mammals, especially apes; human anomalies resembling the normal structure of apes; anomalies and malformations affecting man and other vertebrates in a similar manner; apparently useless or detrimental organs or conditions.

Burt G. Wilder

Ithaca, N. Y.,
February 13, 1909

Quotations

The Future of Yale

If I were president of Yale! But that is inconceivable. I was never in the hereditary line of descent. Besides I stepped out of all other lines that tend toward New Haven when, forty years ago, after getting more or less ready for Yale, I went as a pioneer to untried Cornell. I went because botany and geology and European history at Cornell counted for as much as Latin or Greek; and now I have to take the consequences.