

## SOME RECENT ACCESSIONS TO THE MINERAL COLLECTIONS OF THE UNITED STATES NATIONAL MUSEUM.

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During the last two years the Department of Mineralogy of the United States National Museum has acquired, mainly through gifts, material of especial merit. The specimens listed below do not cover the entire number of exceptional materials presented by friends of the museum, but only some of the very finest. These notes do not contain any new data, but are simply intended to call attention to these exceptional specimens.

One of the most remarkable specimens acquired in recent years is a group of cinnabar crystals (U. S. Nat. Mus. 93261), presented by Mr. Nelson T. Johnson, United States consul at Changsha, China. The locality is Hunan Province, China. Specimens of cinnabar from here have been known for some time, but because of the intermittent working of the mines few specimens have found their way into Europe and the United States. The one obtained by Mr. Nelson is perhaps the finest in the United States. It consists of a mass of crystallized quartz, the crystals ranging up to 3 millimeters. Upon the face of the specimen are eight brilliant, deep red penetration twins of cinnabar averaging over 3 centimeters in size. In the cavities and scattered over other portions of the specimen are a number of smaller ones. The brilliancy of the crystals and their deep red color contrast strongly with the fine drusy background of quartz. The lower figure on plate 18 shows the specimen in natural size.

Hunan has also become famous for its arsenic minerals. Mr. Ralph W. Weymouth presented to the museum several of these, among which was a mass of pure arsenolite (U. S. Nat. Mus. 93432), weighing almost a kilogram. It is a portion of a crust 7 centimeters thick and banded with narrow layers of red. The upper crust is partially covered with a layer of native arsenic.

One of the largest and finest scheelite crystals ever found has been donated to the museum by Mr. J. Morgan Clements. The locality is Ryudo, Chushihoku Province, Korea. It is a simple pyramidal



crystal, with the lower portion incomplete where it has been attached to a matrix of quartz crystals, several of which are embedded in the lower portion. The color is smoky brown, similar to the color of many smoky quartz crystals. The edges are exceptionally sharp and the faces bright and lustrous, an exceptional feature for so large a crystal. The upper figure on plate 18 shows the crystal reduced one-fourth.

Among a recent gift of Mr. C. S. Bement is a remarkably large and clear crystal of danburite (U. S. Nat. Mus. 93384) from Obira, Japan. The crystal is 3 centimeters long and 2 centimeters wide, colorless, and transparent. The faces are sharp and brilliant. The prism zone is striated, but the pyramids and domes have a very high polish.

Another gift of Mr. Bement is a large specimen of the variety of vesuvianite known as wiluite from the mouth of the Achtaragda River where it joins the Wilui River in eastern Siberia. The vesuvianite was first found here in 1790, but because of the remoteness of the region specimens in collections are somewhat rare. The perfection of the crystals and the pleasing combination of dark green, highly lustrous crystals, and light gray background make them much sought after. The specimen presented by Mr. Bement (93387) measures 18 by 18 centimeters and shows 15 large, brilliant, and well-formed individuals on one face. The most prominent face is the prism of the second order and they are terminated by the pyramid and base. Through the matrix are scattered small crystals of achtaragdite, showing as triangular cross sections. Plate 19 shows the specimens somewhat reduced.

From the same locality as the vesuvianite and occurring in the same tuffaceous rock is a specimen of achtaragdite from Mr. Bement. This mineral is unique in that its form is the tristetrahedron. The only other mineral showing this form alone is helvite, and for this reason achtaragdite is considered pseudomorphous after that mineral. In spite of its uncertain character as a definite species the unusual size and habit of its crystal makes it one of the most interesting of minerals. The specimen recently acquired is a mass of the tuffaceous rock with three well-formed achtaragmites over 3 centimeters in length and a number of smaller ones. They are light gray in color and project prominently from the matrix. The upper figure on plate 20 illustrates the specimen described and shows well the form of the crystals.

Crystals of zincite are of great rarity, and the museum was fortunate in acquiring by gift from Mr. C. S. Bement a specimen showing six, the largest being over 3 centimeters in length. They are well defined though not brilliant. Coating some of the crystals and lining some of the cavities is the new mineral gageite. The lower figure on plate 20 shows the habit of the crystals.



Still another gift of Mr. Bement is a specimen of friedelite, also from Franklin Furnace (U. S. Nat. Mus. 93391). Scattered over the specimen are clear, glassy willemite crystals of a light green color. They are made up of the hexagonal prism and terminated by the rhombohedron. The friedelite forms rich brown masses attached to the willemite crystals and also as botryoidal coatings over the rock. The ground mass in some places is made up of small, brilliant yellow crystals of garnet. The combination is pleasing and attractive.

Another gift of Mr. Bement is a crystallized specimen of leucophoenicite, consisting of a mass of barite with interspersed crystals of franklinite upon which is a crust of leucophoenicite 4 centimeters in thickness. The surface of a large portion of this crust is covered with brilliant rose red crystals. Coating a portion of the face and also lining cavities and between the plates of barite are masses of felty sussexite of pale pink color. Qualitative tests show that this is the true sussexite and not the calcite zincite mixture so commonly called by that name. The specimen, therefore, is interesting not only crystallographically, but also as an association of these two rare minerals.

Other specimens deserving mention are the rare carbonate nesquehonite (U. S. Nat. Mus. 93755), the gift of Samuel Gordon; inyoite from Nova Scotia presented by Albert Manufacturing Co., (U. S. Nat. Mus. 93768), a new locality for this mineral; an unusually large twinned quartz crystal from Japan and two unusually large and clear crystals of willemite, and a brilliant cut stone of deep yellow color, weighing 11 carats, of the same material from Franklin Furnace (U. S. Nat. Mus. 93389), from Mr. Bement.



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