date she was in about latitude 17° north, longitude 125° west. The captain's wife, Mrs. Davis, described the phenomena to me as extremely brilliant.

S. E. BISHOP.

Honolulu, Jan. 30.

The Philadelphia biological institute.

The proposition of Professor Allen of the University of Pennsylvania for the establishment of an institution for the education of both sexes in biological science, is one that he, and many others like minded, have long hoped to see established in Philadelphia. Indeed, it was somewhat expected, when the large building-fund that enabled the Academy of natural sciences to put up its present elegant quarters was asked for, and generously subscribed to principally by the manufacturers of Philadelphia, that something of the kind Professor Allen asks for would be the result. The writer was principal of the school of design for women at the time the successful effort was being made for a new building for the academy; and well does he remember the promises that were then made as temptations to contributors. It may be that 'the representative members of the academy' think that the quite limited extent of the 'educational' plans that they have been pursuing is a fulfilment of the promises then made; and perhaps they are, as they understood it at the time. Yet do I feel quite certain, that if the gentlemen who so generously helped the academy then, and before that time, also were told that the controlling parties of the academy were to refuse to put the building and what there is therein to the use of extended scientific education, it would be to most of them, if not to all, a surprise. I do not mean to say that the academy people have refused to do so; but it looks, from your 'Comment and criticism,' as if something of that kind had been done. My long and intimate experience with 'representative members' of public educational institutions has impressed my mind strongly with the idea that those gentlemen fail to draw distinction enough between themselves and the schools they represent; and, being placed there to manage and direct, they too often seek to carry out *their own ways*, rather than consider broadly the full purpose, scope, and public usefulness, of the institutions under their care, which should ever be rule, amongst evolutionists at least.

The Academy of natural sciences in Philadelphia would be a grand central body, magnificently prepared as a starting-point for biological education; and it would be a pity indeed, if the generous citizens of my old city should be put to the expense of another distinct building, and its professors to the trouble and expense of getting together another collection, perhaps to be placed within a few hundred yards or feet of the present academy. Would it not be more than a mere pity?

T. W. BRAIDWOOD.

Cassiterite from King's Mountain, North Carolina.

Mr. Robert Claywell, a student at the high school at King's Mountain station, on the line between Cleveland and Gaston counties, found in the street of the village a piece of mineral, which he sent me for determination. The mineral turned out to be massive cassiterite, the first found in this state. Ascertaining that there was a considerable amount of it scattered through the surface-soil there, I visited the locality, and instituted some explorations.

My expectations were more than verified when I found pieces of cassiterite from the size of an egg to the finest sand, loose and sticking in quartz, scattered over the surface in a belt beginning about the centre of the village, and extending southward a mile or more. Several shafts were sunk, and trenches dug, which finally exposed a main vein and several smaller veins of quartz and quartzite, bearing the tinstone. The veins are nearly vertical; direction of outcrop, north-east with the rocks of the country. The wall-rock is a mica schist, which is broken down from both sides of the vein at places farther than has been dug. The chief accompanying minerals are tourmaline, titanic iron, mica, and, less abundant, zirkon and rutile. At points the tinstone is disseminated abundantly through the vein-rock: at other points little is found. It is mostly in small grains mingled with the other minerals, tourmaline chiefly. Changes of temperature have broken it out of the surface-rock; and washing the soil yields a black sand, which is composed of the dark-colored minerals mentioned.

The cassiterite is mostly massive or semi-crystallized. I have noticed the forms P, P∞, ∞P, and ∞P∞ in only a few specimens. Hardness, 6.5 to 7; specific gravity, 6.6 to 6.9; color, generally dark brown, but varying from black to almost colorless; composition, mostly an impure cassiterite, with 50 % to 60 % of tin, some specimens running as low as 46 %, others, light-colored ones, as high as 74.4 %. The other ingredients are silica and oxide of iron. So far, I have not detected any sulphur or arsenic.

According to Dr. Emmons, the village of King's Mountain is near the dividing-line between the Laurentian granite and the Huronian slates. To the east of the village the rocks are micaceous and slaty quartzites, talcose slates, and bluish crystalline limestone. A few miles west are the hornblende slates, gneiss, etc.

The only remark on tin which I find in writings on North Carolina mineralogy is the following from Dr. Genth ('Mineralogy of North Carolina'): "No tin ore has been found in North Carolina as yet; traces of this metal have been found in the tungstates of Cabarrus county, *and in a micaceous slate* (Huronian) *in Gaston county*, associated with garnet and columnar topaz" (the Italics and parenthesis are mine). The observation is very interesting in the light of the recent discoveries. Have we not here at King's Mountain, at or near the juncture of these slates and the older gneiss and granite, a concentration of this diffused tin?

CHARLES W. DABNEY, jun.

N.C. experiment-station, Feb 14, 1884.

Behavior of Dolomedes tenebrosus.

Last August I obtained a large female specimen of Dolomedes tenebrosus. It measured over four inches from the tips of the first pair of legs to the fourth pair. It was taken in a swamp, and confined in a tin can, where it remained a day or two before it came into my possession. Upon opening the can, I found it apparently half dead with fright. It had deposited its eggs without attempting to make a cocoon. The appearance of the eggs indicated that it had extruded them prematurely. They were mixed with an abundance of mucilaginous substance, which soon hardened, and held the eggs firmly together and fast to the can. I now put it in a cage, where it soon recovered from its fright. The cage was two by three feet, the top covered with glass, and the bottom uncovered, so that it might have the fresh earth and plants to run among.

I also put the can in the cage; but a colony of small ants (Crematogaster lineolatus) soon found the eggs, and carried them all to their own dominions. It was amusing to see them work and struggle