

NOTE ON SOME BISMUTH MINERALS, MOLYBDENITE,  
AND ENHYDROS.BY A. LIVERSIDGE, M.A., F.R.S., Prof. of Chemistry, University  
of Sydney.

[Plates VIII. IX. X.]

THE minerals mentioned in the following short note form part of a collection recently purchased by the Trustees of the Australian Museum ; some of them are of unusual interest, hence it was considered desirable to draw attention to them in the pages of the "Museum Records." The numerals simply indicate the different specimens examined and described, those which are of the ordinary character and from well known localities are not mentioned in this paper.

## NATIVE BISMUTH.

1. Some of the bismuth is in the massive condition, and is similar to specimens already described in the "Journal of the Royal Society of New South Wales," 1891, other specimens show it in the form of acicular crystals running through rock crystal. The massive bismuth is associated with quartz, both crystallised and massive, sulphide of bismuth, bismuth ochre, galena, the latter argentiferous, iron pyrites passing into ferrous sulphate, wolfram, molybdenite and tin stone. From Kingsgate, Glen Innes, N.S.W.

2. The acicular crystals in one case are two to three inches long and of about the thickness of a horse hair, these completely penetrate the rock crystal in much the same way as we often see acicular fibres of rutile ; the characteristic colour, metallic lustre and cleavage of the metal being, however, well shown. This appears to be an unusual mode of occurrence for bismuth. Kingsgate.

3. Accompanying the fibres of the metal are small scattered crystals or specks of the metal, together with small columnar crystals. Kingsgate.

4. Native bismuth in quartz from Tingha, N.S.W.

5. Native bismuth, from Kangaroo Hills, Queensland. Associated with chlorite, quartz, and red oxide of iron or gossan.