truth, I am inclined to believe, it would be found inferior in magnificence and splendour of mineral decoration, to the natural caverns in the fluor mine. This mine is rarely visited by travellers: the descent is safe, but, the roof being low in some parts, it is rather difficult of access.

The pipe vein may be described as a tubular mass of ore and veinstone, generally descending in the direction of the beds, and widening and contracting in its course. In reality, the pipe vein is a variety of the flat vein, having the sides closed or twitched in, so as to form a tube or cavity of irregular shape, and of very limited extent along the line of bearing, but descending to a great depth.

One metallic vein often crosses or cuts through another, and displaces it: in such instances, it is evident that the vein which is cut through, must be more ancient than that which intersects it. This observation respecting the relative ages of veins was first made by Mr. Pryce in his *Mineralogia Cornubiensis*. The different position of veins is represented in Plate IV. fig. 4., where *a a* is a vein which divides in part of its course and unites again, and finally branches off into small strings. In many instances these strings lead to a further continuation of the vein; perhaps this would be found to be the case in all, were the workings carried on in the same direction. *b b* is another vein which cuts through the former, and has thrown the lower part of the vein *a* out of its course. It is obvious that the vein *a a* was formed before the vein *b b*, which has upheaved the rock on one side, with the lower part of the vein *a*. In Plate VII. fig. 4., a small vein is represented, cut into three parts by the larger veins, *a* and *b*. Sometimes one vein crosses another without changing the direction; and if they both have nearly the same inclination, viz., dip nearly to the same point of the compass, they are generally richer near their junction, as at *b*, Plate VII. fig. 4. When a number of veins cross each other at one place, they sometimes form a cone or mass of ore of vast size, widening as it descends. Such are called accumulated veins. They occur in the metalliferous limestone of Durham and Northumberland. When one vein crosses another in an opposite direction, they often are found poorer in ore near the junction. Fig. 3. shows a ground plan of the veins *b b c c*, cut through nearly at right angles by another vein or cross course: in such instances the veins *b b c c* become poorer; but this is not universally the case.

The direction of rake veins is not very regular. In England, the principal veins generally run nearly east and west, and north-east and south-west; but have, frequently, undulations and deviations from a straight line: the most powerful veins are more regular in their course than smaller ones. Where two veins in the same district have the same direction, or run parallel, it is observed that their contents are similar; but where they run in different directions, the contents vary. Molina, in his interesting History of Chili, mentions