

they are comparatively rare. Besides these, cobalt glance, cobaltiferous arsenical, and iron pyrites, nickeliferous magnetic pyrites, and argentiferous iron pyrites characterise peculiar localities. The impregnation seems to be altogether independent of the nature of the rock; gneiss, mica schist, hornblende schist, &c., being alike found constituting fahlbands. The continuity of these impregnated zones is frequently astonishing, some of them having been traced in the direction of their strike, nearly north and south, upwards of ten miles. Their course is often marked by depressions in the rocks, caused by their greater proneness to decomposition, and these depressions are frequently occupied by marshes and lakes. The thickness of these bands varies from a few feet to several hundred, and they have been frequently observed to split up and throw off side bands, some of which seem to connect with other similar zones. Although, as in the case of the glance cobalt and cobaltiferous mispickel, the impregnating material is sometimes the object of mining enterprise, it is generally on the veins or irregular masses occurring in these fahlbands, that the mines of the district are situated. Concentrations of metallic sulphurets or other minerals in fissures parallel with or crossing the strata, are by no means uncommon, and in some instances have given rise to very profitable mining. The metallic deposits which I propose to notice in connection with those fahlbands, are the silver mines of Kongsberg, the copper mines of Eker, the cobalt mines of Skuterud, and the nickel mines of Ringenike, all of which are at present being worked.

The rocks in which the fahlbands of Kongsberg occur are gneiss, mica schist and hornblende schist; other rocks, such as granite, talc schist and chlorite-schist, granitic gneiss and greenstones occur also in the immediate neighbourhood. Seven different fahlbands or groups of fahlbands have been recognized as existing in these rocks around Kongsberg, on every one of which, at some time or other since the year 1623, more or less mining has taken place. The two fahlbands which have been most minutely examined, have an average thickness, respectively, of 200 feet and 1100 feet. The impregnating sulphurets are iron pyrites, magnetic and copper pyrites; some of which appear to be argentiferous, since the fahlband itself contains one-eighth of an ounce silver per cwt. These fahlbands are intersected throughout the whole extent, about six miles, by numerous veins containing gen-