

cretaceous-tertiary and coal-bearing rocks, overlain by terrace gravels, extend along the banks of the river for some two miles, beyond which granite again appears in the hills on the left bank and along the road-line. The granite further down the valley is followed by a narrow rib of slate, then, near Junker's Hotel, by grits, &c., of the lower coal-measures, followed by limestone and dark-coloured marly strata which, dipping west underneath the recent alluvial gravel-beds, reach to the Inangahua Junction. The granitoid rocks on the north side of the Lyell Gorge do not extend more than a few hundred yards up Lyell Creek, and in the New Creek area they appear to be absent altogether.

*Inangahua Valley.*—The Inangahua River and its principal tributary, the Waitahu or North Branch, both take their rise in, and draw most of their waters from, the southern end of the chain of granite mountains that forms the water-parting between the Maruia and Inangahua Valleys. About fourteen miles above Reefton, slate succeeds the granite on the south side of the Inangahua; but no slate appears on the north bank in contact with the crystalline rocks, a development of coal rocks taking place between the Devonian rocks and the granite on this side of the valley. The junction of the two older series is thus obscured. A narrow belt of Devonian rocks extends from the lower part of Lankey's Gully south across the Inangahua to near the source of Rainy Creek. In the direction of Deep Creek the rocks show evidences of having been subjected to metamorphic alteration. They differ indeed from the typical rocks of the auriferous series, but it has not been definitely proved that they are other than the gold-bearing series of Reefton, or of an age greater than that of the Carboniferous period. There are some areas of flat land in the valley of the Inangahua above Reefton, but these do not appear to have at any time been prospected for gold. These alluvial flats are now occupied in part as freehold lands. A very considerable area of the range east of Lankey's Gully, lying between the two branches of the Inangahua, has its higher part formed of grits and conglomerates, constituting part (the lower part) of the coal-bearing series. These are gold-bearing in Murray Creek and in Lankey's Creek, and probably in other parts where they are present. The Devonian rocks form the lower part of the range to the east of Murray Creek and Lankey's Gully, but after a time they sink to lower levels. Along the line of Garvie's Creek the coal rocks fill a deep syncline, and thus it is not seen what Palæozoic rocks underlie the coal-measures, nor in what manner these make junction with the granite.

West of the Devonian rocks these are, overlain by the Maitai series, the auriferous rocks of this district and the neighbouring mining districts of Boatman's to the north and of Merrijigs and Big River to the south. The district to the south, including the Big River area, has already in this connection been dealt with. Boatman's and Larry's to the northward are in the same line of country-rock which, on the disappearance of the Devonian strata, is continued along this side of the valley to the Buller River. The syncline filled with coal rocks, which has been described as extending along Garvie's Creek from the south, to the north branch of the Inangahua, is continued further to the north, and has a remarkable development in the upper part of Boatman's Creek. It does not appear to cross or reach as far as Larry's Creek. The Devonian rocks also are not traceable as far as Boatman's Creek, they in this direction being overlain and surrounded on three sides by the auriferous series. Near the Town of Reefton the auriferous series are succeeded by a considerable development of the coal-bearing rocks, but the junction between the two is often obscured by terraces of river-gravel that are now at a considerable elevation above the lower levels of the opposite plain.

The coal rocks are seen to extend along the lower flanks of the range between the North Branch of the Inangahua and Boatman's Creek, near Caplestone. The coal rocks are well exposed in the valley of Boatman's Creek, at the Township of Caplestone, and along Little Boatman's Creek to the foot of Specimen Hill. They are followed by a massive development of Pliocene gravels ("Old-man bottom") which, forming high terraces or broken hilly country, continue past Boatman's to and beyond Larry's Creek, and in the same direction across Landing and Coal Creeks to within a short distance of the Buller River. Boatmans, Larry's, Landing, and Coal Creeks, of which Larry's Creek carries considerably the greater volume of water, are mountain streams, all of them taking their rise in the granite mountains to the east of the Inangahua Valley, and all of them traverse the low grounds of the valley to reach the Inangahua River, which has its course along the foot of the mountains on the west side of the valley.

A considerable breadth of the low-lying recent alluvial ground is found between the "Old-man" formation on the east side of the valley and the river towards the southern end of the plain. This area of lower and more recent alluvial land gets narrower as the valley is followed to the north, and this for a time terminates at half a mile to the south of the Landing. Terrace flats are developed to a considerable extent on the east side of the lower part of the valley, between the Landing and the Junction. Below Reefton, Devil's Creek makes junction from the south. In the valley of this stream the fundamental rocks are the auriferous series of slates and sandstones, in the rocks of which a considerable number of quartz-mines are being worked. Coal rocks are also developed to a moderate extent on the higher lands towards Merrijigs. Deposits of gravel belonging to "Old-man bottom" also occupy the higher ground between the Sir Francis Drake Mine and Merrijigs, and also along some parts of Maori Creek. Coal rocks are to a limited extent present in the lower part of Devil's Creek, while towards the Midland Railway-line and the saddle leading to Squaretown there is a great development of Pliocene gravels or "Old-man bottom." These Pliocene gravels form high cliffs on the left bank of the river in its passage from the east to the west side of the valley. On reaching the furthest west, the river turns to the north and closely follows the lower spurs of the Paparoa Range to its junction with the Buller.

*Lower Buller Gorge.*—From the Inangahua Junction to the ferry at the foot of the gorge, six miles from Westport, the Buller River, breaking through the Paparoa-Papahua chain of mountains, has, for the greater part of the distance (twenty-two miles), its course through a tortuous and deep mountain gorge, presenting at places scenes of rare magnificence and savage grandeur. One mile