off the first mentioned branch siding. Then, off the main line, came a short loop arranged on the western side, which was laid during 1899 to serve the Brickyard Shale-shaft which will be mentioned later. Beyond the loop another facing point left the mainline to send its dead-end siding slightly northeastwards, ranging along, so it is thought at this late date, a section of the retort bench. The main line continued past the work's area before curving eastward to follow a straight course in this direction before meeting another facing point whose two legs splayed outwards at an angle of about thirty degrees to each other. These lines when nearing their outer stops each passed beneath a loading staith served by mine skips running out from their adjacent adits, the tunnels passing beneath the immediately adjacent Hartley Pass Roadway.

Judging by the just described tramway extension it can be assumed that when locomotive power replaced horse traction the wagons were propelled towards the refinery complex as it will be noted that no engine-release loop was provided. If such was the case it may also be assumed that the wagons were propelled on to the southern leg of triangular junction at the base level of the main haulage way preparatory to being raised by the cable to the "Hill-top" section.

There were two other metre-gauge sidings which have come to our attention (there may have been others which have escaped us) and the first to be described had its entrance point facing to traffic coming southward from the new refinery, and located immediately south of the junction of the line leading to the former adits of the long defunct Hartley Kerosene Oil and Paraffine Company. The above mentioned entrance point sent its branch away from the main line in a south-easterly direction for a short distance to serve the candle manufacturing works, a low level building hemmed in between two massive retort ash dumps. The other metre gauge track, of which we have cognizance. left the haulage-way at about fifty feet up from its base level, the entrance point trailing to ascending vehicles. This branch curved somewhat sharply northwards towards the new bench of retorts installed during 1880. It is surmised that the company's four-wheeled vehicles, including oiltanks, were loaded at this particular siding, in which case it is possible that the vehicles would be handled by the haulage cable.

THE LOWER TWO—FOOT GAUGE SURFACE TRAMWAYS AT PETROLEA VALE.

In addition to the metre gauge tramways in use at the bottom level of the oil works there was a fairly compact system of two-foot gauge surface tramways which inter-connected a series of adits and at least one shaft, driven into the southern lower slopes of the hillside in the vicinity of the bench of retorts installed in 1880. These several lines were used to bring the shale to the retorts, the skips in some cases being trundled by men classified as "wheelers", and on the longer runs it is presumed that pit ponies were in use. The adit of the Retort Colliery (1880 to 1905) was located to the east of and adjacent to the Hartley Pass Road, and its surface tramway curved sharply to the south to reach the oil retorts where the shale was dumped. Here a facing point sent its branch. laid on the eastern side, to a high level track whilst the main, laid on the western side of and parallel with the branch, continued southward at a lower level to cross the main metre gauge haulage way at a crossway before, curving south-eastward for about a quarter of a mile to a shaft and associated shale pits established on flat valley bottom land about 1891. Also on the lower skipway was a trailing point which sent its curved branch northwestward to pass beneath the higher skipway track, and continue in this direction as a steeply up-graded haulage line to reach the adit of Martin's Coal Tunnel which opened in 1905. The lower portion of the latter incline was eventually removed, but the outer section of the upper portion was diverted about 1939 to serve a road vehicle loading staith, a structure which remained in use until 1944. The skipway on the upper level also had a short branch which passed beneath the adjacent metre gauge oil-loading siding (the track that branched off the main haulage way before it reached the entrance point to the triangular junction) before entering a hill-side adit. main line of this upper level skipway then crossed the main haulage way before curving eastward to enter an adit driven into the hill slope below the former workings of the Western Kerosene Oil Company. There may have been other branches of short length, not apparent at the time of our visit. which would have left the lower skipway to serve the two extensive ash and chitter dumps.

Pages 26 and 27:

View at the works at Hartley Vale in 1906. The lower engine shed is to the right of the picture. N.S.W.Govt. Printer.

View at the works at Hartley Vale in 1906. The lower engine shed is to the left of the picture. N.S.W. Govt. Printer.