

iron rods, one at each side of the tank. A safety valve was mounted on top of the tank against one end, whilst an elliptically shaped filling-hole occupied a central position along the top, its metal lid being fastened inside against a grummet by a single iron external clamp and fixed bolt and screw-nut arrangement. A run-off cock was fitted at the bottom of the tank.

Although out of text it is thought advisable to mention details supplied by Robert Guthrie, of a two-horsed four-wheeled road vehicle which carried a long rectangular-shaped tank for bulk delivery of kerosene to the numerous corner shops of Sydney-town. This vehicle was obviously based at the new depot at Ultimo and carried an assortment of measures and buckets jangling along the tank sides. The main tank was emptied by means of a valve placed at the rear and the vehicle reeked with the smell of kerosene. There were always two men aboard the vehicle, one to handle the horses and the other to arrange the deliveries. This tank wagon was unique amongst the heterogeneous vehicles which thronged the somewhat narrow streets of the residential environs of the metropolis.

THE COMPANY'S PRIVATE RAILWAY SIDING AT ULTIMO.

It is evident that the shale and oil traffic consigned to the Sydney Goods Yard (at what is known as Prince Alfred Sidings) added greatly to the traffic congestion which was always rife in that limited area. The goods yard was a mixture of whistling locomotives, a vast turmoil of railway wagons of all descriptions, horses engaged in shunting movements involving the use of truck-turntables; horse drawn vehicles without number, harassed officials and non-plussed carters, mixed up with much blasphemy, clouds of dust, and flocks of sparrows and pigeons. In view of these chaotic conditions it is not surprising to learn that in 1886 there is mention that the New South Wales Oil and Shale Company had a siding set aside for their use at Ultimo. Although the location of this particular siding is not known to the author one can reasonably presume that it may have been near the waterfront. Shale and oil destined for the company's works at Waterloo may also have been transferred into road vehicles from the siding at Ultimo. At this time the Darling Harbour Branch terminated at Union Street, Pyrmont, its double line ex-

tension to Darling Island being constructed in 1897. It is of interest to quote a reference made to the area in September 1905 which reads:-

"A little over twenty years ago Darling Harbour was despised and rejected by the Commissioners. Now and again a ship was piloted through the swing span of the late Pyrmont Bridge to berth or discharge on the eastern shore, but the west, or present railway terminus, had little more than a geographical interest". However by 1891 Darling Harbour began to come into its own as the principal goods yard of Sydney. In 1892 the half-yearly report of the company states that "A building was erected at our Ultimo yard for the manufacture of grease and lubricating oils, for which there is a steady demand". In connection with this latter statement there is reason to believe that between 1880 and 1890 the oil refinery at Waterloo gradually ceased to function as more and more activities were transferred to the Hartley Vale retorting and refining circuits. At June 1890 it was mentioned that three steam driven pumps from Waterloo, together with a steam boiler were installed at the Hartley Vale retorts to deliver crude oil to the local refinery. Then in 1892 there is a reference that a tank from Waterloo was placed at the top of the haulage way (at Hartley Vale) for holding water for the winding engine boilers, thus saving the expense in hauling water from the dam sited on the valley floor". Incidentally a dam was constructed in the vicinity of the "HILL-TOP" railway to catch surface water for the purpose of supplying the "TOP" locomotive as well as the winding engine boilers, which were of the horizontal single fire-tube Cornish pattern.

FURTHER SHALE WINNING DEVELOPMENTS AT HARTLEY VALE.

By 1890 the company thought that the shale supplies at Hartley Vale were diminishing and their decreasing output was largely gained from the cutting out of *piklars*, a somewhat dangerous procedure. Fortunately their attention was drawn to the possibility of further shale supplies being obtained from beneath the valley floor at Petrolie Vale. This flat area, some fifteen feet below the kerosene shale outcrop on either side, was always thought to consist of alluvium washed down from the slopes of the surrounding hills. Subsequently

Opposite:

The candle factory at Hartley Vale, 1906. Note the candelabras on the wall.

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