

boulder than excavate a way through such an obstacle. The major engineering feature was a log-floored trestle bridge spanning a steep-walled ravine of a creek which came tumbling down at times in spate, from the rock-buttressed heights of Airly Mountain. The ravine is still the haunt of lyre-birds and these shy charming mimics may occasionally be seen scratching amongst the leaf-mould amidst the dense undergrowth.

At the southern head of the Genowlan Valley, near the low saddle divide known as Airly Gap, a crossing loop was placed in the tramway, beyond which the single line curved first to the south-west and then west, following a continuously down-graded route through open forest country along the side of a fern-covered talus slope. At a distance of about quarter of a mile the line entered a facing point leading to two short parallel sidings formed by the extension of the upper four-railed section of a self-acting inclined way. Here the draught horse, or horses, were detached from the loaded rake of three skips at either of these sidings and hitched to a similar number of empty skips standing on the adjacent siding ready for the return journey to the mines. A device, shaped after the fashion of a pair of loose sulky shafts and known as a "LIMMER", was utilised to harness the horse to the skips. The limmer could be easily attached or detached from a cunningly contrived metal socket fitted to the top planks at each end of all the skips. This appurtenance, the design of which is as old as the history of horse transport on colliery railways in particular, effectually prevented the skips from overtaking the horse on down-graded sections of the tramway. Safe-working systems were a missing refinement on the Genowlan Tramway, the drivers being expected to be fully acquainted with the movements and destination of their opposite skip trains.

### **THE GENOWLAN SELF-ACTING INCLINED WAY, AIRLY.**

Self-acting inclined ways have a fascination peculiarly their own, to those amongst us who like just these things, and the Genowlan example was no exception. The inclined-way lay in a south-south-west direction and its steep grades leading to the bankfoot averaged about 1 in 1 for the most part, the total length being in the vicinity of a quarter of a mile. To maintain an even grade a low cutting was necessary toward the lower end,

followed by a long trestle bridge spanning a shallow declivity before the tracks terminated at the dray-loading staith. Here the shale was tipped into an elevated wooden bin or dumped "at grass" for subsequent reloading into drays to be further transported by road, as beforementioned, to the Capertee Railway Station.

The two level sidings installed at the bankhead of the inclined-way curved sharply to the south-east, in order to prevent the skips fouling the wire haulage cable, before commencing their gravitated descent into the valley below. Both tracks ran parallel to each other to about the half-way mark, at what may be known as the "MEETING PLACE", where the rake of descending skips passed the corresponding number of empty skips descending the incline. Beyond the meeting place the four rails converged to three, the centre rails being common. Judging by the remnants seen at the site in later years it would appear that the three-railed section terminated at the dray-loading staith on a wide wrought-iron skid plate where the skips, one at a time, could be moved manually on the outer rim of their wheel flanges to some form of tipping arrangement, this appurtenance being set obliquely to the straight course of the inclined-way, thus safeguarding the equipment and adjacent storage bin from damage should a rake of skips get away out of control and distribute themselves over the landscape. The safety of the men at the bank-foot, according to local information, was quite secondary and depended largely on their getting away, at speed, out of harm's way.

The rapidity of the skip movements over the inclined way was controlled by a hand-operated hand-brake attached to the horizontally mounted rope return pulley-wheel placed on a strong framework beyond the bank-head sidings. The pulley-wheel was of large diameter and had side flaunches on its flat winding surface to keep the haulage cable in place. To prevent the crossing of the haulage cable when in action it was essential that descending loaded skips returned by the same line when emptied. The skips in use on the horse tramway and inclined way were four-wheeled and fitted with rectangular shaped wooden bodies which had capacity for about 15 cwts. of shale.

It may be of interest to list the various shale adits ranged along the Genowlan deposits. They comprised:— Porter's Bord, Davis's Heading, Elliott's Heading, Sinclair's Heading, Penrose No. 1 Tunnel, Oxley's Heading.

The affairs of the Genowlan Shale Company prospered for a few years but did not survive the