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Editor: David Langley, 20 Alfred Street, Seymour, 3660.
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MINUTES OF 3rd ANNUAL GENERAL MEETING

HELD AT: A.R.H.S. (Victorian Division) Archives Room at
Windsor Station on Friday, 16 March 1979. The
meeting commenced at 2000 hours.

PRESENT: Jack McLean, Brian Coleman, Jim Brough, Alan
Cohn, Graeme Inglis, Roger Jeffries, Keith
Lambert, David Langley, Stephen McLean, Philip
Miller, Colin Rutledge, John Sinnatt, Peter
Stoneham, Rob Weiss, Bob Whitehead and one
visitor.

MINUTES OF PREVIOUS AGM: Adopted as read (Whitehead/Langley)

BUSINESS ARISING: Nil

- REPORTS:
1. GROUP LEADER - reported that he was pleased with the reports from office bearers and attention to the business of the Society. The Group Leader also commented on the success so far of Society outings, reports of signalling activities, preparing of information sheets, keeping of archives and publication of 'SOMERSAULT'.
 2. SECRETARY - The secretary's report was discussed and adopted (Sinnatt/Langley). In view of the Secretary's decision not to stand again for office, the Group Leader took the opportunity to thank Mr Coleman for his enormous assistance and endless energy whilst Secretary during the first four years of the Signalling Record Society (Victoria).
 3. TREASURER - The report was discussed and adopted. (Inglis/Cohn). The Treasurer was thanked for his continuing and unenviably efforts maintaining the society's accounts.
 4. ARCHIVIST/EDITOR - Report was presented verbally. It was reported that a room to house the archives collection had been acquired and progress was being made in the sorting and indexing of the society's collection of diagrams and plan. It was also reported that the publication of 'SOMERSAULT' has met with the enthusiastic approval of members. From income received from the sub-committees activities, a table and set of plan drawers were purchased for the Archives Room. A second set of plan drawers were donated by the Group Leader after they were deemed surplus to his requirements. (They would not fit through his front door). Report carried (Weiss/Brough).

ELECTIONS: As no nominations were received for the post of Secretary, the duties of the Secretary have been divided between the Executive Committee. The Group Leader then commented that the Secretary must have been doing the work of four men.

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| 1. Group Leader & Correspondence | J. McLean |
| 2. Minutes Secretary | J. Brough |
| 3. Treasurer & Subscriptions | P. Miller |
| 4. Archivist & Editor | D. Langley |

DISCUSSION: It was resolved to continue the pattern of the two monthly meeting to be held, as now, on the third Friday in the odd month at the A.R.H.S. Archives at Windsor Station. Three guest speakers will be sought and two outings (one country and one suburban) will be attempted in the year. The next country tour to take place on Show Day will be to the Bendigo area utilising Alan Jungwirth's Vintage Omnibus. Some possible locations for a forthcoming suburban tour are:- Sunshine, Newport, South Kensington and Spencer Street No 2 Box.

MEETING CLOSED: at 2100 hours and the General Meeting commenced.

HELD AT: MINUTES OF GENERAL MEETING
same venue as the Annual Meeting.

MINUTES OF PREVIOUS MEETING: were adopted as read (Langley/Cohn)

BUSINESS ARISING: Nil

CORRESPONDENCE: A letter was received from Mr. Brown, Everton Park, Queensland, requesting safeworking information. The Group Leader reported that he had replied to Mr. Brown briefly describing the safeworking arrangements in the Eastern district, this area being fairly typical of Victorian practice.

GENERAL BUSINESS: Questions and answers on various aspects of signalling operations occupied the remainder of the evening.

MEETING CLOSED: at 2145 hours. Informal discussion followed.

NEXT MEETING: Friday, 18 May 1979 at the A.R.H.S. Archives at Windsor Station. To be a Natter Night. Members may bring along any item that may be of interest to other members.

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SIGNALLING RECORD SOCIETY (UK) NEWSLETTER

The March issue received by the Group Leader includes: Society News, Around the Centres No 48 - Bradford, article on C.E. Spagnoletti, names of new members, traffic working at Dorchester in the late 1950's by George Pryor - BR Signaller, letters to the editor regarding the Call Attention signal, reference to a new

magazine called "Welsh Railway Review", Treasurer's Annual Report and copy of Society Rules.

ARCHIVES NEWS

The archives collection of old VR diagrams was boosted recently by the addition of some interlocking diagrams of various locations dated prior to the twentieth century. These diagrams include: Geelong Station Ground "Cabin B" - 5 June 1886, Geelong Station Yard Box C - 1890, Geelong Station Yard Box A - 26 February 1890, Gheringhap - 5 October 1894, Gerang Gerung (interlocking), Glenorchy (McKenzie & Holland sketch) - 22 November 1888, Flinders Street West Box - 12 December 1891, Flinders Street East Box - 16 October 1890, Goulburn Bridge Junction - 14 July 1886, Ararat B - 5 May 1891, Violet Town - 14 October 1890, Yarraville Station (in one box days) and Dudley Street - 1893.

S.R.S. (NSW) NEWSLETTER - BLOCKING BACK 3-3

The March issue of Blocking Back has been received and it contains two interesting editorials - the first concerning the political approach to signalling research and the second regarding "The Great Over-Safety" Debate. Also included are the latest signalling alterations, an article on Train Order working based on ANR practice, tour reports and some diagrams of NSW stations - some reprinted from the Weekly Notice due to recent signalling alterations. One of these is Warwick Farm Racecourse which has just been reopened to rail traffic after rationalisation of facilities at the Racecourse.

PUBLICATIONS NEWS

Readers will have by now noticed a change in the format of Somersault. Following the last Annual General Meeting and the dividing up of the Secretary's duties among the rest of the Executive Committee, the Minutes and meeting notices will now be incorporated in Somersault. As mentioned elsewhere, it seemed that Brian Coleman was doing the work of four men and I must thank Brian for a job well done in getting the Signalling Record Society started in Victoria.

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SIGNALLING ALTERATIONS

- WN10/1979 MORWELL INDUSTRIAL SIDING. Opened for traffic.
- 25.2.1979 LALOR. Up home signal, post 12, was moved 15 metres in the down direction due to the widening of Mann's Road.
- WN11/1979 WORKING OF SIDINGS CONTROLLED BY SPECIAL LOCKS. Amendments issued in connection with the instructions concerning the operation of staff/annett key exchange apparatus. This apparatus is used to enable flashing light signals at unattended sidings to be switched to manual control when shunting operations are being carried out in the track circuited approach sections for the flashing lights. Exchanging the staff for a key ensures that the flashing lights are returned to automatic operation after shunting has finished.
- 1.3.1979 LALOR. The flashing light signals at Mann's Road were relocated due to the widening of the crossing.

- 1.3.1979 NORTH GEEONG "B" BOX. Signal repeaters were provided for the signal worked by levers 3 (up inner arrival) and 44 (down departure).
- 2.3.1979 SPOTSWOOD. Dwarf signal No 19 was converted to a light signal.
- WN12/1979 STRATFORD JUNCTION-BAIRNSDALE. Details of trains scheduled to operate on the staff exchange box at Stratford, Fernbank and Lindenow. This information is being issued weekly for various locations but at Stratford, Fernbank and Lindenow, six trains are scheduled to pass through on Saturdays and this might well be some sort of a record.
- WN12/1979 DEVENISH. Scotch blocks have been provided at both ends of No 2 road.
- WN12/1979 COLAC. The scotch block on the down end extension of No 2 road has been removed.
- 8.3.1979 MOE. The up distant signal for the Yallourn line has been abolished and a location board erected 400 metres in the rear of the up home signals on post 17.
- 5.3.1979 MILDURA. A siding for the Gass and Fuel Corporation has been provided at MP 349 + 800 metres (349.5 miles). The siding is dead ended and the MES/L points are facing to down trains. The siding is on the up side of the line.
- WN13/1979 GEELONG PIER LINE. Rotating red warning lights have been provided on Cunningham Pier to warn Harbour Trust staff and others that shunting operations are about to take place. The lights are operated by push buttons and these are located at various locations in the area.
- 13.3.1979 MARYBOROUGH-AVOCA. Flashing lights have been provided at the Pyrenees Highway level crossing at MP 114 + 868 metres.
- 14.3.1979 AVOCA-ELMHURST. Flashing lights have been provided at the Pyrenees Highway level crossing at MP 135 + 518 metres.
- 25.3.1979 RINGWOOD-BAYSWATER. The Belgrave line between post 59 (up home signal) and Bedford Road level crossing has been realigned to allow further construction of the stabling sidings.
- WN14/1979 KOO WEE RUP. A staff exchange box has been provided.
- 2.4.1979 KYABRAM. The plunger locked rail motor siding has been abolished.
- 3.4.1979 SHEPPARTON. The Departmental Storage siding, formerly the Pear Packing siding on the upside of Wyndham Street level crossing, has been abolished.

(continued on page 33)

THE INVENTION OF 'LOCK AND BLOCK' - 1874
by S. Graves.

Reprinted from the Signalling Record Society (UK) Newsletter.

When J.S.Forbes became General Manager of the London, Chatham and Dover Railway, he became not just an office-bound General Manager; he also had a keen interest in the operating side of the railway. A year later, a Mr.Rudall became Electrical Superintendent on the line. He introduced to the Company Mr.W.R.Sykes, as a maintenance man. Sykes was very interested in the running of trains and in 1874, he produced his first great invention of the 'Lock and Block' system

Forbes was horrified when he heard they wanted to try the new system on one of the railway's busiest London tracks; he felt it should be installed on some quiet country branch line where snags could be detected and ironed out, without too much bother. All the Inspecting Officers of the Board of Trade, Colonels Rich, Tyler and Yolland, and Major-General Hutchinson liked the new system so much they insisted that it should be installed in three of the busiest London boxes immediately - Shepherd's Lane, Brixton and Canterbury Road Junction. Sykes was granted a patent in February 1875.

At that time, the simplest block working relied for its safe working, on the signalmans obeying the Rules to the word. There was no positive means to ensure that the jobs were done in the correct order and a signalmans might easily make a false step. Sykes Lock and Block made it certain that each step was carried out correctly and in the proper order. Electrical locking was provided so that a signalmans could not accept a train from the box in the rear until the line was clear which was proved by the previous train passing over an electric treadle. The increased safety was fully recognised and so was the enormous cost.

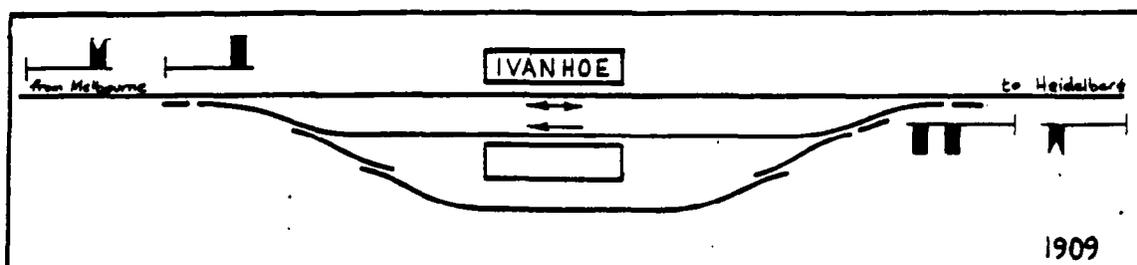
Then came the Sittingbourne accident of 1878, when through a signalmans error, a heavily laden 'cheap fast' from Ramsgate came up at full speed while shunting was in progress on the main line. It was stated after the accident that the train lacked a continuous brake but Forbes realised that the accident would have been prevented by the 'Lock and Block' system. Hence a momentous step in safety was taken when the Chatham's board agreed to install 'Lock and Block' on the whole length of the line.

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THE COMPETENT STAFF WORKERS
(continued from March 1979)

IVANHOE

Until 1909, Ivanhoe seems to have been opened as a staff station only on holidays when there was a surge of picnic traffic on the line. In December 1909, an 18 lever interlocking frame was installed on one of the two platforms (probably the down), the 12 working levers controlling two distant, the one arm down home and the two arm up home signal. Trains were normally routed through the straight (down) track. When trains crossed, up trains used the up platform (loop) for which the top arm of the up home signal was lowered. Three minute crosses were quite common and there were others at Fairfield Park and Canterbury.



I am not sure of the reason for extending the 8.09am Fairfield Park-Princes Bridge to originate at Ivanhoe. It certainly could not have been done before Ivanhoe was opened as a staff station. The extension of this train may have been the cause of Ivanhoe's interposition in the electric staff working. The down train started earlier (7.23am from Princes Bridge) and ran non-stop to Ivanhoe, possibly empty, arriving at 7.45am. There it met the 7.41am Heidelberg-Princes Bridge train, also due at 7.45. Between then and 8.02, the engine ran round and pushed the train out into the Heidelberg section so that it could draw forward into the up platform ready for departure after the 7.30am Princes Bridge-Heidelberg had arrived at 8.01.

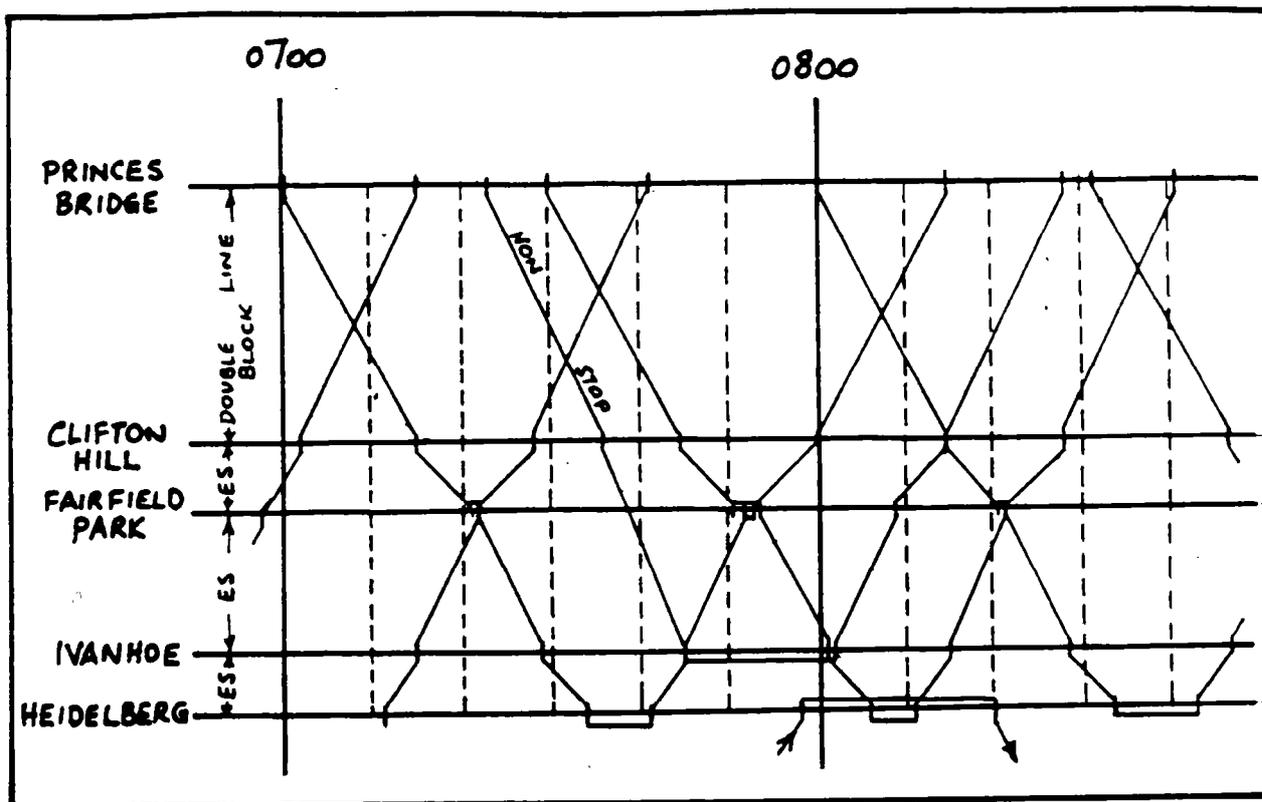
IMPROVEMENTS

The 1910 WTT shows that there were 17 crossings at Fairfield Park and three end on connections at Heidelberg on weekdays (4 on Tuesdays and Thursdays). In contrast, 7.45 and 8.01 were the only two times Ivanhoe had two trains at once. The symmetrical services, single line crossing stations and short carriages hauled by tank engines (which I never saw) remind me of the Isle of Wight (which I did see), but the situation changed before long.

The line was duplicated between Westgarth and Alphington; the platform at Heidelberg became an island platform in 1912 and the Princes Bridge-Heidelberg section was electrified in 1921.

Even though almost every train crossed another at Ivanhoe, when I remember first seeing it in 1935, swingdoor trains and lever locking weren't of very great interest.

The graph on the next page shows the service that was being operated after the extension of the Fairfield Park local to originate from Ivanhoe.



Graph showing train movements during A.M. peak.

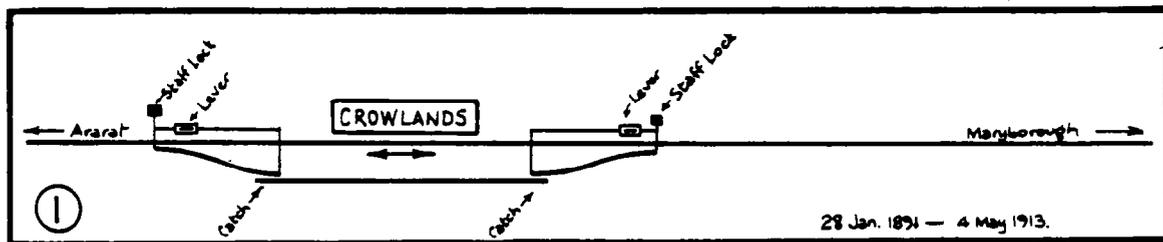
V. R. SIGNALLING HISTORY
 No 9. - BEN NEVIS
 by Jack McLean.

It is generally more difficult to piece together the story of the tracks and signals at a non-interlocked station, than of one which is interlocked. The Book of Signals, for instance, lists the signals in both cases but gives greater details about the interlocked station. Changes to signals at these stations reflect additions or alterations to the tracks.

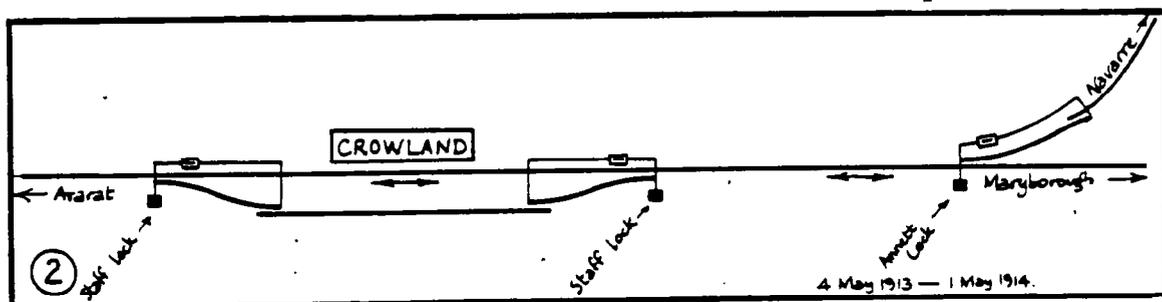
Ben Nevis, formerly a station and junction on the Maryborough to Ararat line, is one non-interlocked station where most of the records of important alterations have survived.

When the line was opened between Avoca and Ararat on 18 November 1890, the original stations were Amphiteatre, Elmhurst and Eversley. Crowlands, later renamed Ben Nevis, was opened on 28 January 1891, becoming a staff station on 21 September 1891. The 1892 WTT shows the staff & ticket sections as Maryborough-Avoca-Elmhurst-Crowlands-Ararat. Crowlands was closed as a staff station on 28 July 1893, the section becoming Elmhurst-Ararat.

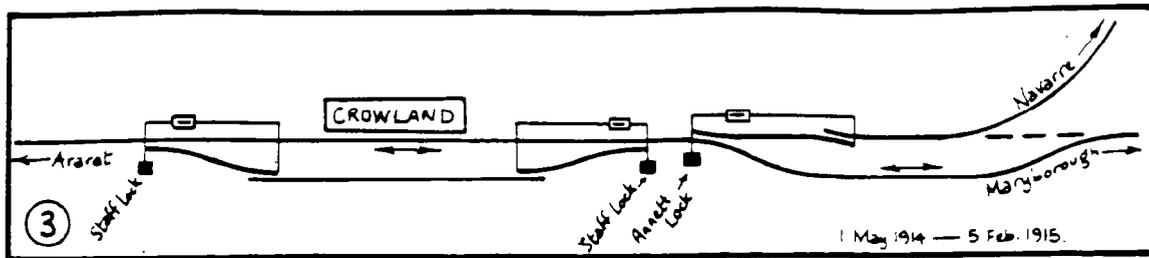
On 15 March 1899, a Lock Staff was provided for the section Elmhurst-Ararat and Crowlands is shown as having two staff locks, indicating a loop siding but it is not known whether dead end sidings were provided. The list of 1 July 1899 shows that there were also no home signals. (Figure 1)



In connection with the construction of the branch line to Navarre, annett locked points were provided on 4 May 1913 at the point of divergence of the branch and duplicate annett locks were attached to the levers of the two new home signals. The goods siding remained as before, a staff locked loop siding. Crowland (the 's' was dropped during the spelling economy campaign in 1904) was again opened as a staff station, working with Elmhurst and Ararat. (Figure 2)



On 1 May 1914, the annett lock on the junction points was removed and instead, installed on the "points from the Navarre line to the dead end siding", a note which I fail to understand. (Figure 3 shows a possible arrangement.) Four days later, a home signal was provided for trains coming off the Navarre line.



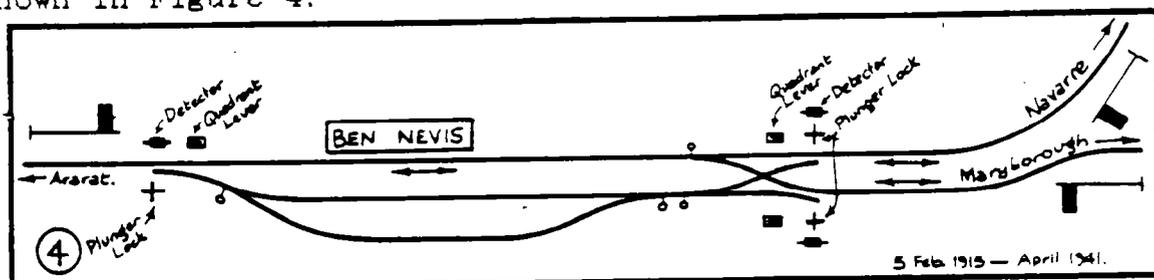
On 21 May 1914, the station was renamed Ben Nevis so that the name Crowlands (note that the 's' has returned) could be applied to the first station out along the branch, which opened to regular traffic on 28 May 1914, two days after the Commissioner's train visited the line.

The opening of the Navarre branch caused some interesting deviations from conventional "up and down" practice, and also from normal markings of mileages. Because the line was opened from Maryborough to Avoca first, the up direction was towards Maryborough. With the completion through to Ararat, it followed that Ararat to Avoca would be "up" and the mileposts were measured out in the down direction, with 113 near Maryborough and 166 near Ararat.

When the branch was built, up trains (as expected) ran from Navarre to Ben Nevis, but if they wished to remain up trains, in order to reach Melbourne, they would have to reverse at Ben Nevis and continue via Maryborough.

Ben Nevis was 153.5 miles (marked mileage) from Melbourne via Maryborough but only 144 miles (actual mileage) from Melbourne via Ararat. The mileage of the branch commenced from Ben Nevis via Ararat and a train to Navarre from Melbourne travelling via Ararat would pass mileposts 1 to 133, then 166 to 154, and finally 145 to 166. Branch trains usually had two numbers in each direction because they worked out from Ararat and, although they did not reverse at Ben Nevis, changed direction there.

At this stage, Ben Nevis still did not have a crossing loop, but this was rectified on 5 February 1915 and the junction was brought into the yard, with the provision of a delta crossover at the branch end of the yard. The Navarre line was the extension of the platform road and the Maryborough line was the extension of No 2 road until the point of divergence, where it resumed its original alignment. Plunger locking was provided on the three facing points. The arrangement at this time is shown in Figure 4.

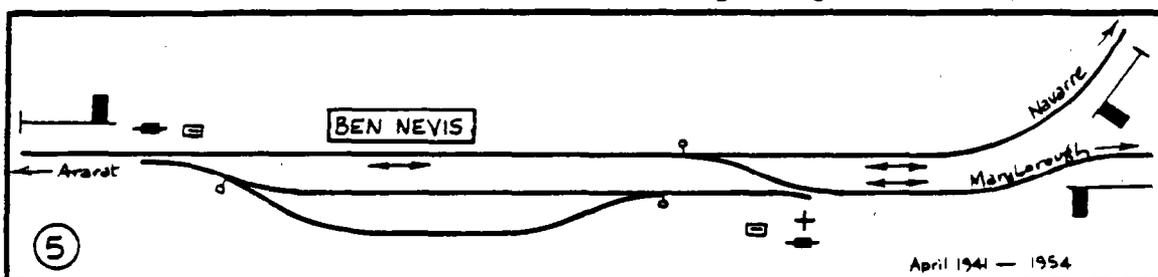


Staff Exchange Boxes, by which the Guard exchanges the staffs during the time that the signalman is off duty, had been in use in Victoria since 1905 and Ben Nevis would almost certainly have had one since it was opened as a staff station in 1913. On staff & ticket sections, they are only of value when the last train for the day travels on staff. On the Maryborough to Ararat line, this would not always be so. The late Mr. J.C.M. Rolland used to tell me of his trips across the line in the

middle of the night as "drover" on stock specials, some of these inevitably running on ticket. It is not surprising then that when Staff Ticket Exchange Boxes were first mentioned in the Weekly Notice No 16 of 1925, Ben Nevis, Elmhurst and Avoca were on the list.

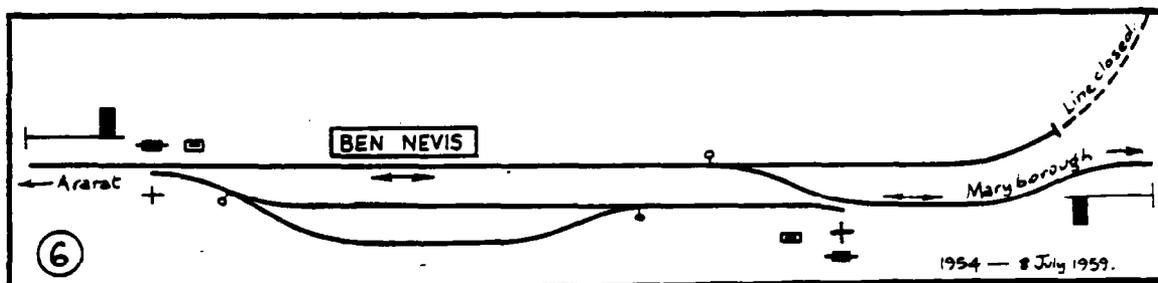
On 1 July 1931, Elmhurst was closed as a staff station and the section then became Avoca to Ben Nevis. Usually when a staff station is closed, it immediately becomes a telephone block post, but Elmhurst was not listed as such until 1937, no doubt in connection with the new railmotor service then provided.

I travelled on the Passenger Mail Motor on Show Day 1940 and Figure 4 is drawn from my notes of that day. With the general state wide elimination of little used track work that was costly to maintain, the delta crossover was reduced to a crossover from the Maryborough line to No 1 road in April 1941, and Figure 5 is drawn from my notes of another Show Day trip (this time in a Walker railcar and perhaps in 1953). On this



occasion, the man in charge at Ben Nevis was out on the branch with the goods and the driver of the railcar had to do the safeworking, which included entering the times in the TR book, preparing a staff ticket (the goods was to follow) and give "APIX" to Ararat.

After the Navarre line was closed on 25 February 1954, there was no one in charge at Ben Nevis and Weekly Notice No 8 of 1954 describes how the station was to be worked by the Guards of trains (and until 4 May 1957 by the Driver of one man railcars). This instruction appeared in several WTT's before Ben Nevis was closed as a staff station on 5 November 1957 and became a telephone block post as required. The final track layout at Ben Nevis is shown in Figure 6.



The Avoca to Ararat section was to have been closed on 28 April 1959, along with Amphitheatre, Ben Nevis, Dunneworthy and Elmhurst, but Weekly Notice No 16 of that year granted a short reprieve, the line eventually closing on 8 July 1959.

Some time after closure, I went that way by car and noted the up home signal from Navarre still standing several yards beyond the "end of track", which was all that was left of the Navarre line.

To enable bulk grain trains to avoid the congestion of Ballarat yard and the consequent reversal in direction there, the Avoca to Ararat line was reopened to traffic on 29 October 1966

and with the reconditioning of the line, the kink at the site of Ben Nevis was removed, the line now in the position it was before the Navarre line was constructed. Ben Nevis was not reopened with the line and if you look carefully around the 153.5 milepost, you might see a mound of earth and a white gate post but not much else.

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SIGNALLING ALTERATIONS
(continued from page 26)

- WN15/1979 IRYMPLE. Composite staff exchange box provided.
- WN17/1979 CANTERBURY-LABURNUM. Signalling diagram No 18'78 was issued and diagram No 31'71 was cancelled.
- 5/4/1979 KEON PARK-THOMASTOWN. Electric lighting was provided for the signals on posts 28, 29, 30 and 31 at Keon Park, and the up home signal at Thomastown.

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V.R. SIGNALLING HISTORY
No 10. FLINDERS STREET "A" SIGNAL BOX
by Jack McLean

Flinders Street can said to have been opened on 13 September 1854 when the single line from there to Port Melbourne (Sandridge) commenced operation. The St Kilda line followed on 13 May 1857, apparently junctioning with the Port Melbourne line on the south side of the river, at a place later known as Falls Bridge.

These were two of the lines bought by the Government in 1879, along with the first interlocked signal box in Australia, which was at Swan Street, Richmond. The Government railway had commenced interlocking at Essendon Junction in 1876.

The first signal box, at what was later to become perhaps the most important junction in Victoria, was opened on 27 May 1883 and was called Flinders Street West. Having spaces for 51 levers, it was roughly located on the site of the present Elizabeth Street entrance. It was probably a prelude to the widening of the bridges across the Yarra to four tracks, which was completed in 1889.

For all this time, there was no reasonable connection between Flinders Street and Spencer Street stations. There was a ground level single line along Flinders Street but this was used by goods trains and light engines only.

The North Viaduct, as we know it today, was opened as a single line on 23 November 1891. Duplication came on 20 December 1891 but the line was goods only until 17 December 1894, when the first passenger trains commenced running from Spencer Street. To provide for this increase in usage, a new signal box, Flinders Street A, was opened on 28 October 1894 and had a frame of 148 levers, of which, 138 were working. It was about 20' in front of the present building and worked Winter's Block on the double line section to Viaduct Junction, itself new on 10 October 1894.

Figure 1 is a copy of the locking sketch showing the situation at Flinders Street after the duplication of the goods line to Spencer Street. Figure 2 is a copy of the box diagram showing a representative stage of Flinders Street.

It is interesting to note that at this time, engine drivers of trains wanting to leave the station, indicated their destination by engine whistles. In April 1896, a system of electric bells were used in lieu, to reduce the engine whistle nuisance.

Timetables for this era, show that there was a considerable amount of traffic using the double line block section and Winter's Block was scarcely adequate. The first Victorian installation of Sykes' Lock and Block, was made on this section on 7 December 1898. The signals were controlled by the instruments, which were in turn controlled by treadles between the tracks. A train passing over the treadle would actuate a contact and restore the signal to stop.

Flinders Street had been a relatively small station with four platforms but between 1900 and 1907 was increased in size until it was virtually as we know it today. To cope with this increase, a new signal box was built and the number of levers was increased from 148 to 260. This is the present Flinders Street A Box.

The then existing viaduct (now the North Viaduct) track was taken out of use for repairs on 9 May 1915 and all trains diverted onto the new (South) viaduct for two years, the four tracks being in operation from 2 December 1917.

In lieu of the Lock and Block system of working trains, by which only one up and down train could be on the viaduct at the

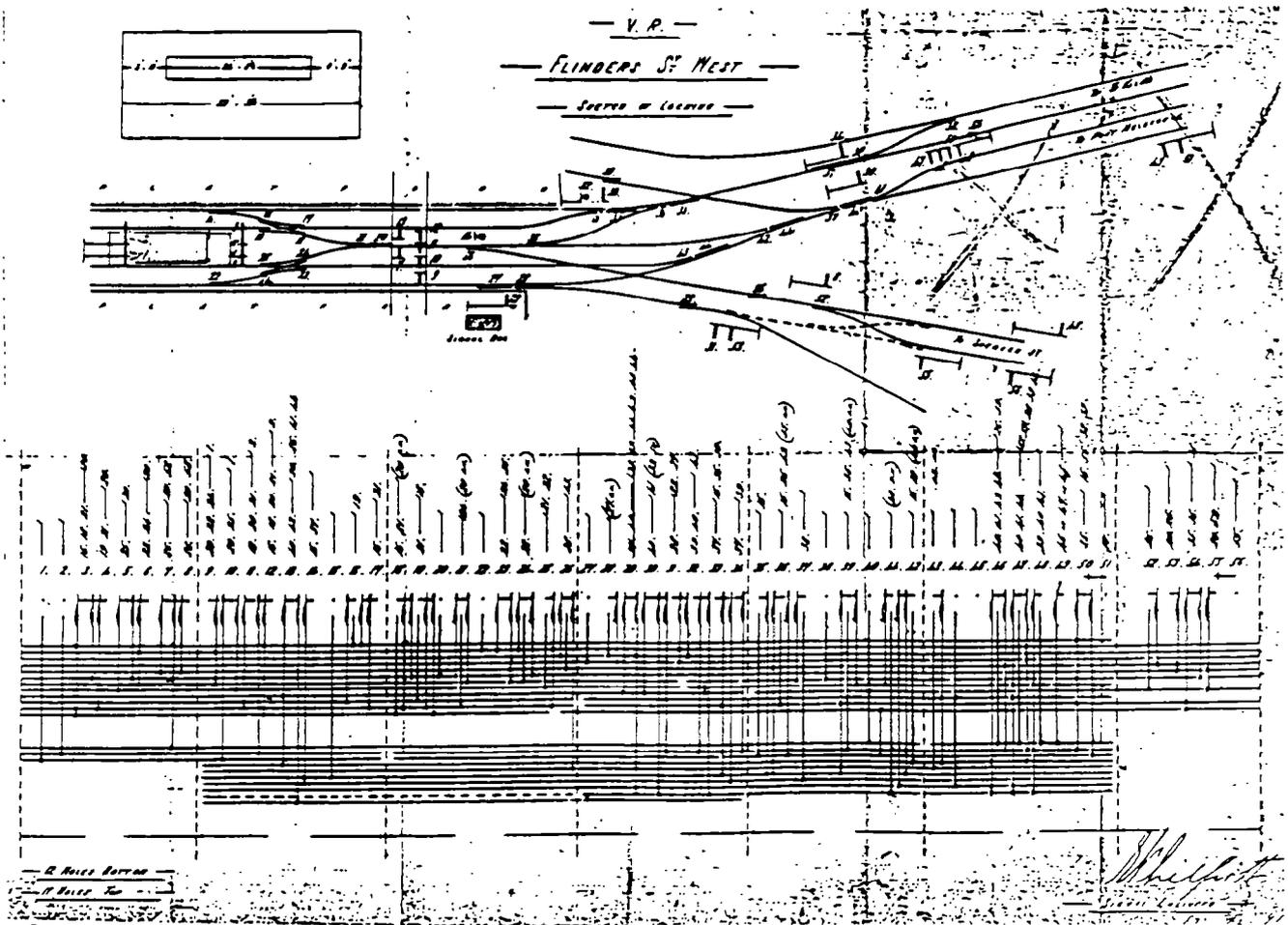
one time, the new automatic signalling permitted perhaps three trains on each of the four tracks at the one time, which increased the flexibility of working considerably. All four viaduct tracks were part of the initial electrification between Sandringham and Essendon on 28 May 1919.

A vast number of small alterations took place over the next five decades but generally the picture of the Flinders Street A area did not alter very much. Three position signals have gradually been taking over from the McKenzie and Holland somersaults, but there are still a number remaining.

Some of these are on the Market Street gantry, which with its 22 arms and 10 discs, has been a landmark since 1917 but will not last very much longer. On 5 November 1978, the junctioning of the St Kilda and Port Melbourne lines was converted to power operation, worked from a control panel in A Box and in December, the fifth and sixth viaduct tracks were brought into use, together with three position signalling to and from Nos 8 & 9 platforms. As in 1917, extensive reconditioning is taking place on the old viaduct tracks.

Flinders Street A Box would not seem to have a rosy future, at least as a genuine signal box but as it has appeared prominently in pictures of the station for over 70 years, it is not likely to be forgotten.

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Whitlock
 1978

