

SIGNALLING RECORD SOCIETY (VICTORIA)

SOMERSAULT

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acknowledgement is required.
Dead line for November 1981 issue is October 11, 1981.
NEXT MEETING: September 18, 1981.
VENUE: A.R.H.S. Library Room, Windsor Railway Station.
NEXT TOUR: September 24, 1981 to Ararat and Stawell area.

Minutes of July 1981 General Meeting

HELD AT: A.R.H.S. Library Room, Windsor Railway Station. Meeting commenced at 2020 hours.

PRESENT: J.McLean (Leader), G.Inglis (Minutes Secretary), D.Langley (Editor & Archivist), J.Brough, A.Jungwirth, K.Lambert, S.McLean, P.Miller, G.Rutledge, J.Sinnatt, P.Stoneham, R.Weiss and A.Wheatland.

POLOGIES: C.Guy and R.Whitehead.

MINUTES OF PREVIOUS MEETING: Adopted as read. (Brough/McLean)

BUSINESS ARISING: 1. Blackboard - the blackboard sub-committee are still investigating the purchase of this item.
2. Show Day Tour - Alan Jungwirth outlined the details of the tour. Remember: Travel on the 8 30 Horsham pass and bring lunch, tea and pension card (if appropriate!)

CORRESPONDENCE: Inwards from Mike Christensen regarding the use of Tablet Instruments in the antipodes. The Leader was to reply.
From The Ghan Preservation Society - Newsletter.
From J.McCallum - change of address.

Outwards: nil.

GENERAL BUSINESS: 1. Hurstbridge line article (Vol 4, No 3). John Sinnatt commented upon the high quality of the article and wondered who the author was. (Ed. Note: This article was written by myself with some material mainly in the second part coming from Jack McLean.)
2. John Sinnatt asked some questions regarding the Little River to Corio duplication works which generated some discussion.
3. Stephen McLean posed the question - What does Reduce to Medium Speed indication really mean? This was discussed in great detail.
4. A second question from Stephen sought to define what should be done by a driver of a train if a signal (eg Reduce to Medium Speed) clears ahead of his train within viewing distance. After further lengthy discussion the general consensus of opinion was that the driver should not speed up until the signal is passed regardless of the cleared indication.

MEETING CLOSED: at 2100 hours following which informal discussion took place until the lights were turned off at about 2215 hours.

--ABCBA--

Society News

The societies archives collection formerly located at Seymour in 'rented' premises has now been moved to their temporary permanent home in the railway room at Crichton Street, Avenel. This situation should provide a dry, dust free and mouse free atmosphere for their preservation. They are also very handy for reference during bouts of researching articles for inclusion in Somersault. Members are invited to avail themselves of the societies archives. Please arrange if possible a time for visiting as my weekends are fairly busy although a potluck visit might find me home.

The signalling alterations have been held over until the next issue due to space requirements concerning the publishing of the Ararat - Stawell article in time for the Show Day visit by the society to this area. There have also been very few alterations during the two month period under review.

In this issue is an article written by David Langley on the Ararat - Stawell area and it has been included in here as tour notes for the forthcoming tour by the Society to this area on Show Day - September 24, 1981.

V.R. SIGNALLING HISTORY

No 25. - ARARAT

The railway reached Ararat on 7 April 1875, being extended to No 68 gate (near Stawell) on 15 February 1876 and reaching Stawell itself on 14 April of the same year, No 68 gate then being known as Scallan's Hill. The branch line to Dunkeld opened on 24 April 1877, extending to Portland Pier in December 1877, whilst the Avoca branch line opened on 18 November 1890.

The original yard at Ararat was a small affair and Figure 1 shows the probable layout that existed then - a staggered arrangement of platforms, two loops and a small engine shed.

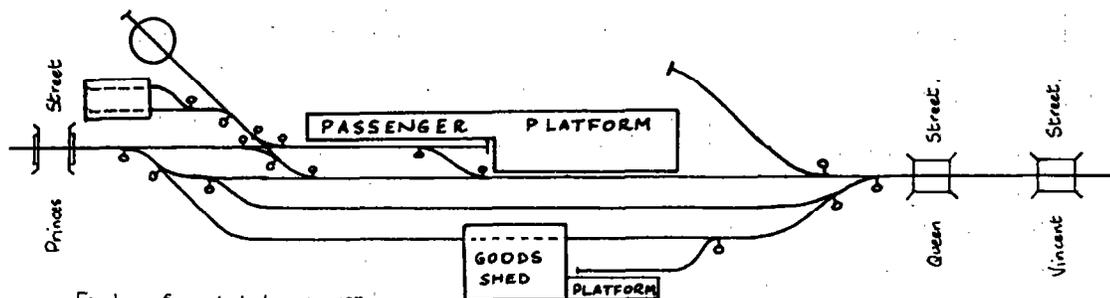


Fig 1. Suggested layout - 1871

Figure 2 shows the expanded layout that most likely existed after the enlargement of facilities in 1888. This enlargement must have eased the operational headache although not for long as the Western district railway system was expanding rapidly and traffic growing at a fast rate. The Princes Street level crossing was closed at this time to allow for the extension of the loco facilities to cater for the rapidly expanding allocation of engines to the depot. The car dock at the down end was removed in 1889 probably to allow for an extension of the platform to handle the longer passenger trains now being operated.

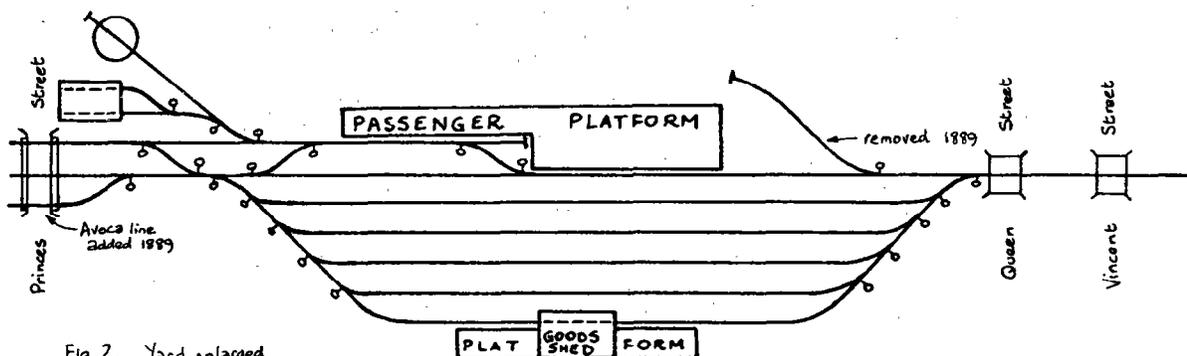


Fig 2. Yard enlarged

To safeguard the complex traffic operations in the yard, interlocking of the points and signals at both ends was provided on 26 October 1891 with the provision of two signal boxes - "A" and "B" - and these signal boxes are in fact the ones still in use today. The frame at "B" Box also included a gate wheel for swinging the gates at the Queen Street level crossing. There was also a level crossing at Vincent Street with hand operated gates and an open crossing existed at Albert Street at the up end. This crossing was still there in the early 1920's but was replaced by an underpass shortly after.

Staff & ticket was originally worked on all the lines radiating from Ararat but large pattern electric staff replaced the staff & ticket to Dobie and Armstrong on 12 October 1897, whilst 13 February 1902 saw that system also in use to Maroona. The section from Dobie was converted to miniature electric early 1913. Kangi Logan opened as a staff station dividing the section to Maroona on 8 September 1913 which was one month after the Maroona to Cheringham

but it reopened again on 20 January 1944 when the Gressy line was closed bushfires destroyed some bridges on that line. Dobie finally closed on 16 February 1944 but remained open for passenger and goods traffic until 1958.

Both signal boxes at Ararat were provided with additional staff instruments when switching facilities were provided at Langi Logan (July 1928) and Armstrong (22 March 1945). Ararat "B" received yet another instrument when Great Western also received switching facilities on 2 November 1958 and now it's possible to work with either Armstrong, Great Western or Stawell "A" Box.

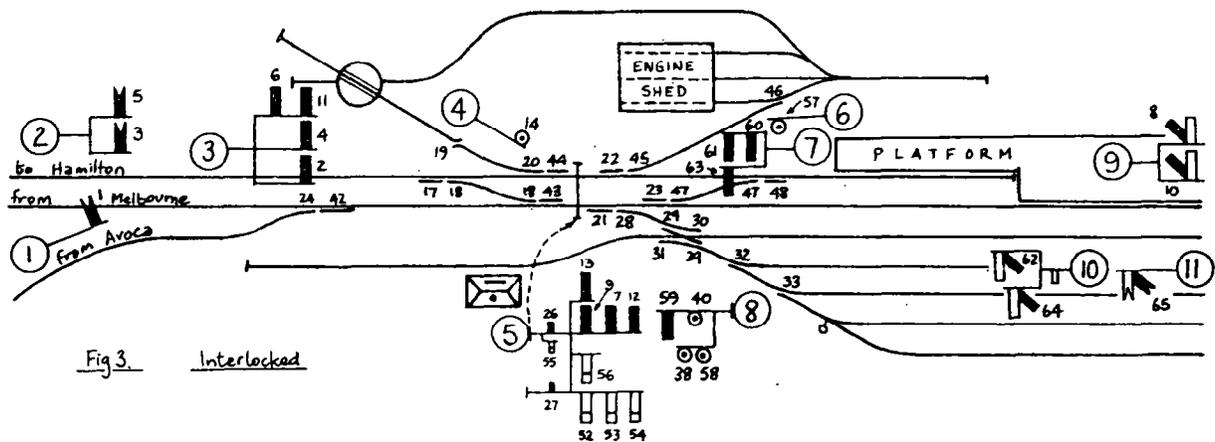
As announced in Weekly Notice No 32 of 1926, a staff locked loop siding for the British Imperial Oil Company was opened on the Portland line out beyond the up distant signal on Post 2 whilst on 26 January 1927 a dead end siding also secured by a staff lock was provided inside the distant signal on the Portland line for the Vacuum Oil Company.

The Portland dock platform was altered also in 1926 to the arrangement existing today and this enabled the main platform to be extended in the up direction to cater for the ever increasing length of passenger trains being run on the line. The car dock however remained in its present position and it is this dock that replaced the down end dock in 1889.

To cope with the ever increasing parade of engines through Ararat together with the expanding number of engines being allocated to Ararat, the present round-house style (devoid of 'round-house') replaced the former loco depot. This latter depot was then converted into the Way and Works yard after the new depot was opened on 28 October 1928.

ARARAT "A" BOX

Figure 3 has been drawn from an original diagram produced by McKenzie & Holland for the interlocking of the yard and the impressive gantry of arms spanning the Portland and Melbourne lines should be noted. When the interlocking was installed, the only alteration to the yard tracks was the provision of dead end extensions of No 2 road at both ends to enable shunting movements to keep clear of the main lines. Another feature that should be noted was the control "A" Box had over all the main line signals at the down end of the yard. Unusually the departure signals were controlled although only for a short time but the control over the home arrival signals remains to this day. The control over the up distant was also altered soon after to the more usual situation at multiple signal box stations whereby apart from conventional slotting when home and distant arms are on the same post the distant signal at clear only indicates a clear run into the station yard. An exception to this is Benalla where both signal boxes electrically control the other boxes main line distant signal.



The first alteration to the interlocking came on 14 August 1906 when some additional sidings were added adjacent to and behind the goods shed with a new connection from the main lines to the yard being provided. The gantry of signal arms was replaced by two posts - Post 7 carrying signals applying from 'A' in both directions and Post 8 having six arms applying from 'B' also in both directions. Two additional posts of disc signals were added in the yard to protect the new main line connections. It seems likely that the signal posts were numbered at this time as this is the first reference I can find to post numbers at Ararat. The arrangements at this time are shown in Figure 4.

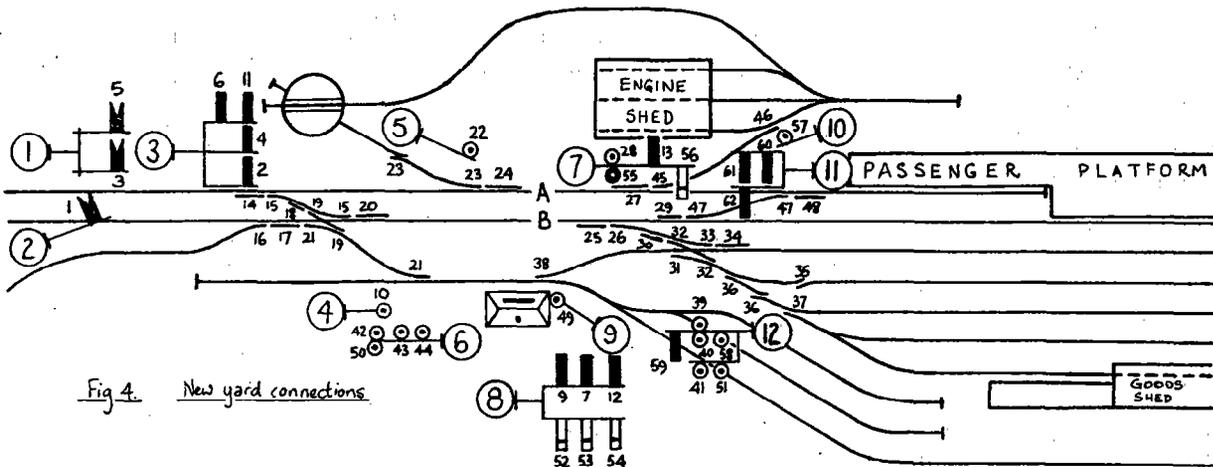


Fig 4. New yard connections

The three road engine shed was extended in 1907 whilst the connection to the Portland line was altered on 29 June 1911, the new arrangement can be seen in Figure 5. This diagram also shows the new main line connections provided when the 'New Yard' was opened on 12 December 1915. From 22 January 1915 a temporary annett-locked connection (shown dotted on the diagram) was provided to enable plant trains to reach the sidings under construction. An additional up home signal was also provided to protect the connection - Post 3A - being removed with the permanent arrangements in December of that year.

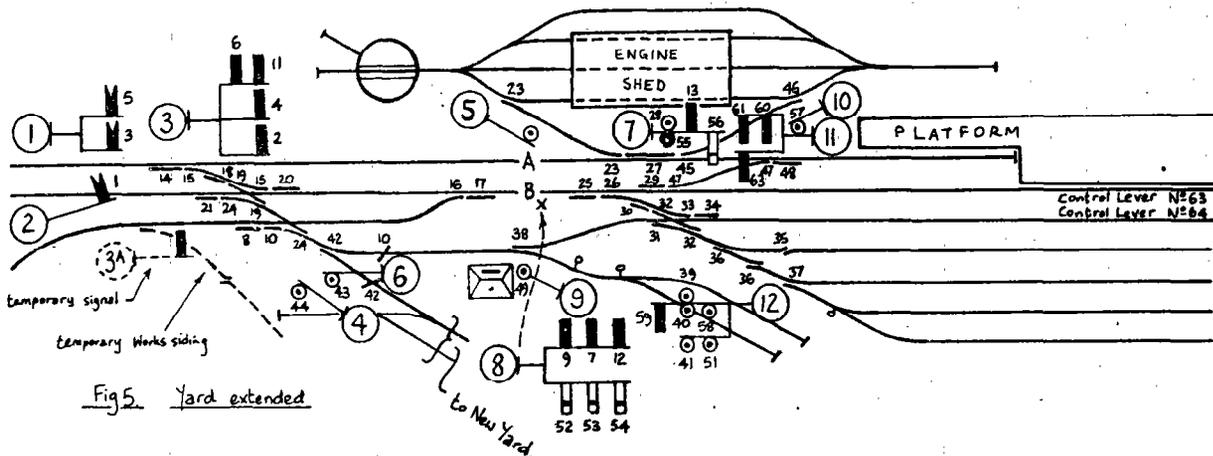


Fig 5. Yard extended

With the locomotive department introducing larger locos to cope with the increasing traffic of the times, the existing turntable at Ararat was unable to turn the longer locomotives and to alleviate this problem, a new turntable of 70' diameter was installed in the 'vee' between the Avoca and Melbourne lines. The Avoca line was realigned, the former line becoming the turntable siding. This siding was brought into use on 1 September 1920 and was crosslocked from the signal box, lever 65 becoming the crosslock lever in the signal box, there now being no spare levers left in the frame. Figure 6a shows the temporary crosslocked siding. To enable the siding to be worked from the signal box, seven extra levers were added to the frame and Figure 6b shows the permanent arrangements for the interlocking of the siding.

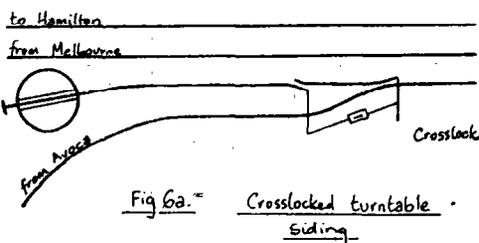


Fig 6a. Crosslocked turntable siding

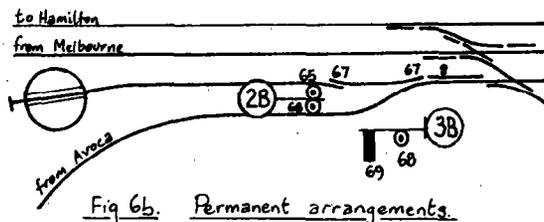


Fig 6b. Permanent arrangements

In 1916 a disc was added to Post 3 and was at first placed on the right hand side of the middle doll. It signalled trains from the Ballarat line to the new yard but shortly after was moved to underneath the bracket and now signalled trains from the Portland line to the new yard. This disc was again moved on 15 May 1923 to the left hand doll underneath the two arms whilst additional discs were added to the other two dolls, and all three signalled trains from their respective lines to the new yard (see Figure 5).

At this stage the Portland dock was still regarded as a running road necessitating the arms on Posts 3 & 7 leading to the dock but the unusual arrangement of the staggered platform meant that long main line trains could not be dealt with conveniently. To rectify this situation the Portland dock was altered to a conventional dock platform with a subsequent re-arrangement of the tracks and signals the most noticeable alteration being the provision of a signal bridge in about the same relative position as the impressive 1891 gantry. Figure 7 shows the layout after the completion of these alterations on 19 January 1926.

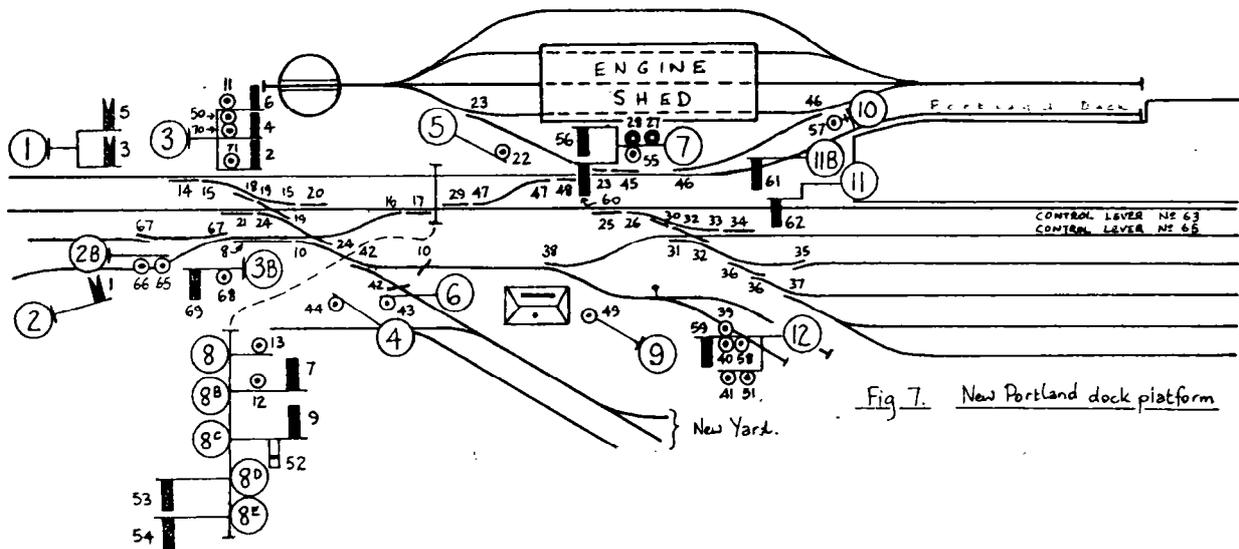


Fig 7. New Portland dock platform

On 11 November 1926 Post 4 was abolished and two new ground discs - Posts 4 & 4B - were added along with crossover No 45 in the lead to the new yard. The Water Crane siding was added on 4-3-1929, No 38 points being abolished and 38 lever was used to operate a derail protecting the double compound points in the old yard. The points at the other end of the Water Crane siding were now worked by a Ford lever. These two alterations are shown in Figure 8.

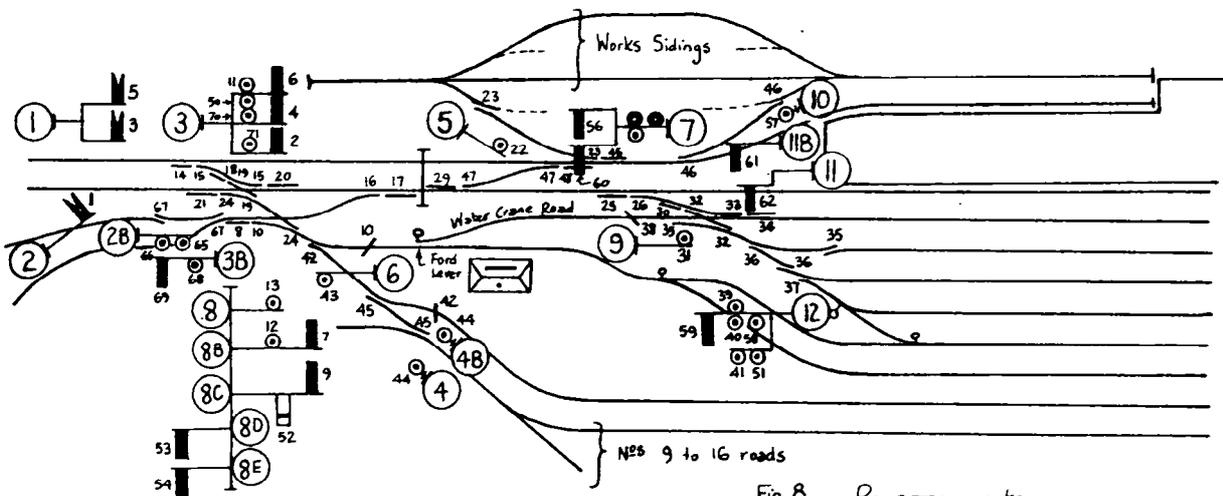


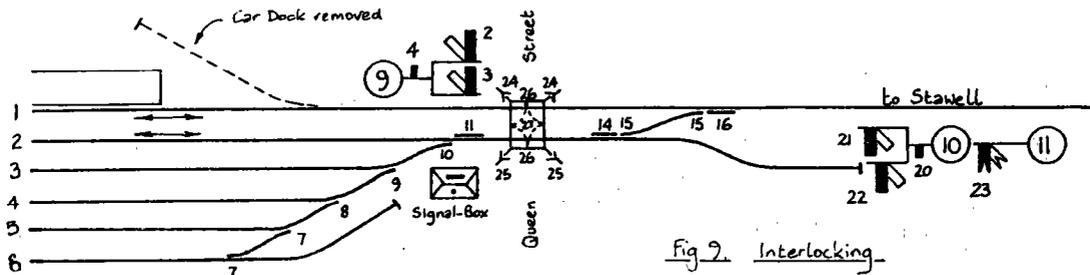
Fig 8. Re-arrangements

Bracket post 3 was replaced by a signal bridge on 20-2-1938 with the same signal configuration and lever numbers. The opportunity was also taken to renumber the signal posts throughout the yard eliminating the large number of lettered posts. Signalling diagram No 6/37 was issued at this time.

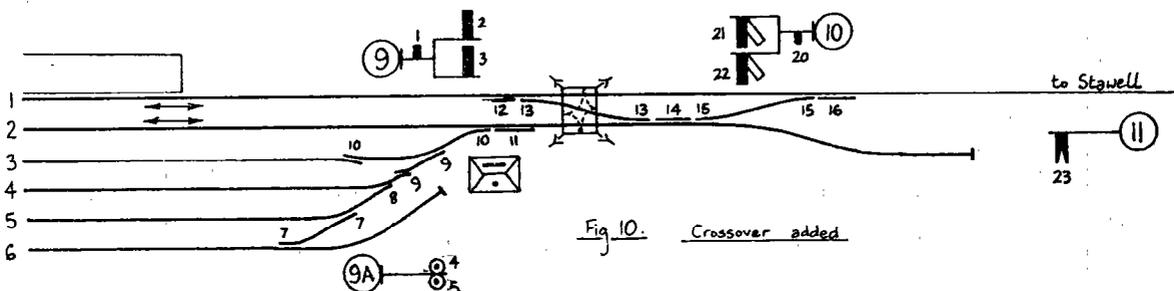
Little has since happened at Ararat, the only significant alteration being the provision of flashing lights at Alfred Street necessitating the installation of two colour light home signals on the Ararat side of the crossing to prevent unnecessary operation of the flashing lights during shunting operations on either the Melbourne or Portland lines. These signals - Posts 1B & 1C - are worked by levers 1 & 72 respectively leaving no spare levers in the frame again. Lever 1 until 1968 had worked the Avoca line distant signal but this signal was then replaced by a location board.

ARARAT "B" BOX

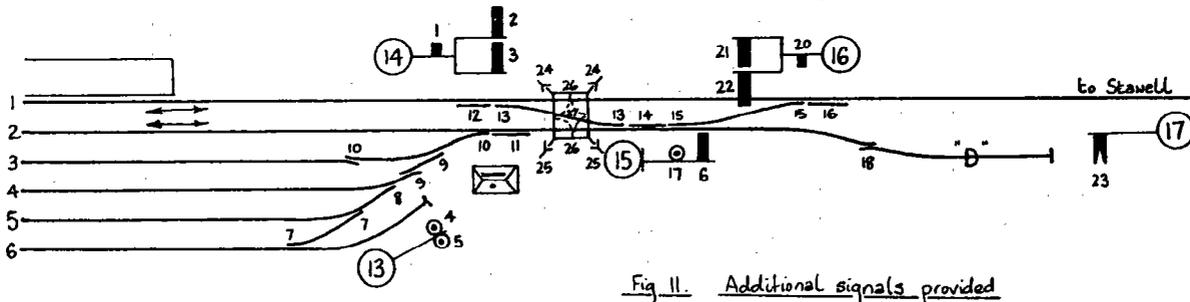
Figure 9 shows the original interlocked layout at "B" Box and like Fig. 1 for "A" Box is drawn from the original McKenzie & Holland diagram. Once again there was little alteration from the non-interlocked days save for the addition of a dead end extension of No 2 road and the interlocking of the Queen Street level crossing gates.



Almost two years later the first alteration came at "B" Box with the installation of a crossover from the platform road towards the dead end - siding 'D' - no doubt facilitating the changing of engines of through trains. Concurrently two additional signals were provided and although the register does not say exactly, it is thought that they are the two discs on Post 9A. The new arrangements are shown in Figure 10.



By July 1899, according to the interlocking register, there were three more working levers but it is not known exactly when they were installed. Figure 11 shows the layout at this time, the additional facilities being the arm & disc signal on Post 15 and the catch point in siding 'D'.



Until 31 May 1908 the signal controls between boxes was by wire operated mechanical slotting but was then replaced by an electro-mechanical form of control. In this system the levers at "B" Box working the home arrival signals were fitted with lever locks which are released electrically by "A" Box reversing his control lever. The control lever is then back locked

reverse when "B" Box pulls off his signals and were released electrically only when "B" Box restored his signal levers to normal. (An example of the previous system of wire operated slotting exists at Bendigo where "B" Box controls a number of "C" Boxes signals by this method.) Two additional disc signals were added to Post 17 at this time and they were worked by levers 16 & 19. In order to achieve this, an escapment crank was provided on the down end of No 15 crossover and the FFL on that end of the crossover was worked by this method by lever 15. The escapment crank is an economical method of working an FFL and a set of points with the one lever. Figure 12 shows the points and signals at "B" Box after these additions.

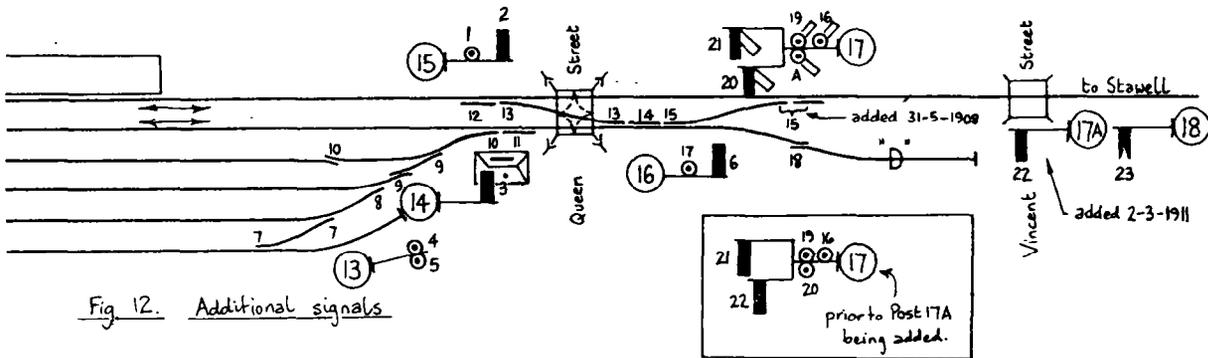


Fig. 12. Additional signals

From 21 January 1909 until 15 April 1909 a down starting signal worked by a new lever - lever A - was provided but it is not known what the signals purpose was nor its location. On 2 March 1911 lever A was again brought into use when an outer home signal was provided to protect the Vincent Street hand gates. This signal was worked by lever 22, the previous signal 22 became 20 and disc 20 was now worked by lever A - see the inset diagram on Figure 12.

The existence of a level crossing creates a bottleneck in any yard and the two level crossings at the down end at Ararat were no exception especially Queen Street. The gates at this crossing not only had to be swung for all shunting moves but the roadway prevented the yard from being extended at the down end and with the increase in trains handled a problem of train capacity in the yard resulted. Accordingly a program was started to enlarge the yard by removing both crossings and replacing them with an overbridge. The Vincent Street gates were abolished on 31 January 1915 and Figure 13 shows how the main line was realigned to pass under the new bridge. This slue accounts for the curious curves in the main line today.

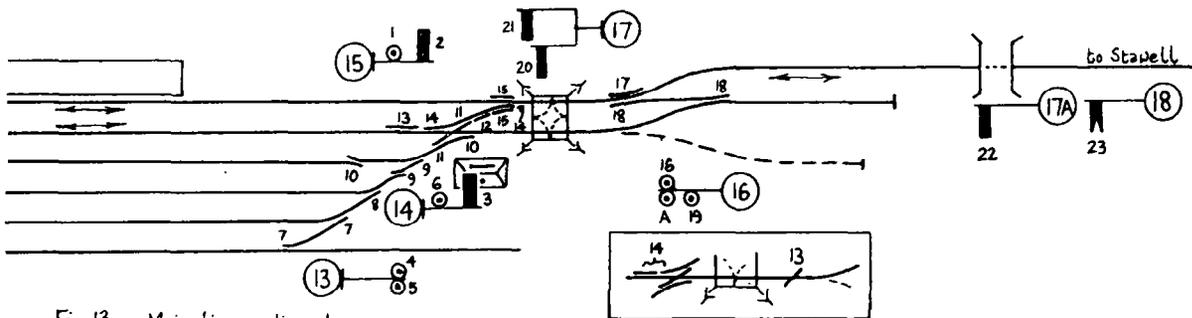


Fig. 13. Main line realigned

The dotted line is the abandoned siding 'D', a portion of the old main line becoming the shunting neck. Post 17 was moved towards the station and the discs removed to a new signal post No 16. The previous post 16 was abolished and the connection from the yard to the main line moved to the station side of the Queen Street level crossing. The small inset diagram shows an alteration that may have been carried out shortly after the realignment of the main line although my records do not say when.

The construction of the new yard proceeded and a temporary connection was provided on 12 December 1915 when the new yard was brought into service. This annett locked crossover is shown in Figure 14.

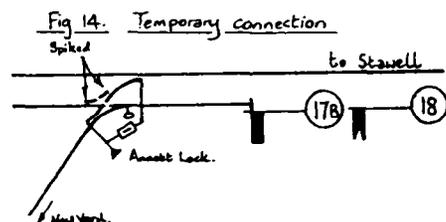
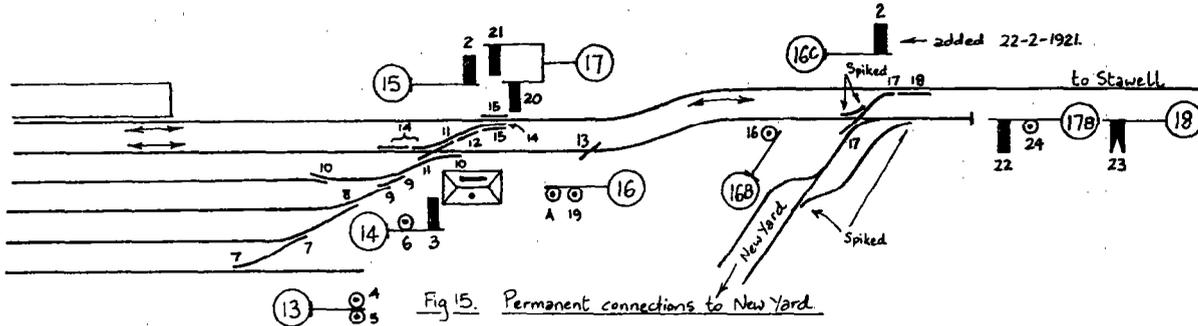


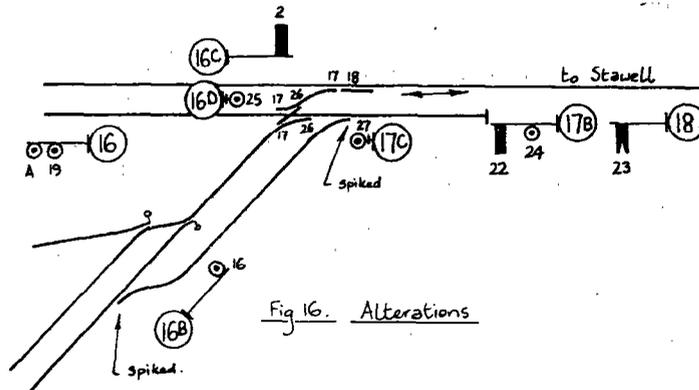
Fig. 14. Temporary connection

The interlocked gates at Queen Street were also removed on 12 December 1915 and the level crossing abolished to enable the new yard to be extended across the roadway. It is probable the roadway had already been closed for some time to enable the sidings to be laid and this date was a formal closure of the crossing.

On 3 March 1916 the alterations were completed to the interlocking for the permanent arrangements as shown in Figure 15 but they were not brought into use until 13 June 1917. A new signal post (No 16B) governed movements from the new yard to the main line and the disc was worked by lever 16, this disc being removed from post 16. On this post it governed moves from the head shunt to No 1 road but this crossover was abolished so that levers 17 & 18 could be used to work the former Annett locked crossover from the new yard. Post 16C was added on 22 February 1921 being worked by lever 2 whilst the home signal on Post 15 was altered to lever 1.



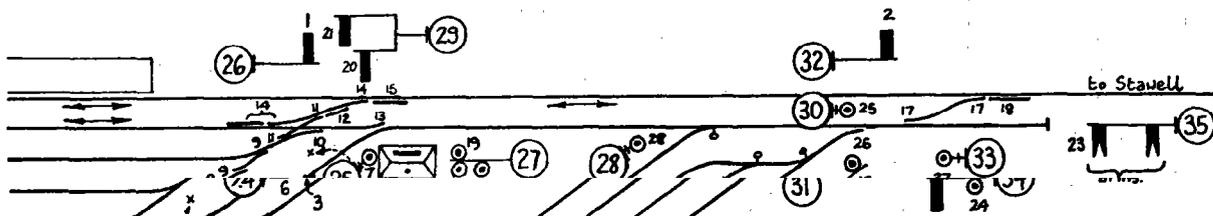
The double compound points in the lead to the new yard together with ground disc signals Nos 25 & 27 (Posts 16D & 17C) were brought into use on 10 February 1922 and the alterations are shown in Figure 16.



In June 1930 a bank engine key was provided to enable down trains to be pushed out of Ararat towards Armstrong until the top of the grade was reached about 1.5 kilometres out of Ararat.

The present co-acting up distant was installed on 16 November 1939 replacing the former wire operated signal. The new signal is motor operated and located 315 metres further out from the signal box.

The most recent alteration to the interlocked connections at "B" Box was the replacement of the double compound underneath the Vincent Street over-bridge by two separate crossovers and the new layout is shown in Figure 17. Some non-interlocked crossovers in the yard were removed late in 1979.



No 26. ARMSTRONG

'Armstrong's' was opened on 21 March 1876 shortly after the line to Scallan's Hill was opened to traffic and probably soon after opening became a staff & ticket station, the first reference I have being the 1883 Working Timetable. On 16 July 1888 a 20 lever interlocking frame was installed and had 14 working levers, the layout being shown in Figure 1.

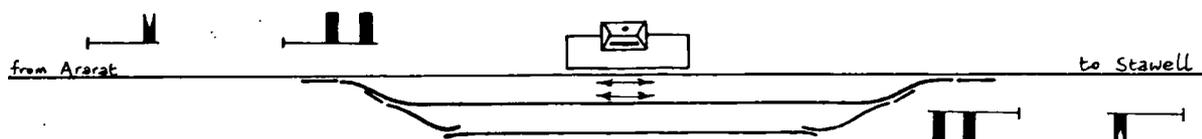


Fig 1. Interlocking

With the closure of Armstrongs as an electric staff station on 10 September 1902 (electric staff had superseded the staff & ticket in 1897) the interlocking frame was removed and No 2 road spiked out of use while the main line points were fitted with staff locks. (The Weekly Notice says that No 2 road was taken out but it seems unlikely that it was actually dismantled) The signals were also abolished.

The siding was again interlocked on 12 December 1905 when a 14 lever frame was installed and this was a prelude to the station becoming a seasonal staff station dividing the long section Ararat "B" - Great Western. Figure 2 shows the layout at Armstrong (the 's' was dropped in 1904) and the 30 metre extension to the crossing loop at both ends appears to date from this time.

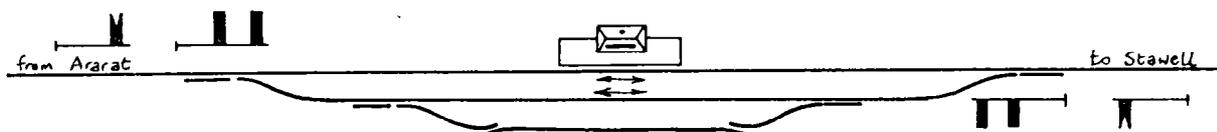


Fig 2. Loop extended

Armstrong opened again as a staff station on 30 December 1905 and lasted as such for six months closing on 9 May 1906. It reopened again on 10 December 1906 and remained open until March 1908. On 12 December 1908 it became a staff station again, this time permanently. The instructions for shunting at Armstrong while it is not open as a staff station are as follows:

The up and down home and distant signals at Armstrong for No 1 road will be at "All Right" normally, and will be locked in that position. Crosses will be fixed to the signals applicable to No 2 road.

The points leading off No 2 to No 3 to be disconnected from the Interlocking frame and spiked to lie for No 3 road. Trucks to be put into No 3 road clear of Catch Points. Only daylight trains to be used for shunting. When it is necessary for a train to shunt the guard must obtain the staff from the driver and with it unlock the interlocking frame for the purpose. The staff thus becomes a key, without which the frame cannot be manipulated. Drivers to exercise special care that the staff is returned after shunting is finished and before the journey is resumed.

Directions for working Signal-Box

Shunting at the down end of Yard - Insert and turn staff key in the lock. Put back levers Nos 1, 2, 13, 14. Pull over levers Nos 10, 5, 4. When shunting is finished put back levers Nos 4, 5, 10 and pull over levers Nos 1, 2, 13, 14. Press down lever handle of staff lock then turn and withdraw staff key from lock. Shunting at the up end of yard - Insert and turn staff key in the lock. Put back levers Nos 1, 2, 13, 14. Pull over levers Nos 5, 10, 11. When shunting is finished put back levers Nos 11, 10, 5 and pull over levers Nos 1, 2, 13, 14, Press down lever handle of staff lock then turn and withdraw staff key from lock. NOTE:- Levers must be pulled in the order specified (sic).

These instructions were published in Weekly Notice No 19 and there is an

Directions for working Signal Box are amended as hereunder:
 Shunting at the down end of yard - insert and turn staff key in lock, put back levers Nos 1, 2, 4, 14, 13, 11, pull over levers Nos 5, 4, 6, 7.

When shunting completed - put back levers Nos 7, 6, 4, 5, pull over levers Nos 4, 2, 1, 11, 13, 14, press down lever handle of staff lock then turn and withdraw staff key from lock.

Shunting at the up end of yard - insert and turn staff key in lock, put back levers Nos 1, 2, 4, 14, 13, 11, pull over levers Nos 10, 11, 9, 8.

When shunting is completed - put back levers Nos 8, 9, 11, 10, pull over levers Nos 4, 2, 1, 11, 13, 14, press down lever handle of staff lock, then turn and withdraw staff key from lock.

NOTE: Levers must be pulled in the order specified.

The guards must have had a little more success following these instructions.

Signalling diagram No 1/11 was issued showing alterations carried out at Armstrong on 11 January 1911. The crossing loop was extended to a dead end at the up end enabling longer trains to be sidetracked and some additional signals provided to safeguard movements along No 2 road. These alterations are shown in Figure 3. To enable these additional facilities to be worked from the signal box a 22 lever interlocking frame replaced the existing 14 lever frame.

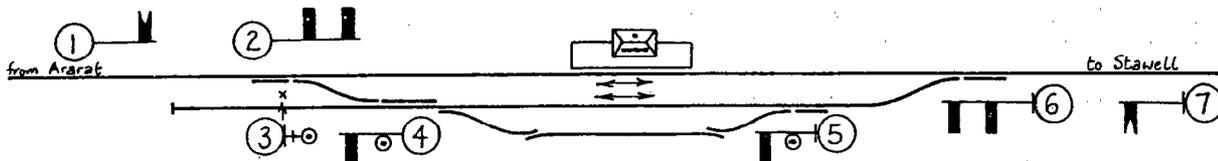


Fig 3. Dead end siding provided

The large pattern instruments were replaced by miniature electric staff instruments in 1913 and staff exchangers were added in 1927 enabling the staff to be exchanged without having to slow down the train especially useful for up trains trying to maintain momentum for the grades ahead. The distant and home arrival signals were tracklocked on 21 June 1935 track circuits extending from distant signal to distant signal.

On 8 March 1928 the crossing facilities were again enlarged and signalling diagram No 6/28 shows how the dead end siding was connected to the main line and the down end loop points moved further out. Departure home signals were added at this time and Figure 4 shows the layout at this time.

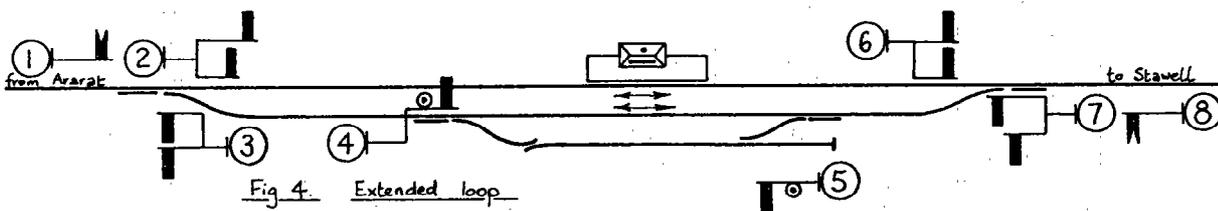


Fig 4. Extended loop

As a further measure of protection for down trains descending to Armstrong an outer home signal - Post 1B - was provided on 27 March 1940 and was worked by lever 22. There being no other spare levers available in the frame, the new down distant signal was converted to automatic operation it already requiring a signal motor due to its distance from the station. Figure 5 shows the arrangements now in force at the up end of the station.

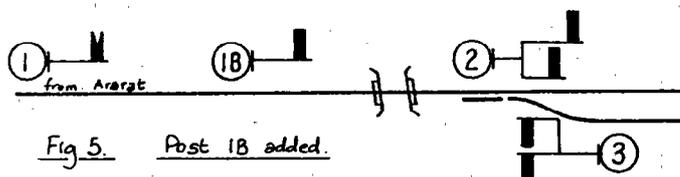


Fig 5. Post 1B added.

The automatically operated down distant reverted to lever operation on 22 March 1945 when a 30 lever interlocking frame was provided at Armstrong in conjunction with the provision of a new station building. The opportunity was also taken to install switching facilities to enable the long section Ararat "B" - Great Western to be worked during the quieter periods of the day. The staff exchange box that had been provided probably during the 1930's was removed at this time.

From 20 October 1980 Armstrong has been semi-permanently switched out (along with Deep Lead and Gal Gal) with No 3 road being spiked out of use. Any vehicles required to be detached at Armstrong must stand in No 2 road and these vehicles would only be defective vehicles taken out of passing trains. Although the station has yet to close it may well never switch in again and its future looks very bleak indeed.

No 27. GREAT WESTERN.

Opened the same day as Armstrong and became a staff & ticket station on 1 May 1876. Interlocking came on 17 July 1888 in the form of a 20 lever frame with 12 working levers. There was only one loop and a car dock at this stage and Figure 1 shows the signal arrangements at this time.

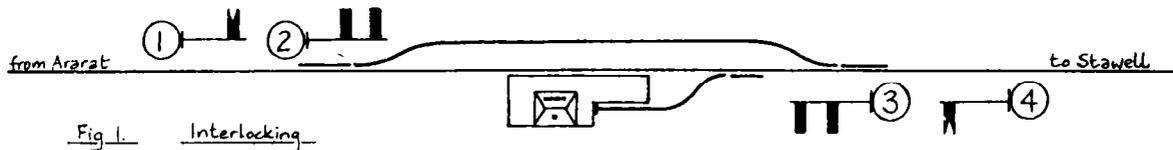


Fig 1. Interlocking

An additional loop siding was provided on 8 January 1889 and the number of working levers increased to 16. Figure 2 shows the new layout.

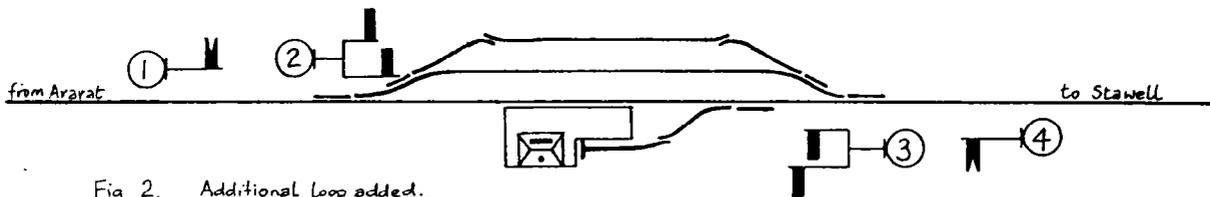


Fig 2. Additional loop added.

The two armed home signals were replaced by bracket posts in 1914 and was announced in Weekly Notice No 34 of that year.

On 4 November 1915 a new frame of 30 levers was provided and No 2 road extended at both ends to enable longer trains to be handled when crossing opposing trains. The extended loop and additional signals provided are shown in Figure 3.

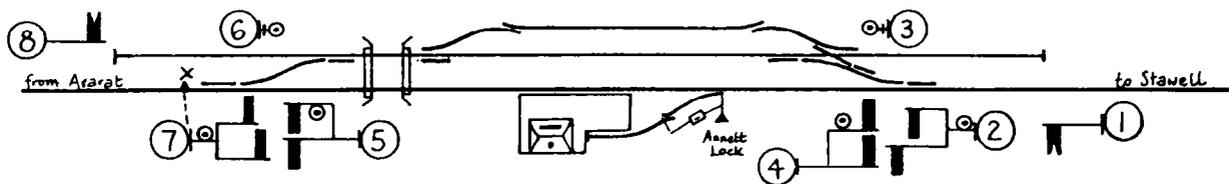


Fig 3. Crossing facilities extended

On 14 December 1928 additional siding accommodation was provided by extending No 3 road to dead ends at either end and adding No 4 road. To provide enough extra levers for the additional facilities, the car dock was converted to an annett locked siding and Figure 4 shows the arrangements at Great Western after completion of the alterations.

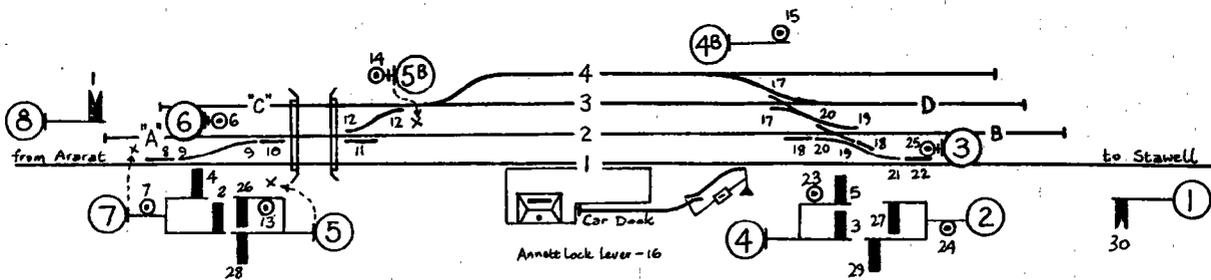


Fig 4. Yard enlarged.

Automatic staff exchangers were installed in 1927 and the yard was tracklocked on 30 January 1929 whilst a staff exchange box was installed in 1931 enabling a reduction of the number of man hours worked during the quiet periods. When Armstrong was provided with switching facilities, the long section staffs were often unbalanced after a period of time and for a while the local signal fitter would be called upon to alleviate this imbalance. In 1948 a balancing magazine was provided for this section which enabled the station staff to perform this task in complete safety and without having to wait for the signal fitter.

A new station building was erected at Great Western and a 40 lever frame installed therein. This frame was in anticipation of the extension of the crossing loop but when this did not eventuate the existing points and signals were connected to the new frame and the temporary arrangements are shown in Figure 5. The car dock was abolished on 22 December 1955.

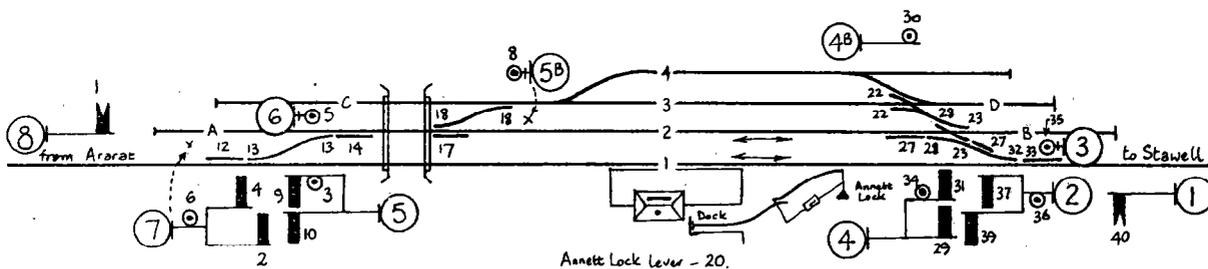


Fig 5. Temporary arrangements.

The extended crossing loop was eventually agreed to and was brought into service on 2 November 1958 and Figure 6 shows the new arrangements. The down end of the loop was now motor worked. Calling on signal arms were added and these would enable trains to be worked through with minimum delay in the event of a signal or track circuit failure by saving the signaller a long walk to issue a caution order. Switching facilities were also provided at this stage and the long section became Ararat "B" - Stawell "A". Great Western was required to be switched in though when it was necessary for Armstrong to switch in.

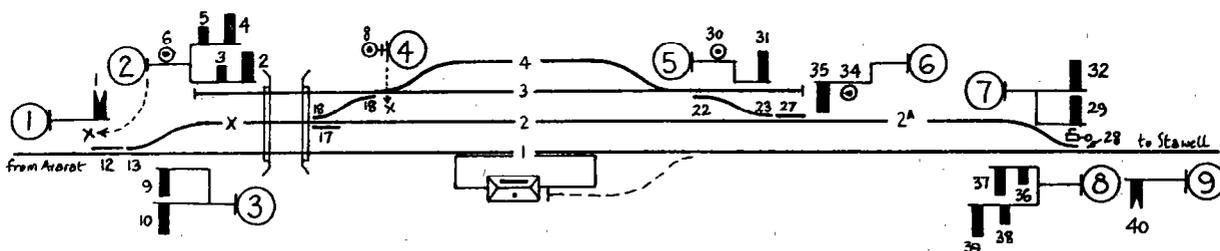


Fig 6. Crossing loop extended.

The most recent alteration at Great Western has been the abolition of siding 'C' and the provision of a derail in lieu of the down end of No 18 crossover.

SEPPELT'S SIDING

Opened on 18 October 1897 it was known as Irvines Siding until about 1962 when it became Seppelts siding. The dead end siding has always been secured by a staff lock the large pattern lock being replaced by the present miniature type in 1913. "Goods trains during the hours of daylight may be stopped for the purpose of taking consignments up to 2.5t while the train waits; but for consignments over 2.5t weight, a truck must be placed at the siding, and for this purpose one or more vehicles may, during daylight hours, be pushed from Great Western to the siding". This instruction appeared in the 1919, 1939 and 1953 General Appendices but has been omitted from the 1979 GA.

SCALLAN'S HILL

Opened as the temporary terminus of the line on 15 February 1876 and lasted as such for two months until the extension down the hill into Stawell was opened on 14 April 1876. This location may also have been the locat

No 68 GATE

This is quite possibly the same location as Scallan's Hill and became a block post with reference to Stawell on 14 April 1876. At a number of places on the VR during the early years when train brakes were not very reliable, block working was in operation in order that trains could not approach from both directions simultaneously in case the train descending the hill got out of control. No 68 gate was a block post for this reason owing to the steep descent into Stawell yard. On 11 November 1897 when electric staff working superseded the staff & ticket the block working was retained until 21 August 1899. The down home signal was abolished in October 1899.

No 28 STAWELL

As already mentioned the railway reached Stawell on 14 April 1876 with the extension to Murtoa opening on 17 December 1878. The Grampians line dates from June 1888 but only went as far as some wheat stacks about two kilometres out from Stawell. The 25 kilometre extension to Grampians opened on 26 June 1905 and the whole was closed on 29 March 1949 although the track adjacent to the main line is still mostly intact some of it remaining in service as the "Grampians siding".

Staff & ticket seems to have been worked soon after the opening of the various section although not at the time of opening. On the upside Great Western - Stawell became the section on 1 May 1876 and Stawell - Glenorchy was brought into use on 1 March 1879. Prior to the staff & ticket some form of timetable operation was in use. Large pattern electric staff replaced the staff & ticket on 11 November 1897 being superseded in 1913 by the miniature electric staff instruments currently in use. The sections remained as Great Western - Stawell "A", Stawell "B" - Glenorchy. Staff exchangers were not provided in 1927 along with the rest of the line owing to the peculiar layout at Stawell requiring all trains to slow down when passing through. This was remedied until 1977 when the platform road was realigned and exchangers provided adjacent to "B" Box.

Deep Lead was opened as a staff station on 20 April 1888 dividing the section to Glenorchy but was closed on 22 August 1888. By 1890 it was again a staff station closing once more in 1893. It was not until 1912 that Deep Lead was reopened as a staff station this time working large pattern electric staff with Stawell "B" and Glenorchy. It was used seasonally until 1922 when it became a permanent staff station miniature instruments having been in use since early 1913. Switching instruments were provided at Deep Lead in March 1932.

The Grampians line has always been staff & ticket with one section except during a few weeks in 1919 and 1920 when the Grain Siding became a temporary staff station. Up and down home signals were provided during this time.

On 1 February 1888 double heading was prohibited between Ararat and Serviceton but most of this restriction was lifted in 1896 when Weekly Notice No 42 announced that double heading was again permitted from Stawell to Serviceton. I have no record as to when double heading was permitted between Ararat and Stawell.

Interlocking of the yard was brought into service on 7 March 1889 with the provision of two signal boxes - "A" Box with 33 levers and "B" Box with 35 levers which included a gate wheel for the adjacent interlocked gates.

At the down end of the station a private siding was opened to serve a nearby flour mill and the points, which were annett locked, were located on the branch line, the siding crossing the main line via a diamond crossing.

A BANK ENGINE KEY was provided at "A" Box enabling up trains to be pushed to the STOP BOARD at 148m 57c the key permitting the bank engine to return safely to Stawell yard. In 1932 the stop board was moved to 145m 45c because of the lower speed of the trains during the regrading of the bank.

A large engine depot was opened at Stawell in 1899 and long distance trains changed engines here instead of at Ararat, this latter depot catering for mainly for local engines. With the provision of the larger depot at Ararat the depot at Stawell was closed on 14 October 1929 although the depot still played host to engines kept for banking duties until the end of the steam era.

STAWELL "A" BOX

The original interlocked layout of Stawell "A" Box is shown in Figure 1 and has been drawn from an old plan that has survived the ravages of time. Unfortunately the detail of the sidings in the car siding area is not known although it is known that there was more than that shown.

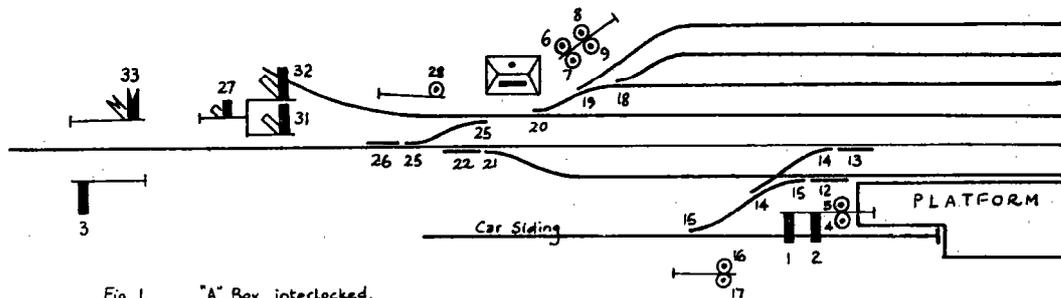


Fig. 1. "A" Box interlocked.

In connection with the provision of the new loco depot, No 3 road was converted into a running road and home signal arms provided in lieu of discs for signalling trains along that road. The arrangements are shown in Figure 2.

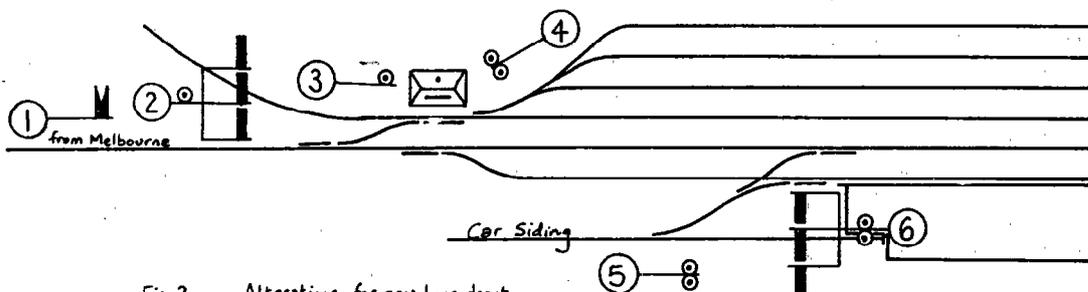


Fig. 2. Alterations for new Loco depot.

The signal box was moved (at least that is what the interlocking register says) to the opposite side of the main line and survives in this position today. This occurred on 15 March 1908 and some additional signals added in connection with the provision of a weighbridge siding in addition to the cattle siding. Unfortunately I have not been able to determine the exact site of the two sidings in relation to each other and the arrangements at this time are something like Figure 3.

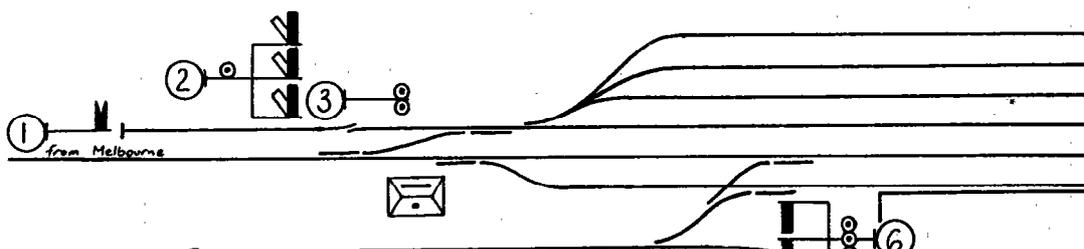
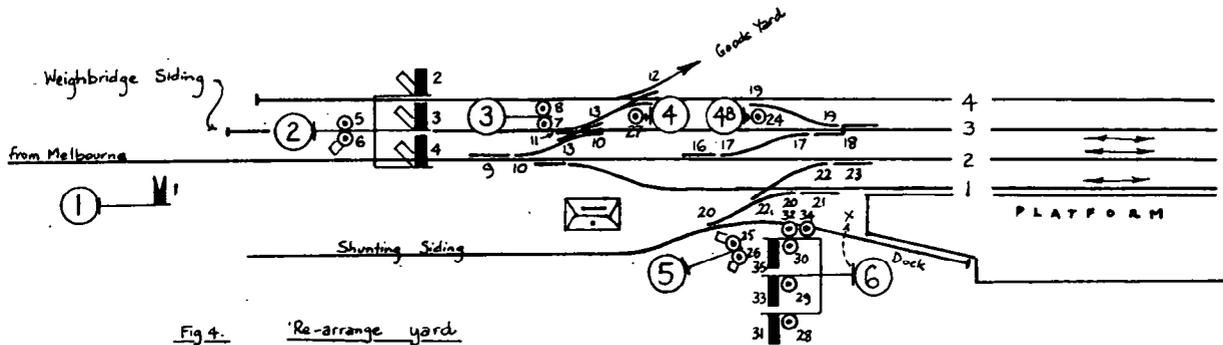
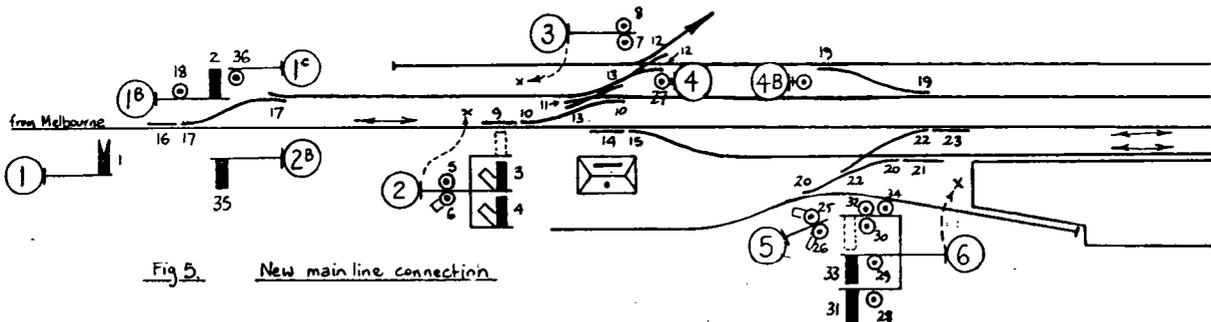


Figure 4 shows the alterations that were completed on 21 December 1913 resulting in the yard being extended to the size it is today. Crossovers 17 and 19 appear to have been provided to facilitate the changing of engines without having to encroach on the main line beyond No 10 points.



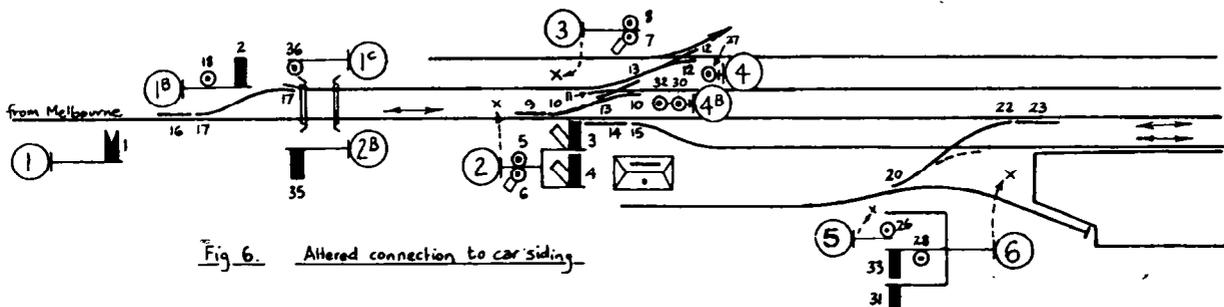
With the increasing length of trains being handled on the line, the crossing facilities at Stawell were being stretched and to ease the situation the former weighbridge siding was connected to the main line just beyond the level crossing. To provide sufficient levers for this work, No 3 road was converted back to a siding and the applicable signal arms on Posts 2 & 6 were removed. Crossover No 17 together with FPLs 16 & 18 were removed and these levers were used to operate the new connection. Figure 5 shows the layout at Stawell after these alterations were completed on 7 January 1931.



Post 2 (now Post 5) was replaced by a two doll bracket post on 24 July 1931 but Post 6 (later Post 10) remained a three doll bracket post until the alterations of 1977 although one doll remained unused.

Flashing lights were installed at the up end level crossing in December 1935, posts 1C & 2B being moved to the down side of the crossing to effect a measure of protection during shunting moves.

Rationalisation of the yard connections took place during the next few years, the first being on 24 February 1936 with the removal of No 19 crossover together with discs 24, 32 & 34. Disc 30 remained controlling movements along No 3 road towards No 10 points. This disc was removed when Post 4B was added controlling movements from No 3 road about two months later. Weekly Notice No 19 of 1936 also announces the removal of the connection from No 1 road to the shunting/carriage siding along with discs 25 & 28 and the layout at this time is shown in Figure 6.



The connection from No 1 road to the shunting siding was restored on

24 November 1938 whilst the connection from No 2 road was abolished. The opportunity was also taken to move the signals on Post 6 to the centre and right hand dolls for easier sighting by drivers thus explaining the unused left hand doll that survived for many years. The signal posts throughout the yard were renumbered at this time and signalling diagram No 8/38 was issued from which Figure 7 has been drawn.

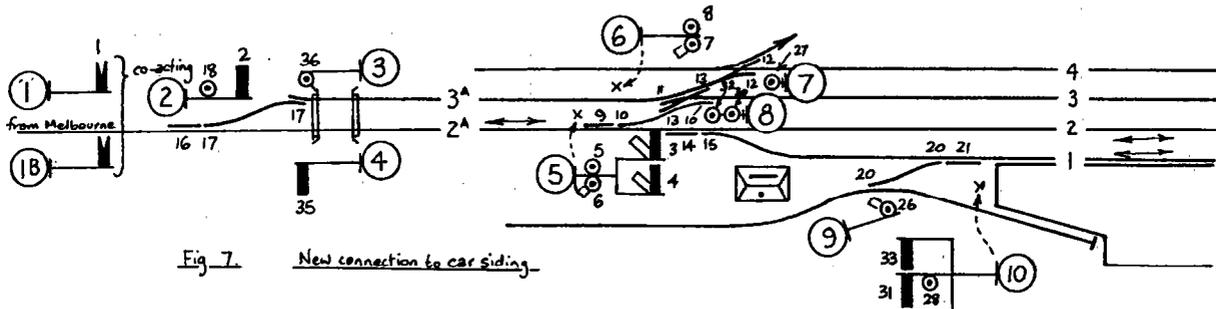


Fig. 7. New connection to car siding.

On 23 May 1940 the down distant signal was abolished and a new distant signal provided a further 380 metres out. Owing to its location on a curve in a cutting a co-acting signal was also provided located on the opposite side of the line and both signals were motor operated.

On 7 May 1977 as part of the yard alterations for high speed running No 2 road was abolished and arms 3 & 31 removed. Arm 33 was renumbered 31 and now applied from No 1 road. The car dock was abolished on 5 June 1977, No 20U points replaced by a catch point and Figure 8 shows the temporary arrangements.

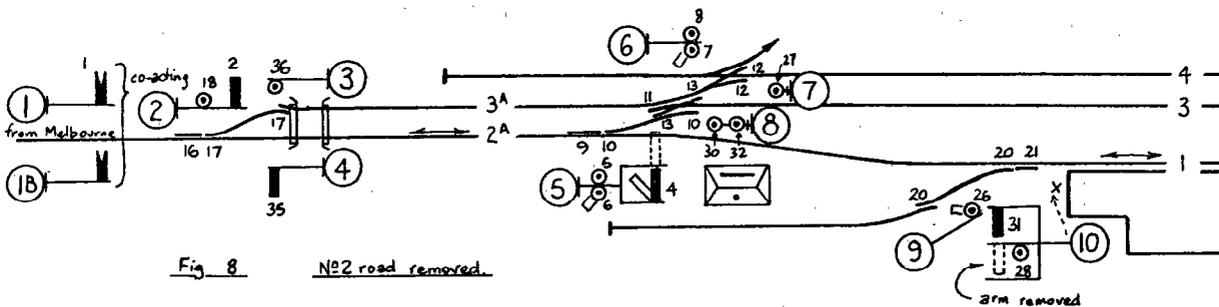


Fig. 8. No 2 road removed.

The present permanent arrangements are shown in Figure 9 and here we can see how the former No 2 road was realigned to connect with No 3A road suitably renamed No 2A. Additional signals and lock bars were provided due to the upgrading again of the connections from the main line to the former No 3 road to passenger standards. Post 4 was replaced by a light signal and Post 2 received a co-acting arm for sighting purposes. The down distant signals were replaced by a new motor operated signal located a further 378 metres out from the previous position on 14 September 1977 and this signal is repeated at "B" Box as well as at "A" Box.

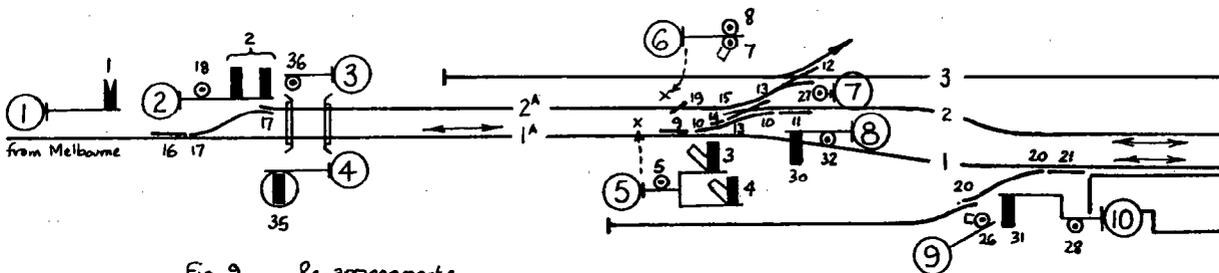


Fig. 9. Re-arrangements.

STAWELL "B" BOX

A feature of early Victorian interlockings was the provision of impressive configurations of signals and Stawell is no exception with two fine bracket posts of arms protecting the scissors crossover and connections to the goods yard. The interlocked gates date from this time and Figure 10 shows the points and signals at the down end. Three control levers were provided to mechanically slot the appropriate signals at "A" Box for movements towards "B" Box and also the down distant signal was mechanically slotted - a short lived feature at many VR stations with two signal boxes.

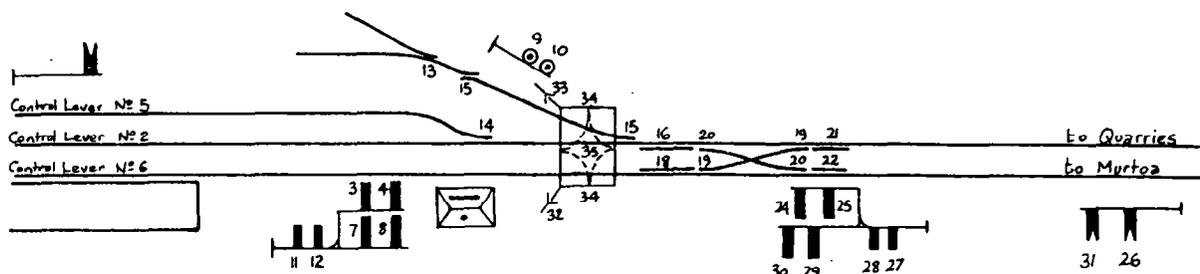


Fig 10 Interlocking - 35 Levers.

With the provision of the annett locked flour mill siding an extra up home signal was provided for the main line. The signal post carrying the two up distant signals was replaced by a bracket signal with a distant signal on the left hand doll for the main line and a home signal on the right hand doll for the branch line. With the low speeds on the branch line it was probably deemed unnecessary for the provision of an up distant signal. The distant arm on the bracket was converted from a red arm to a yellow arm in the 1920's giving the unusual sight of a yellow arm and a red arm on the same post.

The locomotive depot was opened as has been mentioned before in 1899 and Figure 11 shows the alterations carried out to the points & signals at "B" Box, the frame being extended to fifty levers at this time.

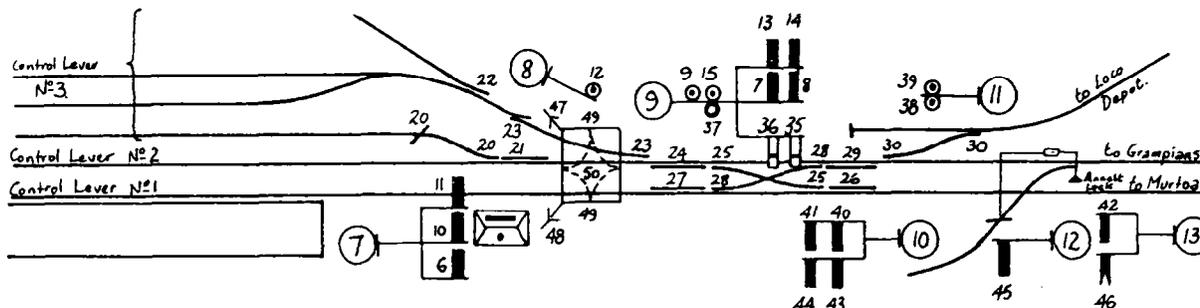


Fig 11. Alterations for loco depot (now 50 levers)

In 1913 a general rearrangement of Stawell yard took place but at the down end the only alteration was the conversion of No 22 points to hand operation.

The locking of the control levers was altered on 16 October 1919 and provided for less restrictive interlocking between these and other levers in the frame. Prior to this time up trains were generally unable to be admitted to the station whilst a control lever was reverse but now the locking was such that up trains could be signalled into any road except to Nos 2 or 3 while levers 3 or 2 were reverse. Trains could, however, enter the goods yard at any time.

The alterations of 1 February 1948 as shown in Figure 12 saw the removal of the impressive signal brackets Nos 7 & 9, the signals for No 3 road being converted to discs in lieu of arms. Post 11 was moved to its present position and the platform lengthened.

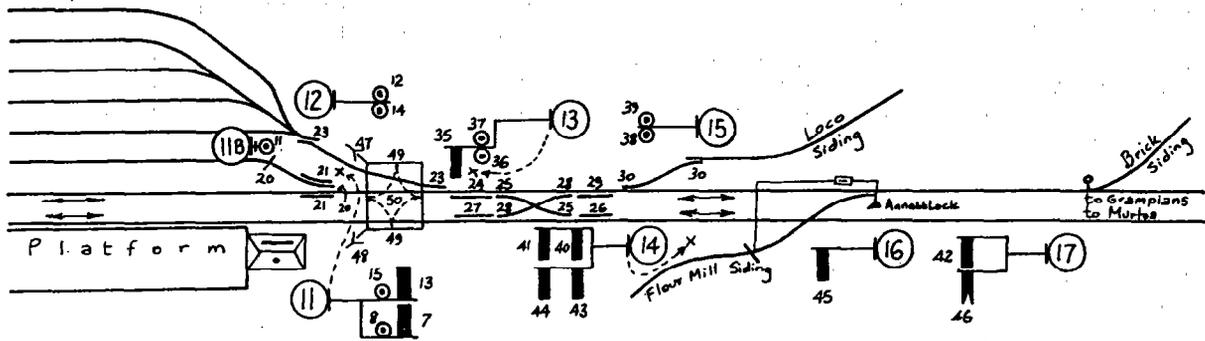


Fig 12. Alterations

An addition to the signals occurred on 21 March 1973 when Post 18 - a down home light signal - was provided to protect the new flashing lights at Lake Road and Griffith Street. This signal was worked by lever 18.

The flour mill siding diamond crossing with the main line was removed and the annett locked points relocated to the main line but the home signal on Post 17 was retained as it now protected the flashing lights during shunting operations at the outlying sidings on the branch line. This alteration was brought into service on 27 March 1977 and proceeded by just one month the alterations to the yard at Stawell for high speed running. The scissors crossover was reduced to an ordinary crossover on 7 May 1977 with the relevant signals being removed and Figure 12 shows the temporary arrangements in use.

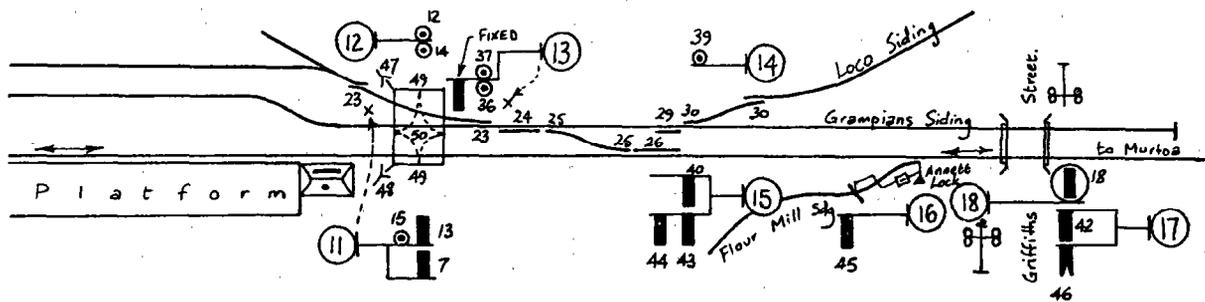


Fig 13. Scissors crossover removed.
No 2 road out of use.

Figure 13 shows the permanent arrangement at "B" Box after No 2 road was brought back into use replacing No 3 road, the yard sidings being renumbered at the same time. The loco siding points were converted to hand operation on 3 August 1977 and a deraill provided at the exit of the Grampians siding (as the former branch line is now known).

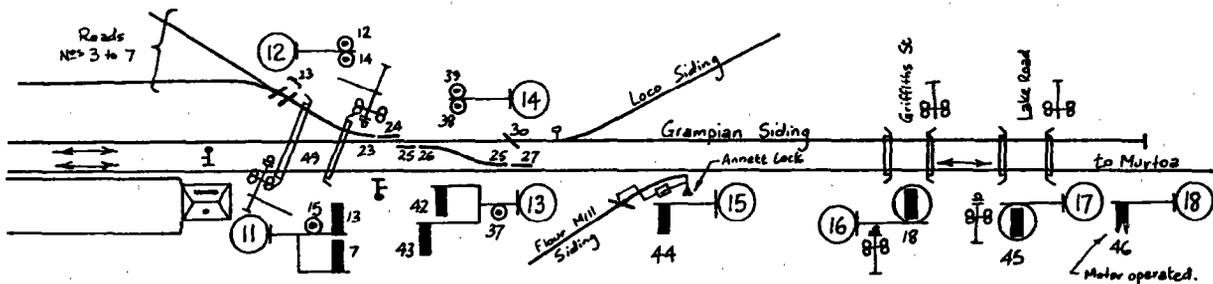


Fig 14. New arrangements for fast running

The interlocked gates were replaced by boom barriers on 25 October 1978, the arms on Post 11 being tracklocked from 18 October 1978.

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(Editors Note: The second part of the Hurstbridge article written by David Langley will appear in the next issue.)