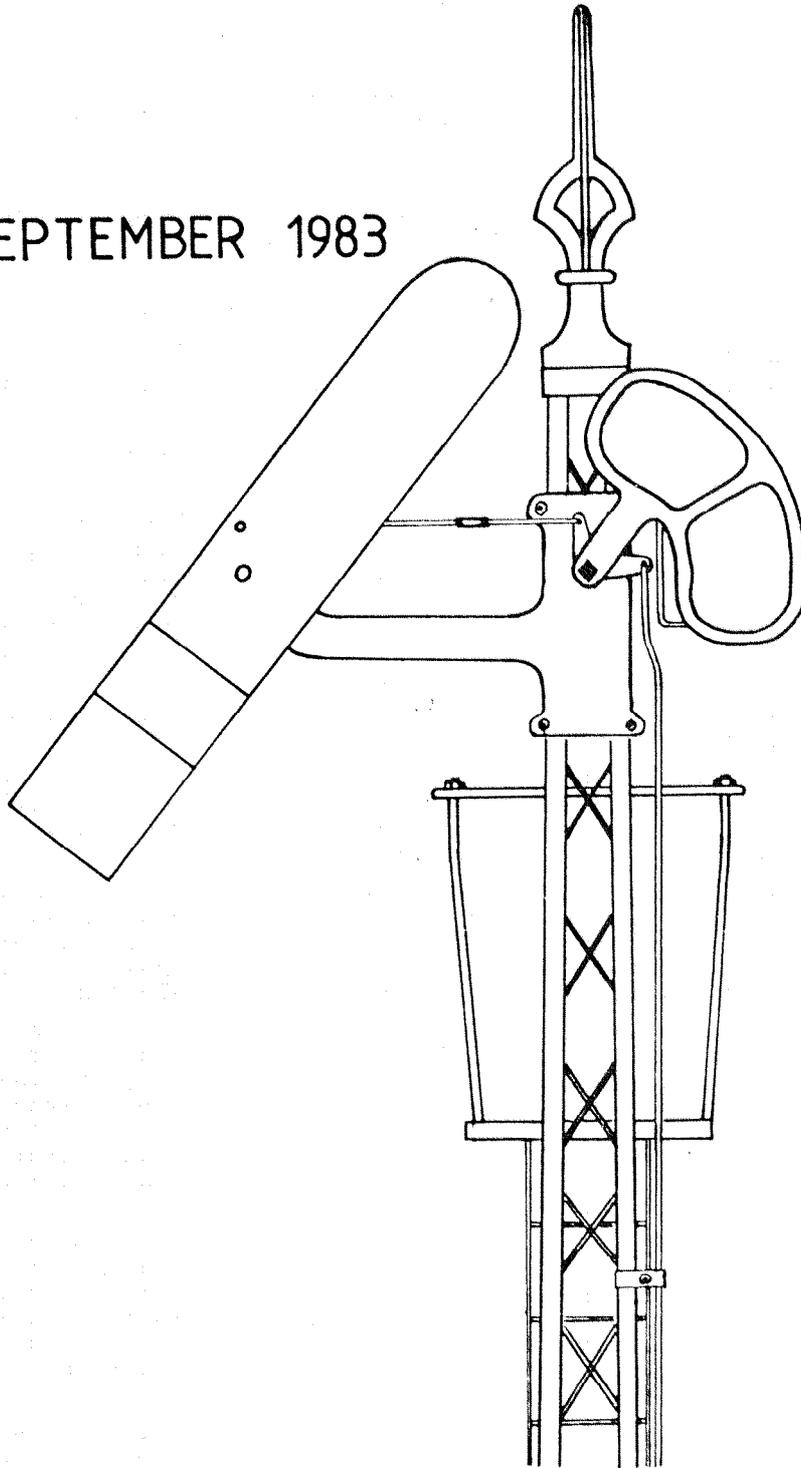


SOMIERSAULT

SEPTEMBER 1983



SRSV

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Dead line for November 1983 issue is 9 October 1983.

NEXT MEETING: Friday, 16 September 1983.

VENUE: A.R.H.S. Library Room, Windsor Railway Station.

MINUTES OF JULY 1983 MEETING

- HELD AT: A.R.H.S. Library Room, Windsor Railway Station,
on 15 July 1983.
- MEETING COMMENCED: at 2000 hours.
- PRESENT: J.McLean, J.Brough, R.Crosby, J.Churchward, R.Jeffries,
A.Jungwirth, J.McCallum, S.McLean, C.Rutledge, J.Sinnatt,
R.Weiss and B.Wooding.
- Visitor Dick Hope was welcomed to the meeting.
- MINUTES OF PREVIOUS MEETING: adopted as read. (Brough/Jungwirth)
- BUSINESS ARISING: G.W.R. Technical Papers have not yet been received from
Bob Taaffe.
- CORRESPONDENCE: Inwards: from new member - Mr Lester of Noble Park
Outwards: nil
- TOURS SUB-COMMITTEE REPORT: Alan Jungwirth reported that planning for the
Show Day tour to Geelong is progressing, however, because
Show Day is now gazetted as a Public Holiday in Geelong
there could be a problem in finding a Block and Signal
Inspector available for our visit. Jim Brough moved that
the committee investigate further with power to act as
they see fit. Seconded S.McLean.
- U.K. NEWSLETTER: Now being printed in Avenel saving approximately \$15
monthly in postage.
- NEWS ITEMS:
1. South Maitland Railway is now closed and the crews
retrenched but workshops still open. The possibility of
Hexham remaining open as a tourist attraction using steam
locos is being investigated.
Apparently single-line working will be established using
S.R.A. crews and engines, as the Pelton and Neath lines
are to remain open. The Electric Staff sections will be
East Greta-Neath-Caledonia with Weston Box closed. Later
that may become one section East Greta-Pelton.
 2. Surrey Hills 23/5/1907 - Jack McLean outlined the
operational difficulties involved with the Empire Day
celebrations where Surrey Hills had a very prominent
reputation. For example, some 10,000 people expected to
travel there to see the Torchlight Procession. 'The Argus'
account suggested the stabling of four extra trains in
Box Hill yard plus some fairly tight running times to
cope with such crosses.
 3. Guard's right-of-way signals - Stephen McLean reported
two firsts. a) DRC43 is back in service as the first
country train where the Guards right-of-way signal is
given by a bell. b) Recently he also saw the down Numurkah
passenger train despatched from Seymour with the Guard's
right-of-way given by radio - the first instance other
than on The Overland?
 4. Weekly Notices: Due to the creation of STA/MTA, the
Weekly Notice issue of 1/7/1983 is the second issue to be
labelled No 1 in 1983!!
 5. Flinders Street - Discussion pondered how long the
clocks have existed at Flinders Street station. Best
possibility appears to be 1894 with the opening of the
Flinders Street-Spencer Street viaduct for passengers.
 6. Winter's Block - Approximately 13 August 1983 is the
centenary of Winter's Block from Flinders Street and
Princes Bridge stations to Balaclava. How can this event
be celebrated suitably?
- (cont) P

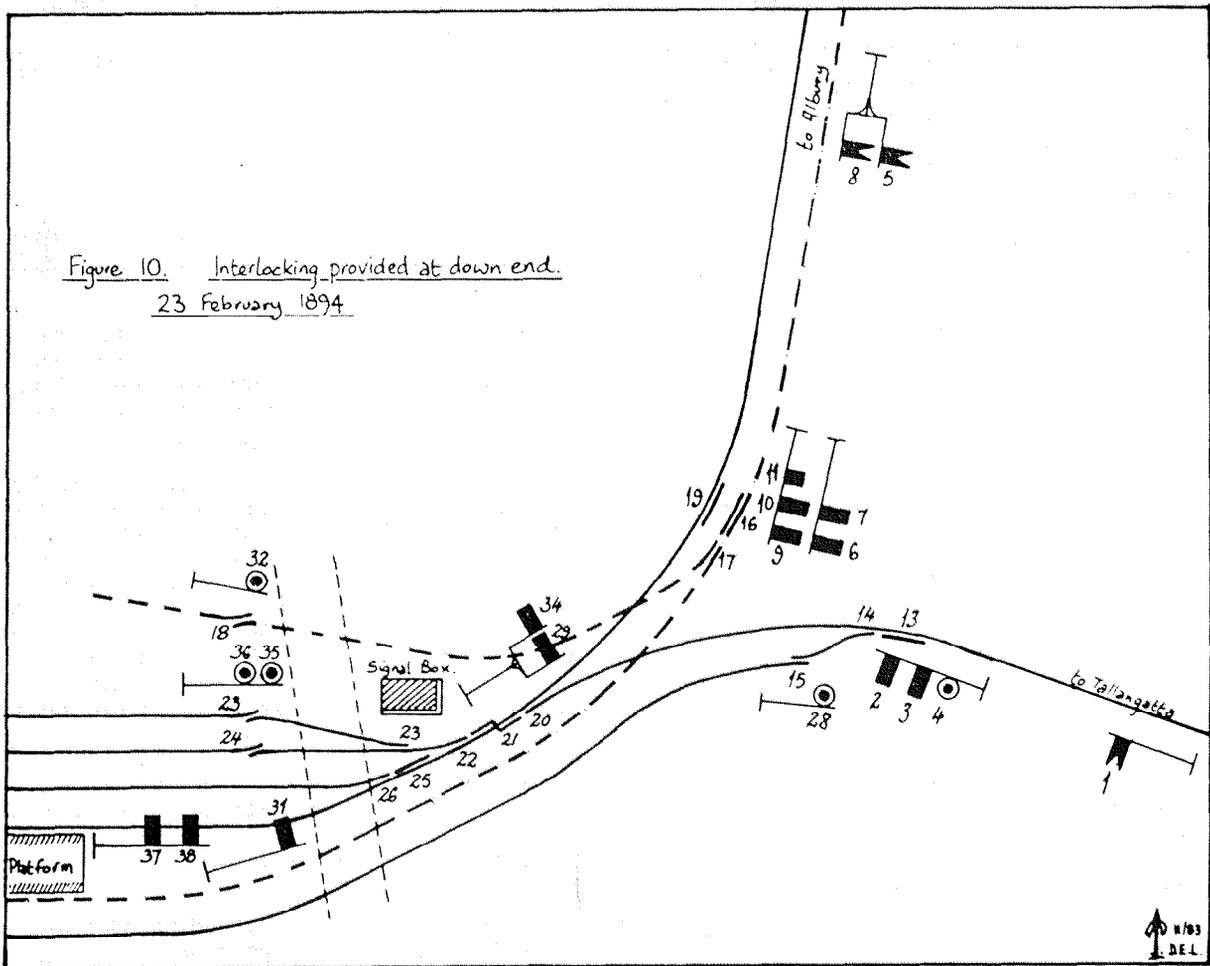
V.R. SIGNALLING HISTORY
WODONGA-BANDIANA-COAL SIDINGS

by David Langley.

No 30. Wodonga "B" Box

This signal box was the first erected in the Wodonga area and was presumably provided so as to ensure the safe operation of trains across the two dual gauge crossings at this end of Wodonga. The box was opened on 23 February 1894 and preceded "A" Box by four years. The frame was one of 40 levers with only five levers spare and the layout at the time is shown in Figure 10 which has been taken from the original locking sketch. No interlocked gates were provided although they appeared four years later.

The signalling arrangements are interesting with separate posts being provided for the up home signals from the Albury direction although both posts were situated on the outside of the sharp curve of the two lines. A bracket post carrying two home signals protects the junction points for Victorian line trains but no additional signals were provided for NSW trains. It will also be noted that there is a curious mixture of signalling styles for movements to the various goods sidings. Signal No 7 applying from the NSW line to the goods yard is a full size arm but signal No 11 applying from the Victorian line to Nos 3 & 4 roads is a short arm, common in Victoria at this time but most were replaced by disc signals early on. The signals from these sidings to their respective line were discs - surely a strange mix. The signals to and from the Tallangatta dock road were discs although the disc from the dock was replaced by a full arm in 1908.



Lever No 19 was used to operate a clearance bar, rare in Victoria, and seems to have been provided to ensure that the signalman did not operate No 17 points whilst a Victorian line train was standing foul. This section of line is located round the sharp bend towards Albury and it would have been difficult

for the signaller to see if the Victorian train was clear. This bar was removed in 1898, perhaps it was not really necessary, but the lever remained spare until 1944 so it was not removed because the lever was required for another function.

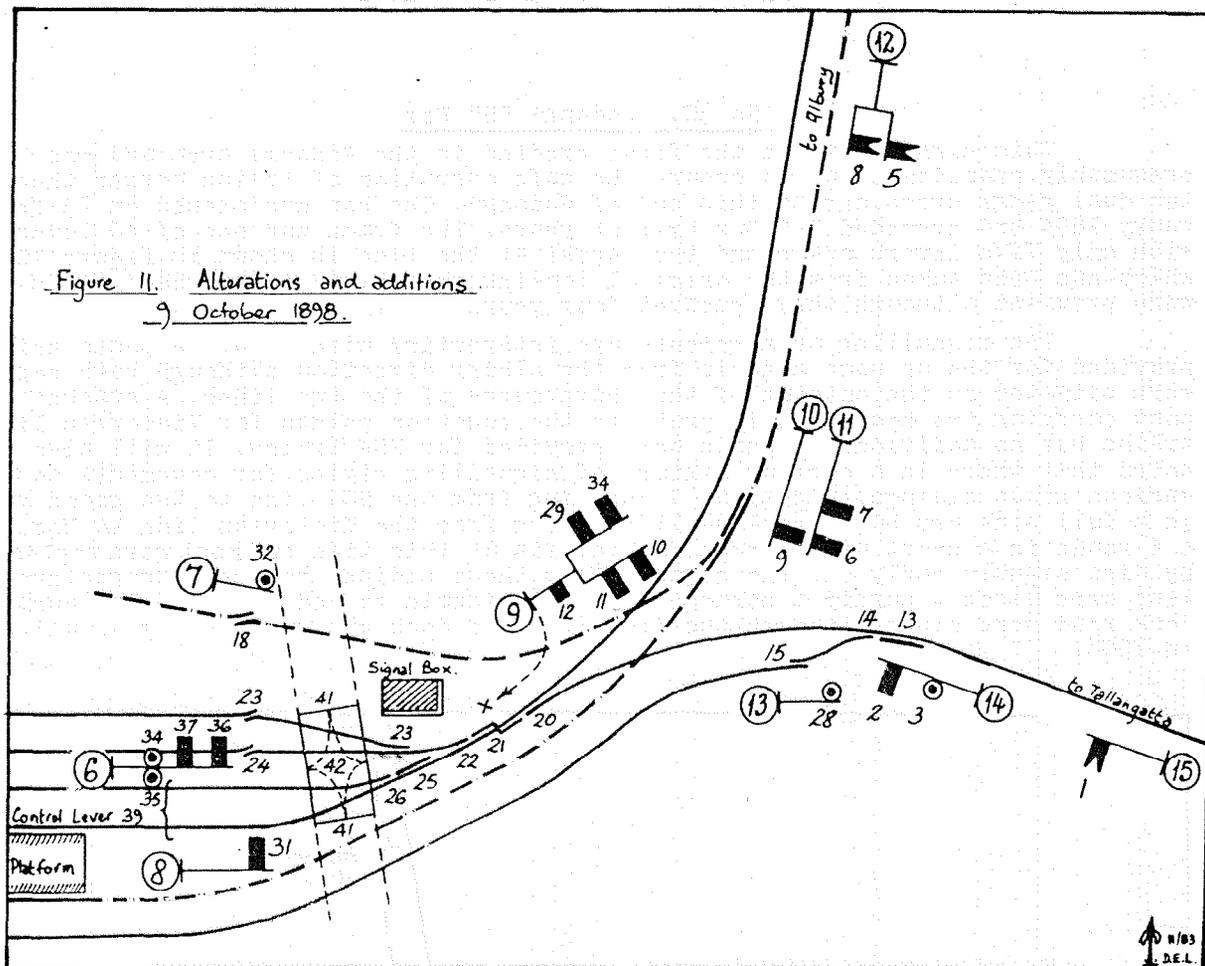
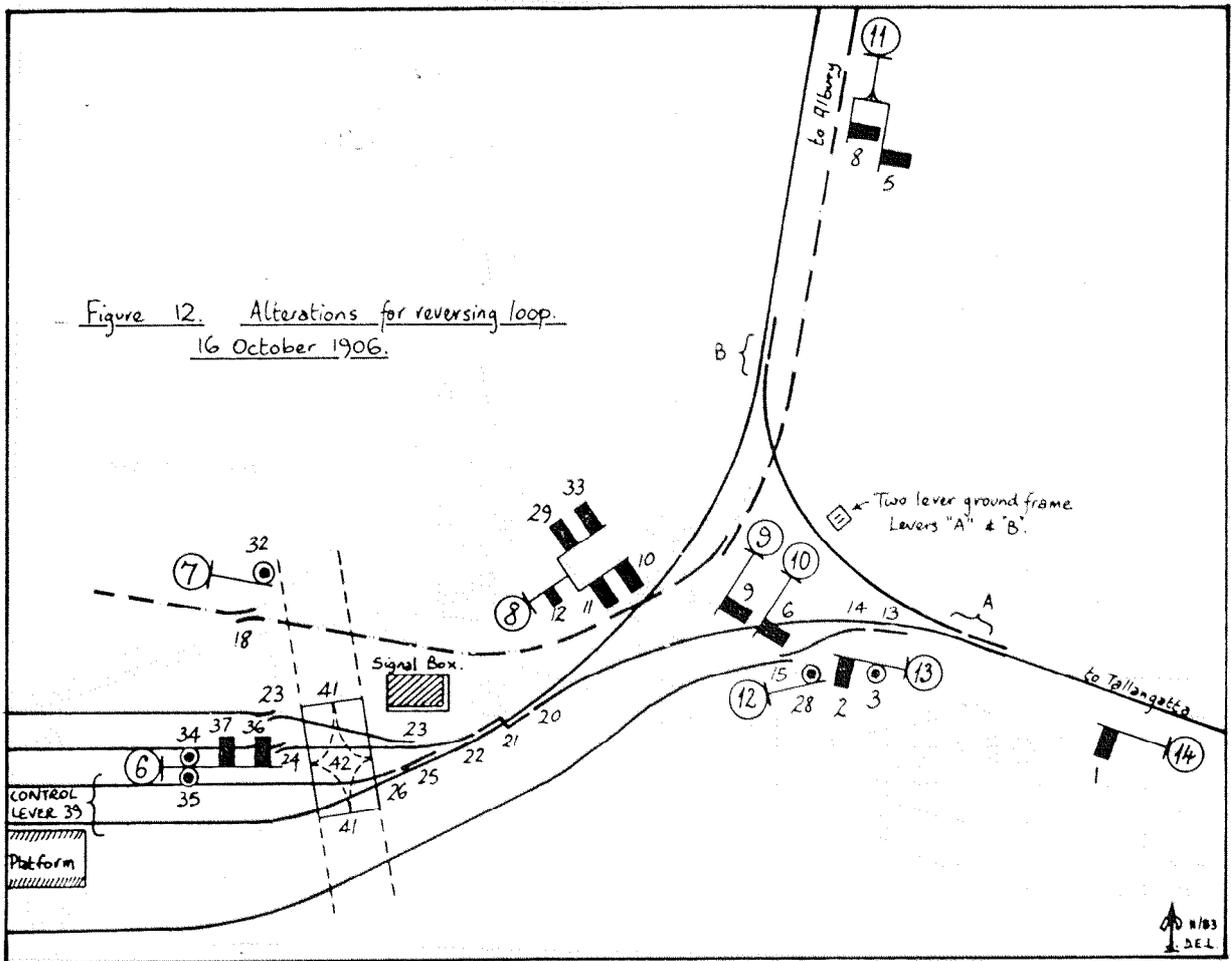


Figure 11 shows the alterations that were carried out at "B" Box on 9 October 1898, the same date that "A" Box was opened. Interlocked gates were provided at the adjacent level crossing and two levers were added to the interlocking machine - No 41 Gate Stops and No 42 Gate Wheel. It can be seen that the gates only spanned the four Victorian gauge lines but presumably the gates were swung even when a movement occurred on one of the other lines.

Minor signalling alterations were also carried out at this time. The bracket post at the junction of the Albury and Tallangatta lines was enlarged and now carried signal arms Nos 10, 11 & 12 governing movements to Nos 1, 2, 3 & 4 roads. Signal No 12 was a new signal but Nos 10 & 11 were previously on Post No 10. The two discs governing moves from Nos 3 & 4 roads were placed under the arms for moves from Nos 1 & 2 roads and the lever numbers were altered - Nos 35, 36 & 38 were altered to levers Nos 34, 35 & 36. A control lever No 39 was provided to enable the signaller to release the "A" Box signals to Nos 1 & 2 roads only when safe to do so. At first the control was maintained by mechanical slotting on the "A" Box signals but in October 1900 these were replaced by lever locks on the respective levers and electrical circuits took over the controlling function. Whilst mechanical slotting was in use, there appear to have been three control levers in use at "B" Box - Nos 38, 39 & 40 - but with the conversion to electric control, only No 39 remained in use. This situation is borne out by the interlocking register for 1899 showing three control levers at "B" Box although I have not discovered a diagram confirming this, the spaces in the frame suggest that they existed.

Figure 12 shows the temporary arrangements at "B" Box when the NSW dock platform road was abolished on 16 October 1906, No 17 points becoming a set of catch points and being worked by No 18 lever. Signals Nos 7 & 31 were also removed. It is interesting to note that it was signal No 7 that was removed and not No 6 which was the arm applying to the dock platform, perhaps it was done to preserve the continuity of the lever numbering.



The reversing loop was also added at this time and was worked from a two lever ground frame secured by an Annett's Lock, the key of which was kept in a duplicate lock on the frame in "B" Box, not attached to a lever. The points at each end of the loop together with its facing point lock was worked by one lever each and the combined operation was made possible by the fitting of escapement cranks to the points. (Escapement cranks were a special kind of point operating crank that enabled the points to be unlocked, operated and re-locked in one operation of the point lever.) To enable suitable protection to be provided for the reversing loop, the distant signals Nos 1, 5 & 8 were converted to home signals with a consequent alteration in the locking of the frame. It is not known when the bracket post carrying signals Nos 5 & 8 was altered to the uneven doll height configuration but it must have been done at about this time.

On 17 January 1908 the siding off the Tallangatta line was realigned along the old NSW dock platform and the catch points at the exit of the road removed. The disc on Post 11 was replaced by an arm, but movements from the branch into the dock platform were governed by a disc until the end. Just prior to this alteration, a minor signal alteration occurred when Post Nos 9 & 10, both now carrying only a single arm, were replaced by a bracket signal post midway through 1907 with the subsequent renumbering of signal posts Nos 11, 12, 13 & 14 to 10, 11, 12 & 13. An additional control lever was also added in 1907, on 11 July, when lever 40 was added to the frame and applied to No 3 road. Figure 13 shows the arrangements at "B" Box in 1908.

Signalling diagram No 17 of 1913 was issued showing the arrangements in force at Wodonga following the alterations at "A" Box, the "B" Box end remaining unchanged from 1908 save for the replacement of shunting arm No 12 by a disc signal and the provision of disc No 15, also underneath the bracket, on 28 December 1911. No 12 now applied only to No 3 road whilst No 15 applied to Nos 4 or 5 roads via No 23 crossover. The reversing loop points were fitted

Figure 13. Tallangatta Dock Platform added.
17 January 1908.

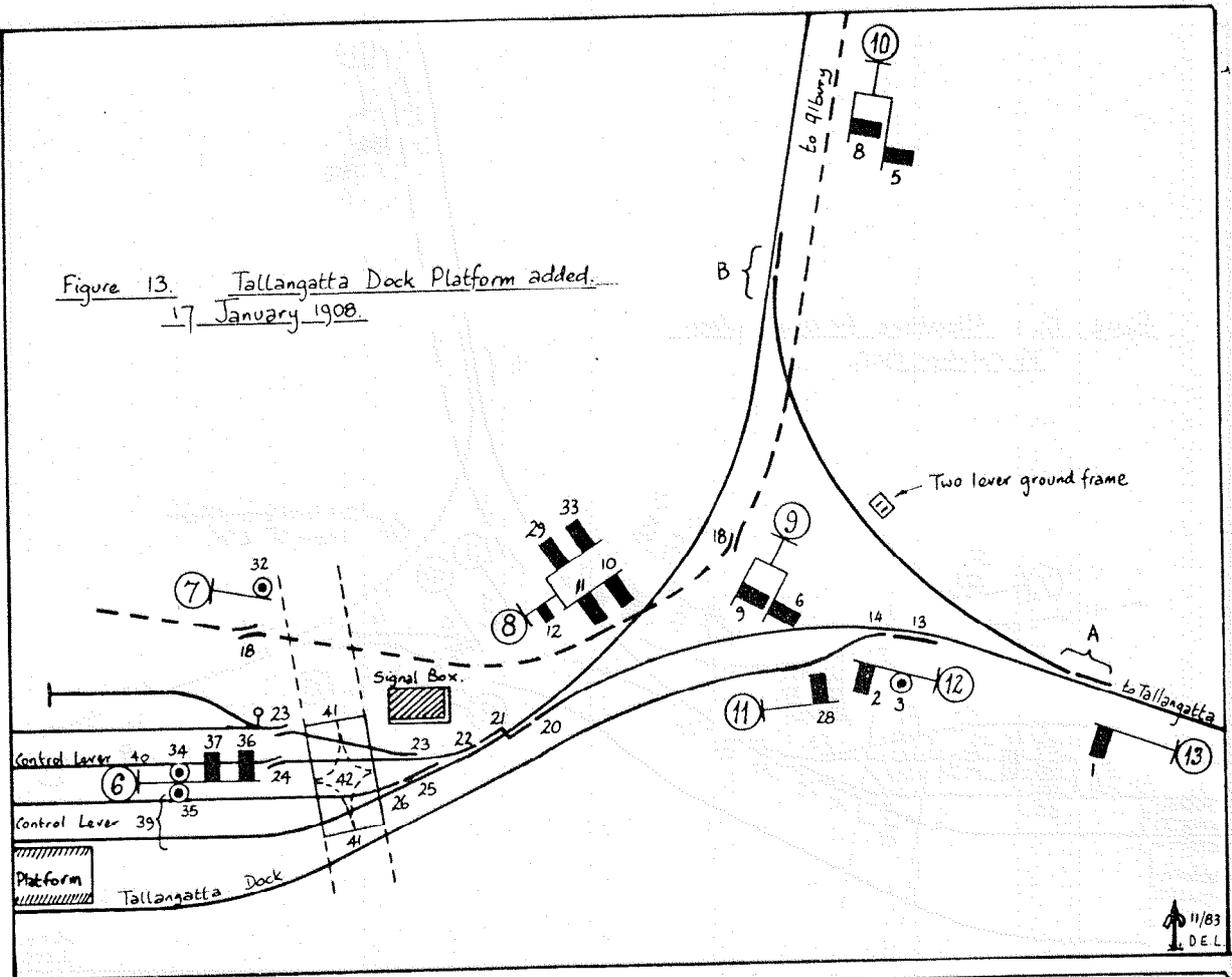


Figure 14. Alterations up to 1931.

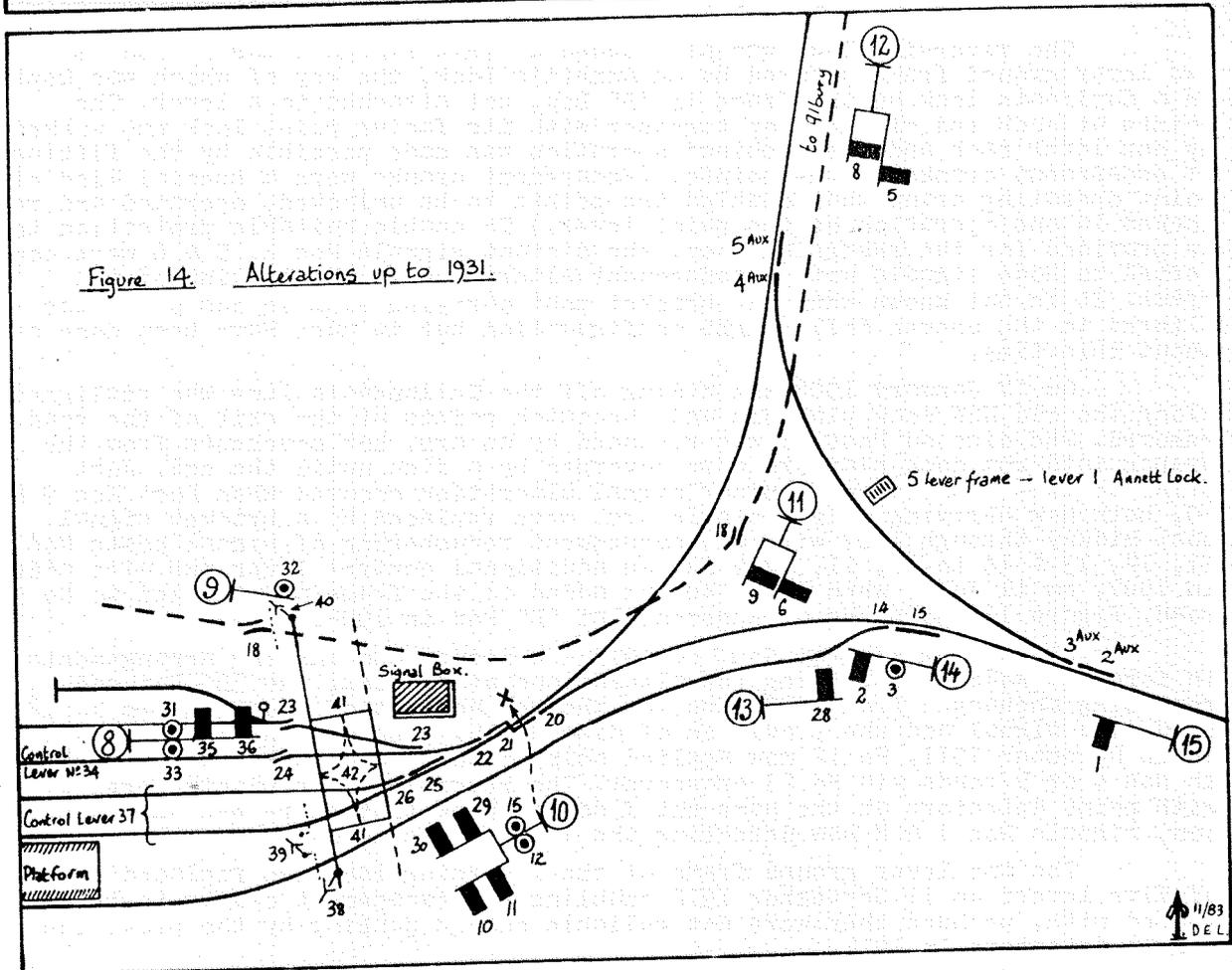


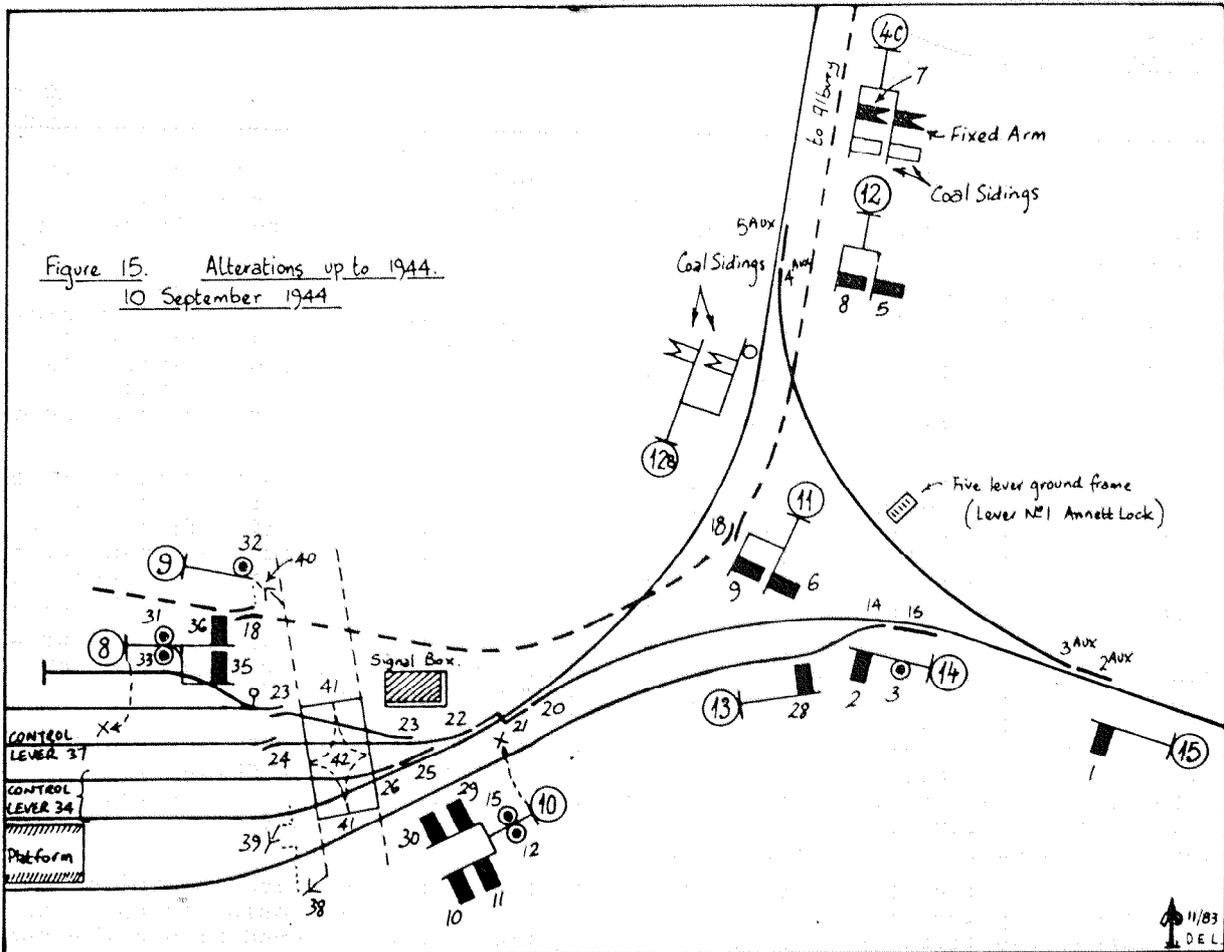
Figure 14 has been taken from Signalling Diagram No 5 of 1931 and seems to have been issued as a catch up diagram because no major alterations had occurred. Some shuffling of levers at "B" Box took place in 1925 prior to the provision of three wicket gates at the level crossing. Signals Nos 33, 34, 35 & 37 were altered to Nos 30, 31, 33 & 35 whilst control levers Nos 39 & 40 became Nos 34 & 37. Levers 30 & 31 were previously spare likewise lever 38 which became one of the wicket gate levers.

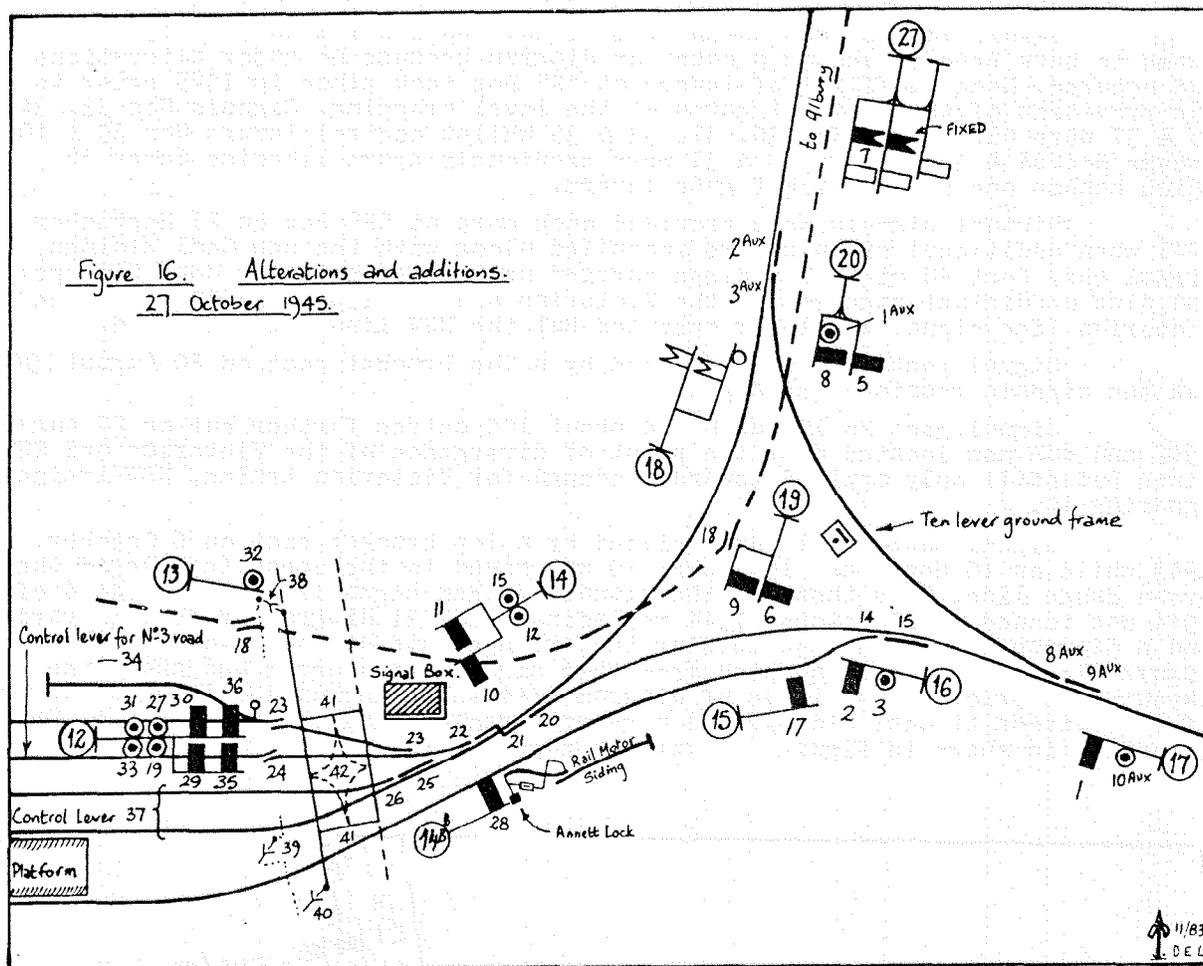
Distant signals were provided once more at "B" Box on 21 September 1941 when additional signals were installed along with the new Coal Sidings signal box. Post 40 at Coal Sidings carried up home signals for Coal Sidings and also up distant signals for the Victorian and NSW lines for "B" Box. The Victorian line signal was lever operated but the NSW line arm was fixed.

Signal post No 8 was replaced by a lop bracket post on 20 August 1942 but the signals remained unchanged.

Signal post No 15 was moved about 100 metres further out on 27 August 1942 and was now located near the point of divergence of the Victorian and NSW lines but still only applied towards Wodonga for Victorian trains, NSW trains ignoring it.

Signal post No 11 was replaced by a lop bracket post on 6 October 1943 while on 10 September 1944 post 10 was moved to the opposite side of the broad gauge line. This then was the situation when signalling diagram No 4 of 1944 was issued on 27 October 1944 replacing the 1931 diagram of Wodonga yard and a diagram issued in 1942 showing the arrangements at Coal Sidings only. Figure 15 below has been adapted from this signalling diagram and shows the layout just prior to the issue of diagram 4/44 which included a large number of alterations at Coal Sidings and a general renumbering of signal posts. This situation is shown in Figure over the page.





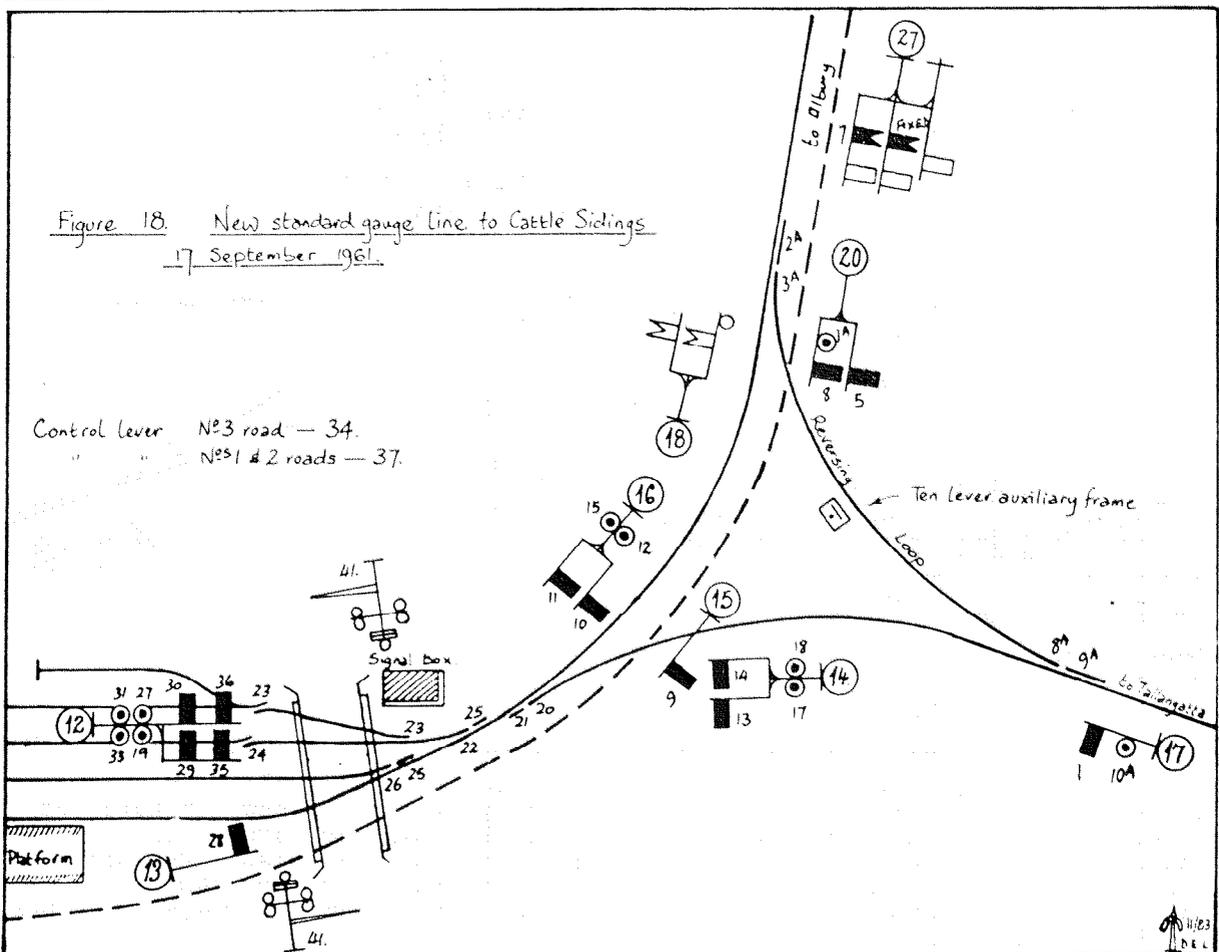
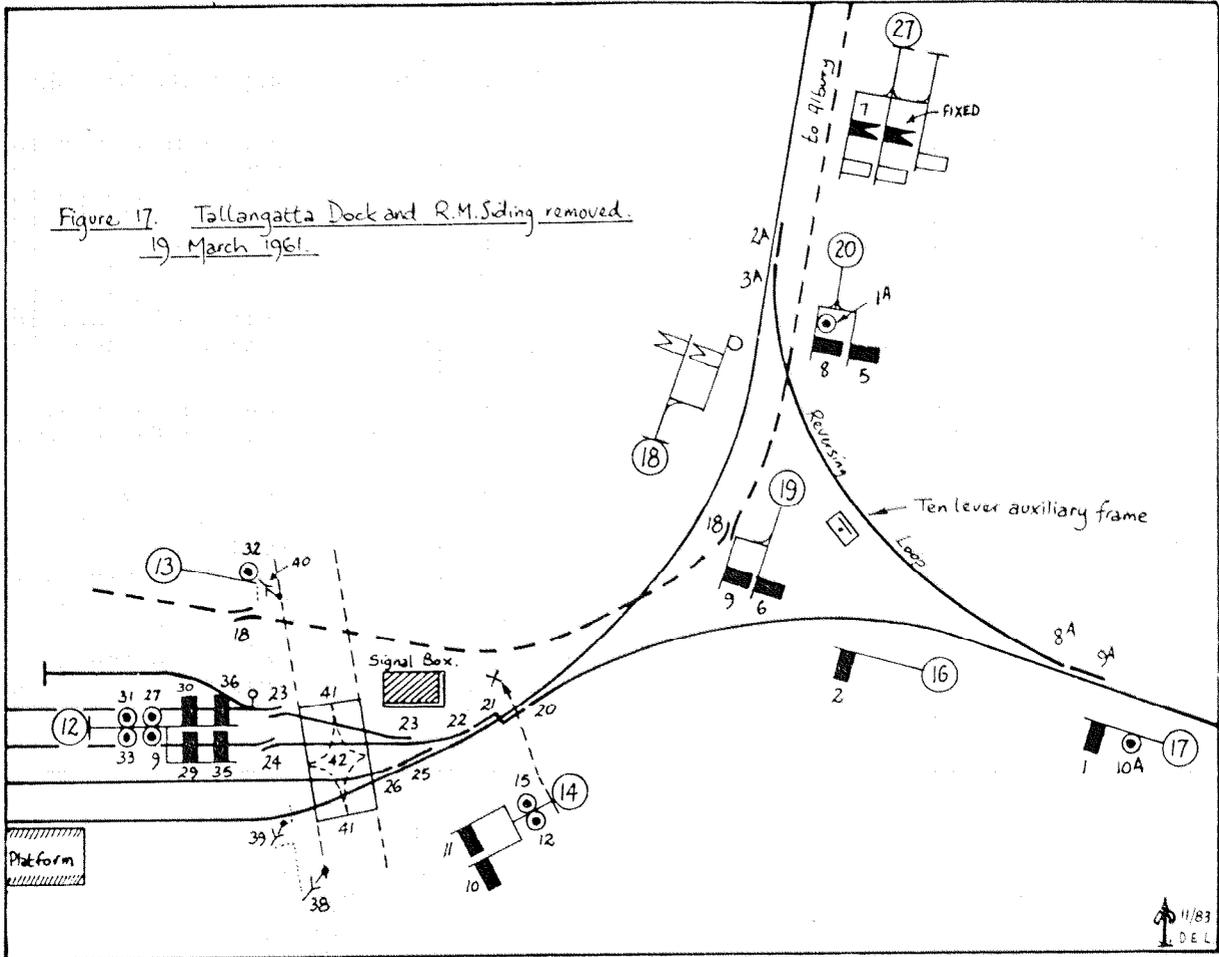
In this diagram we can see the imposing signal post No 27 at Coal Sidings but we are still only interested in two arms on this post, the up distant signals for Wodonga "B" Box, the other signals will be dealt with in the section on Coal Sidings Box.

A further alteration concurrent with the issue of the diagram was the re-arrangement of signal post No 14 and the transference of the down signals to signal post No 12. As post No 12 has now become the junction signal for the Tallangatta and Albury lines, two additional disc signals were also required and these were added underneath the existing discs and worked by levers Nos 19 & 27. Post 14 was re-arranged with the signal arms placed one on each doll.

The five lever ground frame on the reversing loop was again replaced on 28 August 1945 by a ten lever frame located on the opposite side of the line as before. Two discs signals were provided and they applied from either the main or branch line through the loop and were worked from the ground frame. Lever 5 on the ground frame was secured normal by an annett lock, the key still being kept in a duplicate lock attached to the interlocking frame in "B" Box.

A second annett lock appeared at this end of the yard with the provision of the annett locked rail motor siding on 12 September 1949. The key was normally kept in a duplicate lock attached to new lever No 16. Lever 17 also previously spare was provided to work the signal on post 15 whilst lever 28 now worked the new home signal, post No 14B. For convenience these last two alterations have been included on Figure 16 although they appeared after the date of issue of the diagram. Incidentally, with the provision of the rail motor siding, the number of spare levers in "B" Box dropped to only one and this was the maximum extent of lever usage.

The time of greatest alteration at Wodonga commenced in 1961 when the standard gauge line, as the NSW line is now known, was being extended to Melbourne. The first section of standard gauge line was opened around the east side of Wodonga station to the cattle sidings at "A" Box however a prior change occurred on 19 March 1961 when the Tallangatta dock and rail motor siding were taken out of use. The disc on post 16 was removed along with posts 14B & 15.



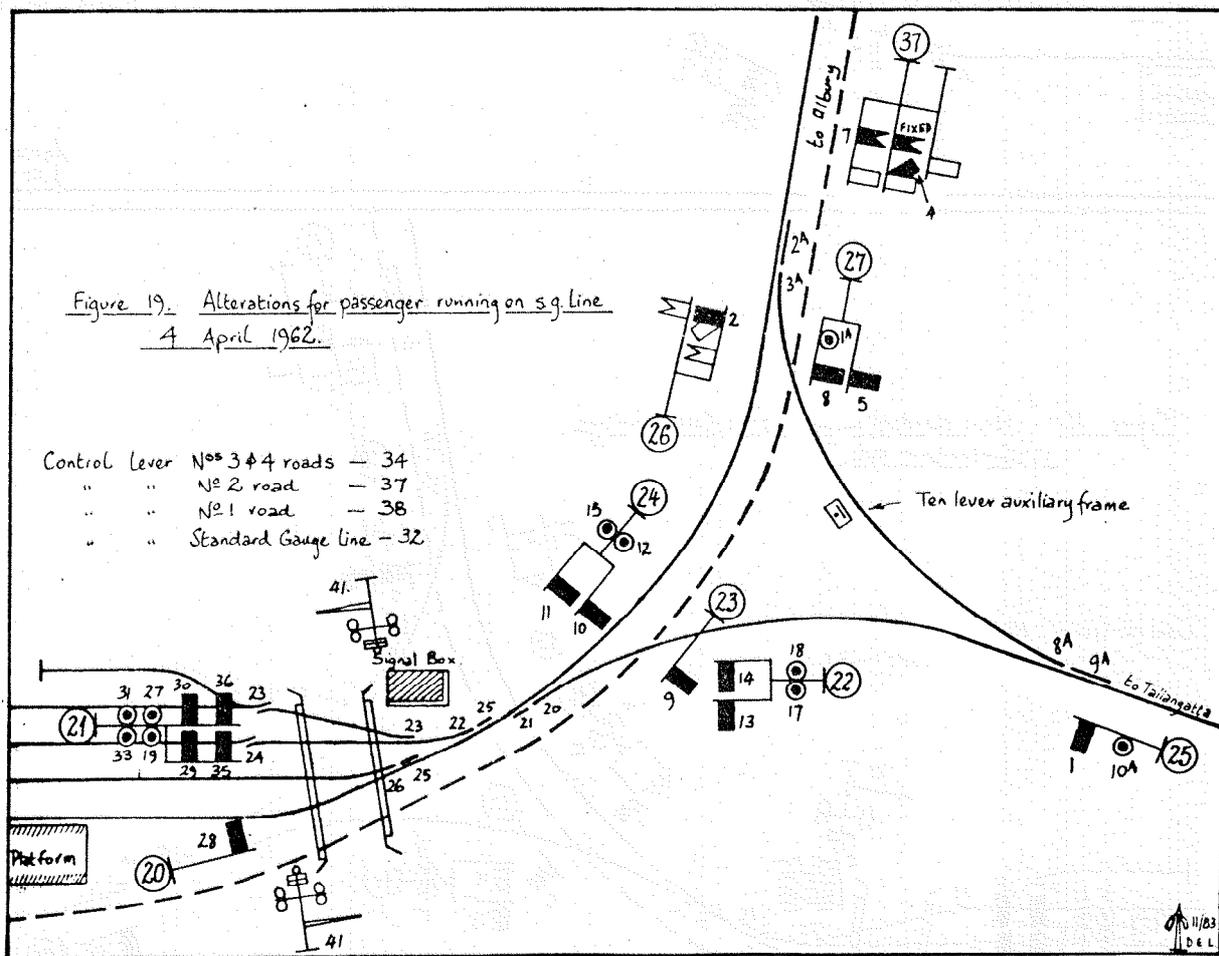
This alteration increased the number of spare levers to seven, levers Nos 3, 14, 15, 16, 17 & 28 being sleeved normal. The temporary arrangements are shown in Figure 17.

Figure 18 shows how the new standard gauge connection from Albury to the Cattle Siding passed around the rear of the station at Wodonga. This line avoided the need for the circuituous route through the goods yard although the number of broad/standard gauge grade crossings were unchanged. Post 13 was re-located to the new alignment and the disc was replaced by an arm. Post 19 was abolished and a new Post 15 was erected with one arm and governed standard gauge movements from Albury towards the Cattle Sidings. Broad gauge movements into Wodonga were now under the control of new Post 14, replacing old Post 16 (from the Tallangatta line) and old Post 14, renumbered Post 16 (from the Albury line). These alterations were made on 10 April 1961.

The interlocked gates and pedestrian wickets were replaced by boom barriers and crib crossings on 17 September 1961. Lever No 41, the former gate stops lever, was used to manually control the boom barriers.

With the replacement of old "A" Box by the present signal box on 10 December 1961, two additional control levers were added to the "B" Box frame. Lever No 37, previously control lever for Nos 1 & 2 roads, became a control lever for No 2 road only whilst lever 38 became the control lever for No 1 road. Lever No 34 was extended to cover No 4 road as well as No 3 and lever No 32 was added to control moves along the standard gauge line.

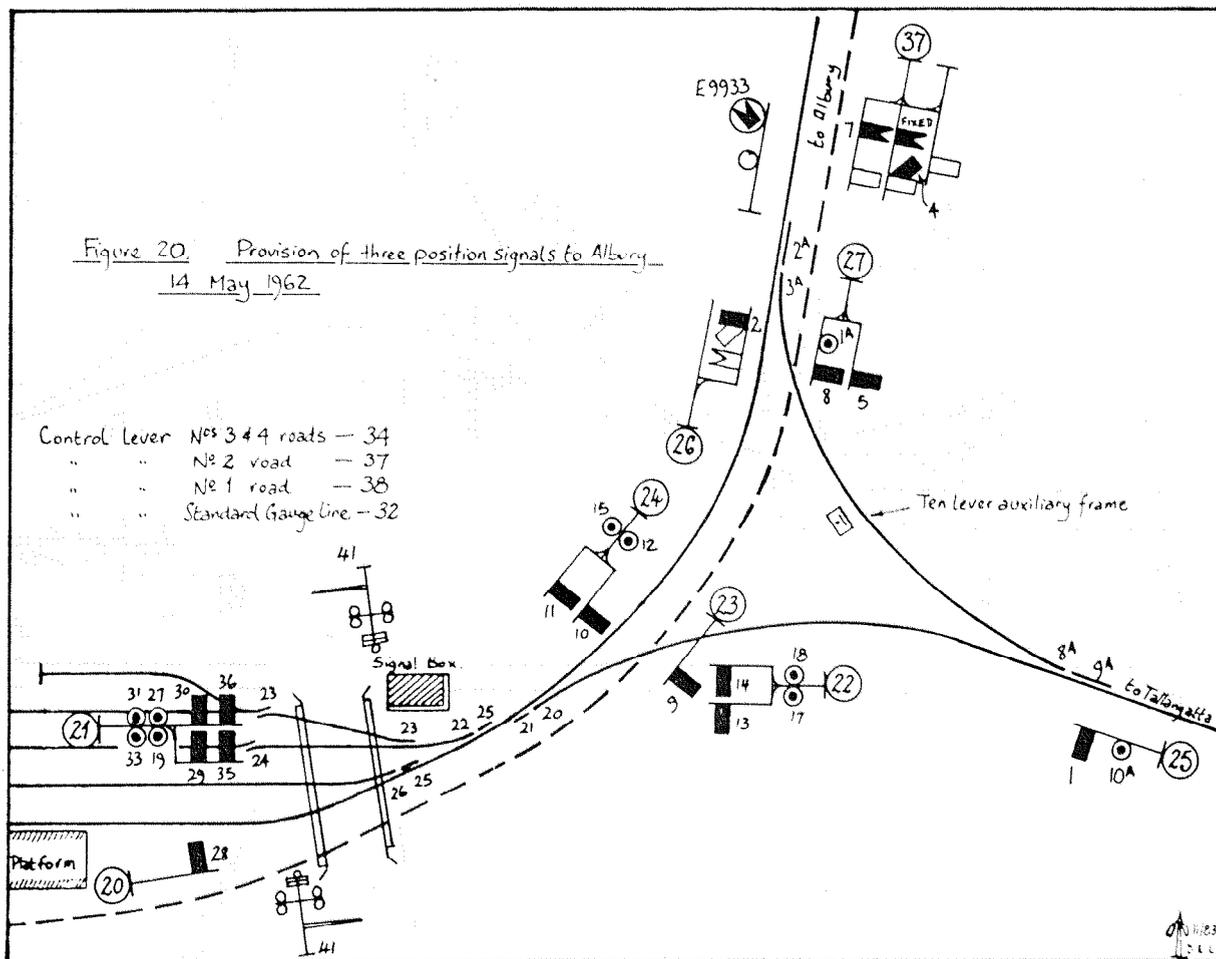
Goods trains commenced running on the standard gauge line between Albury and Melbourne on 3 January 1962, however, when passenger trains started running on 16 April 1962, minor signal alterations were carried out and brought into use on 4 April 1962; Figure 19 shows the arrangements.



The right hand distant signal on Post 26, (the signal posts were re-numbered in December 1961 concurrent with the provision of new "A" Box) was lowered and a down home signal was provided. This arm was worked from "B" Box and controlled by Coal Sidings. A similar control was exercised over the up home signal at Coal Sidings on Post 37 that applied along the standard gauge line towards Wodonga, the control lever being No 4 at "B" Box. This lever had remained spare since 9 October 1898.

Figure 20 shows the alterations at "B" Box following the provision of three position signals between the down end of Coal Sidings Box and Albury South panel box on 14 May 1962. The down broad gauge distant signal for Coal Sidings on Post 26 was removed and replaced by a repeating (light) signal E9933.

Lop bracket Post 26 was replaced by a straight mast (still Post 26) on 2 August 1962 and was located on the Melbourne side of Hovell Street level crossing.



On 28 April 1962 three position signals were installed at the up end of Coal Sidings and the direct result at "B" Box was the abolition of Post 27. Levers 5 & 8 subsequently became control levers for movements from Coal Sidings to Wodonga and the sections were worked under the rules for Lever Locking and Track Control. Levers 4 & 7, previously working signals on Post 37, became spare with the abolition of that post. A second repeating (light) signal - EC9958 - was provided on the branch line beyond the point of divergence of the two gauges and was required because Coal Sidings was now three position signalling. However, because broad gauge trains would also be passing this signal and no lever was required to operate the signal, it was fixed at Yellow over Yellow because a broad gauge train might receive a conflicting indication. If Coal Sidings had cleared his home signal, the repeating signal would show Green over Yellow, a conflicting indication if Post 25 was at Stop and the approaching train was on the broad gauge. The layout is shown in Figure 21.

The final major alteration at Wodonga "B" was the commissioning of a relay interlocking panel in Wodonga "A" Box and the abolition of Wodonga "B" Box. All the mechanical signals were replaced by light signals and the points converted to motor operation. Lever Locking and Track Control remained on the sections to Coal Sidings, this latter box not yet having switching facilities. The boom barriers were converted to automatic operation via the protecting signals being at proceed and flashing lights were provided at both Hovell St level crossings. Post 104 is a two position down home signal whilst Post 106 is a three position up outer home signal applying to broad gauge trains only. There are no signals applying to standard gauge trains after a train had departed from Coal Sidings. Figure 22 shows the arrangements at this time.

Laurence Street level crossing on the Tallangatta line near the dual gauge junction was equipped with flashing lights on 20 March 1980. To prevent unnecessary operation of the lights, up home signal No 106 was relocated to the down side of the crossing and now applied to trains on both gauges, "V" & "S" lights being provided as per normal practice. Lever 106 at Wodonga now works the signal for broad gauge moves and newly installed lever 108 works the signal for standard gauge moves, this latter move requiring the control lever at Coal Sidings (No 32) also to be reverse. Post 102 (lever 104 at Wodonga) protects the crossing from the Wodonga direction and a new signal Post 20 (lever 15 at Coal Sidings) was added to protect the crossing from that direction. It is not known whether there is any interlocking between these two signals but as they are both in the one electric staff section there is probably no need for such interlocking to exist.

The repeating signal EC9958 could now technically become an operating signal displaying Green over Yellow for broad gauge moves or Yellow over Green for standard gauge moves when signal 106/108 has been operated to proceed. As the line now only goes to New Wodonga Cattle Sidings, the expense of providing this alteration is presumably not justifiable.

The safeworking in use between Wodonga-Coal Sidings-Albury South is Lever Locking and Track Control and levers 112 and 110 at Wodonga are the control levers for the broad and standard gauge respectively. When Coal Sidings is switched out, the standard gauge becomes one section Wodonga-Albury South and lever 120 becomes the control lever (not used at other times) and lever 110 works signal 10 at Coal Sidings as a sort of distant signal. On the broad gauge, the section to Coal Sidings becomes part of Wodonga yard and signal 18 at Coal Sidings becomes Wodonga's up home signal out of the single line section and is worked by lever 112. Up automatic signal E9974 is also controlled by lever 112, the signal marked on the diagram as U112. Lever 122 is the control lever for the section and like lever 120 is not used when Coal Sidings is switched in, lever 112 being the control lever. Signal 22 at Coal Sidings is the down departure home signal from Wodonga into the single line section when Coal Sidings is closed and is worked by lever 102. The low speed signal on signal 112 is only operable when Coal Sidings is closed as the signal is no longer a departure home signal into a single line section. Signals 4, 8 & 30 at Coal Sidings operate as automatic signals, displaying an illuminated letter "A" when at Stop, when the long sections are in operation, signal 10 as noted above is lever controlled but also has an illuminated letter "A" and may be passed at the Stop position after the train has waited the prescribed time. Figure 23 also shows the signals at Coal Sidings worked by Wodonga when closed.

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MINUTES OF JULY 1983 MEETING (continued)

7. Metrol - Past problems have been diagnosed further. One is that the computer program does not cater for failures, out of course running and operator errors. Revised error detection procedures and better error displays are being instituted. Secondly a new program is due to be run in October to alleviate the problems outlined. A two month trial period will then follow.

8. Blackburn and Box Hill - Bob Crosby reported two items of interest observed recently. One was that signal L473 at Box Hill is fitted with the top head fitted in line with the post and not to the left side as usual. At Blackburn, single line working (on the up line) in connection with the removal of the level crossing at Box Hill (27/5) revealed some interesting working. A hand signalman was stationed at signal L578 ahead of three detonators fixed on the up line, drivers being warned of his presence by station staff at Nunawading. This hand signalman was under instructions to stop all up trains at the signal and a) warn the driver of Pilot working ahead, b) lift the detonators, and c) advise the driver to proceed in accordance with the signals indication (medium speed warning). On leaving the platform with the pilotman, up trains tripped past BBN303, the clearing of which would have proved the position of the trailing points. The reason for this method of working could be one of Noiseless Public Relations.

MEETING CLOSED:

at ??? hours and then Alan Jungwirth screened slides of his recent trip to Europe.

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