

S&DJR Signalling

Edington Junction and the Bridgwater Branch

Introduction

In 1890¹ the independent Bridgwater Railway Company opened a new single-track line from a terminus in Bridgwater to a junction with the Somerset & Dorset Joint Railway (S&DJR) at what had been known previously as **Edington Road** station². This station had been opened in 1856³ by the Somerset Central Railway on what became eventually a single-track branch of the S&DJR from Evercreech Junction to Highbridge. Originally the station was just a single platform, situated on the Up (south) side of the line adjacent to a level-crossing, but it was expanded considerably in 1890 for its new role and renamed **Edington Junction**.

After opening the Bridgwater Railway became simply the 'Bridgwater Branch' of the S&DJR for the rest of its life. After the creation of the nationalised British Railways in 1948 the former S&DJR terminus at Bridgwater was renamed **Bridgwater North** in 1949, in order to distinguish it from the separate former Great Western Railway (GWR) station in the same town (which became Bridgwater General). Passenger traffic on the Bridgwater branch ceased on 1-December-1952, but the line remained in use for goods traffic. Subsequently Edington Junction was renamed **Edington Burtle**, the change believed to have taken place on 8-June-1953⁴.

On 4-October-1954 the Bridgwater branch was closed completely from Edington Burtle to a location at 6m 54c just north of Bridgwater North station. On 4-February-1956 Edington Burtle station was reduced to just one platform and one siding on the Up side⁵, but the siding was taken out of use in October 1964. The station platform remained in use until closure of all passengers services on former S&DJR lines on 6-March-1966. Bridgwater North station remained in use for goods traffic by means of a new connecting spur to the nearby ex-GWR docks branch (brought into use 27-June-1954), but eventually it too closed in April 1967⁶.

Edington Junction

Very little is known about any early signalling at the original Edington Road station. S&DJR Officers Minutes No 376 dated 8-November-1876 records a decision to provide Distant signals at Edington and for "*present home signal to be superseded by semaphores*". It is *possible* therefore that originally there was nothing more than a disc-and-crossbar signal near the level-crossing, but that subsequently the station had at least a Distant and Home signal in each direction. It *may* be therefore that a small lever-frame was provided to work the new signals. There is no evidence that any sidings were provided prior to the 1890 alterations.

¹ Clinker records 21-July-1890 from S&DJR Signalling Instruction 44.

² There is some evidence that the station had been renamed simply 'Edington' at an earlier date, possibly 1864 or certainly by 1877.

³ Atthill states 1856, but another source suggests 1854.

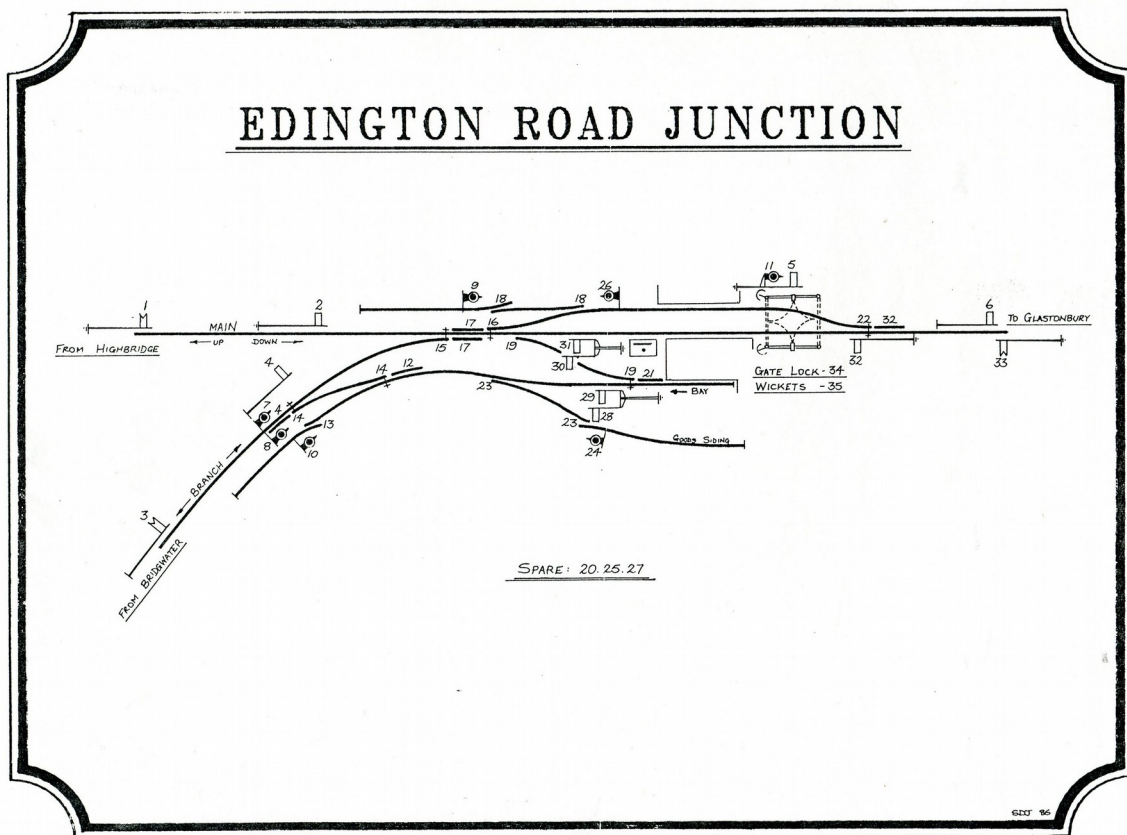
⁴ One source suggests that the renaming took place in November 1952.

⁵ One source suggests that this work was not completed until 22-July-1956.

⁶ Existing information about the post-1954 period is contradictory and still subject to confirmation.

When a new railway joined an existing line of a different Company, then usually either the existing Company undertook the new junction works and charged the cost to the newcomer, or the new Company were permitted to do the work themselves at their own expense. It would appear that by 1890 the S&DJR were in dispute with the Bridgwater Railway and did not feel inclined to assist them, so the latter course was followed. In turn the Bridgwater Railway felt unobliged to follow current S&DJR signalling practice and instead let their contract to Dutton & Co of Worcester. It is known that Dutton supplied the lever-frames and probably all the signal-box structures; it would seem logical therefore to *assume* that they supplied the actual signals as well, but this can not be confirmed.

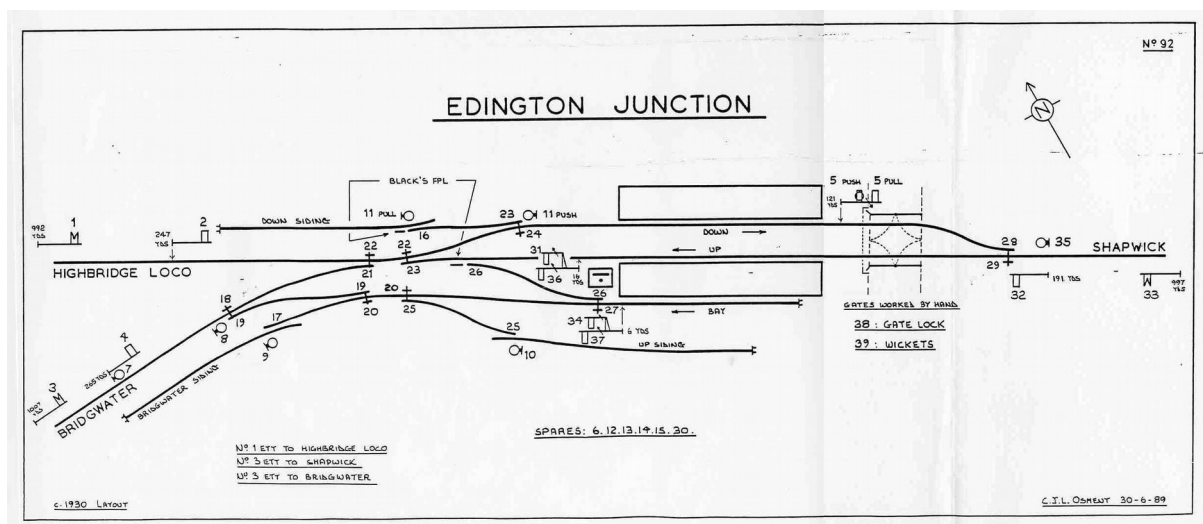
The track layout created at **Edington Junction** for the opening of the Bridgwater Railway seems to have been identical to that in use at nationalisation, so it is *probable* that it had remained unchanged for the intervening period, although there were some alterations to the actual signalling. A 35-lever frame of the Duttons 1889 patent pattern ([see below](#)) was provided, housed in a timber signal-box constructed to the Dutton Type 1 design (with the addition of ventilators in the gable ends). A photograph exists of this lever-frame inside the signal-box, probably taken by Buck himself at about the time the box was brought in use.



In the original installation the direct connection between the Bay platform and the Bridgwater branch was signalled for goods use only, and passenger trains leaving the bay for Bridgwater had to go onto the Up Main before turning off onto the branch. When Colonel von Donop inspected the layout for the Board of Trade (BoT) on 6-July-1890 he objected to this arrangement and refused to sanction the opening, so some hasty alterations had to be undertaken and the result was the arrangement shown in the 1890 signal diagram above. It should be noted that lever 4, which

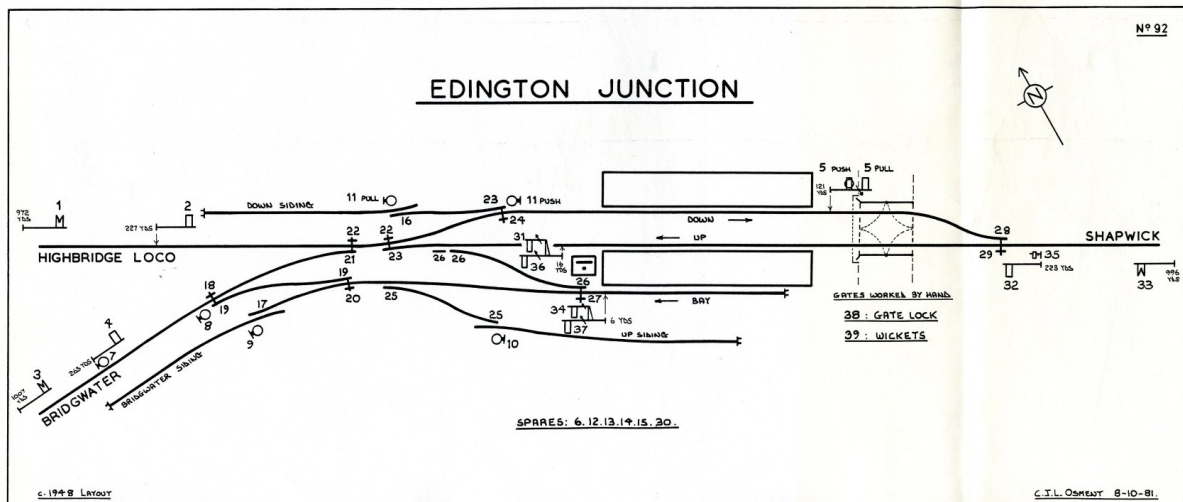
worked the Down Branch Home, also operated the facing point lock (FPL) on points 14, whilst a similar arrangement existed with lever 32 and points 22. The relevant levers would have been painted half red and half blue, to denote their dual function, and this can be confirmed by a close examination of the above-mentioned interior photograph. The Bridgwater Railway opened to traffic on 21-July-1890 without a further inspection of the revised signalling.

At an unknown date (possibly *circa*-1915) the Dutton frame was replaced by a 39-lever frame of the Stevens pattern with levers at 4.1/8" centres. At some stage also a 'calling-on' arm was provided under the Up Home (signal 32), as S&DJR Signal Instruction 238 refers to the removal of this subsidiary arm on 1-May-1913 (along with the Down Advanced Starting signal), but it is not known if this alteration took place before or after the replacement of the lever-frame. The 1930 signal diagram is taken from a copy stamped 16-June-1930; the original negative date is 3-July-1915, which *may* relate to the renewal of the lever-frame.



One unusual feature of this layout (which is not obvious without an examination of the mechanical locking table) was that the Up Distant (signal 33) - although only a single arm - could be worked for either the 'Highbridge' *or* the 'Bridgwater' routes. It will be noted also that there were several FPLs on various trailing and trap points; the reason for these is uncertain, but they *may* have been provided to permit the shunting of loaded through carriages or the reversing of through trains between Bridgwater and Highbridge. The FPL on 25 is a puzzle, as the locking-table describes 20 merely as "*FPL on 19 east end*", whereas on the actual diagram the plunger is labelled as "*locks 25 normal or reverse and 19 reverse only*".

Subsequently on 13-November-1930 (S&DJR Signal Instruction 308) the Up Home 32 was moved out to 223 yards and disc 35 relocated next to it. Further changes to the installation are reflected in the 1948 signal diagram below (taken from a BR copy stamped 6-February-1948), which omits the FPLs on 16 and 25. By September 1949 the FPL 24 had been removed, a track-circuit 'A' provided through points 21 and 23, and disc 11PUSH relocated in the 'six foot' between the loop lines. By this time FPL 20 was labelled on the diagram merely as '*locks 19 reverse only*', yet the locking-table still showed it as locking 25 both ways.



The precise situation after the cessation of passenger traffic on the Bridgwater line on 1-December-1952 is unclear, but it appears that arrangements at Edington Junction continued relatively unaltered except for the eventual re-naming of the station as 'Edington Burtle'. (It is *assumed* that the signal-box was renamed at the same time, as the new name was used in a subsequent closure notice in 1956.) Final closure (for goods traffic) of the Bridgwater line took place on 4-October-1954 and the branch was removed in due course. It is not known what further changes (if any) may have taken place then to the signalling and/or access to the sidings.

In 1956 the signal-box at Edington Burtle was closed, all the track was removed except for a single running-line (using the former Up Loop) and the siding next to the Bay, and all the signals except the Up and Down Main Distant, which were retained to protect the level-crossing. Two new ground-frames (GF) were provided, designated 'A' and 'B'. GF 'A' was a 2-lever frame located on the Up side adjacent to the new connection from the main line into the remaining siding; it worked the FPL, point and trap-point, and was unlocked by the single-line token for the new Shapwick – Highbridge East 'C' section ([see below](#)). GF 'B' was a 3-lever frame located on the up side adjacent to the level-crossing and it worked the two Distant signals and the gate bolt; two electric signal arm repeaters were provided in an adjacent cabinet.



There *may* be some uncertainty about the precise date for these alterations. The closure date for the signal-box is usually quoted as 4-February-1956, but an official notice found attached to a copy of the signal-box diagram has been annotated (by person unknown) that the alterations were carried out on 22-July-1956. As the original date and source of that notice is unknown, then it is *possible* that some confusion has arisen between the work and notice publication dates, so all that can be stated with certainty therefore is that the changes took place during 1956.

Block Working

By the mid-1870s the S&DJR was being worked on the Absolute Block system by the use of block instruments only, without any form of physical 'train staff'. S&DJR Officers Minutes No 376 dated 8-November-1876 records a decision to provide a box at Edington for the 'telegraph instruments', while Minute 377 states that block instruments were to be removed from Bason Bridge and "*the block made through from Highbridge to Edington*". Those Minutes would seem to indicate that Edington station was already a block-post at that time.

Subsequently the S&DJR Working Timetable (WTT) Appendix No 7 (dated 1-March-1886) states:

**"BLOCK TELEGRAPH WORKING
AT MIDFORD, MASBURY, HENSTRIDGE AND EDINGTON"**

These stations, after having accepted the 'Is Line Clear' or 'Train Entering Section' signals for an Up or Down train, as the case may be, must not accept any signal whatever for a train to come in the opposite direction, unless the signals first given have been cancelled in accordance with clause 9 of the Block Telegraph Regulations."

However the same Appendix, when dealing with the opening/closing of block-posts fitted with a block-switch, does **not** list Edington whereas the other boxes mentioned above (which were also without passing-loops) *are* listed, so it is unclear whether Edington could switch-out. However by late-1886 the 'Train Staff and Ticket' (TS&T) method of block working had been introduced on the S&DJR line from Evercreech Junction to Highbridge, after which Edington ceased to be a block-post and became just an intermediate location within the SHAPWICK - HIGHBRIDGE LOCO block section.

When the new signal-box was opened at Edington Junction in 1890 the existing block section was split into two new sections, SHAPWICK – EDINGTON JUNCTION and EDINGTON JUNCTION - HIGHBRIDGE LOCO, both of which continued to be worked by TS&T. However the new Bridgwater branch itself was worked by Electric Train Tablet (ETT) from its opening as a single section EDINGTON JUNCTION – BRIDGWATER. Tyer's No 3 pattern ETT instruments were used and this was the first installation of that type on the S&DJR; the tablets were 'A' configuration, with a round hole in the centre and a semi-circular notch in the edge.

TS&T working at Edington Junction on the section to Shapwick was replaced by ETT (using Tyer's No 3 instruments) on 8-September-1891 (S&DJR Officers Minutes No 4008 dated 27-October-1891 and Traffic Superintendent's Circulars W/527 and W/531). A year later (S&DJR Officers Minutes No 4138 dated 27-October-1892) the S&DJR decided to install ETT working on the section to Highbridge and an undertaking for this was given to the Board of Trade on 28-January-1893, but the actual date of introduction is unknown. The Edington Junction – Highbridge Loco section was equipped initially with Tyer's No 1 instruments (recovered from the

doubling of the S&DJR main line between Binegar and Shepton Mallet), but these were replaced by Tyer's No 6 pattern sometime between 1933 and 1939.

In 1950 British Railways (Western Region) took control of the S&DJR lines north and west of Evercreech Junction, and in due course the ETT working on the Evercreech Junction to Highbridge line was replaced by the BR(WR) pattern of Electric Key Token (EKT). It is known that the various sections between Evercreech Junction North and Glastonbury were converted on 6-April-1952, but no official dates are known for the alterations between Glastonbury and Highbridge Loco (which would have included Edington Junction), although it is a reasonable *assumption* that it was done *circa*-1952/53. It is not known therefore whether EKT working was introduced at Edington Junction before or after that signal-box was renamed Edington Burtle.

Although there are no known formal records relating to the block working on the Bridgwater branch after closure to passengers in 1952, research information suggests that the line retained the use of Tyer's No 3 ETT until eventual closure to goods in 1954. After closure of the former Edington Junction signal-box in 1956 the block section reverted to SHAPWICK – HIGHBRIDGE EAST 'C' (the former 'Highbridge Loco' box), using 'D' configuration EKT (which also served to unlock the new Edington Burtle GF 'A').

Cossington

For historical reasons, just like the line from Evercreech Junction to Highbridge, the branch to Bridgwater unusually was UP to the terminus. Going up the line from Edington Junction the next signalling installation could be found at **Boards Siding**, which was situated on the up side at 2m 18c with a connection facing to Up trains. This siding is believed to have been opened in 1899⁷ and closed in the late 1930s, being removed by about 1940. The installation consisted of a 3-lever GF (released by the single-line tablet) which controlled the FPL, points, a bolt on a gate across the siding, and shunt signals for movements into/out of the siding. The WTT instructions for Edington Junction stated that this siding should be shunted by a propelling movement from the junction, to which the train had to return; sadly they did not indicate what had to be done thereafter with the tablet, which could not be returned to the ETT instrument at Edington Junction as the No 3 pattern was 'non-returnable'.

The first station on the branch was at **Cossington**, where the layout underwent a number of changes over the years and the signalling was modified accordingly. The original layout consisted of a platform on the up side of the single-line and a single siding, which was accessed by a connection facing to Down trains at the Bridgwater end of the platform. Dutton supplied an 8-lever frame located 'back to track' in a hut on the platform, but the type of frame is unknown.

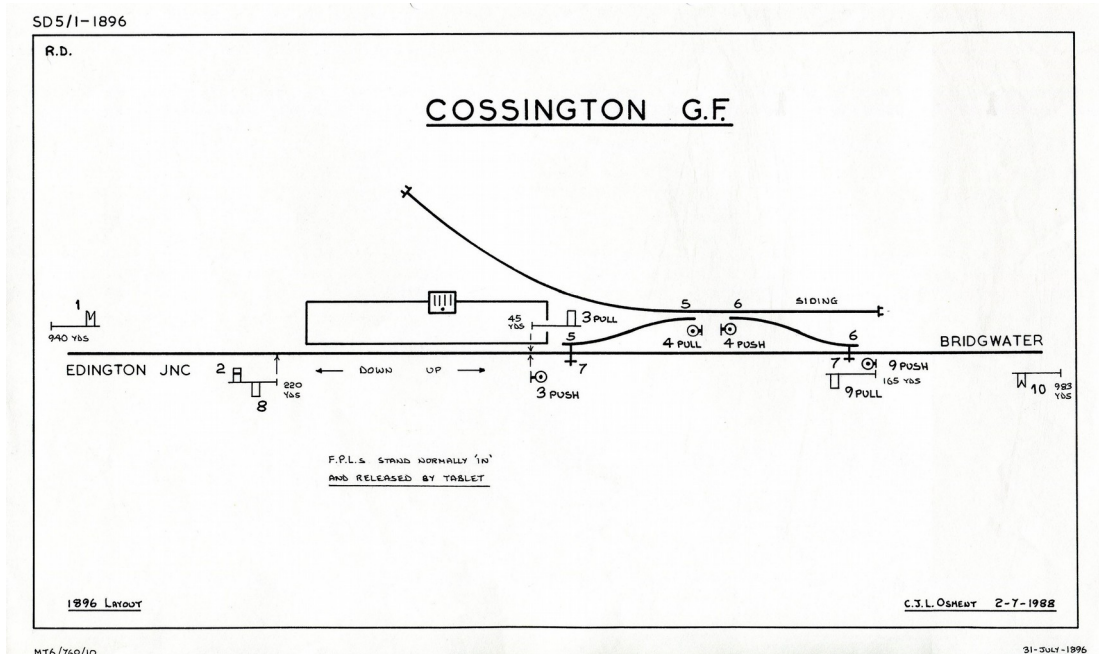
The GF hut at Cossington was similar to one that appears as a 'standard ground-frame hut' in Dutton's catalogue. It is one of the few S&DJR signalling buildings to have survived and it can be seen now (without its original lever-frame) as 'Cranmore West GF' on the East Somerset Railway. The picture shows it in its new location in 1988/9.



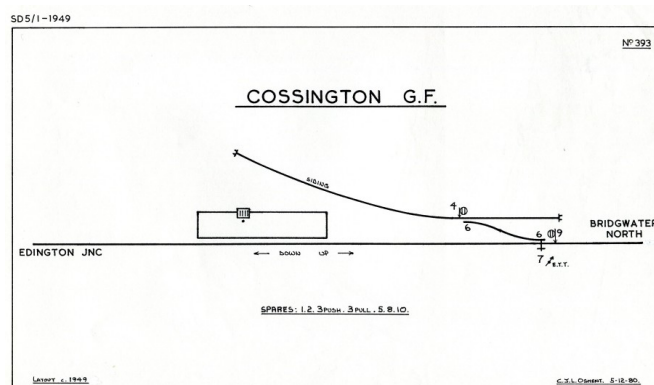
⁷ Clinker records 2-January-1899 from S&DJR Signalling Instruction 110.

West Country Railway Archives

The layout at Cossington was modified in 1896 when the existing points were moved southwards to provide space for an additional crossover into the siding facing to Up trains, thus enabling the siding to be shunted by trains in either direction. The signal diagram below shows the revised layout and is derived from PRO file MT6/760/10. It will be noted that the GF is now 10 levers, but it is not known if this indicates a replacement frame, or merely an extension of the original. There is a note on an old drawing which *implies* that levers 1 and 10 were separate 1-lever frames added at each end of the original frame, but the situation is unclear.



Cossington was never a block-post, just an intermediate GF within the Edington Junction – Bridgwater block section. Although the signals could be worked for the passage of trains at any time, the points for the sidings could not be unlocked without the single-line tablet. At an unknown date the main running signals were removed and in June 1933 the northern crossover also, leaving a simplified installation which comprised merely a FPL, the remaining crossover and two ground-signals, as shown in the diagram below *circa*-1949.



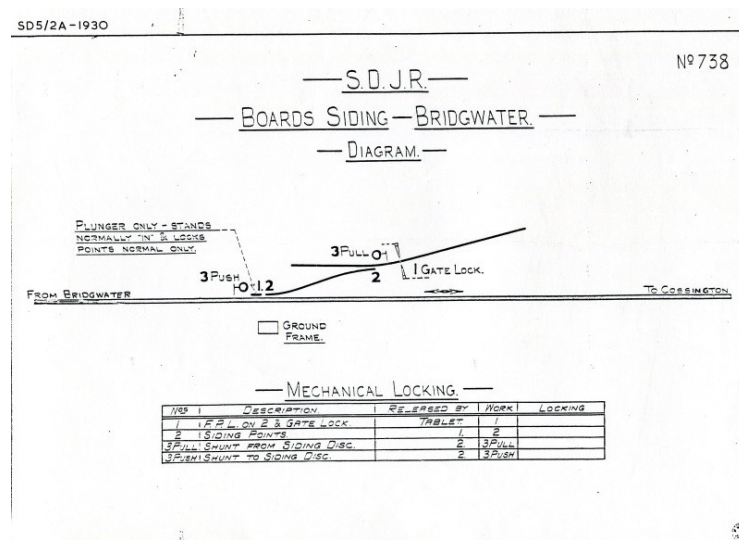
It is not known whether the GF remained in use until final closure of the branch to all traffic on 4-October-1954, or whether it was taken out of use after cessation of passenger services on 1-December-1952 and the points converted to operation by local hand-levers. Given the apparent retention of ETT working on the branch until 1954, then it is *assumed* that the GF would have remained in use.

Bawdrip

The next station on the branch was **Bawdrip Halt**, which was opened in October 1923 as a simple halt without any signalling, the platform being on the up side of the line. A small shelter was provided on the platform in 1924.

Bridgwater

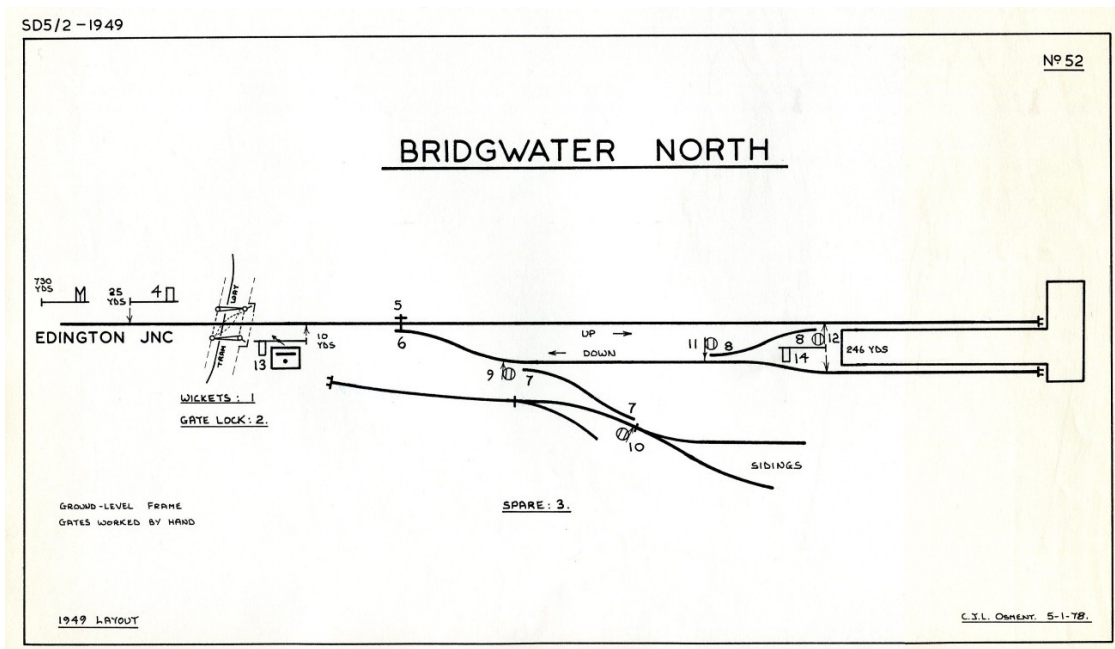
Just to the north of Bridgwater station there was another siding also known as 'Boards Siding' (originally 'Wilds' or 'Spinx'), situated on the Down side of the line at 6m 61c with a connection facing to Down trains. This was controlled by a 3-lever GF (released by the tablet) and a signal diagram is shown below. The arrangement is identical to that at the other 'Boards Siding' mentioned above, and indeed it seems that this type of installation was used by the S&DJR at several locations.



Information about the original signalling at **Bridgwater** is scarce, but it is known from engineering drawings and OS maps that there was a signal-box on the up (east) side of the line about mid-way between the level-crossing and the station platform. There are no known photographs of that signal-box, but one may *speculate* that it was a Dutton Type 1 similar to (but probably smaller than) the one provided at Edington Junction. It is recorded that Dutton supplied a 13-lever frame (11 working and 2 spare levers) and again one can *speculate* that this would have been of the same pattern (1889 patent) as fitted at Edington Junction.

At an unknown date (*believed* to have been about 1910 but possibly earlier⁸) the original signal-box was closed and replaced by another box situated on the down side of the line at 6m 72c next to the level-crossing. There is photographic evidence that this was a ground-level structure similar to a Dutton Type 1 box (again with the addition of gable ventilators), which suggests the *probability* that it was constructed by re-using the top of the original signal-box. This box was equipped with a 14-lever frame of the 'knee' pattern normally used by the L&SWR in ground-level boxes, with levers at 4.5/8" centres.

[**Note:** In the absence of any known relevant records, it is a matter of speculation why the original signal-box was replaced, whether it had been a ground-level or elevated structure, and why it was relocated further away from the station. It is also speculation whether the 'knee' frame was provided concurrent with the second box or at a later date. However it is considered to be a reasonable '*working assumption*' that the first box was an elevated structure with a Dutton 1889 patent lever-frame, the relocation may have eliminated the need for a separate crossing-keeper in addition to the signaller, and the 'knee' frame was supplied for the 'new' box.]



Bridgwater signal-box was renamed **Bridgwater North** on 26-September-1949 and the signal diagram shows the installation at the second signal-box at about that date. (In view of the early practice of working the distant signal at a terminal station it is *possible* that the spare lever 3 was originally the distant lever, but without a firm date for the installation of the lever-frame this must remain merely a theory.) The layout was unusual in that one platform was signalled for arrivals only, and the other for departures only, which meant that arriving passenger trains had to be shunted across to the other platform before leaving again.

⁸RA Lacy in *Somerset & Dorset Railway Trust Bulletin Issue 43* quotes 7-September-1903 but his source is unknown.

Passenger services on the Bridgwater Branch ceased on 1-December-1952. It would appear that the signal-box remained in use as a block-post and continued to use the Tyler's No 3 ETT instrument during the subsequent period of goods-only operation. However it is not known what alterations, if any, were made to the actual signalling at Bridgwater North. One of the sidings in the goods yard used to extend westwards to a wharf on the River Parrett, although the final section was removed in 1942. This wharf line passed close to a similar line which ran from the former GWR station to Bridgwater Docks, although there had been no connection between the GWR and S&DJR lines until a new chord was brought into use on 27-June-1954. Then on 4-October-1954 the entire branch was closed north of 6m 54c, with all the goods traffic then using the new connection, and the signal-box was closed on the same date. After cessation of traffic for Boards Siding the remains of the branch were cut back further to 6m 71c *circa*-1964, and final closure of the remains of the station and goods yard came in April 1967.

Dutton 1889 patent lever-frame

Some time prior to 1890 an engineer called William Buck had joined the Dutton firm and in due course he designed a new pattern of interlocking lever-frame, which was registered in the Dutton name as Patent 11741 of 1889. This frame had a number of novel features, the most obvious being that the mechanism which held the levers in the normal or reverse positions was underneath the operating floor level, rather than the usual 'catch' resting in a slot in the quadrant plates above the floor. Instead of the usual small 'catch handle' at the top of the main lever to operate the catch, the main lever itself was pivoted at the top and connected to the 'catch rod' which ran down the front of the lever. The action of the signalman pulling/pushing the lever automatically unlocked/locked the catch mechanism. About 10 lever-frames of this pattern are known (of which the best-known is that still extant at Douglas on the Isle of Man) and Buck himself records in his memoirs that production ceased after a total of about 400 levers. The picture below shows the preserved 36-lever frame at Douglas after a repaint in 2015.



Conclusion

The involvement of Duttons with the original signalling of the line gives the Bridgwater Branch a unique place in S&DJR signalling history and it is unfortunate that so little definite information is available. The line played a further important role at the beginning of the 20th Century, when it was used by Alfred Whitaker (the S&DJR locomotive superintendent) for trials of his newly-invented mechanism for the automatic exchanging of single-line tablets at speed. Ironically, once those trials were completed the exchange apparatus was removed from the branch, and thereafter used only on the S&DJR 'main line' from Bath to Broadstone!

These notes are based on material produced by the author for the Centenary of the Bridgwater Railway in 1990, now revised and updated to include additional information which has come to light subsequently from various sources. The author would like to thank to fellow Signalling Record Society member Stuart Johnson for permission to draw heavily upon his own notes and to reproduce the drawing from his article in SRS Newsletter 101.

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Edington Junction 1890 diagram courtesy of Stuart Johnson, Douglas lever-frame photograph courtesy of Peter Jordan.

References

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