IX

RAILWAY STRUCTURES NEAR FALSTONE, ON THE FORMER BORDER COUNTIES RAILWAY

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THE DECISION to create a reservoir in the North Tyne Valley, involving the flooding of an area from Kielder south eastward to between Emmethaugh and Falstone will destroy, among other things, the remains of this section of the former Border Counties Railway. The rails have been lifted but the track-bed between Falstone Station (NY 726874) and Plashetts Station (NY 686902) is used as a road by the Forestry Commission, and the majority of the railway engineering works and buildings along this part of the line are at present in good condition.

Those features described in detail are all situated between Falstone and the Belling Burn (NY 693882) and were recorded during the late summer and autumn of 1973, originally as part of Miss R. B. Harbottle's excavation party; we would like to thank her for her help and encouragement. We are also grateful for photographic assistance from Newcastle upon Tyne Polytechnic.

THE BORDER COUNTIES RAILWAY

There had been earlier proposals for a railway to serve the North Tyne area of Northumberland before the successful Bill was presented to Parliament in February 1854, which described it as running "from the Newcastle upon Tyne and Carlisle Railway at or near Hexham in the County of Northumberland to or near the Belling in the Parish of Falstone in the same County, to be called 'The Border Counties Railway (North Tyne Section)'". It received the Royal Assent on 31st July 1854.

William Henry Charlton, member of a local Northumberland family whose residence was at Hesleyside, made himself an energetic promoter of the scheme, and became the first Chair-

man of the Company formed at the shareholders' meeting held at the Black Bull Inn, Hexham on 20th March 1855.[1] The Engineer appointed was John Furness Tone, and the contractor was William Hutchinson.

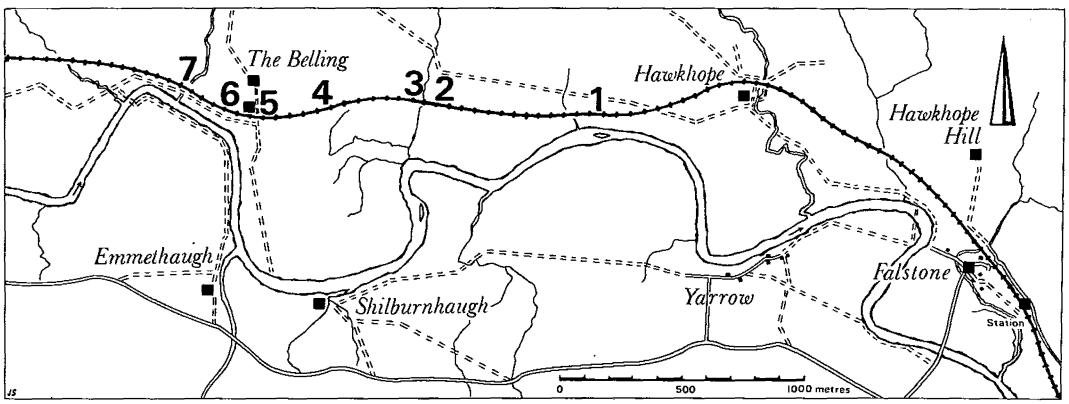
The further Act which extended the railway from the Belling, through Plashetts and Kielder, and into Scotland—*The Border Counties Railway (Liddesdale Extension) Act*—received the Royal Assent on 1st August 1859. This authorised it to join, at Riccarton Junction, the line constructed by the North British Railway between Carlisle, Hawick and Edinburgh, which latter was subsequently known as the "Waverley Route". At the date of the passing of this second act the earlier section of the railway had not been completed. It was opened as far as Countess Park, south of Redesmouth, on 19th March 1860. On the 13th August 1860 the Border Counties was amalgamated with the North British Railway Company. On the 1st August 1861 the railway was opened to Falstone, to Kielder on the 1st January 1862.[2]

Finally completed, the Border Counties Railway from Hexham to Riccarton was opened on the same day as the North British line running from Carlisle through Riccarton to Hawick and Edinburgh both being opened throughout on the 1st July 1862.

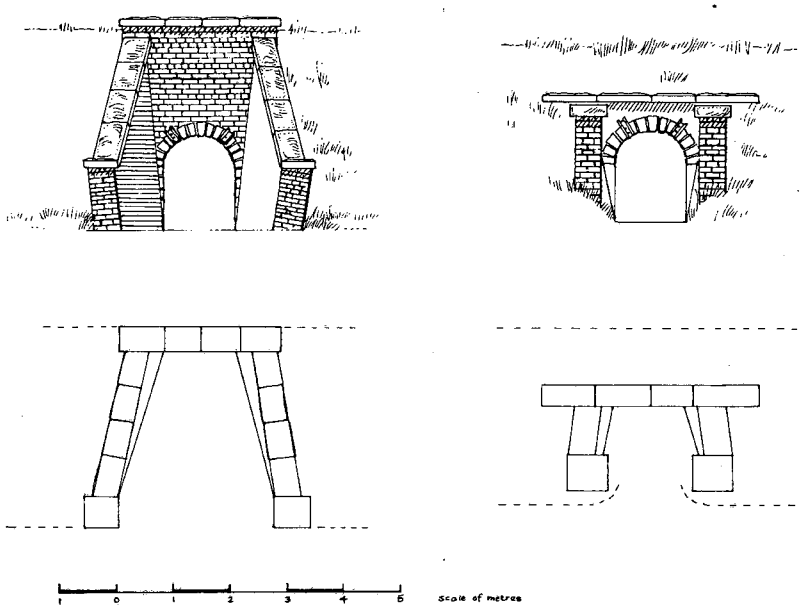
The railway was primarily built to carry mineral and goods traffic but throughout its life it ran three passenger trains daily in each direction. The passenger service from Riccarton to Hexham was withdrawn on the 15th October 1956[3] and the line was closed for freight traffic two years later; the track had been lifted by the autumn of 1960.

THE STRUCTURES

The country through which the railway passed remained much as it had always been until the coming of the Forestry Commission, a landscape of small farms and open moorland. The railway line divided the various farms along the route and necessitated a considerable number



[1] *Newcastle Journal*, 31st March 1855.
[2] Northumberland County Record Office, B.C.Rly Box 2c.
[3] Official closure handbill, British Railways.



Cattle Arch Left - south face. Right - north face
The facing wall is of yellowish brick in both cases. The southern wing walls are of blue engineering brick, probably replacing earlier masonry.
The northern wing walls are entirely of masonry, ending in yellowish brick piers.
The vault measures 8·1 metres in length.

Fig. 1

of cattle arches and sheep creeps (mainly the former) in addition to the occupation crossings and under line bridges. Between Falstone and Plashetts, a distance of a little over five miles, the following structures occur:

Bridges over public roads	1
Occupation bridges	2
Cattle arches 4ft span	5
Cattle arches 6ft span	4
Sheep creeps 3ft span	2
Culverts of various sizes	13+
Occupation crossings, remains	4
Platelayer's huts, remains	4
Pairs of platelayer's cottages	2
Station buildings at Falstone and Plashetts	

The various bridges, arches and vaulted structures are simply and solidly constructed, largely from local stone but incorporating brick to some extent. Except for the smallest

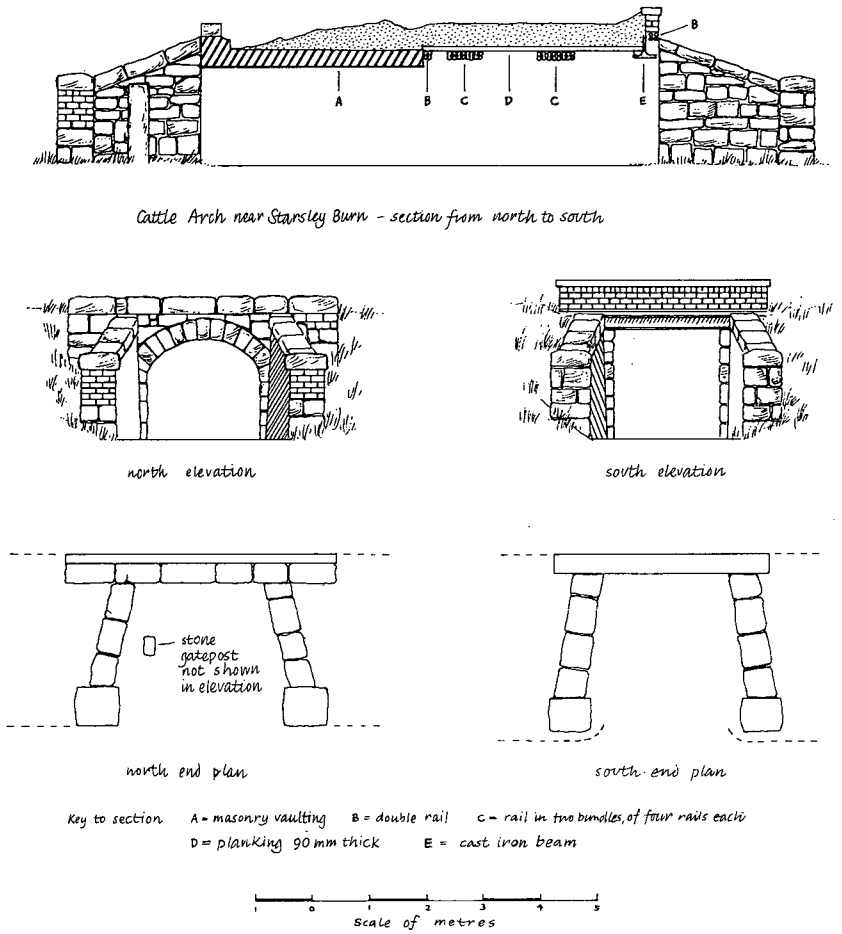


Fig. 2

culverts, and one or two more notable exceptions (such as the cattle arch near Starsley Burn) these structures are masonry vaults, and are semicircular on the smaller spans or segmental on the larger. The small culverts are roofed with flat stone slabs.

The sides of the embankments still appear to be somewhat unstable and many of the structures show evidence of rebuilding. This may be only a lengthening of wing walls, often by extending a purely masonry wall with a brick pier, but some wing walls have been entirely rebuilt, while several lintels or parapets have been replaced by concrete cast *in situ*.

CATTLE ARCH (fig. 1)

This is a masonry arched structure with a semicircular vault 8·1 m in length spanning 1·2 m (approximately 4 ft). The outer faces and wing walls show signs of extensive rebuilding, on

more than one occasion. The north face is of masonry, but has been strengthened by the insertion of rail tie bars with the ends cramped over, and the face has been made good with brick above the tie bars. The wing walls themselves are entirely of stone, but end in square piers of pinkish yellow brick. The south face has been entirely rebuilt of yellowish brick, only the stone coping slabs being re-used, while the wing walls on this side have been rebuilt in blue engineering brick.

The sheep creeps are similar in construction to this cattle arch, but smaller. The contract schedule quotes 3 ft × 3 ft; we found a width of 0·9 m fairly standard but the height was reduced by mud on the floor to between 0·6 m and 0·8 m.

CATTLE ARCH NEAR STARSLEY BURN (fig. 2)

This arch has a curious, dual construction. We quote the following excerpt from the contract schedules, for any light that it may shed on the matter. "Memo. In these instances where girders are used in sheep creeps (see Drawing No 24) I agree to be paid at the same rate per creep complete, including finding and fixing girders, as above, viz. £26. 12s."[4] This does at least suggest that a girder type of construction was an accepted practice and that it was not used as an economy but was equally no more expensive than the stone which must have been available locally.

The arch, which has a passage 8·0 m in length, for 3·9 m of which it is roofed with a masonry vault, for the rest employs timber supported by bundles of rails which rest on the top of the masonry side walls, and also by a cast iron beam which is partly visible at the south face. The width of the passage is 1·8 m at the south end and slightly more at the north.

We were unable to decide which section of the cattle arch was constructed first by inspection of the structure, or what reason had determined the employment of two methods of construction. We supposed the masonry arch portion to be somewhat earlier since the other arches in the Falstone—Belling section are of this type.

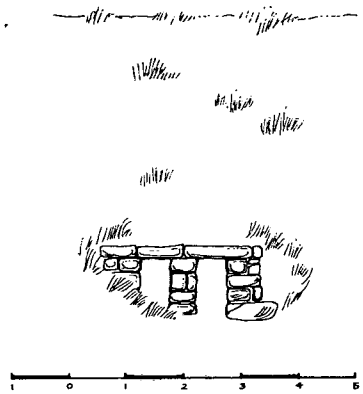
The south wing walls are entirely masonry. Those at the north side are of stone also, and have masonry bases to the square piers which are completed in brick. Stone coping slabs are used with the exception of that on the brick built parapet on the south side, which is of concrete.

STARSLEY BURN CULVERT (fig. 3)

The *Detailed Estimate and Schedule of Prices* for the section from Thorneyburn to the Belling dated 6th March 1861[5] specifies that culverts and drains on this section number 41 and vary considerably in size from 1 ft square to 6 ft in diameter. The culvert on the Starsley Burn which uses two channels each 0·55 m in width (approx $21\frac{5}{8}$ in), is about 4 m below the level of the top of the embankment on the north side, but due to the steepness of the hillside at this point emerges considerably lower on the south side.

[4] *Detailed Estimate and Schedule of Prices, 23 Jan. 1861* agreed between the engineer John F. Tone and the contractor William Hutchinson. NCRO, B.C.Rly Box 3c.

[5] NCRO, B.C.Rly Box 3c.



Culvert on the Stanley Burn, north face. Top of embankment approximately 4 metres above top of lintel stones.

Fig. 3

OCCUPATION BRIDGE (fig. 4)

This occupation bridge is fairly typical of those on this stretch of line. It is constructed entirely of masonry and has a vault which is 7·97 m long and 2·7 m wide. On the south side only it has rail uprights which originally carried guardrails, and to which an additional parapet of planks has been bolted. A stone gate post still stands to one side of the south entrance.

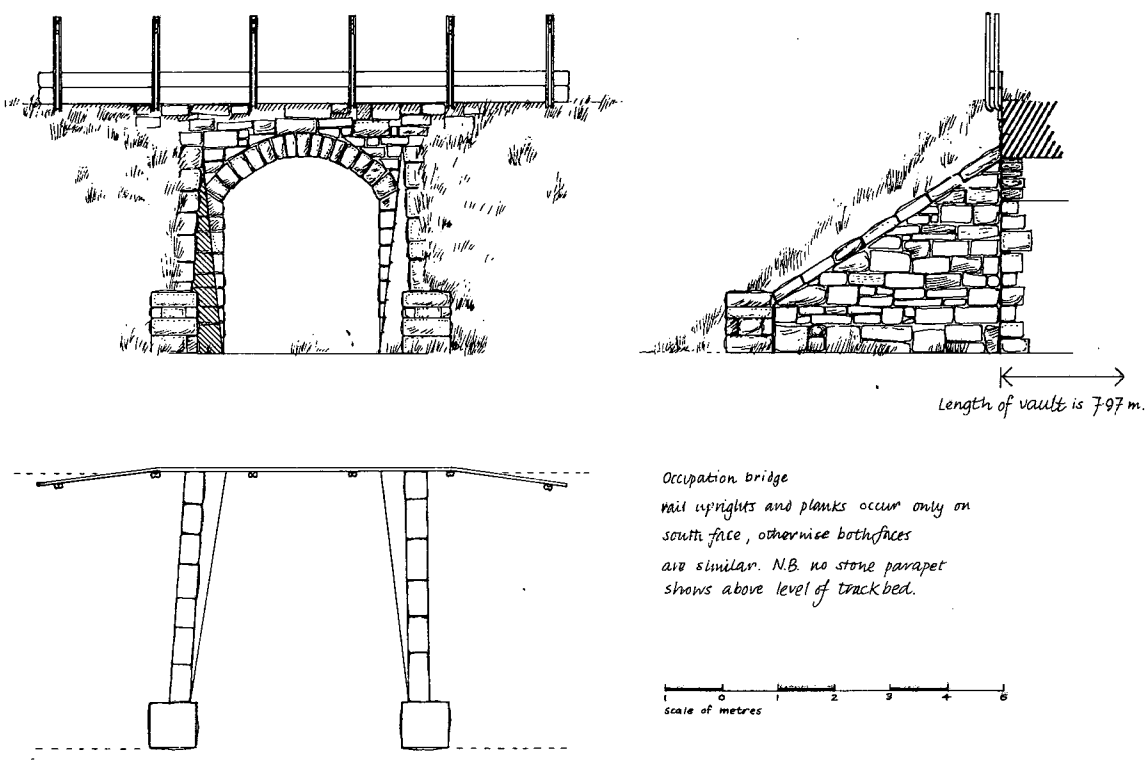


Fig. 4

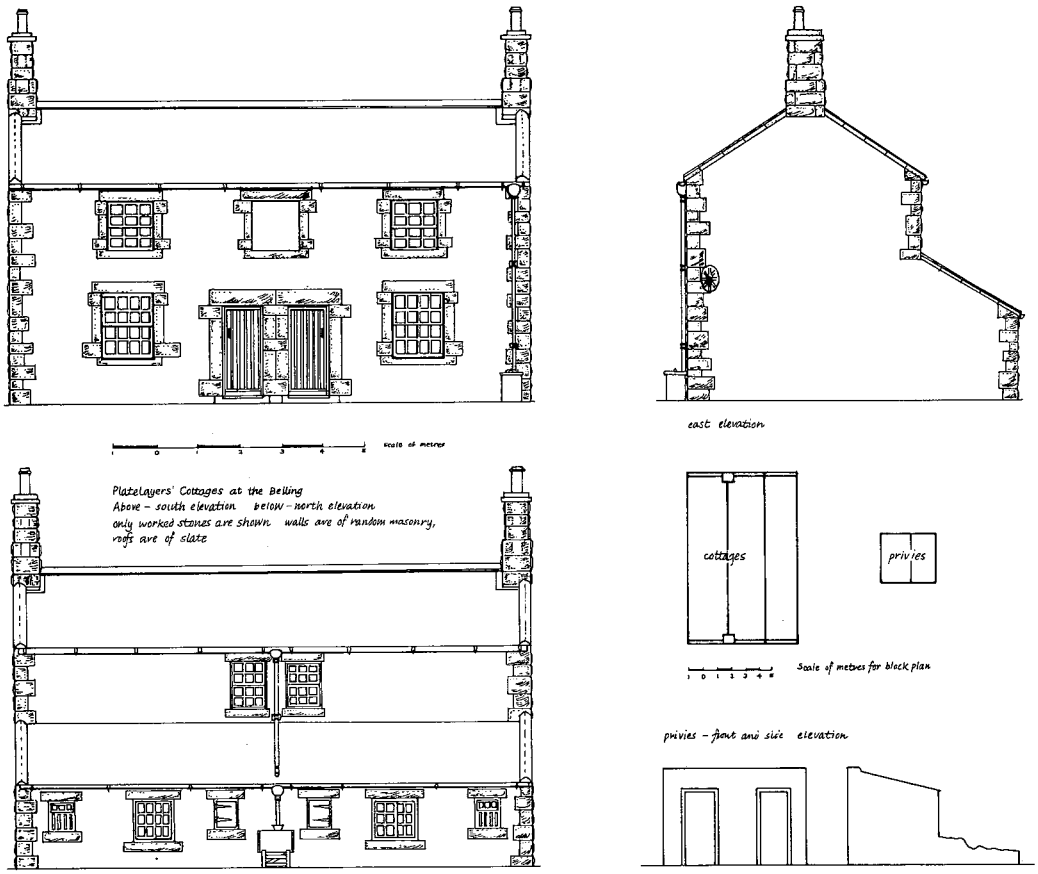


Fig. 5

PLATELAYERS' COTTAGES AT THE BELLING (fig. 5)

Item 11 of the *Detailed Estimate and Schedule of Prices* mentioned above quotes for Platelayers' Cottages as "double cottages at Dunclay Wood, Falstone and Belling at £360 each", and this same pattern occurs—with minor modifications—at Plashetts. A recently published article[6] mentions these "solid stone houses with slate roofs built by the side of the

[6] *AA*[5] 1 (1973) p. 151.

track" and remarks on the contrast they present to the farm cottages of the time. There is also a marked contrast between the platelayers' cottages and those built in Bellingham for the iron-workers at Hareshaw, in which "Access to the one bedroom is in most cottages by way of an open step ladder, and to the roof of the bedroom, which is not underdrawn, the walls are only 4 ft 6 in high. It was not until 1903 that the small kitchens were added to the single all-purpose downstairs room."[7] The cottages at the Belling have the kitchen extension included in the original building and we have been told they also had running water piped in from a local source.

PLATELAYER'S HUT (fig. 6)

These small buildings were a normal lineside feature in all nineteenth century railways in this country, but tended to vary in type as between one company and another. So far as we have been able to tell by comparing existing and ruined examples on this stretch of line the Border Counties must have allowed a degree of freedom in the planning of individual huts, allocating a given number of second-hand sleepers, a door, wood and corrugated iron sheeting to make a pitched roof of given dimensions, and sufficient wood strip to cover the gaps between

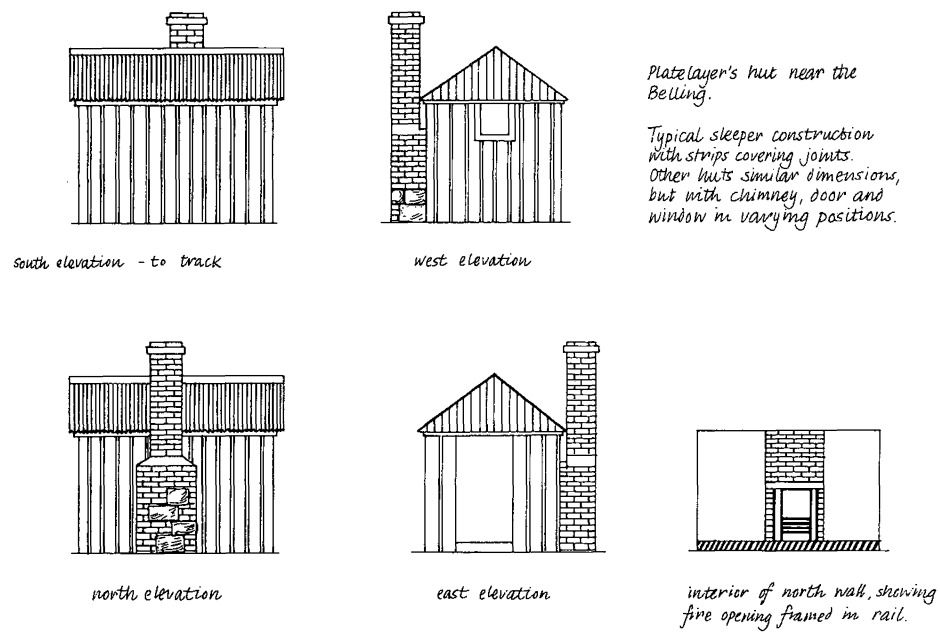


Fig. 6

[7] Paul Jennings Ed. *The living Village*, (Hodder and Stoughton, 1968), p. 102. The Census returns show 113 houses in Bellingham in 1841 and 318 in 1851; the Hareshaw Iron Works operated between 1838 and 1848/9, and possibly from 1855 to 1857. T. M. Hoskison "Northumberland Blast Furnace Plants in the 19th Century" *In Trans. Newcomen Society* Vol. XXV (1945–47) pp. 73–81.

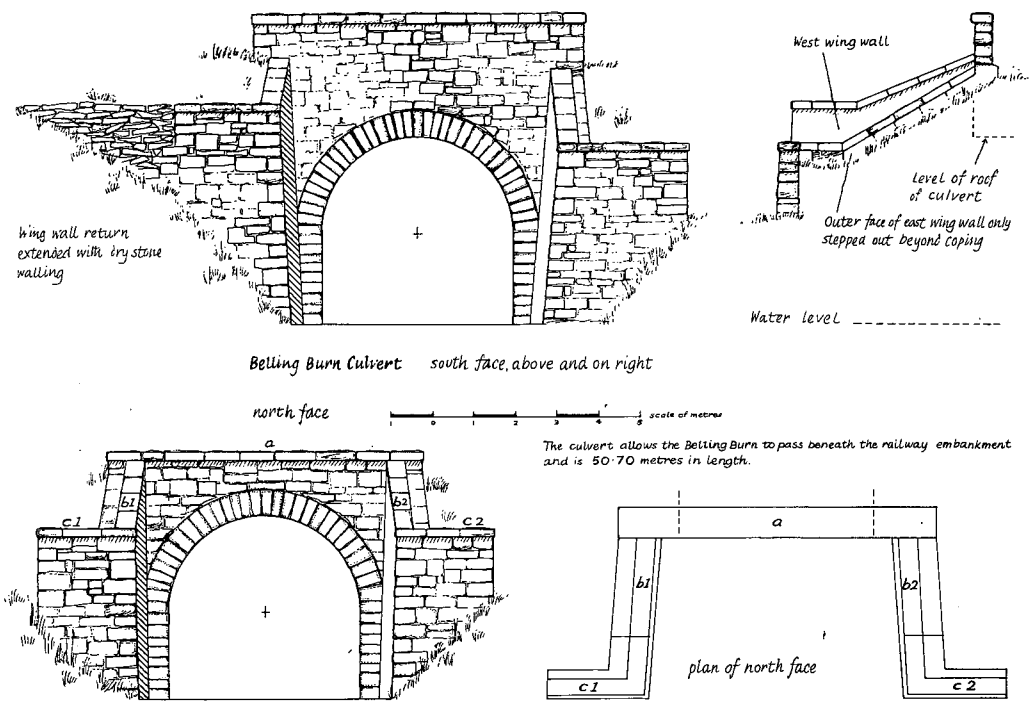


Fig. 7

the sleepers, and then perhaps allowing the actual building to be performed by those who would subsequently use the huts. Certainly, while the main dimensions remain constant (being determined by the roof) the position of door, chimney and window vary so much that no two huts are exactly alike.

THE BELLING BURN CULVERT (fig. 7)

This is the most important structure on the length of line under consideration. The contract schedule describes it as of 8 ft diameter and proposes a cost of £747. 10s. 6d—more than double the cost of the bridge over the public road at Falstone, which was £343. 15s. 6d—but in fact the diameter is 4·6 m (approx 15 ft 2 in). The length is 50·7 m. The passage is dead straight, the masonry within is very carefully worked and smoothly finished. The floor appears to be of natural bedrock, along which the water forms pools and shallows when the burn is not in spate. The wing walls on the smaller north face are symmetrical, but on the south face they differ, as shown. A footpath is indicated on the OS 6 inch map as passing along the south foot of the railway embankment at this point—it runs between the Belling cottages and the Law—and this would seem to account for the much more pronounced parapet on the south side of the culvert.