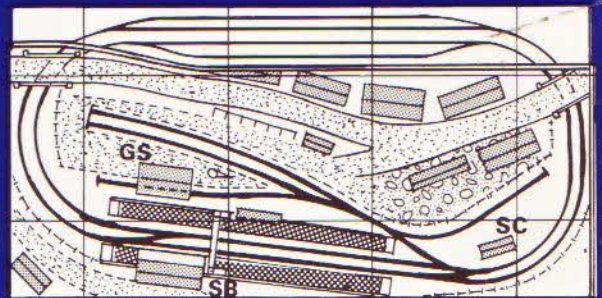
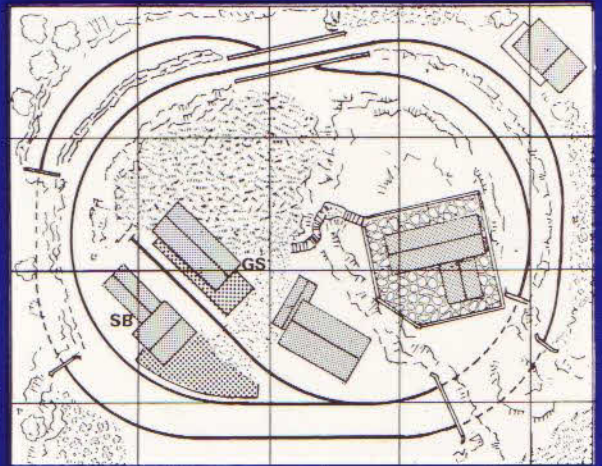
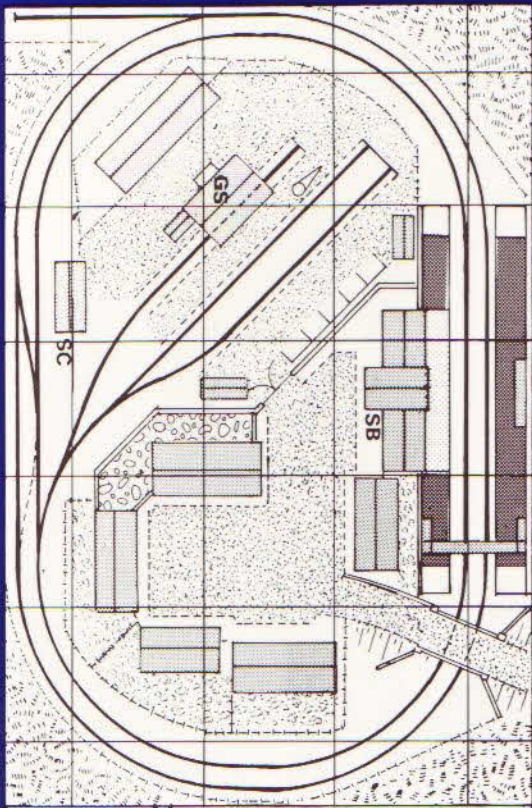
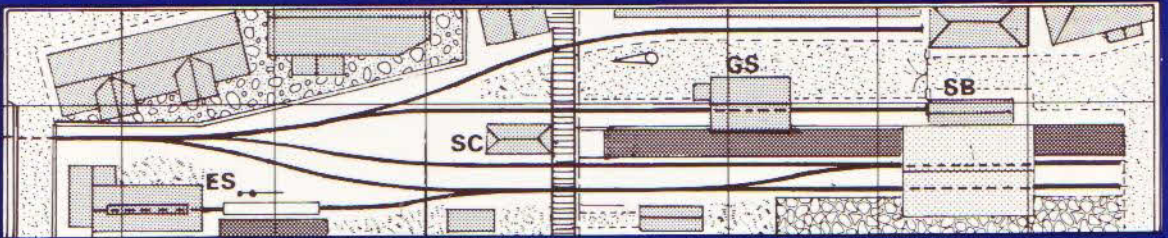


# PSL BOOK OF MODEL RAILWAY TRACK PLANS



**C.J. Freezer**

This book is dedicated to the surgeons and staff of Harefield Hospital, whose skill, dedication, care and concern during August 1986 made the production of this book a pleasure rather than a chore.

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First published in 1988  
Reprinted in February 1992  
Reprinted in July 1992  
Reprinted in July 1993  
Reprinted in June 1994  
Reprinted in June 1995

British Library Cataloguing in Publication Data

Freezer, C. J.

PSL book of model railway track plans.

1. Railroads — Models

1. Title

625.1'9            TF197

ISBN 0-85059-905-9

Patrick Stephens Limited is an imprint of Haynes Publishing, Sparkford, Nr. Yeovil, Somerset, BA22 7JJ.

Printed in Great Britain by Hillman Printers (Frome) Ltd.

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# Introduction

How wrong can one get? When it was suggested I should produce this book, my first thought was that it was going to be hard going thinking of 70 different layout designs inside a year, let alone drawing them. After all, in the past I'd never produced more than 16 plans in a year. As it turned out, once I got into the swing not only did the plans roll off as though on a production line, but fresh ideas also came flooding in. As the watchmaker's apprentice discovered, there were nearly enough left over for another!

At the outset it was agreed that all plans should be drawn and reproduced to the same scale, so that comparisons were easier. I also decided that they should all fit into a standard home, rather than one provided with a site large enough to accommodate an ideal scheme. With this in mind, most have been drawn to fit sites in houses in which I have lived. The various designs are grouped under specific headings and, with a few exceptions, are angled at the more serious worker who wishes to create a realistic picture of a full-sized railway.

All plans are for indoor layouts, and while they could be shifted out of doors, the whole business of garden layouts requires a special approach, based on the fact that although there is plenty of room, one simply does not fill up the entire area with tracks as one naturally does in the much smaller spaces inside the home.

Whilst you can flip through the book to find a plan that takes your fancy or fits your space, I do ask you to read through from start to finish since

not only may you find the treatment of one corner of another plan very much to your liking, but in various places the text also mentions the implicit limitations of a model railway.

It is very easy to draw up an ideal specification for a layout on paper. It is a lot harder putting it into practice. A practical design is always something of a compromise, even though advertising agencies often imply the exact opposite. There are limitations; space is one, but a less obvious one is the size of the human body — some layout designs I've seen seem to have been designed for individuals with a two-metre reach! Most of us realize that money, or to be more precise, the lack of it, also sets limits, but rarely is it added that individual ability and the amount of spare time the enthusiast has at his disposal also set limits to what can be done. In my opinion there is nothing quite as desolate as a layout that is too large, too elaborate or even too finely specified for its owner to finish. Indeed, some of the larger layouts in this book could be a handful for one individual, though as these also require a number of operators, they are ideally suited for a small syndicate of enthusiasts with differing skills and interests, coupled with mutual respect and companionship.

## Gauge

Quite apart from the fact that most beginners become confused when faced by our special brand of 'alphabet soup', the relationship of gauge to track design is very special. I can best il-

lustrate this through the common 16.5 mm gauge, OO or HO. Although there is a considerable difference between an OO and an HO layout, so far as the plan is concerned the two are identical. Indeed, in most cases they will be constructed with the same track components. Only the fact that I regard 'OO/HO' as an utterly abominable term has prevented me using it in the text.

I have concentrated on those gauges which are fairly easily obtained, O, OO (with the EM and P4 off-shoots), HO and N. I have also dealt with narrow gauge, again aligning the plans on the commercially-developed systems. What, you may ask, is the position of the more specialized sizes, 1, S, TT, 2 mm scale and Z? Gauge 1 is a specialists' size, and is largely applied to garden layouts. S has only a handful of devotees, all of whom seem perfectly capable of designing their own layouts, in addition to making practically everything else to go with it. TT is better supported, but here I would suggest following OO plans, merely adjusting track centres to suit. The additional space so gained will be invaluable. So far as track plans are concerned, 2 mm scale is as near to N as makes no odds to allow the plans to be easily translated, whilst the ultra-miniature Z gauge should copy N gauge schemes. I have more to say on conversion and adaptation in the final chapter.

## Data

Each description is preceded by data giving, in a standardized format, a number of vital statistics. There is, of course, the name, which often has some association with the design, frequently through an atrocious pun. Others have been selected on a very personal basis and I have little doubt that this will give those who know me a good deal of innocent amusement tying up the allusions.

Then I give the gauge for which the layout was designed, followed by the overall dimensions, in metric units. I have used a 300 mm module for the superimposed grid, so those who prefer imperial standards can take this as 12 in. For further details, see the final chapter. Next we have the minimum radius in millimetres. I've tried, for OO gauge, to maintain a minimum of 600 mm,

but occasionally I have gone to 750 mm, which, for the sort of spaces I have used, is about the largest one can use.

In my opinion, the most important thing to consider on any layout plan is the trains that are to run upon it. The motive power I suggest is that I think most suited for the theme I had in mind, but you are free to differ. The train length is expressed in modern bogie coaches, except where I have deliberately selected a period prototype where coaches would be shorter.

Next we have the area of origin, which in the case of Britain is often brought down to a county, particularly where a prototype station is concerned. These items give some indication of the type of model I had in mind when working out the layout, which is amplified by the brief notes at the end.

I have stated whether small, medium or large radius points are employed, which is of considerable importance on the OO, EM and HO layouts. Again this is something you can change if you like, and I also suggest the alternative gauges I consider suitable. Where the gauge is marked with an asterisk, it indicates that some modification is essential, particularly to the relative size of operating wells. Finally, as I mentioned before, there are some brief notes on the design which are intended as a quick guide. For full details, the text should be consulted.

## Prototypes

Several plans are based on actual prototypes. In all but one case I have seen the actual station, and I visited the site of the single exception as a boy. All plans are based on prototype practice, which does provide more flexibility than many writers seem to believe. A few plans deal with overseas railways, and whilst there are less than many would wish, I have to point out that this small offering represents a very great advance on the number of foreign prototypes given in plan-books from other countries — nil!

These plans emphasize features of Continental and USA practice which differ materially from British arrangements. However, there are great similarities since track layouts are determined by the mechanics of rail-borne transport, while the national characteristics are mainly provided by

the landscape, buildings and above all the locomotives and rolling stock. The only point to watch with double track layouts is that France and Switzerland join Britain in following left-hand running, but the rest run on the right. Plans for these countries should therefore be arranged as mirror images.

## Symbols

All plans use a common set of symbols, most of which have been used to represent railway features for over a century. However, there are some additional refinements, so to avoid confusion I have provided a full key. In addition, the main railway buildings are labelled according to a standard set of abbreviations. Other buildings are left unmarked for although I had a clear pic-







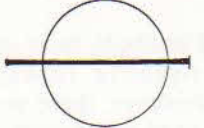














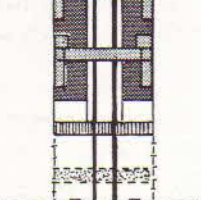





















ture of what they should be when I was drawing the plan, you are bound to have different ideas.

I have been anything but rigid in my use of screen textures. Here my object has been to differentiate between adjacent areas of landscape rather than to provide an accurate key to land utilization. Again, feel free to disagree. Indeed please do, but read the final chapter first!

## Key to abbreviations

C	Coaling stage	SB	Station building
ES	Engine shed	SC	Signal cabin
GF	Ground frame	WK	Railway workshop
GS	Goods shed	WT	Water tank

# The symbols

	Track		Point (turnout)
	Track (narrow gauge)		Crossing
	Loops, fiddle yard etc		Double slip
	Hidden track		Turntable
	Ash pit/ Inspection pit		Bridge or viaduct
	Coal drops		Tunnel
	Coal bins (coal staithes)		Overall roof
	Backscene		Yard crane
	Wall		Water crane
	Fence		Buildings
	Footbridge		Platlayer's hut
	Footbridge with goods lift		Platform
	Barrow crossing		Goods bank
	Accommodation crossing		Cattle dock
	Road overbridge		Baseboard joint
	Level crossing		Lift-out section
	Slope		Paved areas
	River		Garden, shrubs etc
	Canal with lock gate		Rough ground, fields, seashore etc
	Water and trees		Preferred operation point
	Hedgerow		Duck under
	Optional section		
	Filler section		

## CHAPTER 1

# A solid start

A model railway is rather a large item, which is hardly surprising when one remembers that the prototype is measured in kilometres. Obviously, a thoroughgoing model of a complete railway is out of the question, so we have to select a small portion on which to concentrate. Even so, a small model railway is larger than the majority of big models in other disciplines. Hence all model railways are a compromise between what is realistically feasible and what we would really like to do. Even the model that faithfully reproduces one single station to exact scale is still a compromise, for the rest of the system has had to be omitted and with it, in many cases, the more fascinating trains that just don't reach the station that has been modelled. Is all the might and majesty of the GWR really represented by a scale model of Ashburton? I think not!

Clearly, even in the smallest practical scales, one would prefer to have a permanent railway room for the layout, but at the outset what one has is usually quite different. A railway room, whilst desirable and, with some forethought and determination, attainable, is mostly a pleasant fantasy. We start on less ambitious lines, and are much the better for the experience, since the man who tries to make the definitive layout at his first attempt rarely, if ever, succeeds.

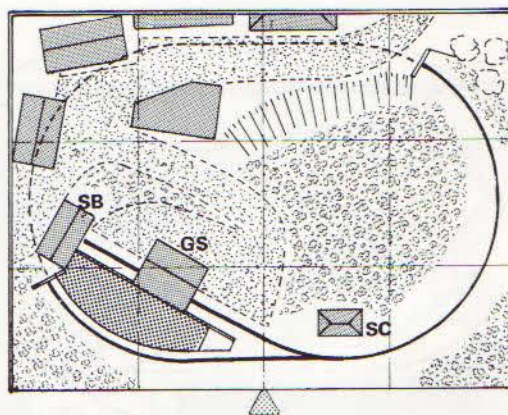
With the distinction between toy and model blurred beyond easy distinction, the best dividing line is that a model railway is built on a baseboard, is framed by scenery of one sort or

another and, most important of all, an attempt is made to simulate reality.

Initial thoughts usually turn to a single solid baseboard. In N gauge this does make good sense, as I shall show later, but for the time being I am only considering OO and HO gauges.

### Plan No. 1 Lochaber

OO gauge 1.20 m × 0.90 m; Steam motive power; Country of origin Britain; Other recommended gauges HO, N; Minimum radius 375 mm; Train length 2 coaches; Small points; Basic train set oval with one siding and scenic development.



Plan 1 Lochaber

Lochaber is included for sentimental reasons, for I drew it in 1939, my first serious essay into layout design. The idea was to hide the back of the conventional oval of sectional track under a small town, and add a low backscene. I fear that the scenic design owed more to the Home Counties than the Highlands, but I just felt at the time that a line north of the border was more romantic.

It never got built. When Hitler's troops invaded Poland I was evacuated to Weston-super-Mare, where pondering over the plan of the layout during the phoney war, I realized its snags. The siding was so short it could only hold a couple of wagons and operation was clearly limited. Ah well, back to the drawing board! I was wrong. Although limited in operation, Lochaber is a useful 'quickie' on which to learn the basics of the hobby. It also has its value as an exhibition filler.

### Plan No. 2 Binns Road

OO gauge 1.50 m × 1.35 m; Open motive power; Country of origin Britain; Other recommended gauges HO, N; Minimum radius 375 mm; Train length 3 coaches; Small points; Developed train set concept, suitable for sectional track.

Plan No.2 offers more operational promise and by having a lay-by loop behind the backscene it is a little more practical. It is also slightly larger

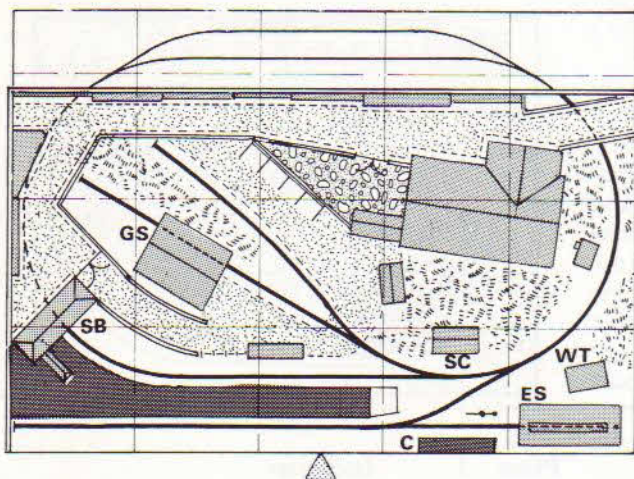
and is essentially unidirectional, with the trains rotating 'widdershins', that is anti-clockwise. Somehow most of my plans have this bias, probably because I am left-handed.

The scheme was first drawn out for the old Hornby Dublo track system, hence the name, **Binns Road** from their Liverpool address. I have not shown track joints, largely because different sectional track systems have different geometries and, of course, flexible track is a viable alternative if you are not using what you already have to hand. You must use small radius points and it is a lot easier to use sectional curved track than to lay flexible track to such tight curves.

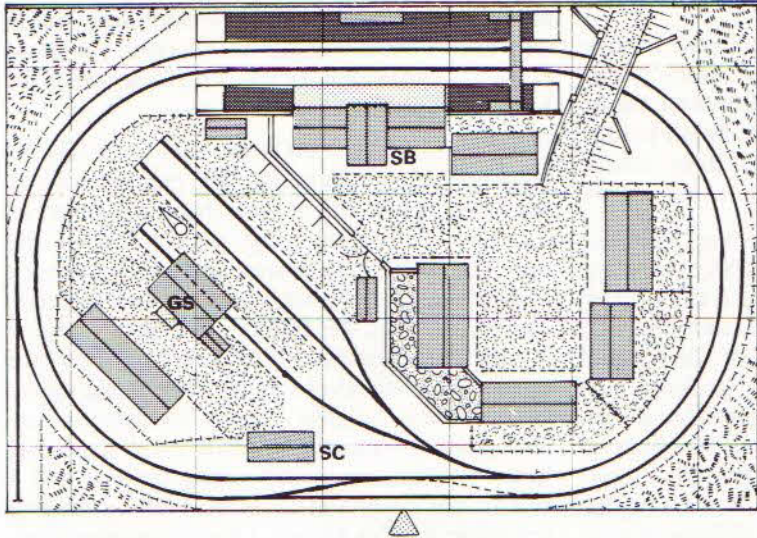
### Plan No. 3 Camberwick Green

OO gauge 1.80 m × 1.60 m; Open motive power; Country of origin Britain; Other recommended gauges HO, N; Minimum radius 450 mm; Train length 3 coaches; Small points; Double-track oval on 6 ft × 4 ft baseboard, suitable for sectional track.

Following on from this Plan No. 3, **Camberwick Green**, is nothing more or less than a developed train set oval, and is included to ram home a vital point. A baseboard this large, 1.80 × 1.20 m, has to be pushed into a corner in most homes, which means that the back is, to all intents and purposes, inaccessible since the board is as large as a double bed. It could stand free in a medium-



**Plan 2** Binns Road



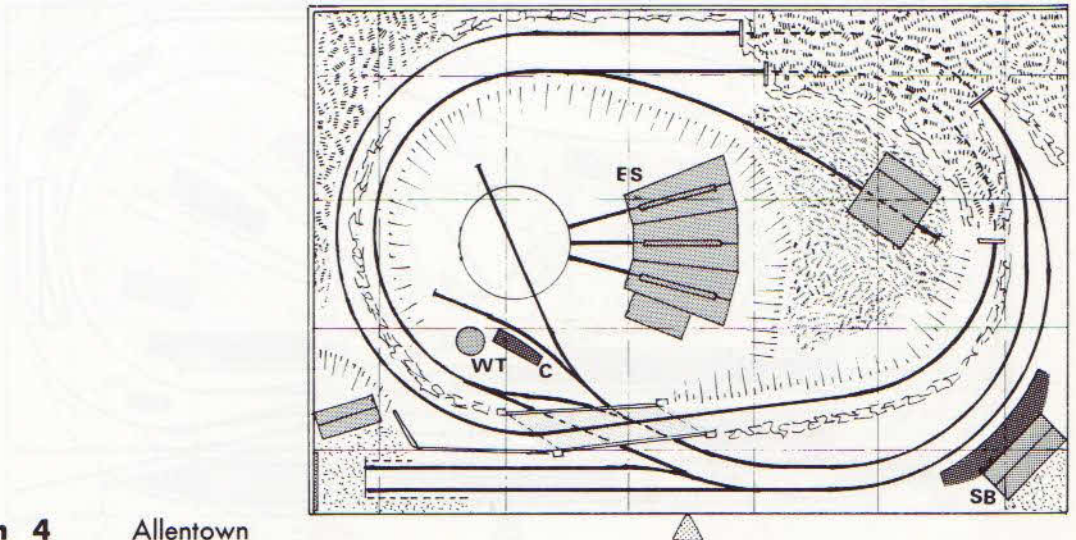
**Plan 3** Camberwick Green

sized bedroom, but there would be space for little else in the room.

In Camberwick Green we have a large town square which is roughly the size of a hand and is there to take your weight whilst you scrabble for those back tracks. Even so, it is not going to be easy, so I have not set any points on the far side. Throughout this book, you will find that wherever the tracks are at extreme reach I have avoided pointwork to minimize the risk of

derailments. The little spur on the outer circuit is there to hold a spare locomotive.

This plan is designed to allow you to run two trains simultaneously, one on each track. However, the dotted crossover is going to make this more difficult, since you cannot swap a train on to a track that is already occupied. It is not prototypical, so if you want to get away from merely playing trains, omit it, and save the cost of a pair of points!



**Plan 4** Allentown

**Plan No. 4 Allentown**

HO gauge 1.80 m × 1.20 m; Steam motive power; Country of origin USA c. 1885; Other recommended gauges OO, N; Minimum radius 375 mm; Train length 3 coaches; Small points; 'Looped eight' plan inspired by John Allen's *Gorre & Daphetid*.

We now look at two overseas schemes. Plan No. 4 is set in the State of Chaos, USA, the place where westerns are set. The design is inspired by John Allen's original *Gorre and Daphetid*, hence *Allentown*, and is an example of the looped eight design which doubles the trackage in a given area and, by introducing gradients, increases the scenic effect. The two buildings in the corner are the sheriff's office (the *Allentown Jail?*) and the saloon, which as followers of this genre will know, are the only buildings of note in a western town. It is limited to short trains and in my opinion best set in the nineteenth century, with wood-burning 4-4-0s and short, clerestory-roofed coaches.

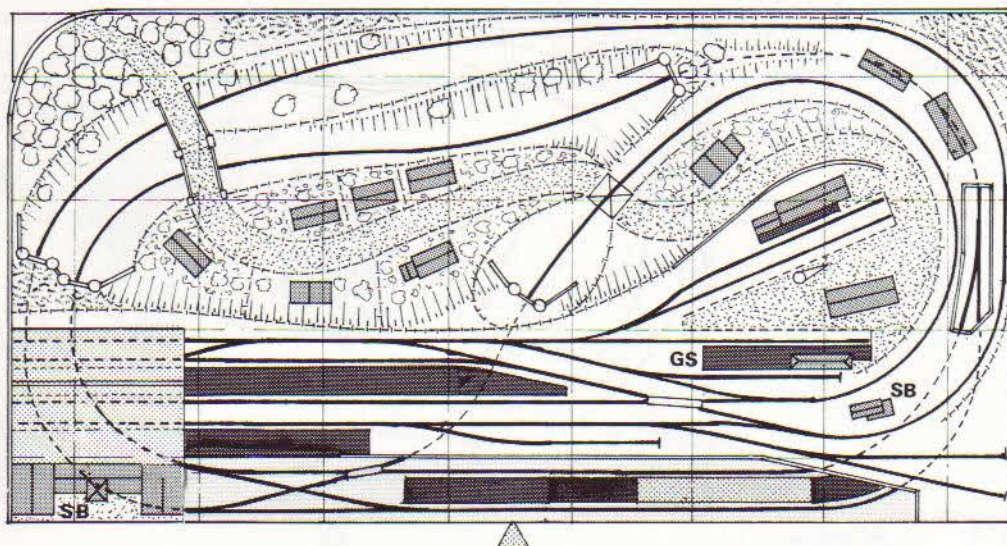
**Plan No. 5 Fleischmark**

HO gauge 2.40 m × 1.20 m; Electric motive power; Country of origin Germany; Other

recommended gauges OO, N; Minimum radius 375 mm; Train length 5 coaches; Medium points; Continental out-and-back scheme for solid baseboard.

*Fleischmark* is strictly Continental for it has the ladder tracks and double slips so characteristic of the prototype. It will be seen that the majority of turnouts are within very easy reach of the operating side of the board, and all are open for inspection. With the high and low level stations cheek by jowl in this fashion, one can treat them as one unit scenically whilst enjoying the visual effect of a multi-level scheme. The design gives out-and-back running with a continuous run. The passing loop on the low level main line helps to improve the operating pattern and it would not be too difficult to devise a realistic timetable for this layout. I have suggested electric traction, though the upper yard would probably be best worked by a diesel shunter.

Although slightly larger than the other plans, paradoxically *Fleischmark* is the easiest of all the solid layouts in this chapter to house, since it will fit comfortably across the far end of a garage. All you need to do is to raise it high enough to allow the car bonnet to go underneath and you are

**Plan 5 Fleischmark**

home and dry. However, I would place it some 400 mm away from the rear wall to give access to the far tracks.

### Plan No. 6 Zeals

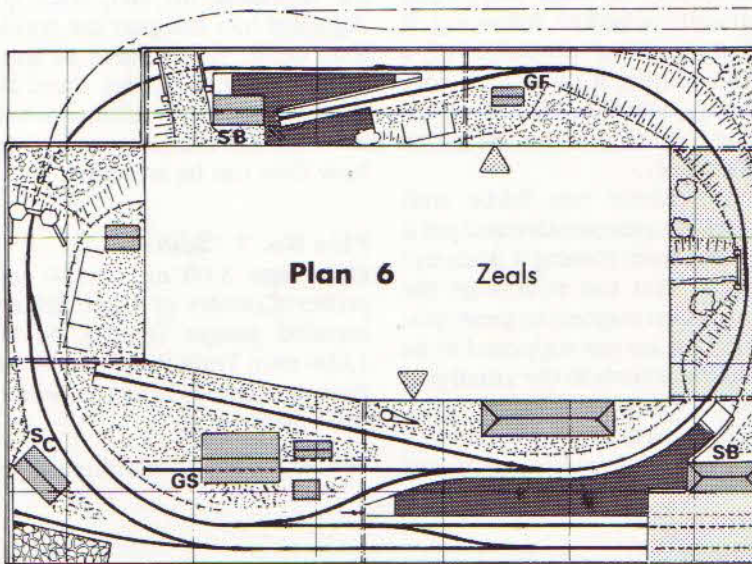
OO gauge 1.80 m × 1.60 m; Steam motive power; Country of origin Britain; Other recommended gauges HO; Minimum radius 450 mm; Train length 3 coaches; Medium points; Compact branch layout with central operating well on six baseboards.

The easiest solution to access on this size of layout is shown in Plan No.6, which has a hole in the middle for the operator. Moreover, instead of being built on a single unwieldy board it is carried on six smaller, easily-handled baseboards and so can be dismantled and stored, or taken to an exhibition. I would advise the use of curved points on the main oval, and with about 10 per cent more space, you could use a 600 mm radius

and large radius points throughout, with enormous improvement to both appearance and running.

Zeals introduces the popular branch line theme and so would normally be worked by tank locomotives with, perhaps, an occasional visit from a diesel railcar. The use of an 0-6-0 tender loco for goods would be prototypical, but, with a limited train length, a trifle counter-productive. A small overall roof is shown, and in GW territory one of the Brunel structures is indicated.

The provision of the run-round loop clear of the platform roads allows one to terminate a train in the through platform as well as in the terminal roads proper. However, the optional chain-dotted tracks outside the baseboard proper are a simple fiddle yard which, as I shall explain in the next chapter, is the key to realistic operation in confined spaces.



## CHAPTER 2

# A complete fiddle

The development of the fiddle yard has reached the point where few advanced British layouts are without one. The basic concept, a convenient means of reversing trains in a limited area, has been augmented by the realization that a magazine of trains, located off-stage, allows one to operate an authentic schedule following, if desired, the actual working timetable of a selected station. In addition, it provides a very large storage capacity, which in itself is of immense value as your collection of models grows — and grows and grows!

The fiddle yard is where you fiddle with trains, so you can pick up a locomotive and put it on the other end of the train, turning it from end to end if so desired. You can re-arrange the stock, load or unload open wagons; in short, you can do all the things that are not supposed to be done, thus allowing the actions in the visual part of the model to be correct to prototype.

Equally, the whole thing is, in slang parlance, a fiddle. The trains don't go anywhere, they just

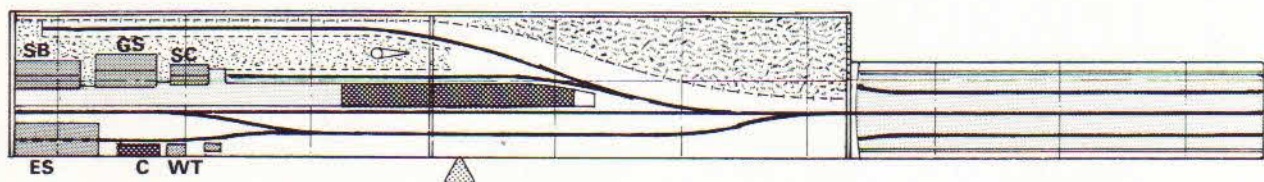
disappear through a hole in the backscene into an area that, unlike the layout proper, is deemed not to have any 'real' existence. In imagination, that all-important part of our hobby, the trains head off to London or wherever, according to the timetable. In fact, they come to an undignified halt just past the scenic break. Rather than depict fiddle yards in an abstract form, I have chosen to display them as part of simple layouts, not only killing two birds with one stone, but at the same time giving some idea of how they can be arranged.

### Plan No. 7 Seaton

OO gauge 3.00 m × 0.30 m; Steam motive power; Country of origin Britain; Other recommended gauges O, HO, N; Minimum radius 1,000 mm; Train length 3 coaches; Large points; Branch terminus based on prototype with sector plate fiddle yard.

Plan No. 7 shows the simplest possible system, a

Plan 7 Seaton



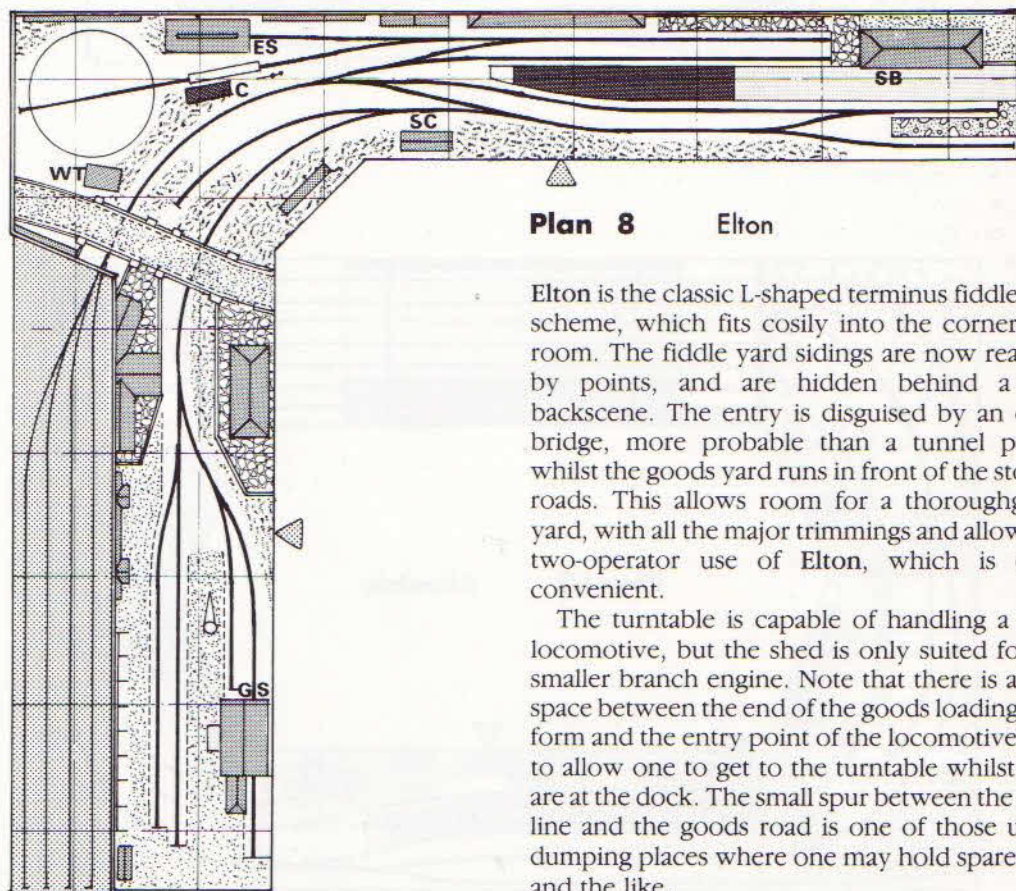
sector plate fiddle yard abutting directly on to the terminus which is a shortened version of the former SR station at **Seaton** in Devon, modelled as one would see it standing on the mud-banks of the River Axe. It has the classic, small, single-track terminus plan, a run-round loop against the main platform and two sidings, one of which doubled as a bay road on summer Saturdays. The design dated from the 'thirties, and when the adjacent holiday camp brought a lot of traffic to the branch the platforms could easily accommodate a ten-coach train.

The fiddle yard consists of three long roads on a swivelling base, which are manually aligned with the exit road. A simple locking device is often employed but this is not absolutely essen-

tial as friction holds the table in place well enough. It is necessary to lift locomotives and place them manually on the other end of the train. In this particular setting the trains go straight on to the sector plate without any form of disguise, for the next mile or so of the branch ran on an embankment alongside the Axe, the route taken by the present Seaton Tramway.

#### Plan No. 8 Elton

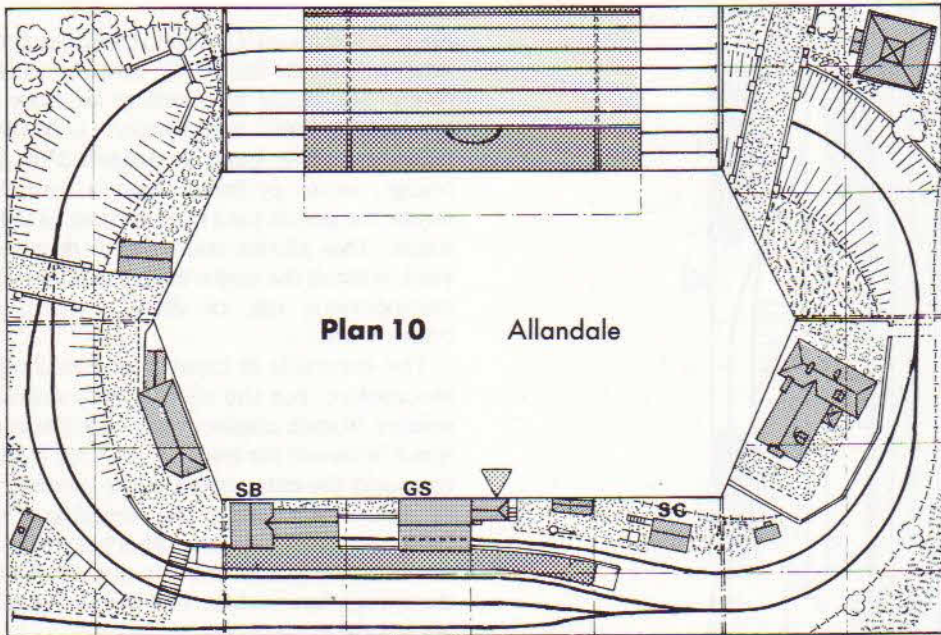
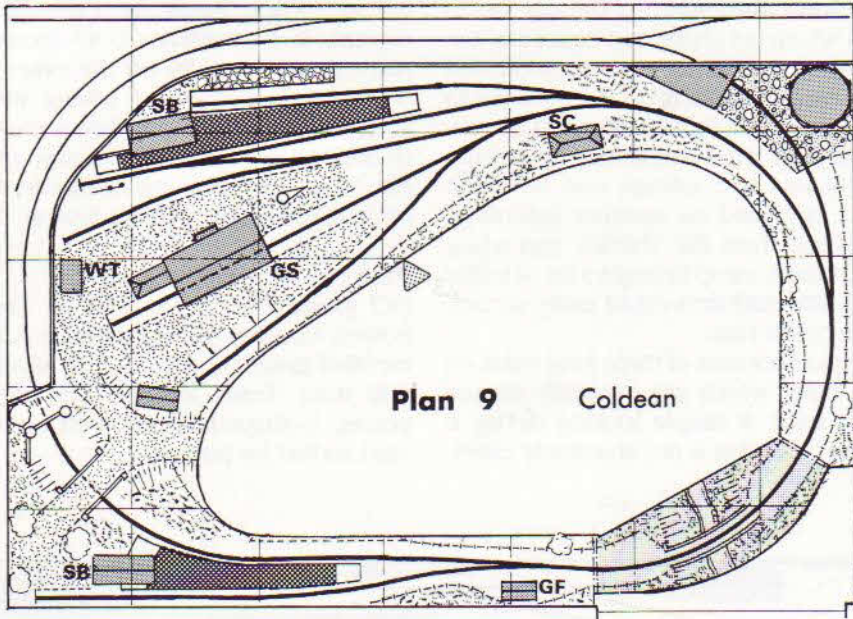
OO gauge 2.40 m × 2.10 m; Steam motive power; Country of origin Britain; Other recommended gauges O, EM, HO, N; Minimum radius 600 mm; Train length 4 coaches; Medium points; L-shaped layout with screened fiddle yard served by points.



**Plan 8 Elton**

Elton is the classic L-shaped terminus fiddle yard scheme, which fits cosily into the corner of a room. The fiddle yard sidings are now reached by points, and are hidden behind a low backscene. The entry is disguised by an over-bridge, more probable than a tunnel portal, whilst the goods yard runs in front of the storage roads. This allows room for a thoroughgoing yard, with all the major trimmings and allows for two-operator use of Elton, which is often convenient.

The turntable is capable of handling a large locomotive, but the shed is only suited for the smaller branch engine. Note that there is ample space between the end of the goods loading platform and the entry point of the locomotive yard to allow one to get to the turntable whilst vans are at the dock. The small spur between the main line and the goods road is one of those useful dumping places where one may hold spare vans and the like.



**Plan No. 9 Coldean**

OO gauge 2.05 m × 1.45 m; Steam motive power; Country of origin Britain; Other recommended gauges O, HO, N\*; Minimum radius 600 mm; Train length 3 coaches; Medium points; Branch terminus featuring Maurice Dean pattern fiddle yard.

This shows the style of fiddle yard devised by my old friend Maurice Dean. Here, the sidings are located behind Coldean in a spot convenient to the operator, whilst a spur links them to the main line to give a continuous run. I have shown this as a siding to the gasworks, the track running into one of the buildings and then through the backscene.

The terminus is fairly conventional but cramped, since the layout is designed to fit into a small garden shed. A lift-out section goes across the doorway, and a small halt, with a siding long enough to hold the short trains used on this line, is provided here.

**Plan No. 10 Allandale**

OO gauge 2.25 m × 1.80 m; Steam motive power; Country of origin Britain; Other recommended gauges O, HO; Minimum radius 450 mm; Train length 2 coaches; Medium points; Small through branch station, based on Allan Wright's *Cheviotdale*.

On a continuous run, you can have storage loops to simulate the rest of the railway system, and examples of this arrangement will be shown later in this book. As a fan of points takes up a good deal of space, the sliding magazine is occasionally used instead to save valuable space. This is not too difficult to arrange, as one can mount the sub-base on two lengths of plastic draw slides.

Allandale is a small layout using this type of yard. It will be seen that not only are there a number of locomotive and van spurs at each end of the traverser, but also that the two entry roads do not line up. This arrangement produces a point-to-point scheme at the loss of test run facilities.

I am assuming that, like Alan Wright's *Cheviotdale* on which it is patterned, Allandale would normally be housed entirely within a small room, and so the traverser could not be

pushed back beyond the extent of the baseboard. This restriction would not, of course, apply at exhibitions; the baseboard has been shown sectioned to permit removal for this purpose.

**Plan No. 11 St Newlyn East**

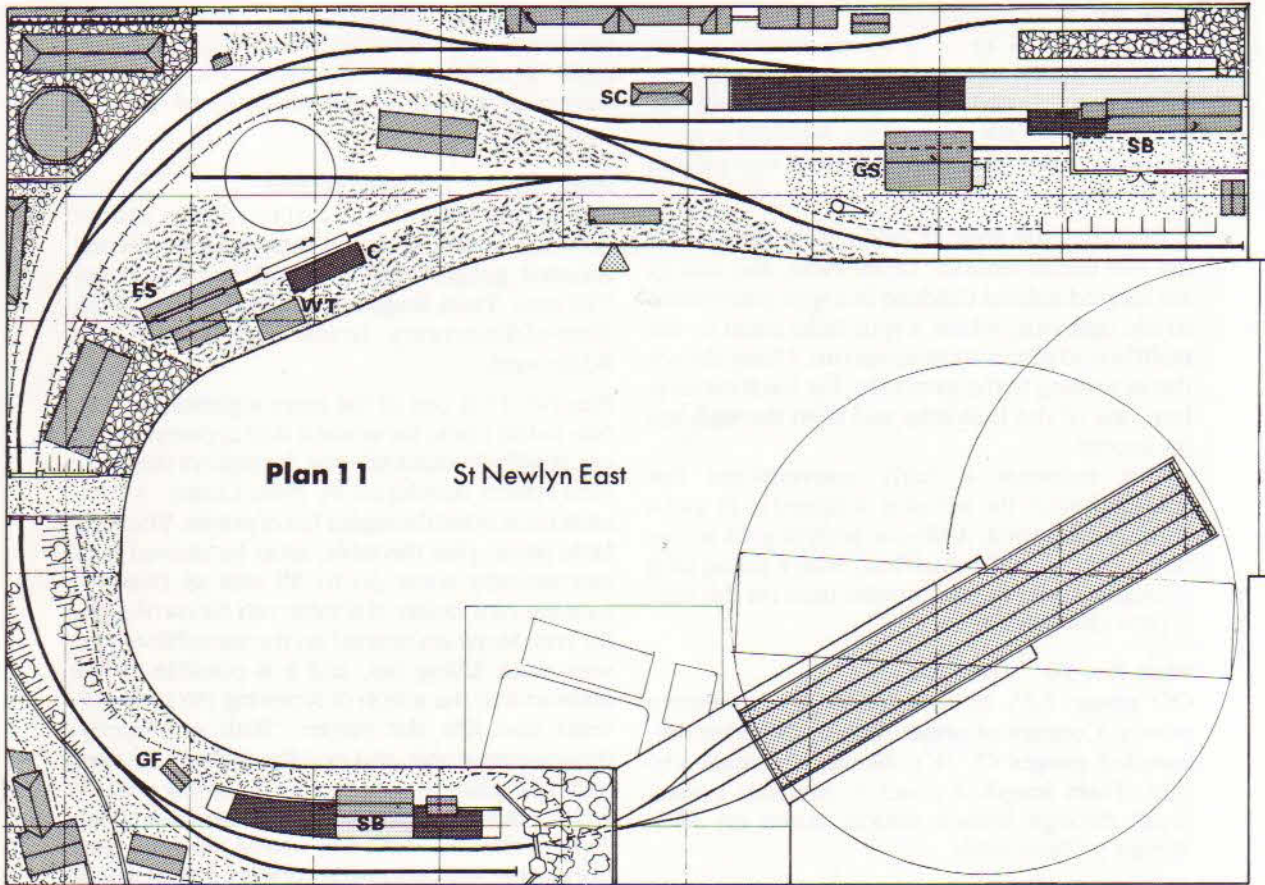
OO gauge 3.00 m × 2.10m; Steam motive power; Country of origin Britain; Other recommended gauges EM/P4, HO; Minimum radius 750 mm; Train length 4 coaches; Large points; Turn-of-the-century layout with Denny-style fiddle yard.

Plan No. 11 is one of the more sophisticated layouts in this book, for whilst it is an apparently simple, straightforward scheme, it employs the fiddle yard system developed by Peter Denny. A turntable track is fed through a fan of points. The turntable pivot, plus the table, must be moved back mechanically some 30 to 50 mm to clear the locating pins before the table can be turned end for end. Stops are needed on the turntable to prevent stock falling out, and it is possible to link these so that the action of screwing the pivot forward also lifts the barrier. With a properly-designed timetable, this end-for-end turning need only take place at roughly one hour intervals.

The station, which started out to be a rough copy of the first station at Seaton, acquired lots of extras in the process. *St Newlyn East* is a conventional branch terminus, with a locomotive shed capable of handling a 4-4-0 or 2-6-0, but nothing larger. Once again, there is a gasworks siding, a reminder of the fact that in the great days of steam any medium-sized town had one and the local railway did a good traffic with coal inward and coke and coal tar outward.

A small halt is provided, partly for scenic effect but mainly to allow an operating distinction between local and express trains; the former stop here, the latter do not. The main line radii, whilst still well under-scale, are sufficient to permit the use of EM if desired.

In light outline close to the halt I have sketched a micro-computer. It could merely hold the timetable in data statements, ready to be displayed on the screen. It could control the fiddle yard, just as the fiddle yard on Peter Denny's Buckingham is computer-controlled. As his



computer is a very elementary electro-mechanical device with a punched tape memory, I imagine that a very basic home micro would do the job admirably, providing it is practicable to interface it with the fiddle yard turnouts. As suitable micros are now coming on to the second-hand market this is a wholly practical arrangement – providing you know a good deal about computing, or have an associate who does.

These are just five ways of arranging a fiddle yard. There are other approaches, most of which will turn up throughout this book, but I have said enough to show how the arrangement is employed and basically how it works. It allows a relatively simple layout to be intensively operated with a wide variety of trains, and in the next chapter we will apply this to some compact OO gauge layouts.

## CHAPTER 3

# How small is too small?

In the first chapter I briefly touched on small sized OO or HO layouts, but with the aid of fiddle yards, there is opportunity for further compression — or is there? In this section I will look at some seemingly plausible schemes for space-saving which don't quite work out, if one is aiming for a layout that will sustain interest after construction. A model railway does, I think, need to have a reasonable operating potential if it is to be worthwhile.

### Plan No. 12 Little Appenin

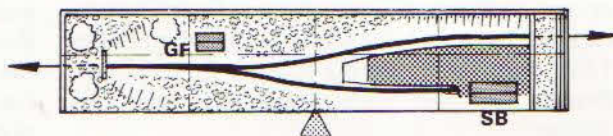
OO gauge 1.20 m × 0.25 m; Steam motive power; Country of origin Britain; Other recommended gauges O, EM/P4, HO; Minimum radius 1,000 mm; Train length 2 coaches; Large points; Minimum sized branchline halt, limited operation.

It is as well to be sure that the layout really is small. Plan No. 12 only appears to be compact, for by the time that the two fiddle yards needed to complete Little Appenin have been added, it will at the very least be double its length. It is very similar to Lochaber, but thanks to the

greater storage capacity of the fiddle yards, it allows one to accommodate more trains.

Little Appenin still has limited operational characteristics, and shows clearly that if you make a model of a station where very little happens on the prototype, very little can happen on the model! If you disagree, build it and see for yourself, as it is a worthwhile exercise. As a first trial of, say, O gauge, Little Appenin would be perfect, but it is also equally suited as a way of discovering if you can build really effective scenery. Although this is a very popular theme, one can see at many smaller exhibitions, layouts where the builder has gone to enormous pains to show that he can't model grass and finds it completely impossible to build a tree!

A layout ought to have some operational potential, and reproduce the workings of the prototype, which in the steam age could be quite considerable. Otherwise, it is still only a train set, no matter what scale/gauge combination one employs, or how high the level of craftsmanship involved. After all, you can see train sets in the larger stores with models that would, a few years



Plan 12 Little Appenin

ago, have been hailed as superb examples of true scale modelling, were they built by amateurs!

It is very easy to overlook the fact that, in the golden days of railways, virtually everything needed by the community was delivered in a four-wheeled wagon of one sort or another, and even a branch line freight train would be twenty wagons or more in length, a contrast with the very short passenger trains. If the fiddle yards were made long enough it would certainly be possible to run ten-wagon trains, but at Little Appenin, you cannot do a lot with them. You can only drop off goods wagons from a left-to-right running freight train, the locomotive is in the wrong place in the reverse direction.

#### **Plan No. 13a Doxbury**

OO gauge 1.80 m × 0.30 m; Steam motive power; Country of origin Britain; Other recommended gauges O, EM/P4; Minimum radius 1,000 mm; Train length 2 coaches; Large points; Branch line halt with goods loop.

The next two layouts, Plan No. 13a and Plan No. 13b, are provided with goods loops. These are not, as they might appear, passing loops, but are there to allow freight and mixed trains to drop wagons regardless of the direction of travel. In practice, the wagons would be left on the loop and moved into the end sidings, either by a horse or by two or three strong men.

At Doxbury this is fairly obvious, since the goods shed is on the loop, with a short spur feeding the coal yard, which is provided with a small array of coal bins (often referred to as coal staites). This tiny layout shows the basic elements of a steam-age station, but in place of a full signal cabin we have a ground frame. The distinction is simple enough: Doxbury is not a block post, and even though I have shown the frame in a tiny cabin, there would be no block instruments.

#### **Plan No. 13b Cullitun**

OO gauge 1.80 m × 0.30 m; Steam motive power; Country of origin Britain; Other recommended gauges O, EM/P4, HO; Minimum radius 1,000 mm; Train length 2 coaches; Large points; Branch line halt with goods loop and two sidings.

Cullitun has the goods shed clear of the loop and the platform to one end. As a result, it could be used as a terminus, but if this were the case, it would help if it were to be extended at least another 300 mm to give a longer platform and a bigger bay road.

This type of station was found on branch lines, and in model form is best employed as a subsidiary feature to larger layouts. Whilst mainly steam age prototypes, some remained to see diesels, when freight trains would be much shorter. Indeed, it is possible to assemble sets of trains for different periods and run them on separate occasions to provide variety, as these stations hardly altered from the 1890s to their demise in the '50s and '60s.

#### **Plan No. 14 Walkley Sidings**

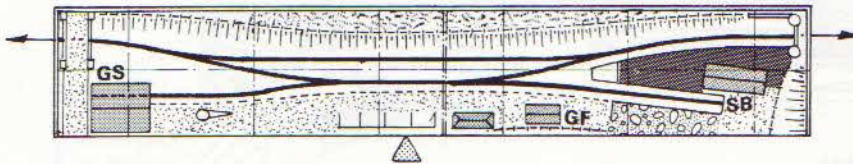
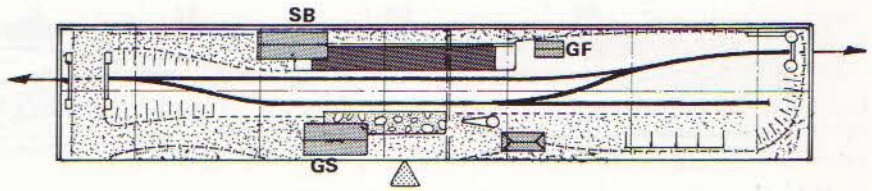
OO/HO gauge 1.80 m × 2.80 m; Open motive power; Country of origin Britain (Cornwall); Other recommended gauges O, EM/P4, HO; Minimum radius 1,000 mm; Train length 4 wagons; Medium points; Copy of A.R. Walkley's original HO shunting yard.

Shunting can be great fun on these simple layouts, but it is better on a design such as Walkley Sidings, a close copy of an HO layout first built over 60 years ago by A.R. Walkley. It is designed to fold in the centre, the hinges being disguised by the lift-off overbridge, producing a compact box which protects the layout whilst stored or in transit. All shunting movements can be carried out within the confines of the baseboard and, although I show a lead-off track which will allow the layout to be incorporated into a larger scheme at some future date, there is no need for a fiddle yard at all. This is the smallest complete OO layout in this book.

This layout, as with all others in this chapter, is an excellent test bed for auto-couplers. Indeed, the original layout demonstrated A.R. Walkley's excellent coupling which, after commercial development, we now know as the 'tension lock' coupling and is the *de facto* standard for British OO gauge ready-to-run stock. Needless to say, you could use any other design of auto-coupling, or even one of your own construction.

**Plan 13a**

Doxbury

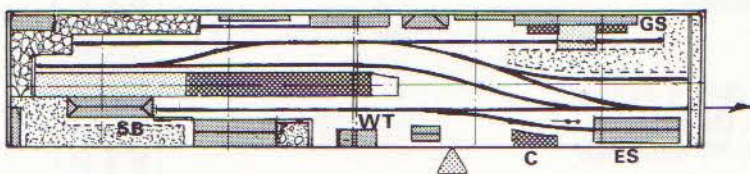
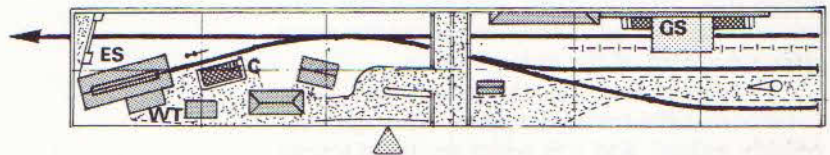


**Plan 13b**

Cullitun

**Plan 14**

Walkley Sidings



**Plan 15**

Brill

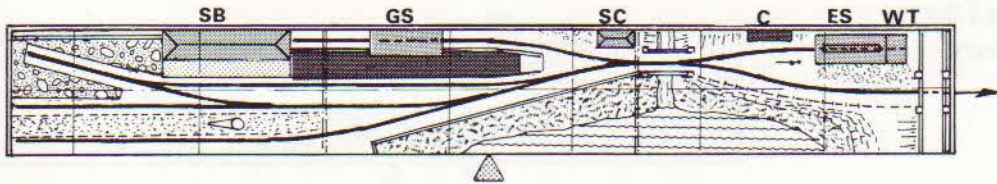
**Plan No. 15 Brill**

OO gauge 1.65 m × 0.325 m; Steam motive power; Country of origin Britain; Other recommended gauges O, EM/P4; Minimum radius 750 mm; Train length 2 coaches; Medium points; Branch terminus on folding baseboards, all shunting within station.

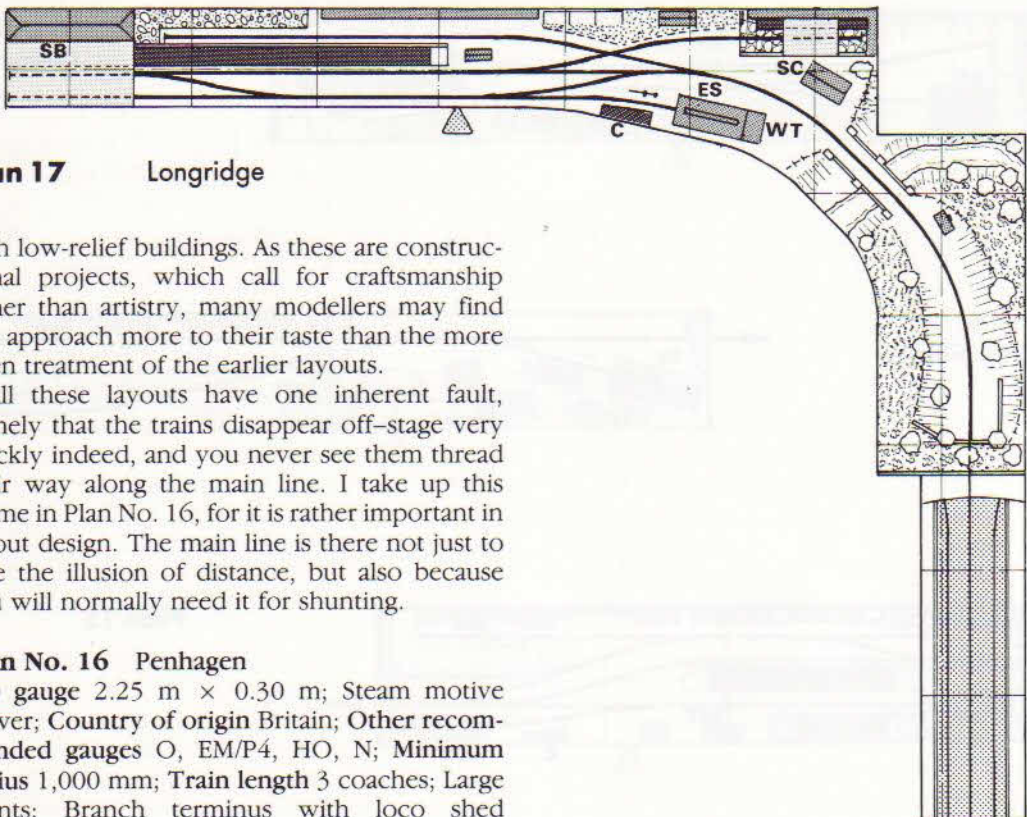
This plan, whilst even shorter, does need a fiddle yard, but as with Walkley Sidings, all shunting

movements on Brill can be confined to the main baseboards. Again they can fold, but here the hinges are disguised with removable buildings. It is just possible to accommodate a small 4-6-0 and two bogie coaches in the platform which, whilst stretching probability beyond all reasonable bounds, is nevertheless great fun.

Both Brill and Walkley Sidings depict a landscape-free scenic approach, being framed



**Plan 16** Penhagen



**Plan 17** Longridge

with low-relief buildings. As these are constructional projects, which call for craftsmanship rather than artistry, many modellers may find this approach more to their taste than the more open treatment of the earlier layouts.

All these layouts have one inherent fault, namely that the trains disappear off-stage very quickly indeed, and you never see them tread their way along the main line. I take up this theme in Plan No. 16, for it is rather important in layout design. The main line is there not just to give the illusion of distance, but also because you will normally need it for shunting.

#### **Plan No. 16** Penhagen

OO gauge 2.25 m × 0.30 m; Steam motive power; Country of origin Britain; Other recommended gauges O, EM/P4, HO, N; Minimum radius 1,000 mm; Train length 3 coaches; Large points; Branch terminus with loco shed extension.

Consider **Penhagen**, a small branch line terminus of the steam age which is accommodated on two relatively short, narrow baseboards. A third baseboard provides a short length of main line and a locomotive depot, which gives some room for shunting in the open. It can be awkward to shunt in the fiddle yard, so it is worth contriving the extra length to accommodate a short section of main line. Indeed, one can have the best of

both worlds: a compact station, omitting the main line and engine shed with a shortish fiddle yard for home use, with the option of the extra unit for exhibition use where more room is available. This might require the construction of two fiddle yards, but as sector plates are easy and cheap to make, this is not really a problem. Omitting a section is useful, and, in later plans, a shaded arrow will indicate the optional board.

**Plan No. 17 Longridge**

OO gauge 2.50 m × 2.00 m; Steam motive power; Country of origin Britain; Other recommended gauges O, EM/P4, HO, N; Minimum radius 600 mm; Train length 2 coaches; Medium points; L-pattern branch terminus and fiddle yard.

The trouble with a completely straight arrangement is that it needs a very long wall to accommodate it, so in Plan No. 17 we have a very popular way round this difficulty, the L formation. Longridge will fit into a small bedroom, and would be a very handy scheme for a teenage enthusiast since it will not seriously interfere with the room's use as a bedroom-cum-study.

The track plan is fairly conventional, apart from the entry into the factory siding. To avoid a kickback off the single siding, it comes direct from the main platform road and crosses over

the siding. This use of a crossing is by no means unusual on the prototype, but it is rare in model form, yet it adds to the visual complexity of the station throat and so makes for a more attractive layout.

The intrusive chimney-breast, often found in small bedrooms, is shown just to prove that it is not necessarily an awkward obstruction. I have introduced some scenery along the short leg of the L, whilst as the entry to the sector plate fiddle yard is by way of a tunnel, I have suggested a fairly elaborate portal. One of the superb Faller 'Loreli' structures would be a lovely finish to the run.

Whilst I have implied this is a permanent structure, it would be useful to break it down into sections. Certainly, the fiddle yard could well be removable, and if the curve were brought a little further round, then there could well be room for a complete train turntable.

## CHAPTER 4

# Prototype pros and cons

If you have not noticed my references to the importance of following the prototype, do not worry as I shall return to the subject time and time again. If you want a model railway to look and operate as if it were the full-sized original, then you must go back to the real thing and not simply copy someone else's model. Remember, almost every model railway has some element of compromise; the edges are blurred and the more it is copied, the greater the blurring.

There is a danger here, too. Many people are over-emphasizing 'research' to the point where the best excuse for inaction is, 'My research is not yet complete'. For most people research is quite unnecessary, as there are now plenty of books which have exhaustive detail on British prototype practice. I don't say you can find out everything, but you can only run into trouble if you begin by insisting that you are going to model a particularly obscure prototype station.

In the 1950s, research was simple. You simply took the train to your chosen prototype armed with camera, notebook and steel tape, plus plenty of sandwiches and a thermos flask. There you made an on-the-spot survey, went home — and as often as not discovered that you had failed to cover some vital part of the station.

Today, you can buy a book of station layout plans covering 40 or 50 stations for less than it would have cost you to visit one station in the 1950s. So if you want to model an actual prototype these books, supplemented by the ex-

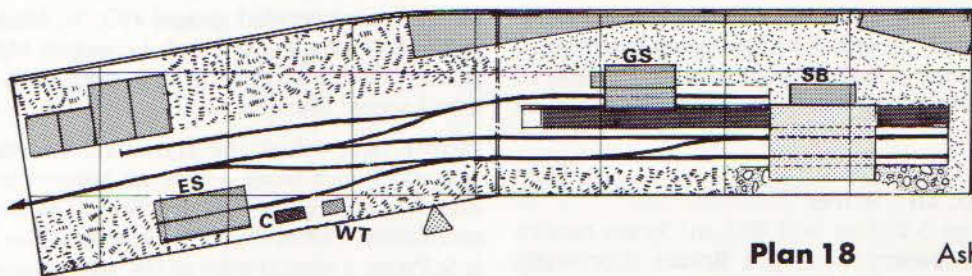
cellent historical monographs on railway byways now so plentiful in specialist bookshops, provide enough information to enable you to make a reasonable model of any suitable station. By this I mean one which has been reasonably well-recorded and which can be fitted into the space you have available. If you select an obscure station, you will probably get nowhere, since even if photographs were taken it is unlikely they are actually available and may even have been lost.

However, it is not necessarily a good idea slavishly to model an actual station, so in this chapter I shall look at the advantages and disadvantages, selecting two prototypes I know well.

### **Plan No. 18 Ashburton**

**OO gauge** 2.30 m × 0.46 m; **Steam motive power**; **Country of origin** Britain (Devon); **Other recommended gauges** O, EM/P4, HO, N; **Minimum radius** 1,000 mm; **Train length** 4 coaches; **Medium points**; **Branch terminus** based on GWR prototype.

Plan No. 18, my first example, is the ever-popular **Ashburton**, which is featured in Paul Karau's *Great Western Termini* (published by Oxford Publishing Company), and drawings and ample photographs are available. It is fairly small and very simple. It seems obvious that **Ashburton** would be a very straightforward modelling project, particularly as the locomotives and roll-



**Plan 18** Ashburton

ing stock are available ready-to-run in 4 mm scale and as kits in other sizes.

Unfortunately, Ashburton has some severe limitations. For a start, the variety of trains on offer is small, mainly push-pull locals from Totnes, freight, including cattle trains from the town's market, and the occasional through special. Worse is to come. Operationally it's a pig. Whenever, on Ashburton Fair days, cattle traffic became heavy, they not only stopped the passenger trains at Buckfastleigh, but on at least one occasion managed to get two locomotives jammed immovably behind the wagons, a situation which was only got over by bending both the rules and part of the point rodding.

One snag was the kickback siding to the mill. On the prototype, wagons were put in place with the help of a dray horse, an extremely useful shunting device in great demand during the first century of railway development, though a trifle difficult to model effectively. Later, rope shunts were carried out, but these are not really practical in 4 mm scale, though they are possible in 7 mm. To shunt with a locomotive involves clearing part of the goods shed siding. Ugh!

On top of that, Ashburton never had a signal

box, although I have it on the authority of the last stationmaster, Dick Dunwoody, that it once had the cast plate for the box. The plate disappeared, I would like to think into a private collection, but more likely it went into a scrap furnace.

**Plan No. 19 Chagford**

OO gauge 2.30 m × 0.45 m; Steam motive power; Country of origin Britain (Devon); Other recommended gauges O, EM/P4, HO, N; Minimum radius 1,000 mm; Train length 4 coaches; Large points; Modification to Ashburton layout.

So, in exactly the same space, we have Plan No. 19, a more convenient scheme with the same number of points. The mill siding has been turned around and the surrounding buildings modified to provide a complete frame for the model. Chagford is reminiscent of Seaton (Plan No. 7), with the locomotive shed moved and an overall roof added. It is, I feel, a rather better design than Ashburton and, since it is not an actual prototype, does not restrict modelling only to trains that ran on the full-sized railway. Not

**Plan 19** Chagford

