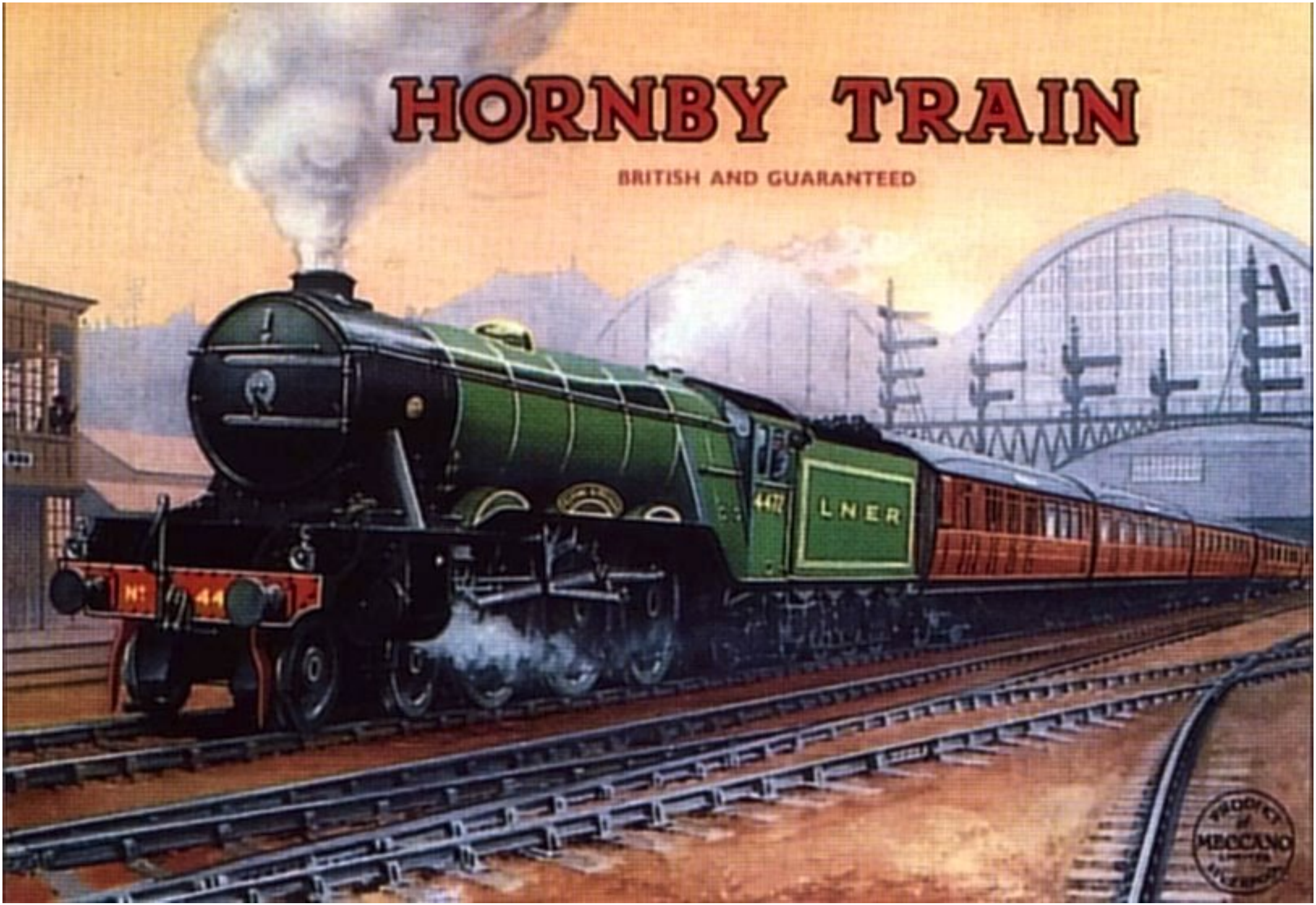
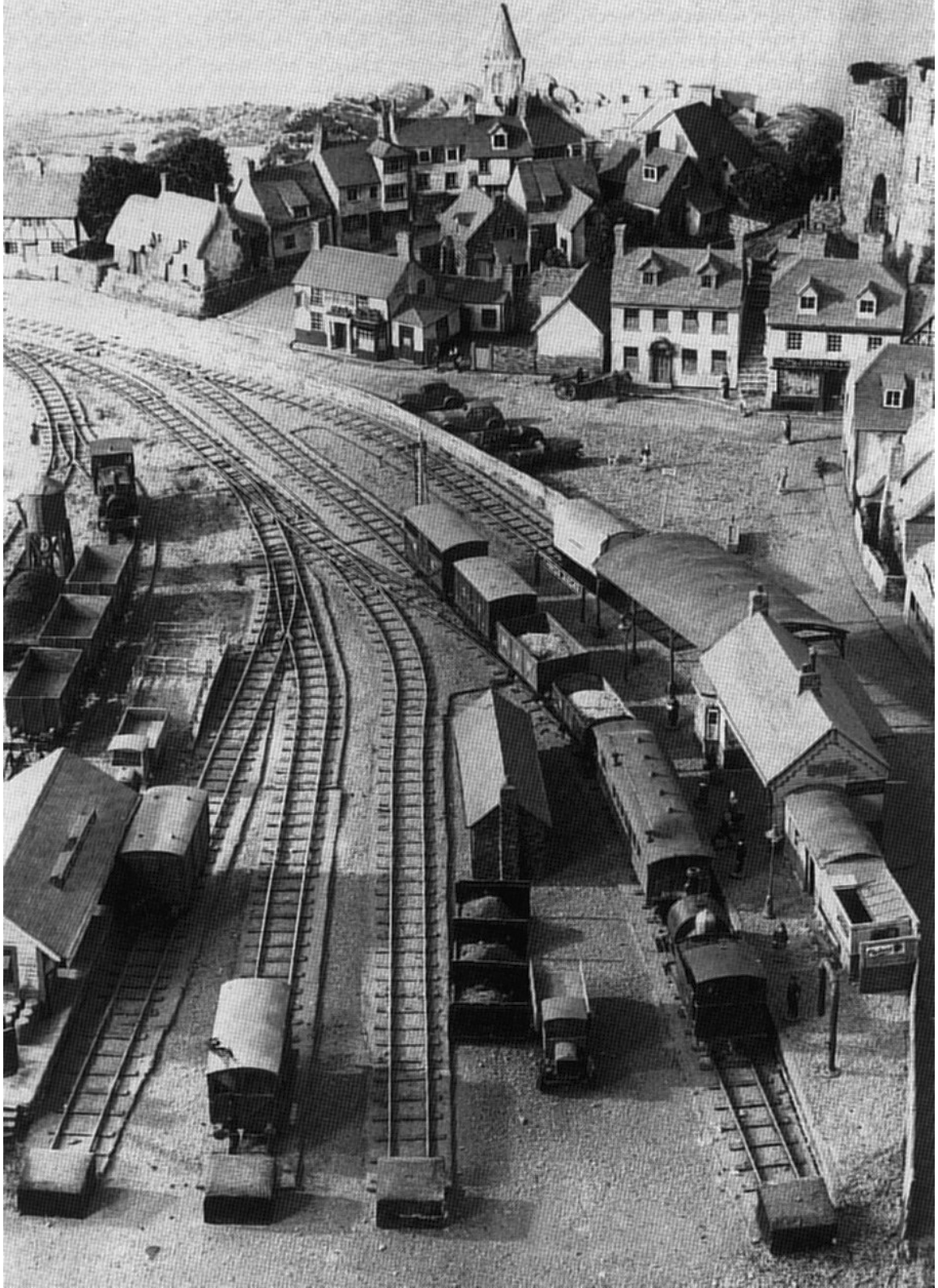
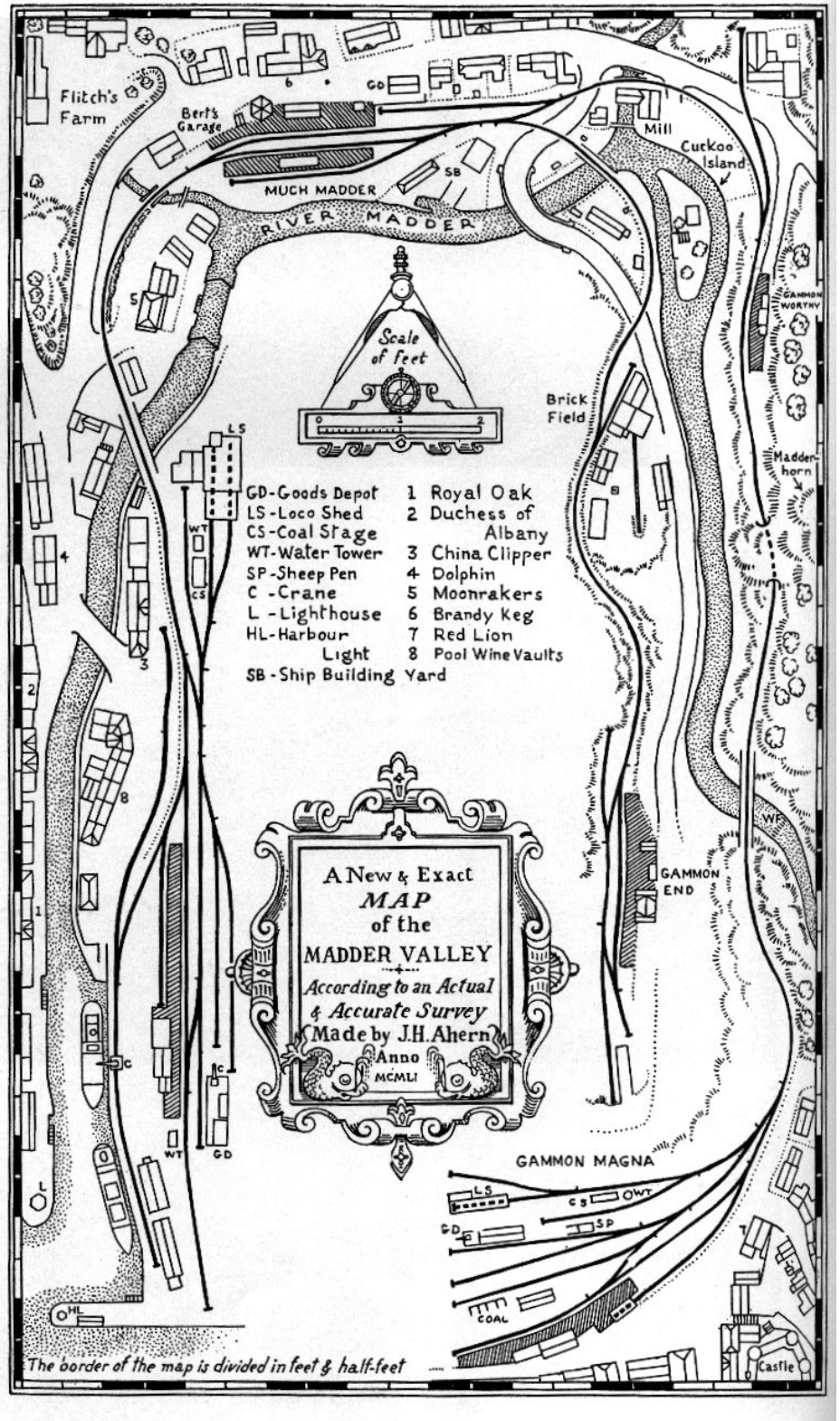

HORNBY TRAIN
BRITISH AND GUARANTEED
LNER
4472
MECCANO

The beginnings of scenic modelling



The
Madder Valley
Railway

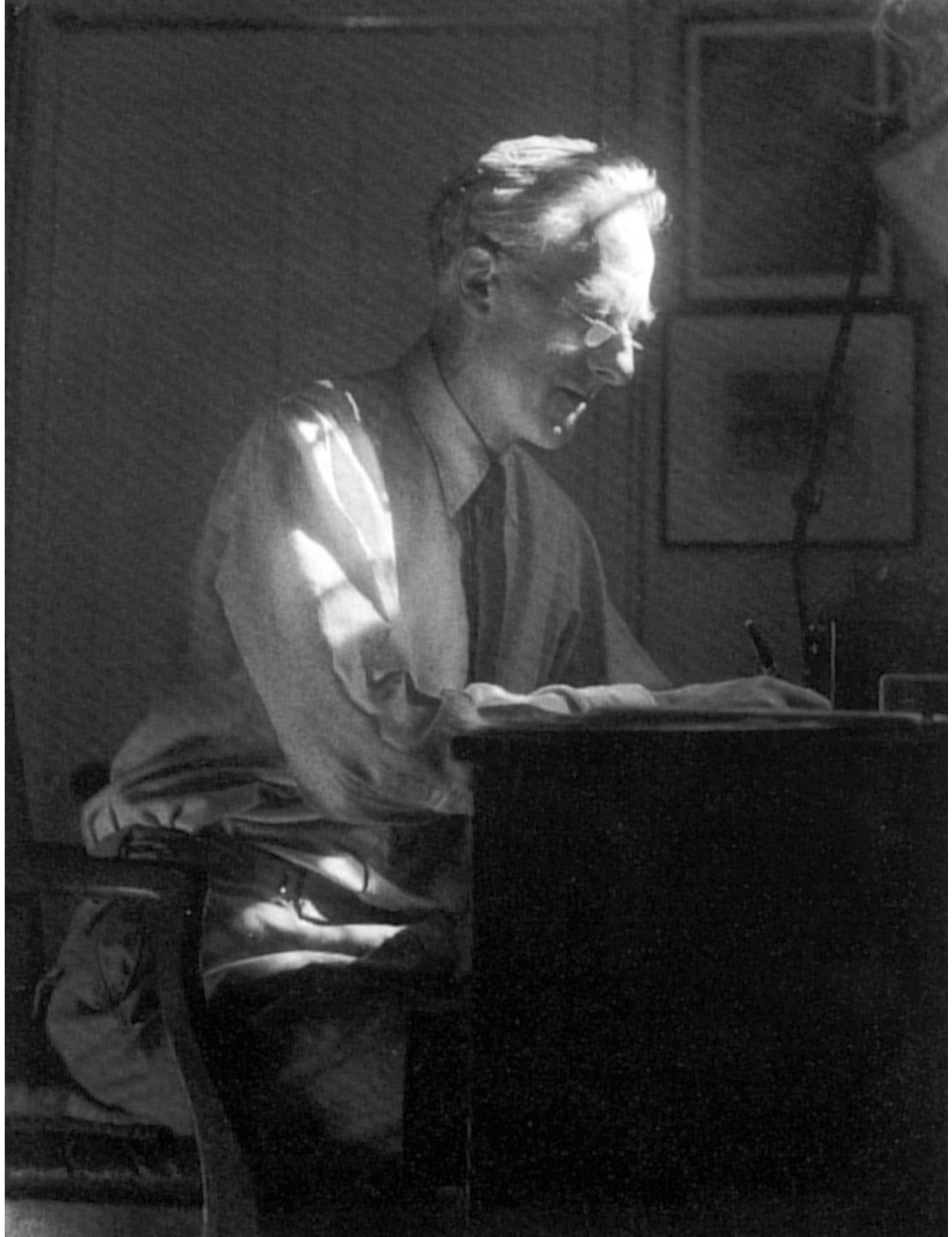


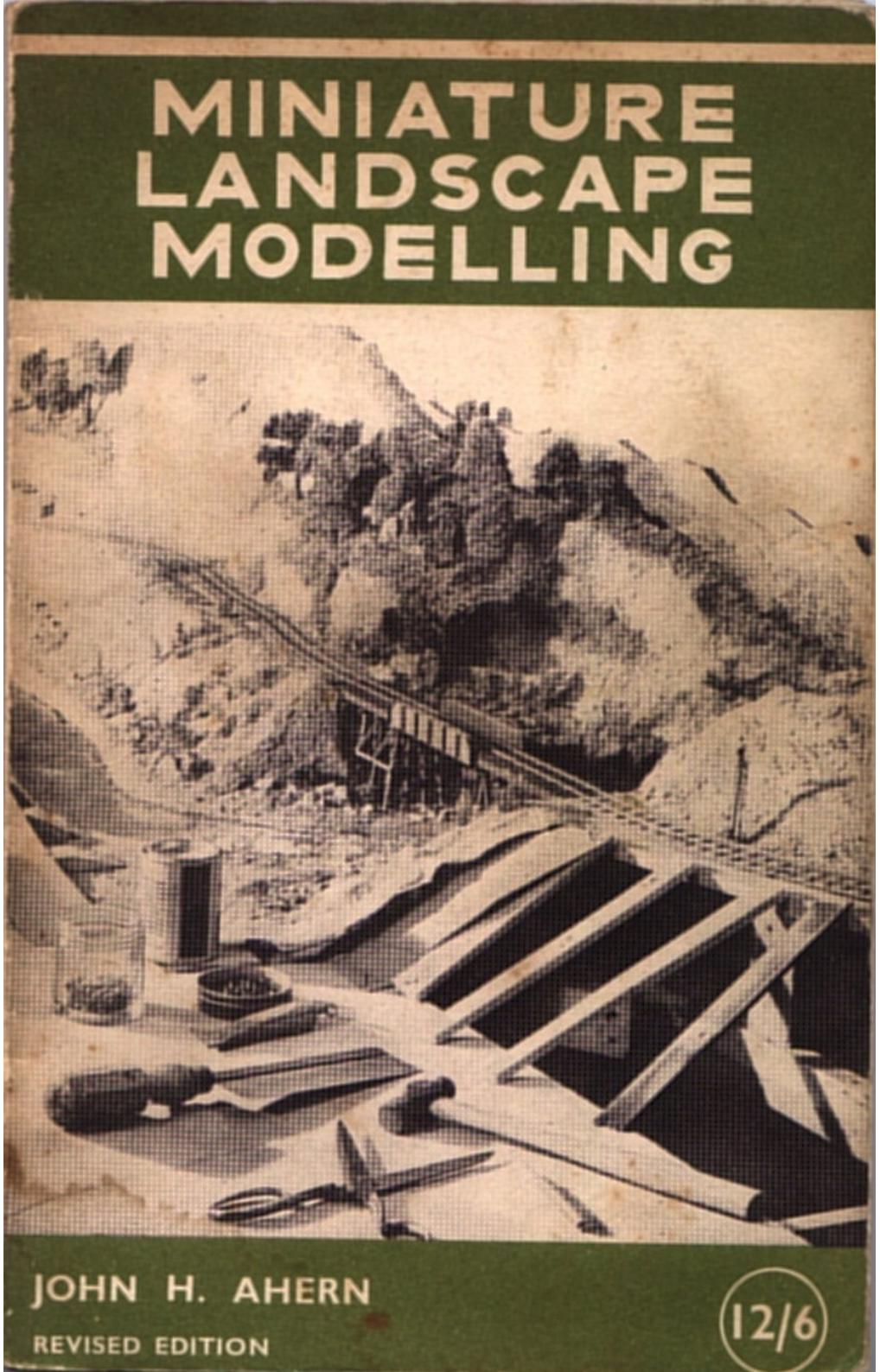
JOHN AHERN

The Model Photographer

Master of the Madder Valley

Writing
1941-1952





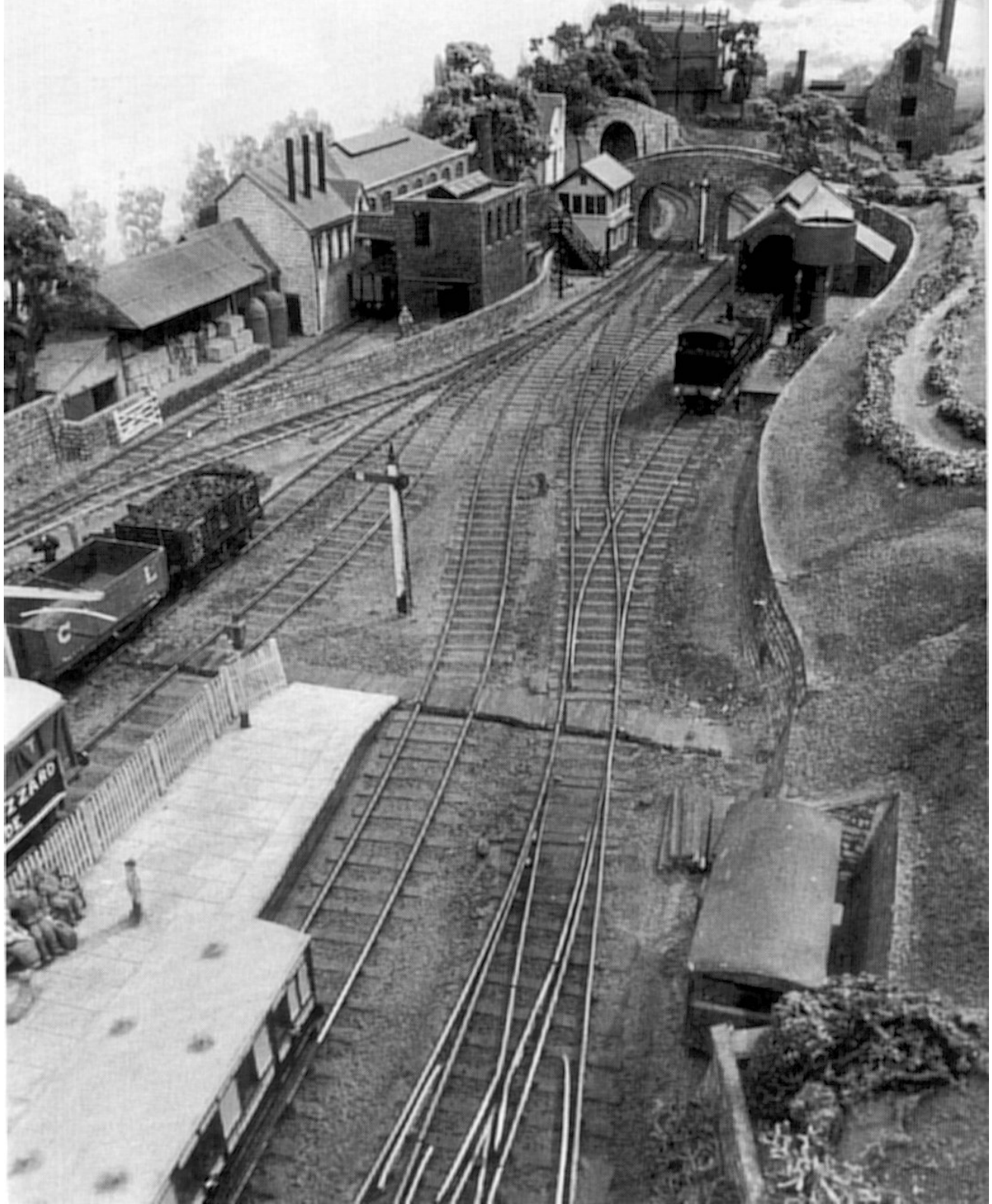
First published 1951

Prototype modelling .

The
Buckingham Branch
1945 -

Mk III 1967

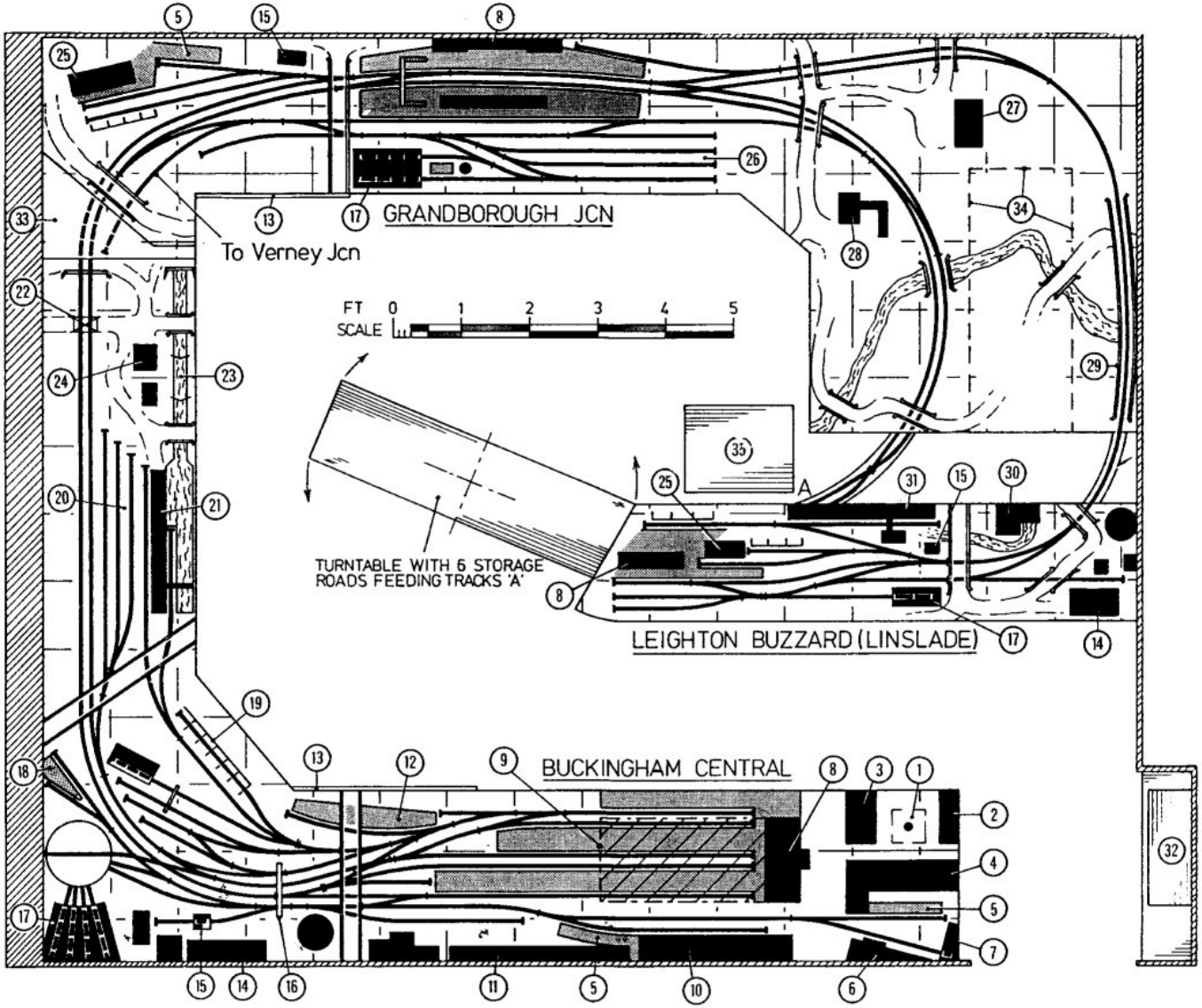
Grandborough Junction



A

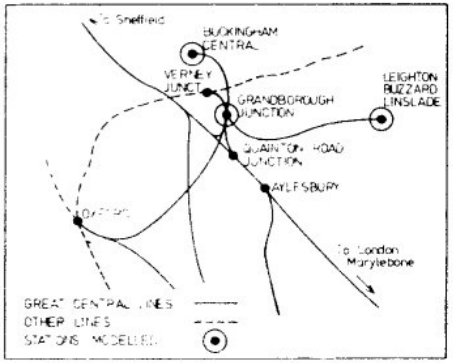
Portable section

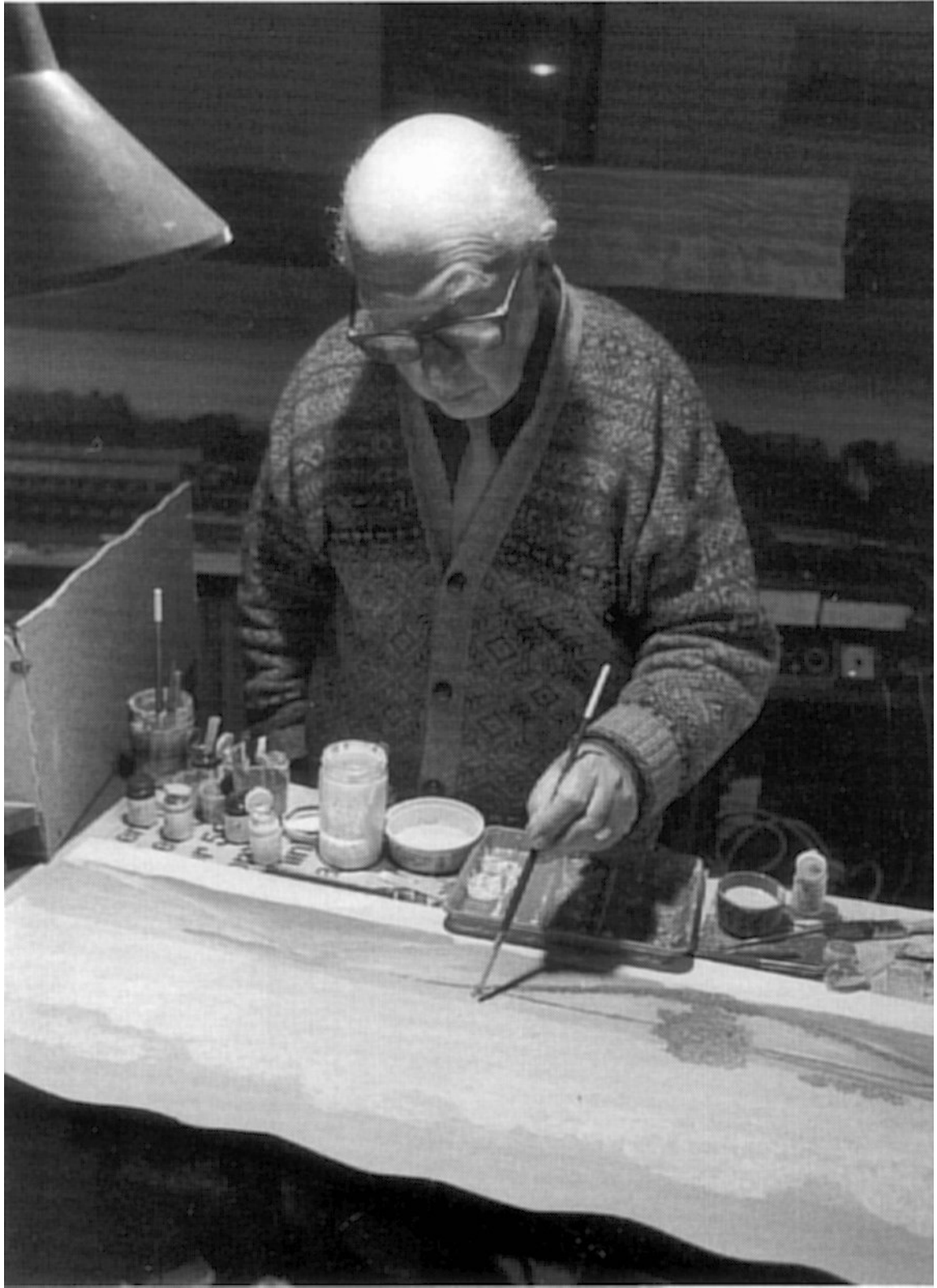
A Branch Line

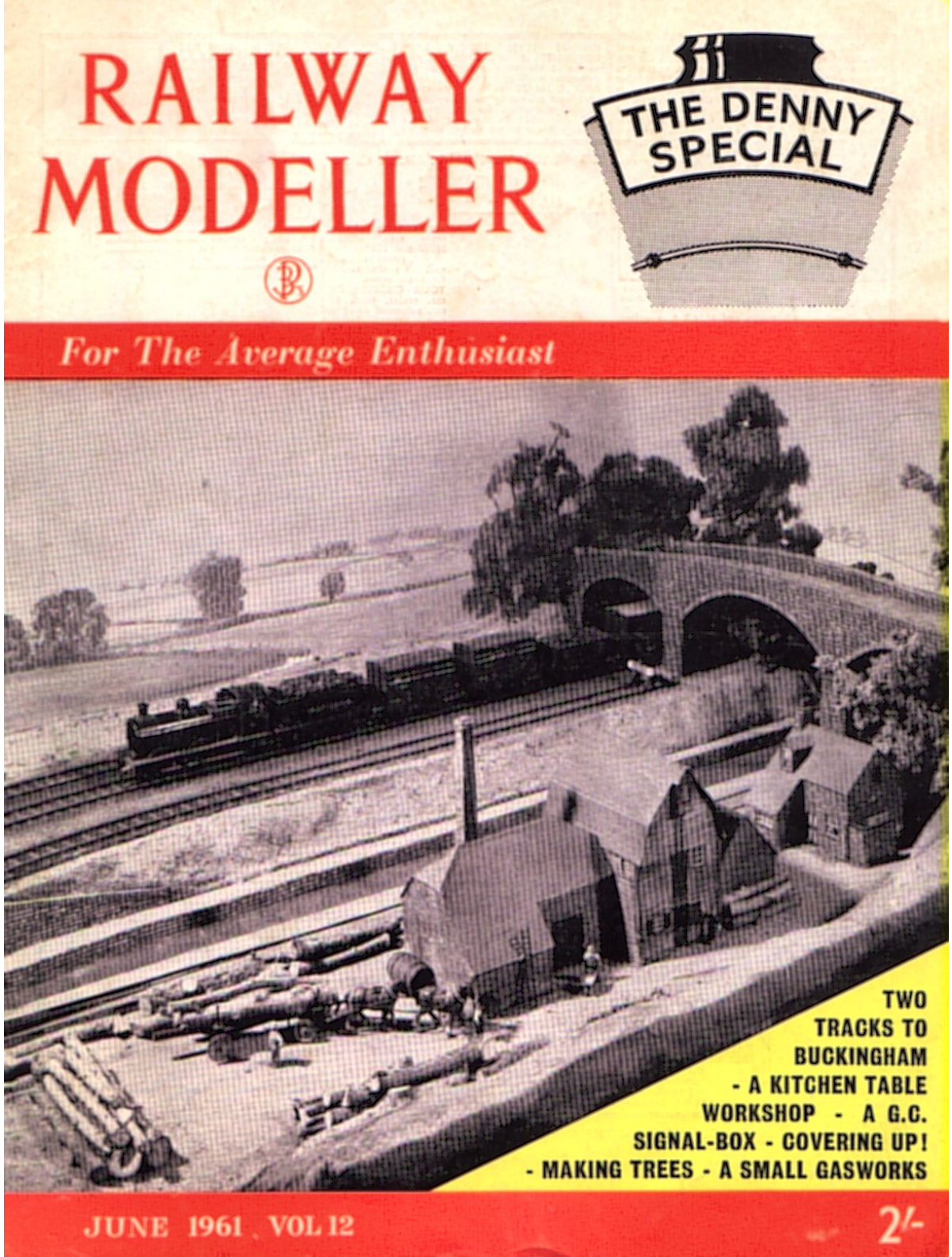


KEY TO LAYOUT PLAN

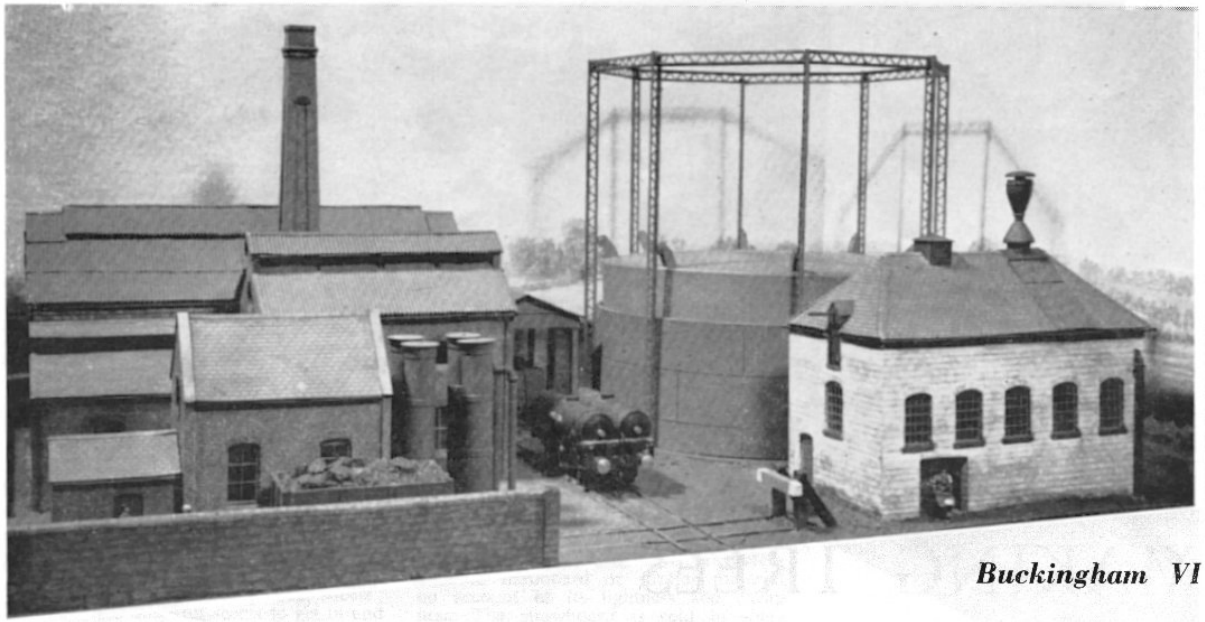
1. Market Square
2. Town Hall
3. Great Central Hotel
4. Shops and Offices
5. Cattle Pens
6. Parish Church
7. Maltings
8. Station Building
9. Overall Roof
10. Goods and Grain Warehouse
11. Shops and Houses
12. Perishable Goods Depot
13. Controls
14. Gas Works
15. Signal Box
16. Signal Gantry
17. Loco Shed
18. Loco Coal
19. Coal Drops
20. Carriage Sidings
21. Wharf
22. Level Crossing
23. Canal Lock
24. "The Jubilee Arms"
25. Goods Shed
26. Sorting Sidings
27. Manor House
28. Farm Buildings
29. Viaduct
30. Flour Mill
31. Paper Company
32. Automatic Crispin
33. Scenic Break
34. Lifting Section for Access
35. Work Bench







An inspiration to a generation



Buckingham VI

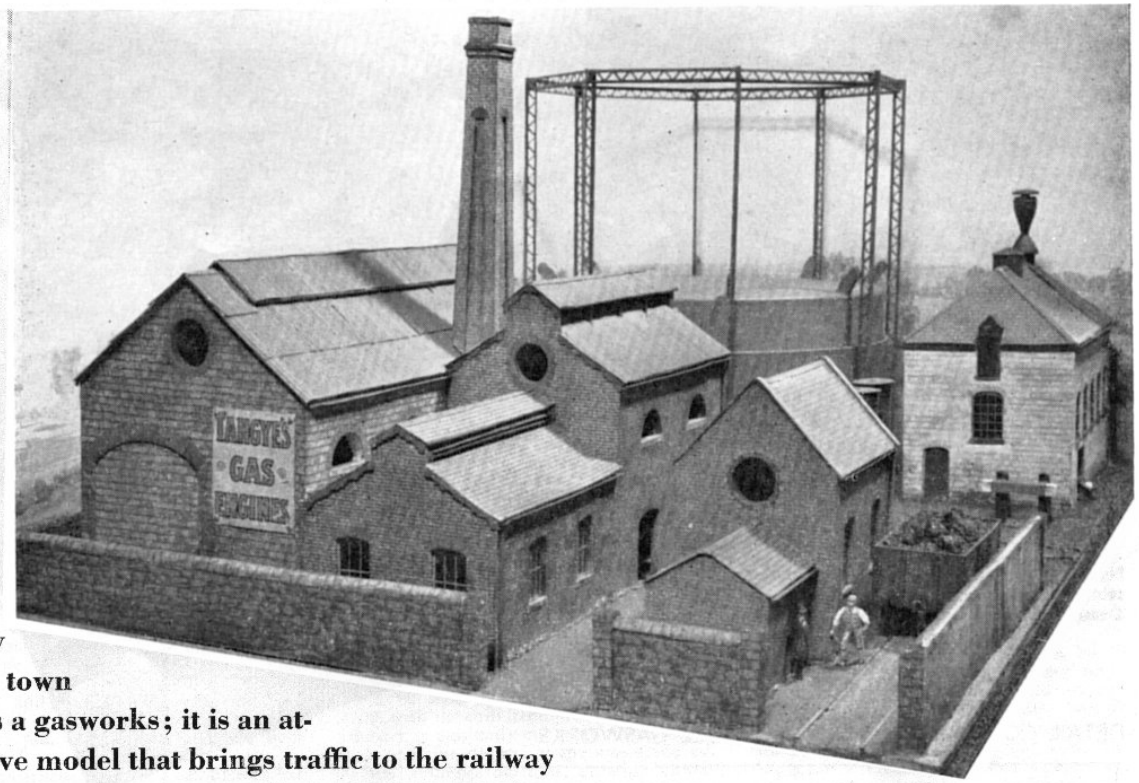
BUILDING A SMALL GASWORKS

NO self-respecting town in the early years of this century was without its local gasworks, but strangely enough very little seems to have been published in the model press about this very common and yet attractive lineside feature; in fact, I cannot recollect a single article devoted to a gasworks in recent years. It is, moreover, not just a lineside ornament, since it offers wide scope for movement of wagons, e.g. arrival of coal and dispatch of coke, tar, oil and gas. The model about to be described has been based on the old gasworks at Truro, the retort house of which very conveniently bore on a plaque the date 1905 and which appeared to be the "new" part built in brick and added to a much older stone building.

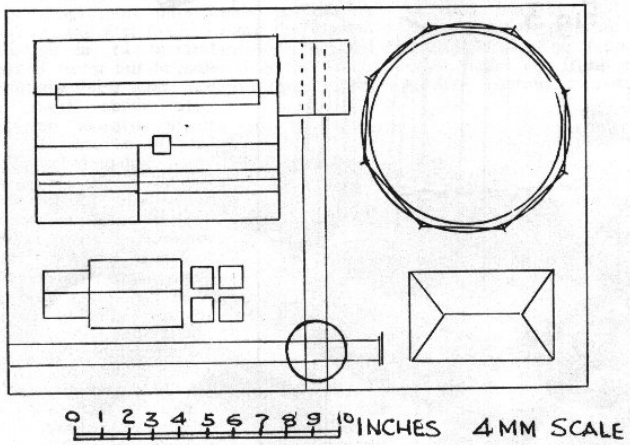
For the benefit of those like myself who know very little about the process of gas-making, perhaps I should outline the method—I found it out by looking up an article in the *Children's Encyclopedia* (1923 edition). There are apparently two ways of making gas: (i) by roasting coal and (ii) by passing steam over hot coke; but since the second of these did not become general until after the first world war it simplifies matters for a gasworks of the period 1905 (which is about the time the Buckingham Branch Line is depicted). In the first method, then, the coal was roasted in horizontal retorts and the gas driven off through a hydraulic main, during which the tar was separated and collected in underground storage tanks. The second stage was to draw off the gas with an exhauster and to purify it by passing it through a condenser, where the gas was cooled with water and more tar and oil drawn off. The gas then passed through a scrubber, where the ammonia was removed, and finally through a purifier, where the sulphur impurities were extracted. After passing through the station meter the gas was stored in a gasholder. With the exception of the condensers and the gasholder all these pieces of gas-making equipment were usually housed in buildings, and in model form are consequently not seen. All that is required then is a conglomeration of buildings, the only characteristic one being the retort house itself with its unglazed openings in the sides and ends, the condensers (upright cylinders) and the gasholder.

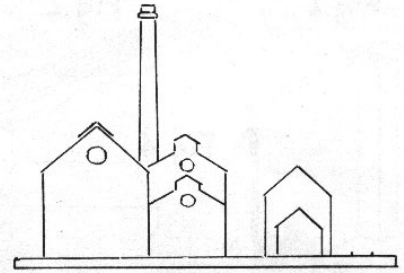
Now to turn to the actual construction of the model. The retort house was made of hardboard, the windows and doors being fretted out and the corners made by nailing pieces of $\frac{1}{2}$in. stripwood to the hardboard as in Fig. 1, small holes being drilled where the nails are inserted. The walls of the rear buidings were covered with "Merco" random tile paper to represent the stone construction of the original and the near buildings were covered with "Modelcraft" brown brick paper. To darken these down they were both treated with a solution of diluted black ink (Swan's calligrapher's) and brown water paint brushed on and rubbed off with a piece of rag. This operation was repeated until the walls were dark enough, the brick paper being finally lightened here and there by rubbing with an ink eraser. The windows were cut from perspex to a force-in fit and lined before insertion by the method described in the RAILWAY MODELLER for June 1960. The roof was first covered with $\frac{1}{16}$in. plywood to which strips of Slater's corrugated strip were glued with "Durofix." The decorated barge-boards were cut out from a $\frac{1}{4}$in. piece of wood with a fretsaw (Fig. 2) and then cut into thin slices (this is a certain way of ensuring that both sides are identical). The chimney was cut from a piece of wood, again using the fretsaw, and covered with $\frac{1}{16}$in. cardboard overlays. It is best to cover the wood core with brick paper first, a separate piece for each side, otherwise the courses will be crooked, and then to cover the overlays before gluing in place. Sufficient paper must be left on the sides of two of the overlays to overlap the other two, and of course two of the overlays must be wider than the others—this should be clear from a study of the top of the chimney in Fig. 3. It is best not to try to wrap the brick paper round the edges, but to cut off flush when the glue is nearly dry. It is, however, important to line up the brick paper so that the courses coincide.

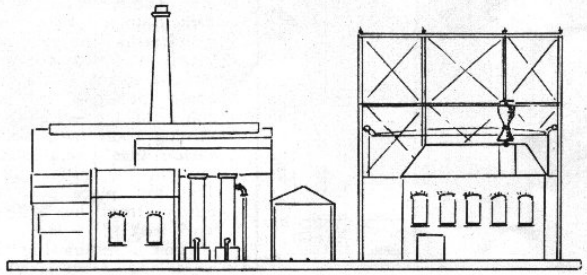
The whitewashed building, which probably houses the exhauster, was one that took my eye on account of the incredible chimney. This was not built in the same way as the retort houses, since the row of windows demanded somewhat different treatment. The ends were pieces of $\frac{1}{4}$in. plywood and the sides pieces of $\frac{1}{16}$in. plywood nailed and glued to the ends. This was then covered with "Merco" random tile paper and given a coat of white poster paint applied fairly thickly and rubbed down with a piece of dirty rag when dry. The window in the end was a

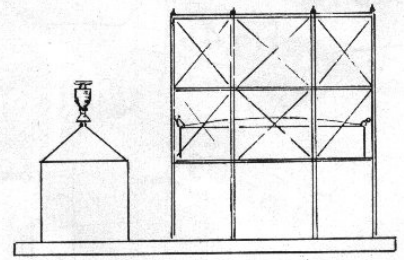


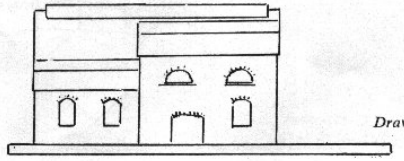
Every small town needs a gasworks; it is an attractive model that brings traffic to the railway











GENERAL ARRANGEMENT OF MODEL GASWORKS

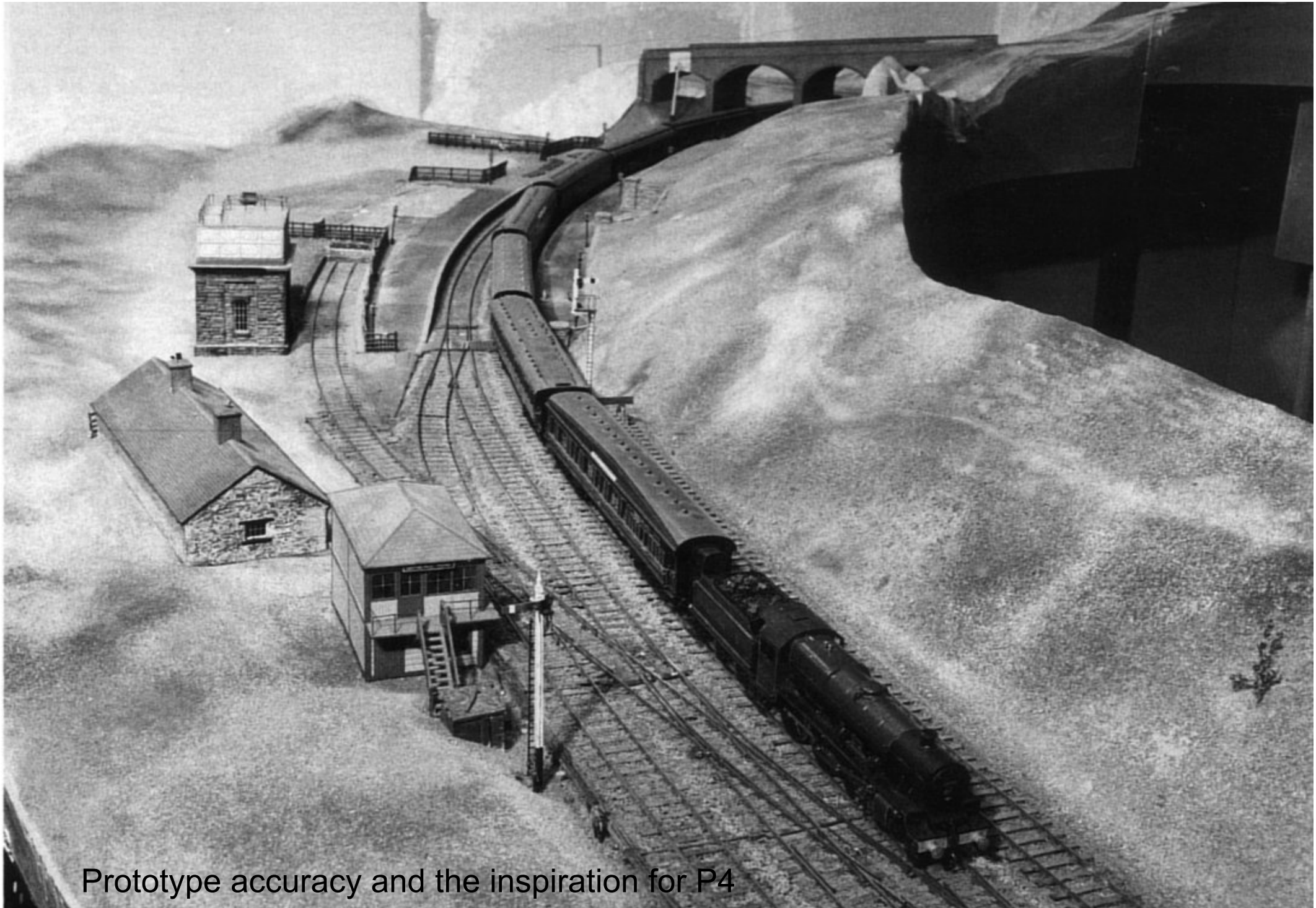
Scale 4mm. to 1in. for 4mm. scale

Drawing by Peter B. Denny

The beginning of research and the importance of a location . 1965

Modelling closer to the prototype

1970

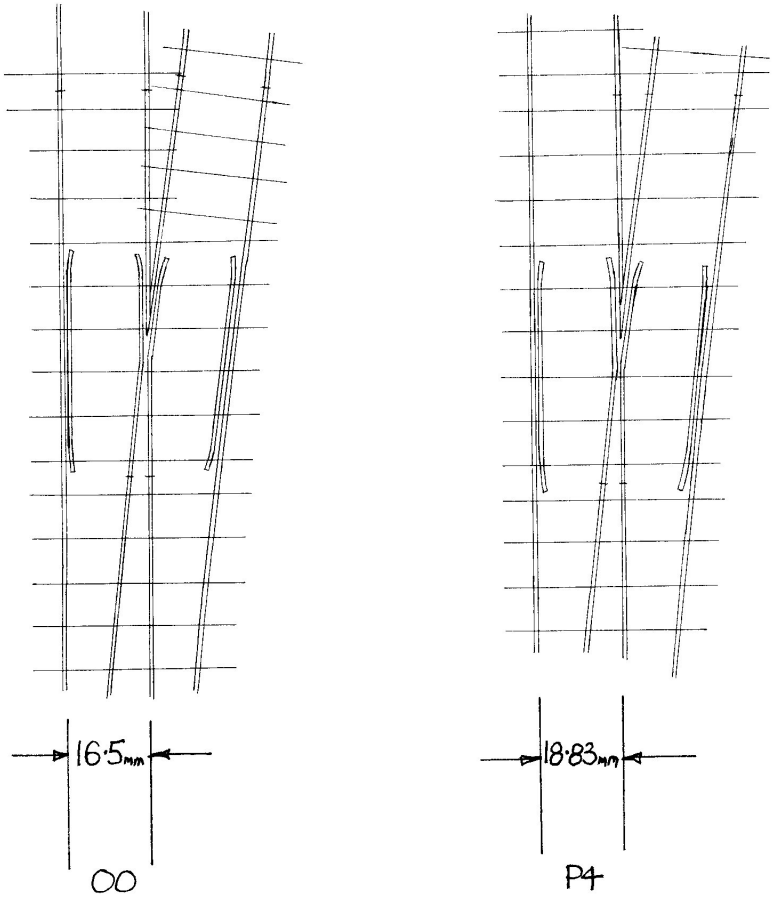


Prototype accuracy and the inspiration for P4

The exhibition scene 1977

4 FEET $8\frac{1}{2}$" INCHES

HO Scale	3·5mm = 1ft	16·5mm Gauge
OO Scale	4mm = 1ft	16·5mm Gauge



The dilemma of the gauge

PROTOFOUR—4

a new scale modelling standard

by a model standards study group

J. Brook Smith, M. S. Cross, D. E. Jones
W. L. Kidston, B. Morgan, Dr. B. Weller

THE Protofour series has so far been largely theoretical in content, covering the reasons why new standards were considered necessary, the determination of the standards themselves, the characteristics of wheels and track and thoughts on wheelbase and radii. Even now, when we are approaching the construction of track, some time will have to be given to track theory.

It is the intention of the scale model railway constructor to reproduce the prototype railway scene in as faithful a manner as possible, in the hope that the resulting model will be as reliable as it is convincing in appearance. The key to convincing appearance is proportion.

Proportions

We are accustomed in the model railway world to purchase track commercially and to accept the resulting product as the best that can be produced for the purpose. Commercial tracks are designed to withstand severe mishandling and are thus more robustly built than is necessary for normal running. The rail especially is oversized, and often the track base is a plastic web which gives continuous support to the rail. These alterations to the original fine proportions of the track render most commercial products useless for scale modelling. Unfortunately track is the most obvious feature of any layout, and the visual and photographic background that justifies the proportions of the models themselves. If the track is not to scale, then the models themselves can never look fully convincing. Given correctly proportioned track, even mediocre models can be made to look the part. Therefore, dimensional accuracy of the track is of prime importance in scale modelling.

The dimensions of typical British Bullhead permanent way are given in Table 1. By adhering to these dimensions in our scale modelling we can be certain that our track will have a correct appearance.

Texture of Materials

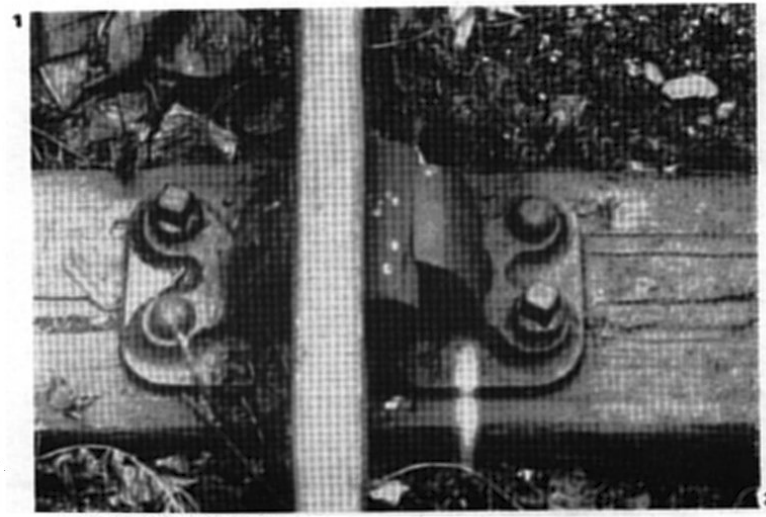
From the dimensional table it will be seen that sleepers are generally made of wood, and they are treated with creosote to render them resistant to weathering and to insect and fungus damage. The surface texture of a creosoted sleeper cannot be reproduced satisfactorily in a material other than wood. Plastic, copper coated paxolin, fibre, and card, all have certain advantages in construction, but it is the texture which is seen and which cannot be disguised. Wood is therefore the ideal medium for sleepers in model form.

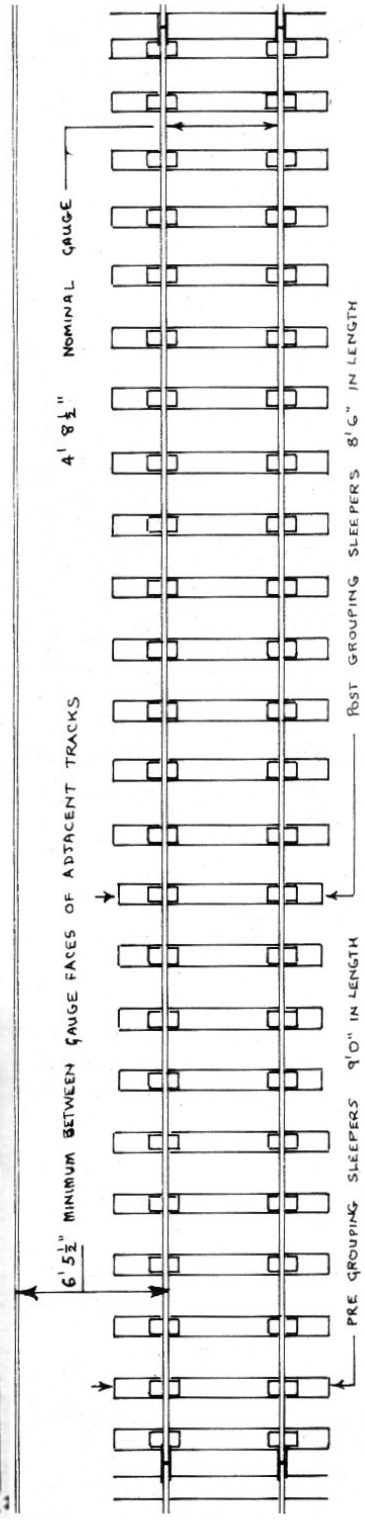
Rail and chairs, being rolled steel and cast iron respectively, soon acquire a coating of rust, grime and oil which can be represented by a coat of matt paint.

Ballast has a texture all its own, and it is rather difficult to find a suitable medium in the shops. Usually the grains are too large, or the wrong shape (maw seed or cork), or they are mixed with adhesive, which turns to a porridge on application. Ballast is also a difficult medium on account of its colour, which has to be convincing, though there may be considerable variation in the prototype.

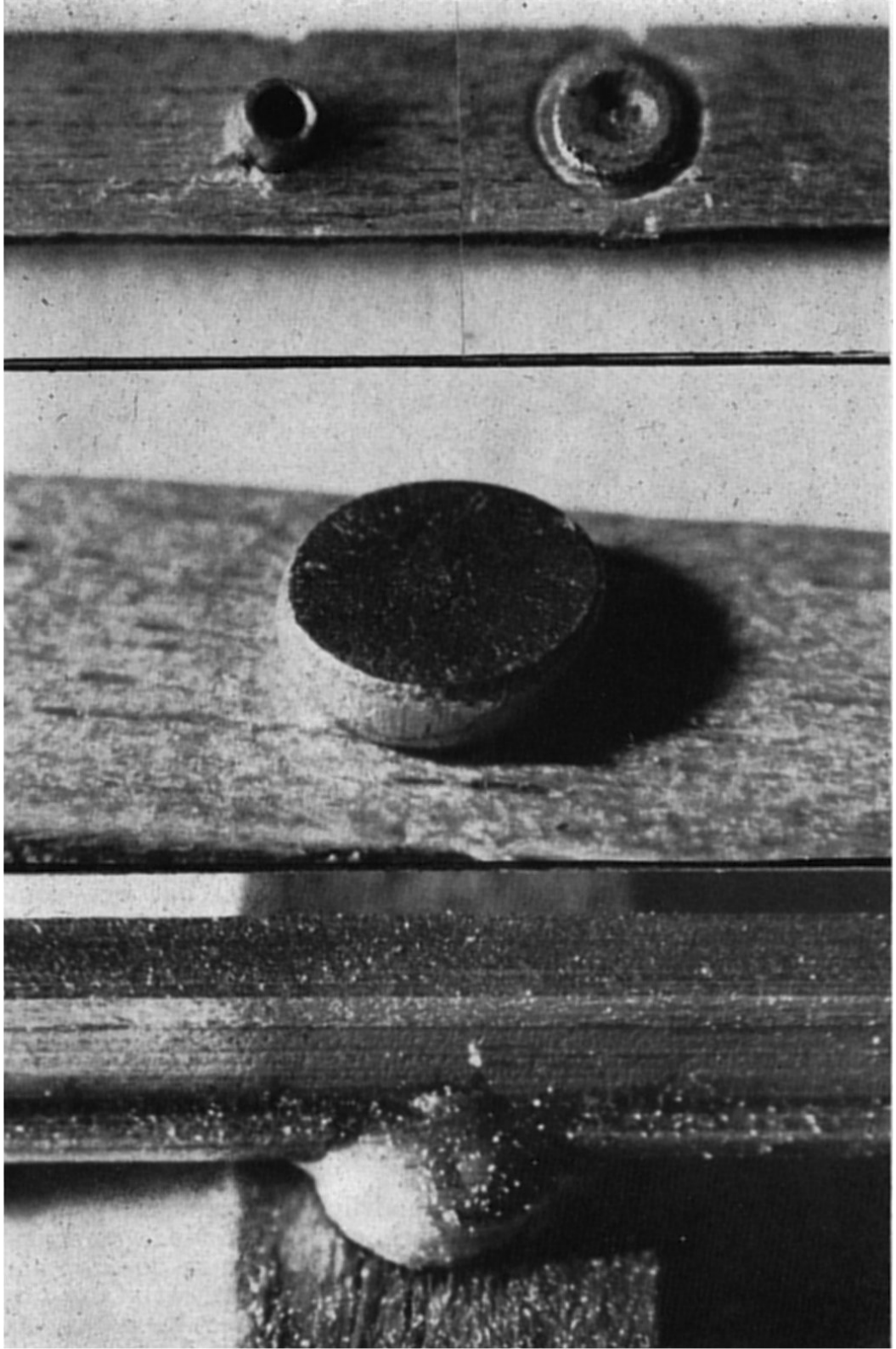
Colour

The question of colour is as important to the scale modeller as that of texture, and to a certain extent the two are complementary. Colour is a difficult subject to discuss, as so many individuals vary in their perception and interpretation of colours. Rather than attempt to define colour, reference is made to commercial brick papers;

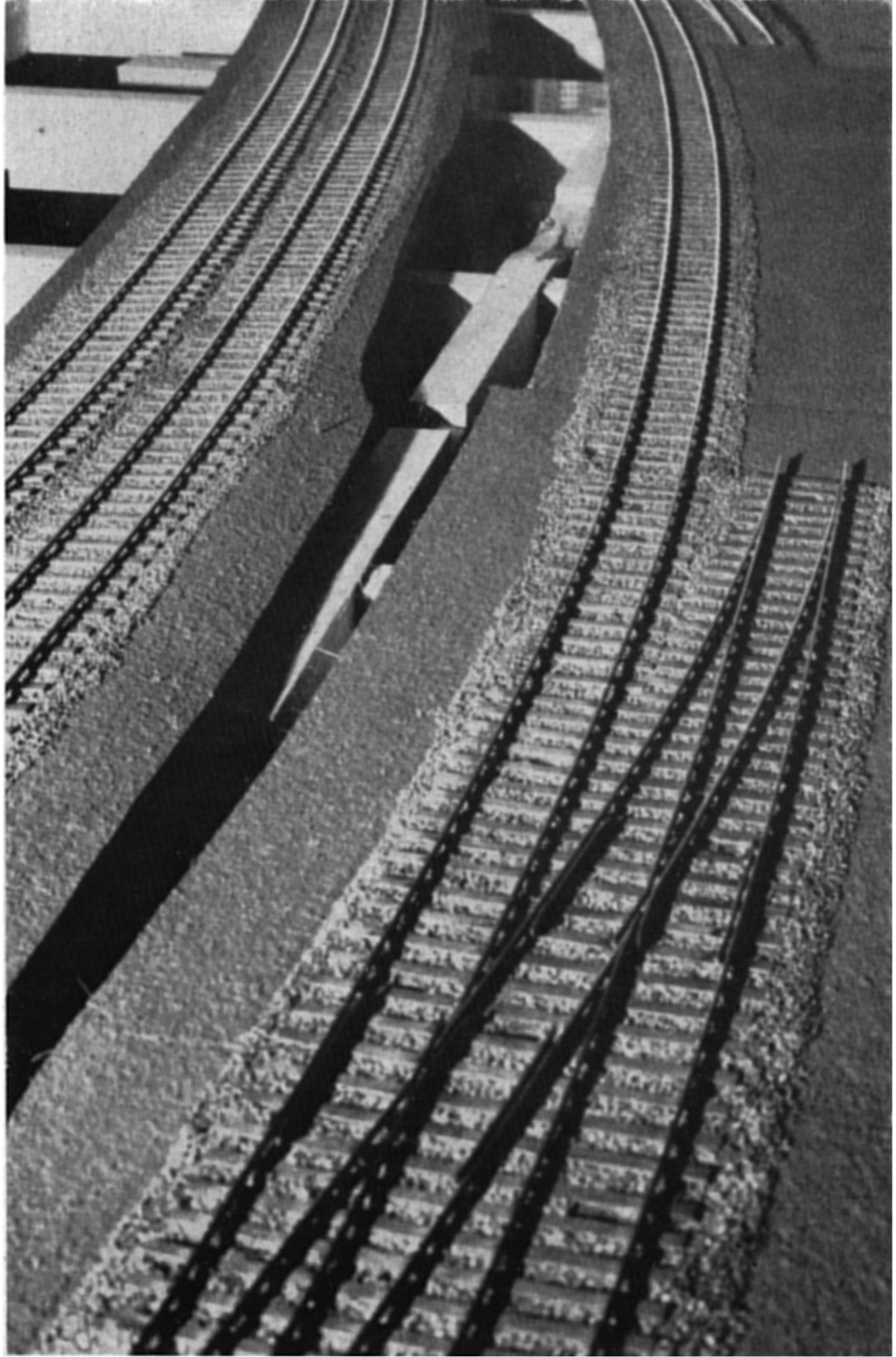




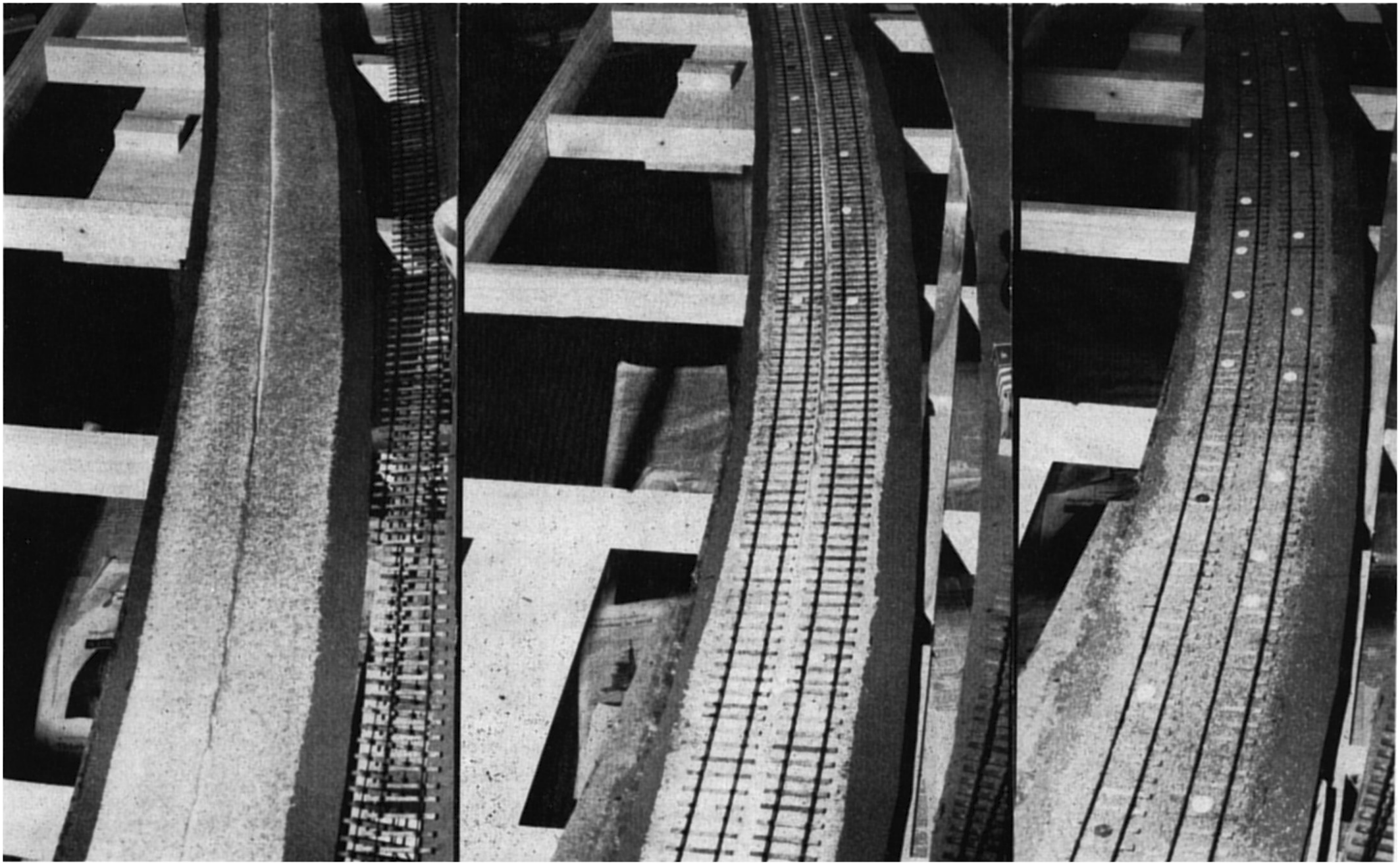
1968 and the birth of P4 with the MRSG



Track making



The appearance
of the prototype



New ideas

Understanding and using turnout templates

A R Wilkins

INTRODUCTION

This Section of the Dig
conjunction with Sectio
deal with construction
using Scalefour Society

EXPLANATION OF TEMPLATES

Before describing the
explanation of some of t
on the templates will be
conjunction with Figure

(1) The two lines on
timbers, marked at (a) o
use of a plain track ti
9'0". The lengths of
should match that used f

NOTE: In general, pre-g
was 9'0" in length where
timbers. (See Digest 23.

(2) The distance betwe
of the toe and end-of-
planing length of the s
lengths vary according t
are given in Digest 23.6.

(3) Centre-lines (d), (
templates together to fo
explained later under t
TEMPLATES".

(4) Although the tu
finishing with the rail
timbering can continue b
part of a crossover, a f
may be used to keep the
better aligned than fis

NOTE: The G.W.R. in part
whilst other companies
timbers immediately beyor

Fig 6

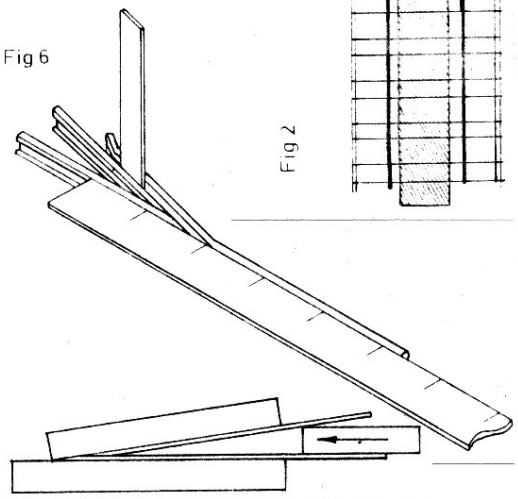
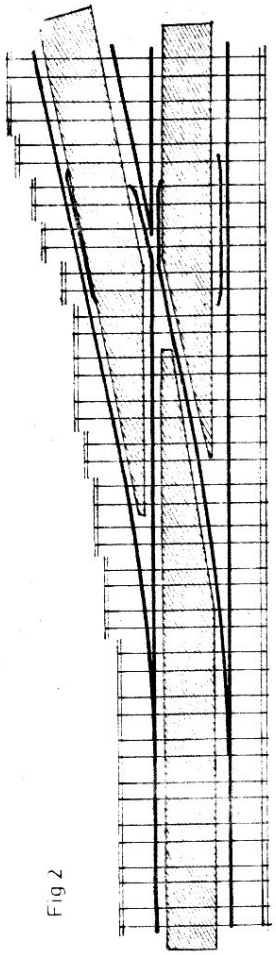


Fig 2



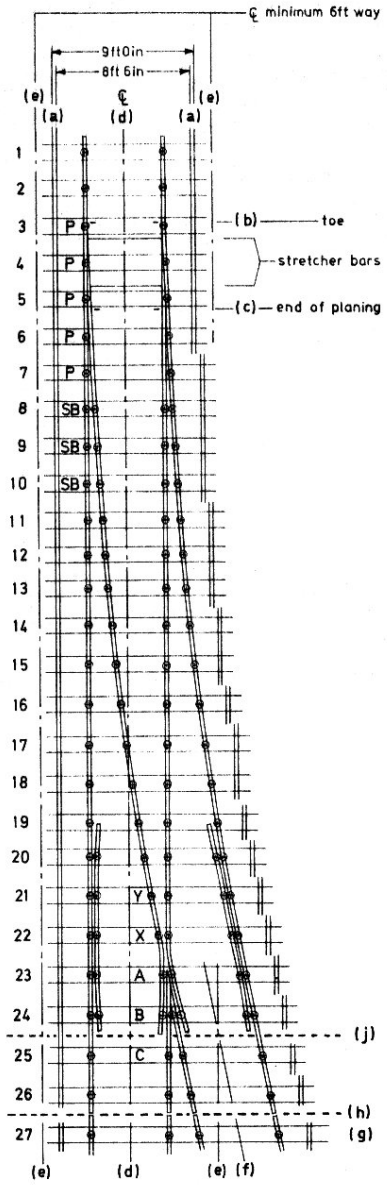
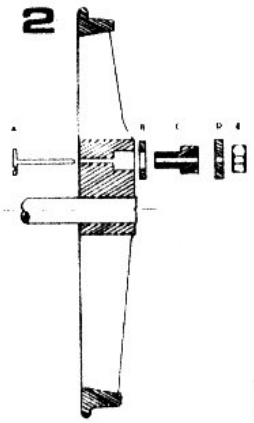
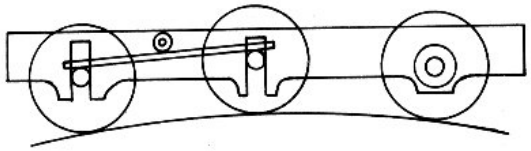


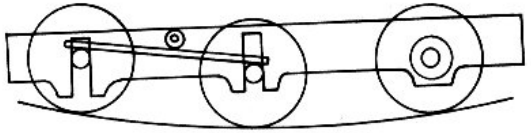
FIGURE 1. A5 TURNOUT DETAILS (not to scale)

P4 and S4





(a) Hump in track (exaggerated)



(b) Hollow in track (exaggerated)

Figure 5. Compensating action of 0–6–0

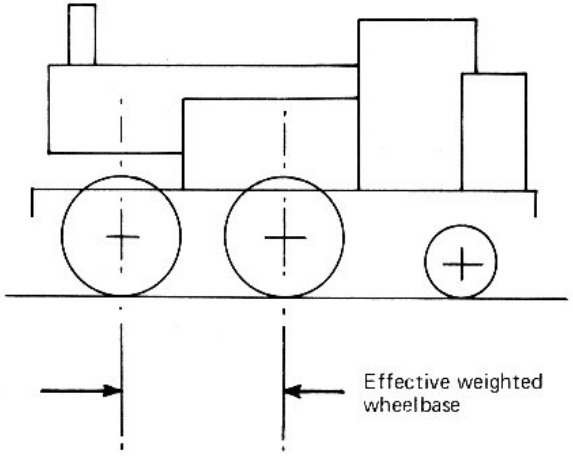


Figure 7. Solid chassis 0–4–2T

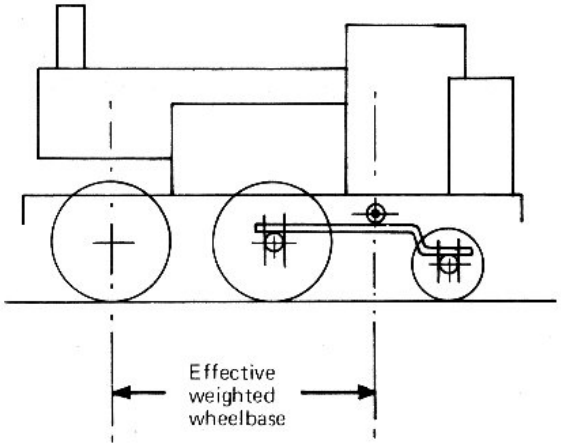
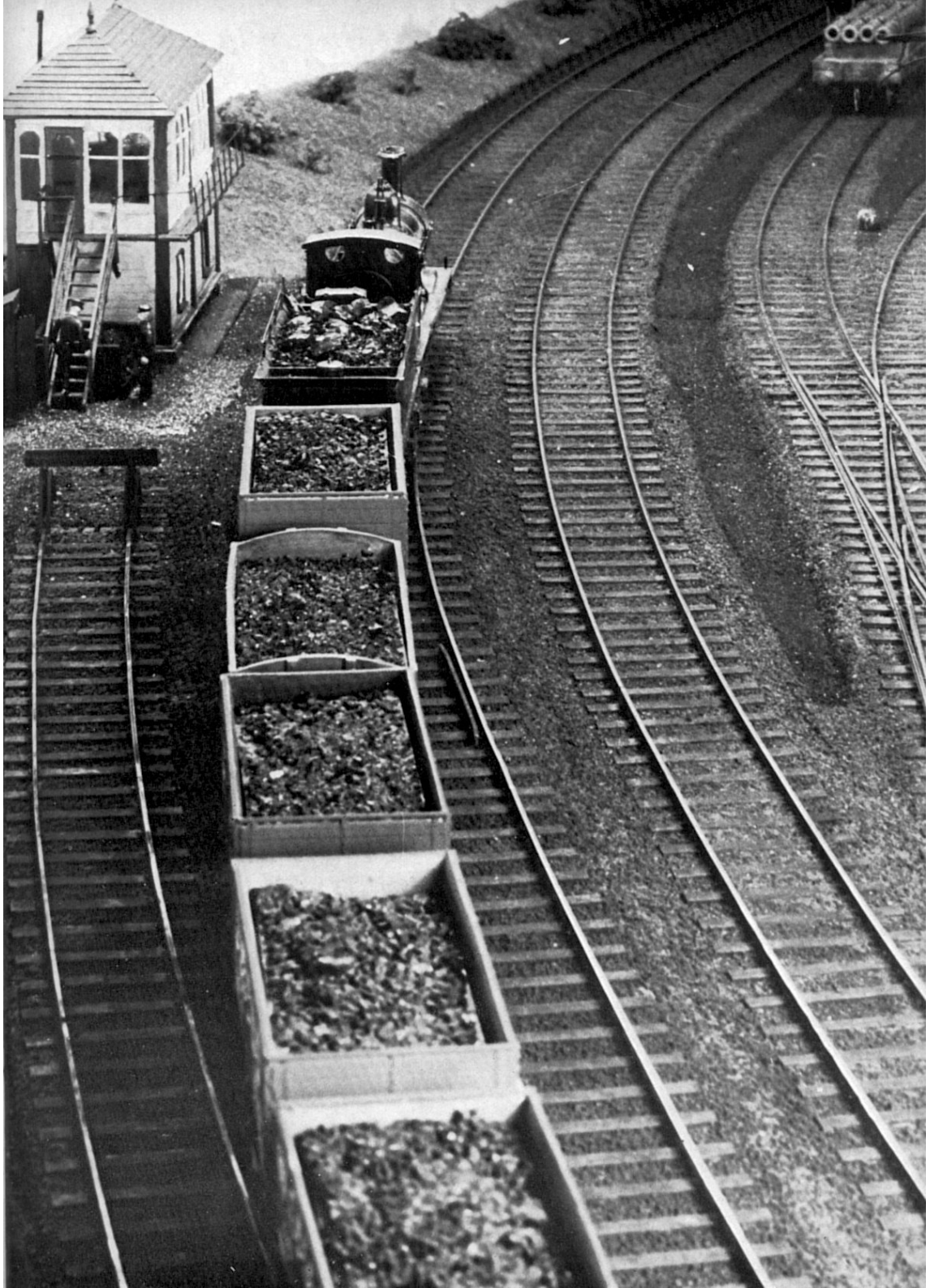


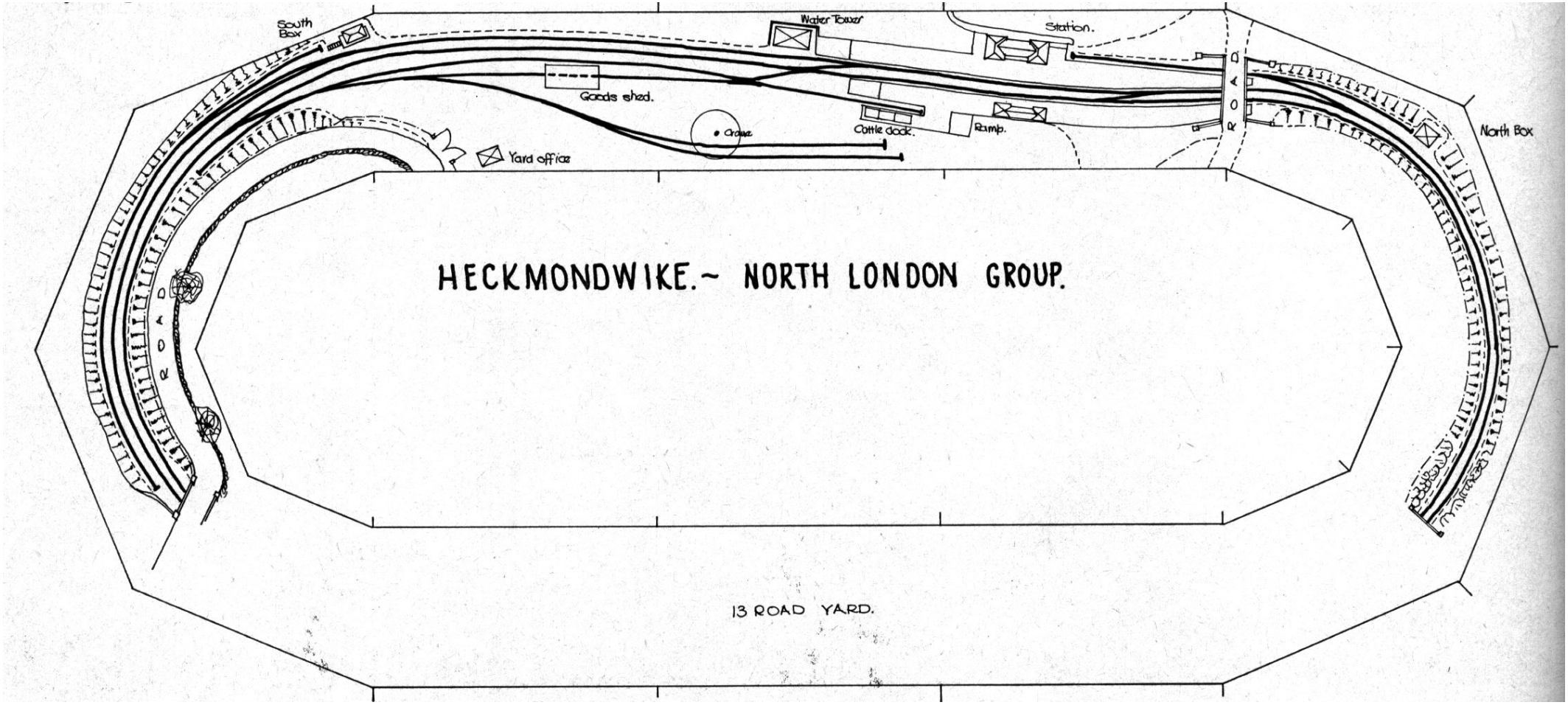
Figure 8. Compensated 0–4–2T

Compensation and ideas on chassis construction



1976

Scale trains on scale track to test S4



The first mainline layout in S4

ROYE ENGLAND

1906–1995

There can be few serious modellers who haven't heard of Pendon Museum and its devoted creator Roye England. His dream has inspired thousands and had the most far-reaching effects on the continually improving standards of the finescale end of the hobby. Roye Curzon Cursham England died on 3rd September 1995 at the age of 88, and here Guy Williams and Paul Karau pay tribute to him:

Firstly, Guy . . .

The story of Roye England is certainly not simply the story of Pendon Museum, although many of us would think that Pendon was his major work. When I first met Roye, I had effectively already been drawn into the Pendon programme as he had previously obtained some of my early models. When we actually met, I was struck by his gentle but determined nature, which I'm sure had appealed to many people long before I came onto the scene.

Roye was a deeply religious man and his convictions led him along many paths from time to time. Not all of these ways were understandable to all his friends, and some were quite unknown to a lot of people. Roye had many sides. As an Australian visiting this country in 1925, he was immediately struck by the beauty of the English countryside and by the elegance of the Great Western Railway as he saw it, carrying him to London from Plymouth. Long before this, as a lad in Perth, Western Australia, he had been absorbing all sorts of images of Great Britain from the popular books on railways available at that time. He had envisaged a great automatic model railway to represent the railway system running from London to the North.

It was to patent his design for an elaborate electro-mechanical system for model railway control that he came to London. All that came to nothing, but other ideas were developing. As early as 1931 he found himself experimenting with modelling techniques to produce what he thought of as three-dimensional watercolours. He had seen a fantastic model house known as 'Titania's Palace' on show to the public, with the proceeds from the admission charges going to deserving charities. The idea grew into a project to reproduce a very fine and detailed picture of the Berkshire countryside, including the Great Western Railway main line. It was to be a permanent celebration of a period of English country life that he saw disappearing at that time.

The war stopped all thought of progress and presented Roye with a moral dilemma. He had seriously thought of going into the Church at one time, and his leanings in that direction forbade that he should be in a position to take another's life, so he went to work on the land in Somerset as a conscientious objector. The war caused Roye much heart-searching and he wrote a long poem which tried to explain his feelings. Probably at about this time also he wrote a piano sonata; he was always a lover of classical music and had considerable understanding of it.

To further the model countryside project, Roye founded the 'Guild of Saint Aidan' in 1939. Saint Aidan was a monk of Iona and the first Bishop of Lindisfarne, a foremost figure of the early Northumbrian Church, who founded many religious houses and schools. Roye felt strongly about Christian education, which is presumably why he chose that particular saint to be his patron?

The guild attracted several generous members, but none were modelmakers; they helped the idea but that was not enough. Despite their support, the modelling was entirely up to Roye and he was still working on the model inn he had started in 1931 or thereabouts. He worked on the principle that it should be as permanent as an old master; the materials were the best possible and the paints in particular were all chosen from the most permanent range and of artists' quality. He sought expert advice from learned bodies on the question of permanence and it all took a very long time!

It was not until around 1950 that he gave serious consideration to the construction of the railway side of the model, nor indeed where it was to be built. At that time, Roye was living

He makes the Chapel group in 1952 after starting cottage modelling in the 1930's .

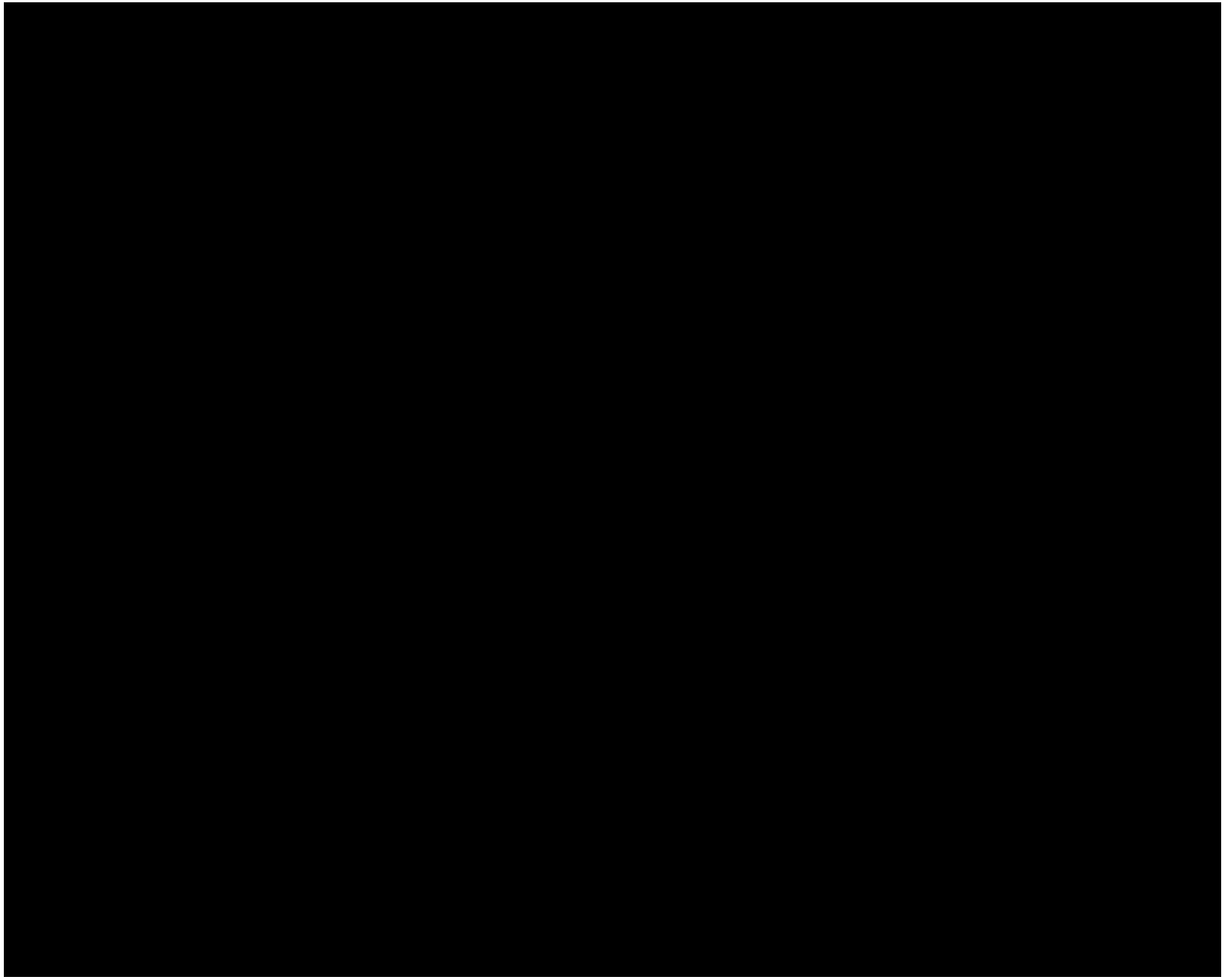
The fine detail and accuracy of Bradbury Farm .

Modelling a landscape

PENDON
MUSEUM GUIDE

LONG WITTENHAM,
ABINGDON, OXON.

A social history of England in the 1930’s



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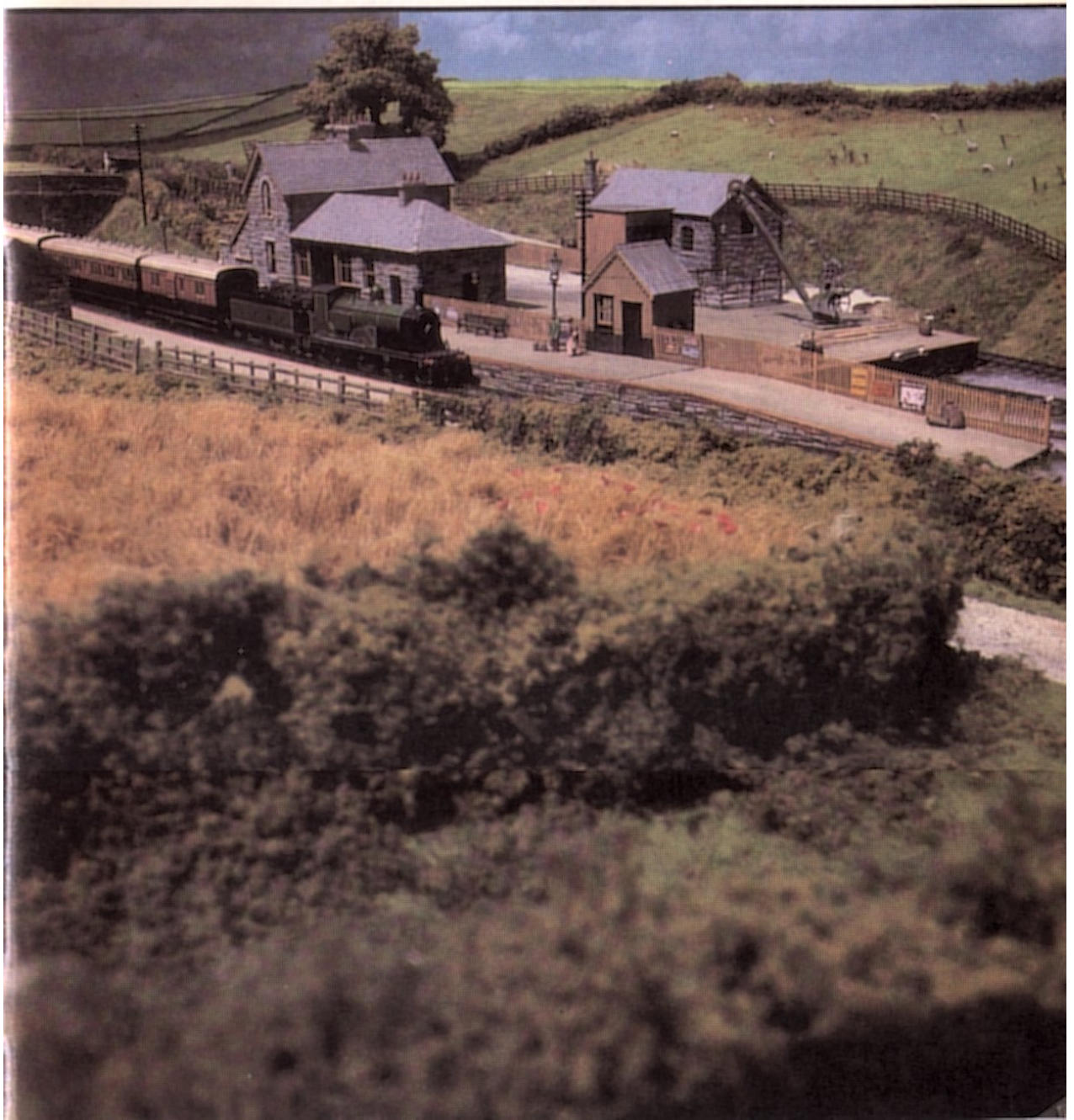

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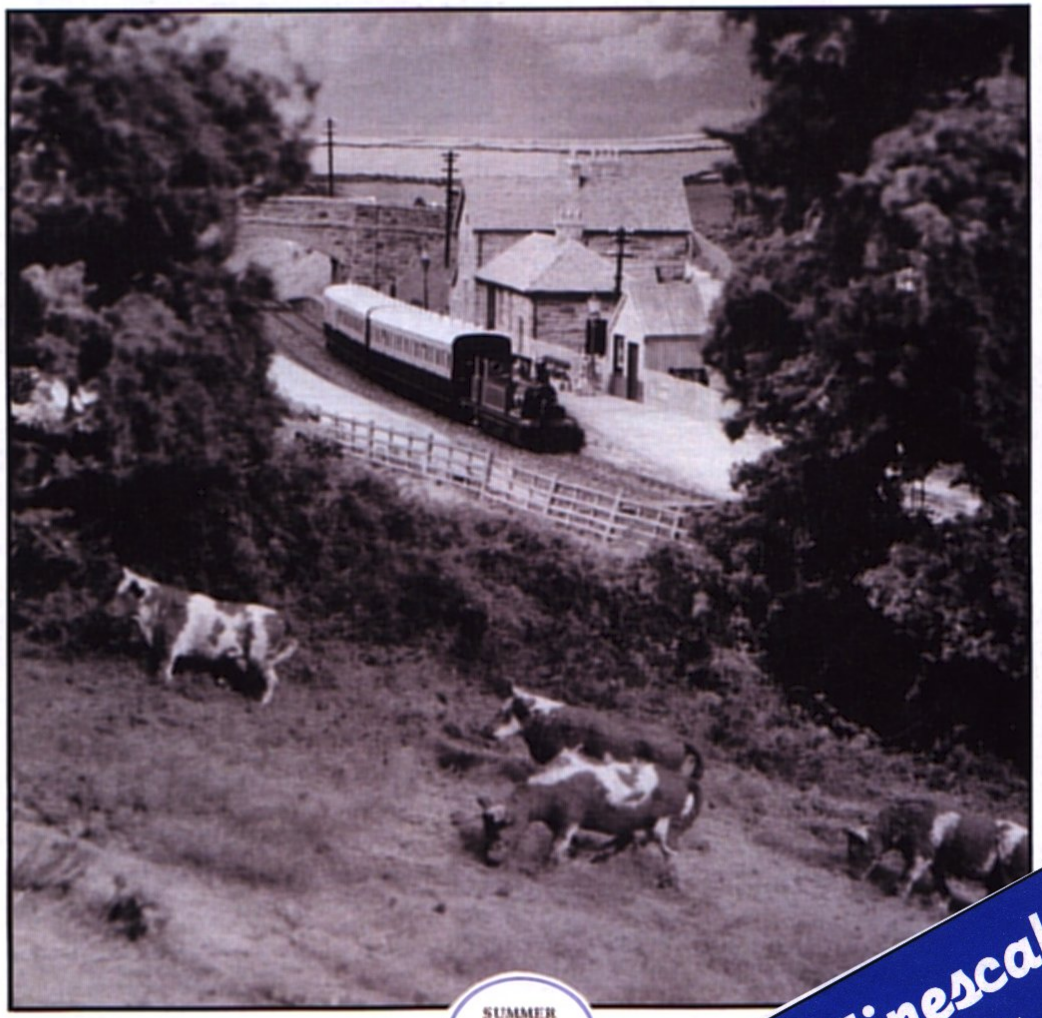

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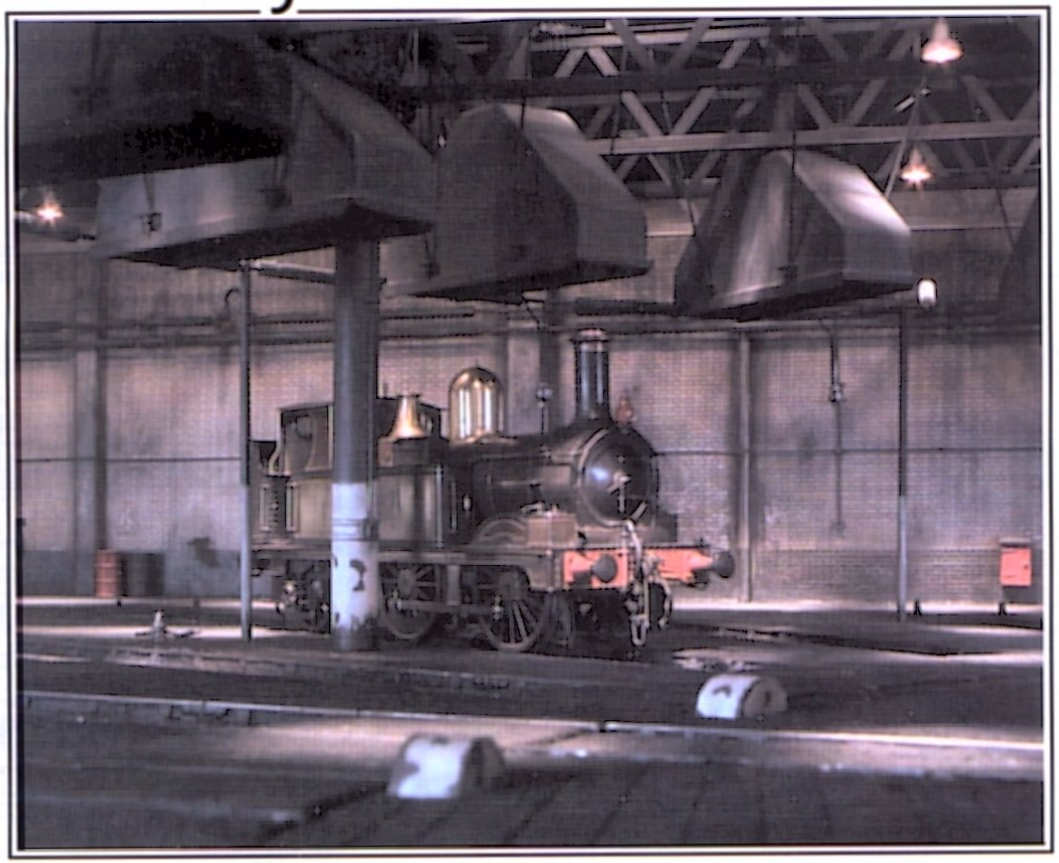

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