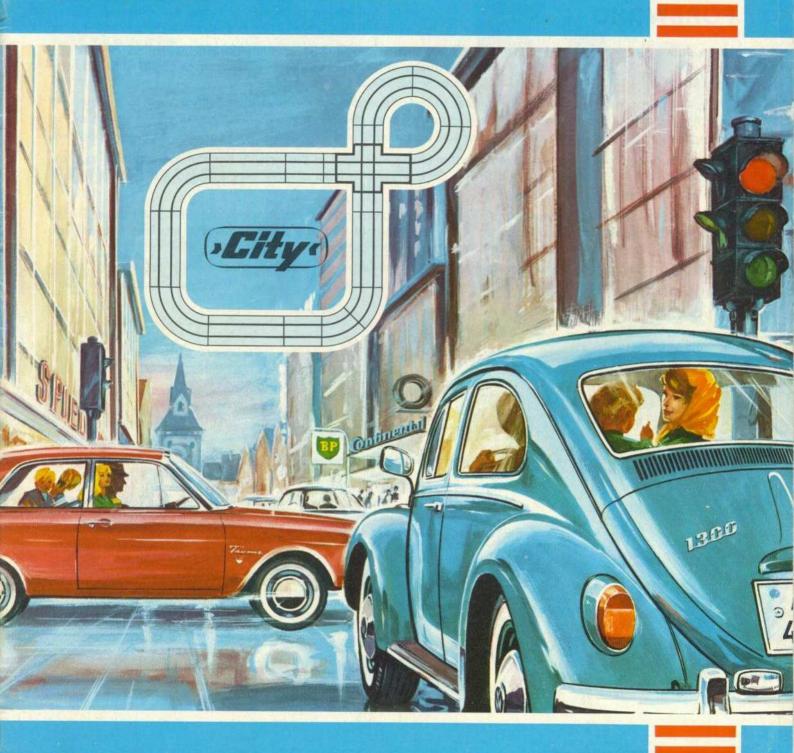


FALLER

A-M-S POST



3 TRAFFIC



FOREWORD

In addition to racing, the FALLER A·M·S roadway system may well be adapted to traffic operations of all kinds. In this volume we shall deal with traffic operations only, whereas the combination of the A·M·S roadway system with H0-trains will be dealt with in a later edition of this magazine.

The whole purpose of this creation is to cater to the desire for pastime and play, with a view to putting into your hand the facilities for reducing the factual activities of the everyday world around you to your play. To do this, the product must divert and amuse as well as stimulate and provide plenty of variation to avoid monotony.

The miniature auto has the great advantage that each participant in the activity has the same chance to play, whether it be slot-car racing or road traffic. Of course, you must always bear in mind the rules and obey them as you must in the world of reality.

We will start with a brief survey of the history of the automobile and the various common body styles. It also seems worthwhile to throw in a summary of the international highway signs and traffic markers and tell you something of the highway system of central Europe where our factories are located.

We also want to leave with you the thought that our product represents an actual model "happening" which can bring endless happy hours to both young and old.

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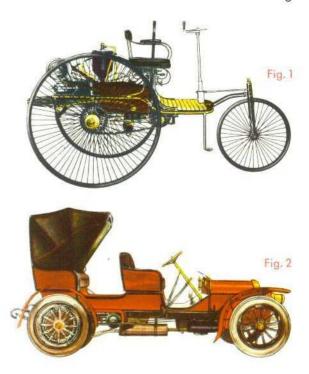
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HISTORICAL DEVELOPMENT

The automobile is barely 80 years old. Of course it was preceded by many years of experimentation with steam-driven road vehicles. Not until the perfecting of a suitable power plant, the internal combustion engine, was the recent rapid development possible. It is Otto, the inventor of the gasoline engine, also known as the Otto engine, and Diesel, who invented the economical crude-oil engine named for him, who deserve special mention.

The actual creators of the automobile were Germans named Daimler and Benz. Benz built the world's first 3-wheeled motor vehicle in 1885 (Fig. 1). In the same year Daimler came up with a 2-wheeled motorcycle, and in 1886, independently of Benz, he built the first 4-wheeld automobile (Fig. 2). Benz' car consisted of a tubular frame with rubber-tired spoked wheels and a 3/4 horse 4-cycle motor with electric ignition. Power was applied to the wheels via rollers engaging a cone-shaped transmission system, still in use today.



BODY STYLES

The technical terminology on this subject is elucidated here with the aid of sketches of present-day car types. The features characteristic of each are emphasized by use of red ink, such as number of doors, seats, shape, top, etc.



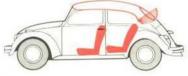
Citroën DS 19

4-door sedan, seating 4–6 passengers. Known in Germany as "limousine", in France as a "berline", in Britain as a "saloon".



Ford 17 M

2-door sedan, seats 4–6. In German also called "limousine".



VW 1300

Convertible, top folds down. Windows crank down. Seats 2–6. Also known as cabriolet.



Opel Caravan

Station wagon. Multi-use type, seats 4–6, folding rear seat and tailgate. In German "Kombiwagen", French "break", British "estate car", Italian "giardiniera".



BMW 2000 CS

Coupe, seats 4 (2+2). Also known as "gran tourismo".



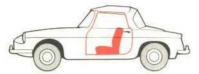
Fiat 850 Spider

Two-seater sports car with folding top and plexiglass windows. Snappy body design.



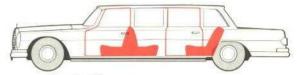
Mercedes 250 SL

Hard-top. Steel or plastic top demountable, converting to roadster. Glass windows.



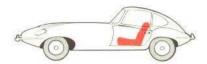
MG B

Two-seater roadster. Often also called "gran tourismo".



Mercedes 600

Also known as "pullman". Luxury vehicle seating 6–9 or more.



Jaguar XKE

Sports car or two-seater for racing. Under international sports code now with 6"-high windshield and trunk compartment.



Porsche 907

Racing prototype. Two-seater coupe with 2.2 liter, 8-cyl. motor, run in classic long distance races for Grand Prix.



Formula racing car

Single-seater for racing. Formula 1: 1500 cc max. Formula 3: 500 cc max. Intercontinental formula: 2—3 liter. Junior formula 1100 cc max. with modified stock engine.

NATIONALITY SYMBOLS

Every car carries an individual number plate which is registered by the appropriate government agency.

To operate abroad, each vehicle is supposed to display a nationality symbol (large letter in an oval). These letters are usually the initial letter of the name of the country in its own nativ language. On the accompanying map of Europe are given the symbols for each country. Note E for Spain ("España"), CH for Switzerland ("Confoederatio Helvetica", in Latin, since there are four official native languages!) and SU for Soviet Union, which doesn't use our alphabet. American cars may or may not use USA ovals.



INTERNATIONAL TRAFFIC SIGNS



Traffic signs: This is an attempt to show you the most important of the international roadside symbols. They are especially needed in Europe because of the multiplicity of languages spoken.

The shape of the sign is significant:

- 1. Red triangle pointing up: informative
- 2. Red triangle pointing down: warning
- 3. Round signs
 - a: red border: prohibits something
 - b: no border: end of restriction
 - c: blue: commands
- 4. Square: informative

The system suffers from some inconsistencies, like most systems. In many countries symbols in use before the international system came into use are still in force, but in general the system works well. In most countries there are signs in the native language, especially for side roads.

Aside from the systematization of sign shape, some elements are observed most everywhere: A slant line upper left to lower right indicates "No! No!" The opposite slant cancels something previously forbidden. In Germany the end of a No Passing Zone is indicated by the international symbol, but annoyingly enough they also repeat the NO PASSING indication with the word ENDE (end) added, which may be confusing to foreigners.

Moreover, many symbols indicating a permissive direction also mean the prohibition of movements in other directions. In Germany, for instance, they don't use the international No Left Turn symbol but rather the straight-and-rightturn symbol. If all this confuses Americans who never see the international symbols at home, it's no wonder, but the American way of having different symbols and signs in the fifty different states is just as bad for foreigners.

NATIONAL SYMBOLS

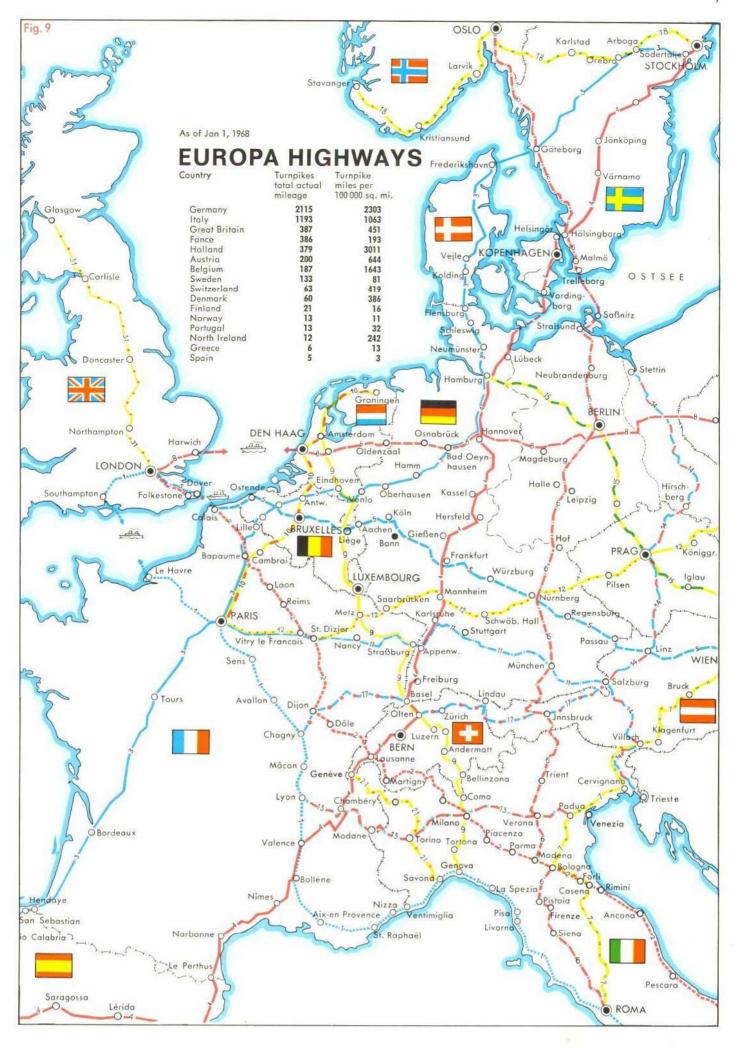


TRAFFIC RULES

The basic rule in practically every country boils down to this: Every user of the public highway must conduct himself with due regard for the safety of others, and in such a way as not to impede traffic. This involves:

- a. Caution on joining the flow of traffic.
- b. Don't tailgate the car ahead.
- c. Exercise care in overtaking.
- d. Exercise care in changing lanes.
- e. Don't cause the overtaken car to veer by cutting back too soon.
- f. Watch out for pedestrians.
- g. Observe due quiet. (Don't honk unnecessarily especially at night or near hospitals.)

Most countries keep to the right except Great Britain and the Orient. Slow vehicles must keep well to the right to permit overtaking. At intersections, unless otherwise indicated, the car on the other's right has the right of way. But major roads and in certain countries numbered highways have the right of way. Usually cars on roads that do not have the right of way will be warned to yield by an appropriate sign. This is in most places, even in U.S.A., indicated by a triangle pointing down. So be doubly careful to observe the signs and symbols when far from home.



ROADWAY SYSTEM TRAFFIC PLAY

Now that we have considered the history of the automobile and learned about the European highway system, let's turn to model matters.

FALLER A·M·S roadways represent a fully adaptable system. You can build them into raceways or you can lay them out for traffic operation. It is obvious that certain roadway units are specialized for racing purposes and others for traffic. The highly banked curves and hairpin turns are for raceways, but for traffic operation or for rallyes there are cross-roads and turnouts.

While we need multi-lane arrangements to build raceways, with parallel curves, highways should be laid out with two-way traffic and the central white line to drivide the two lanes. Or for turnpikes we want a divided highway with a median strip between. And from highways we have to be able to turn into side roads, parking areas and gas stations.

Once more we aim to show you both sets of curves to make the distiction amply clear. Our highway-curves system is built around curve 4390 in the main (outside diameter of curve 12½°). This comes in 30°, 45°, 60° and 90° segments, in other words, a U turn chopped into 2 or 4 even segments or into 4 unequal segments, 2 each. The latter are especially adapted for use with the double turnouts 4712. These double turnouts are also engineered so that their straight leg matches in length a standard straight 4120. With the proper adapter curve added, this turnout exactly matches the standard 90° turn 4390. Likewise the double crossroad is able to be fitted into a place where a 4390 U-turn is used.

The most important single-lane sections were also planned to work hand-in-glove with the 4390 curves. All this makes it relatively easy to work out layout plans.



ROADWAY SYSTEM - TRAFFIC PLAY

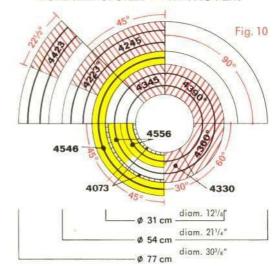
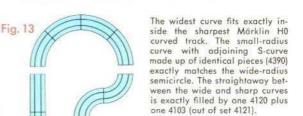
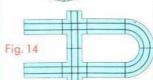




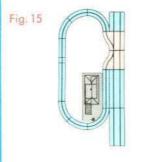
Fig. 12

The interval that results between curves 4245 and 4390 will just take either single-lane curve 4546 or curved median strip 4082.

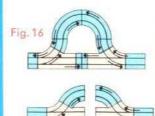




The double-lane crossroads is equal to a standard 8" straight and a short straight at right angles to it, the crossing being off-center. This arrangement permits double crossroads to be set up in minimum space. And the double crossroad thus fits exactly matching a semicircle of

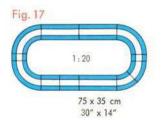


4710 serves to lead one lane out of the stream of traffic into a single-lane stretch. The set consists of two pieces, one of which contains an electric switch blade, the other just slips the car back into the main road, at whotever point you happen to desire. Since all our roadways are intended only for right-hand traffic, only 4710 is at present available.



Double-lane turnout for two-way traffic, again planned exclusively for right-hand traffic. All sorts of variations can be set up, as shown. The set contains two each of the 30° and 60° adapter curved sections, so you can easily manage either a 90° right-hand turnout and return or a double parallel side road.

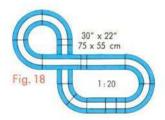
SUMMARY OF GIFT SETS

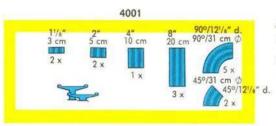




3900

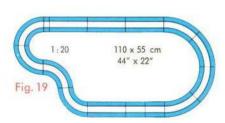
"junior" is a simple DC set with oval road, 2 cars, 2 throttles. Add any A·M·S parts to expand to any size.





4001

This basic set makes a simple figure-8, has 2 cars, 2 throttles. Here too, add any parts to expand to any size.



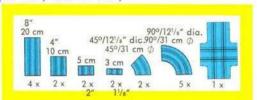


4002

This standard set comes next before 4003 in size, and contains all the roadway for various road ovals and figure-8's, since two different radii of curves are offered. 2 cars and 1 universal switchboard complete the set.

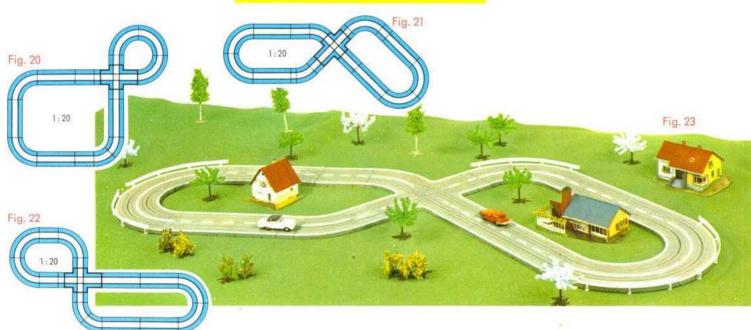
Since this pamphlet is meant especially to help the beginner, we have purposesly worked out few but instructive suggestions. Almost all of them allow for variations. For the sake of unity we base all these on set 4003, since this set contains a crossroad. If you already have another set, for example 3900, 4001 or 4002,

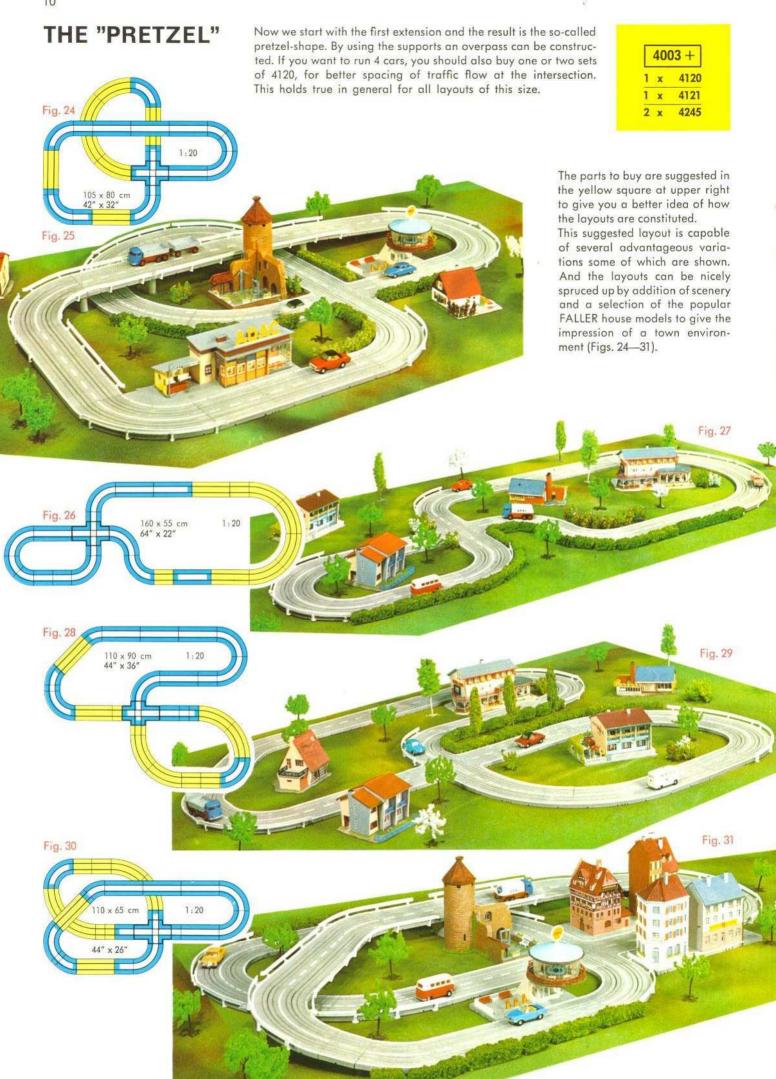
then you must buy in addition a crossroads set 4722 and adapter pieces 4121. There will be in this case a few extra sections, such as 4245.



4003

This set contains the characteristic section for traffic layouts, the cross-roads. To facilitate variations, two 45° curves of standard radius are included. As will be seen later, this saves buying these parts when extending the layout. For the same reason 4", 2" and 11/8" straights are also included. The support pieces also serve the same purpose.



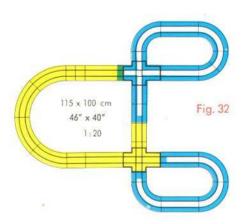


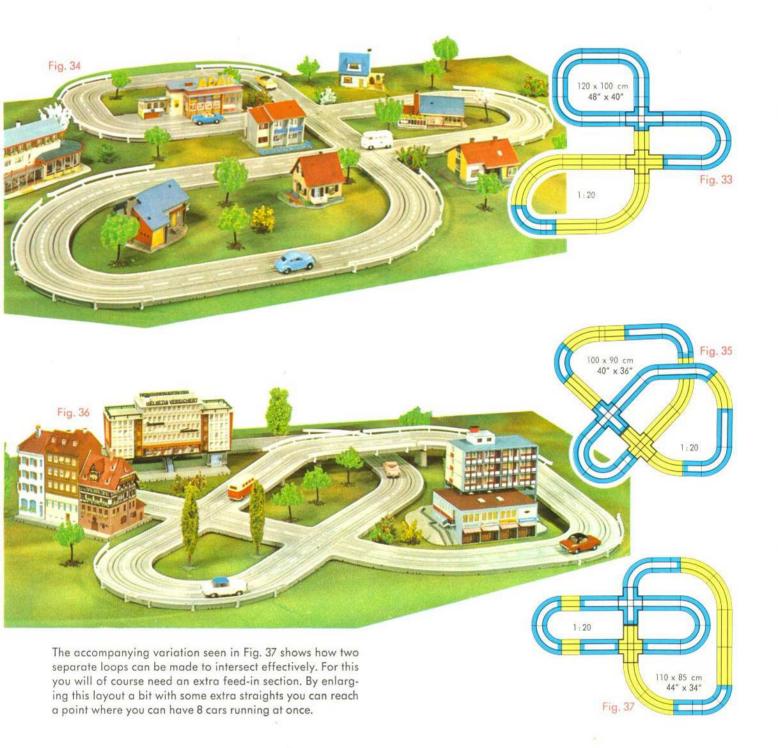
1 x 4120 1 x 4121 2 x 4245 1 x 4722

By the use of additional crossroads 4722 there will be more traffic congestion at intersections. We suggest again that the layout be enlarged by adding plenty of straightaways (Figs. 32—35).

This example shows how little extra material is needed to extend a basic set 4003 into a very interesting traffic layout. The necessary supports are to be found in 4003.

DOUBLE CROSSROADS





48" x 22"

Fig. 38

120 x 55 cm

THE DOUBLE TURNOUT In traffic working you should operate two-way traffic.

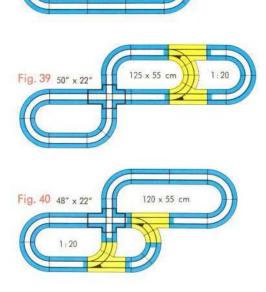
1:20

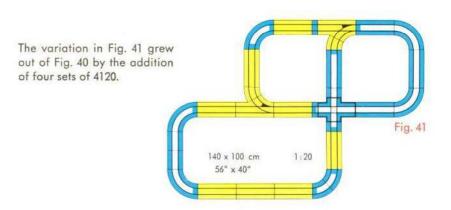
so each operator can get a chance to use the turnout. Since the left-turner is always at a disadvantage, having to watch out for approaching traffic, you might care to make things equal for both operators by installing additional sets of turnouts, but in ordinary play this consideration is of no real importance.

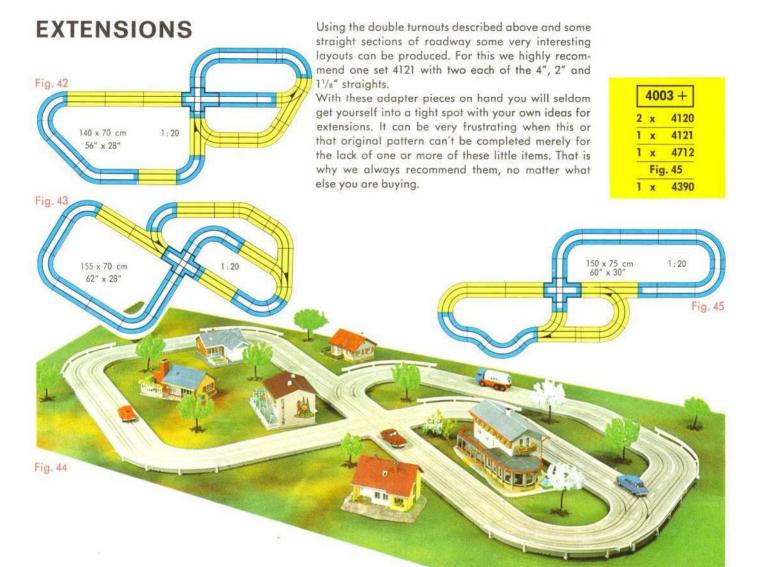


First we show you how this unit is to be incorporated into the layout. Once you are clear on the basic principles the larger layouts will present no problems.

For this reason the double turnout 4712 is introduced,



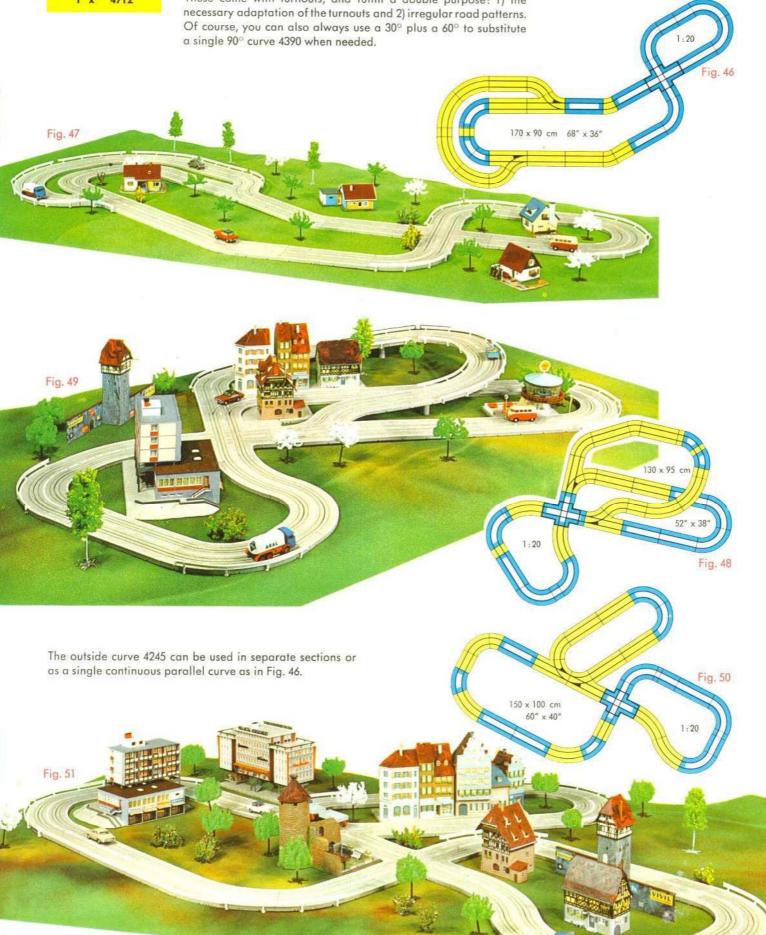




With the parallel-placed outside curve 4245 a new structural element is added. The 45° sector gives this wide-radius curve increased applicability, for example in getting away from the rightangle turns produced by 4390. Layouts with very lively patterns result from this.

The 30° and 60° curves are also of great value in this direction. These come with turnouts, and fulfill a double purpose: 1) the

OUTSIDE **CURVES**

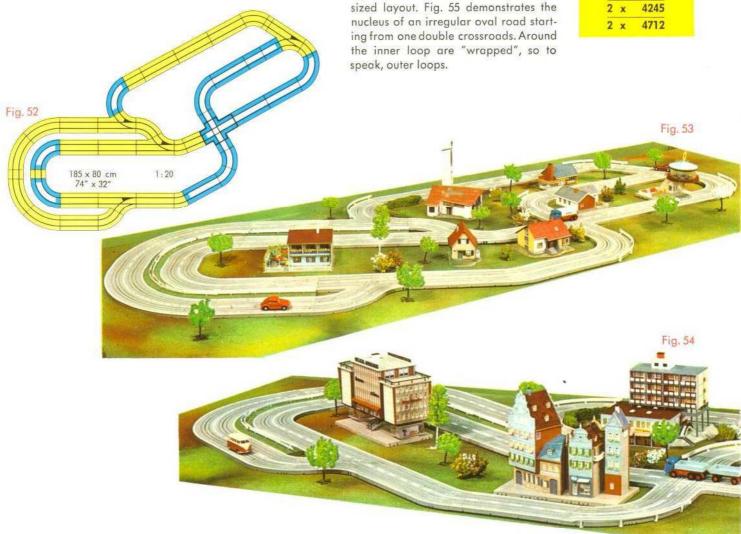


TWO DOUBLE-LANE **TURNOUTS**

Naturally the inclusion of an additional double-lane turnout gives double pleasure to the game. Such a layout provides a great deal of maneuverability for four cars on a relatively modestsized layout. Fig. 55 demonstrates the

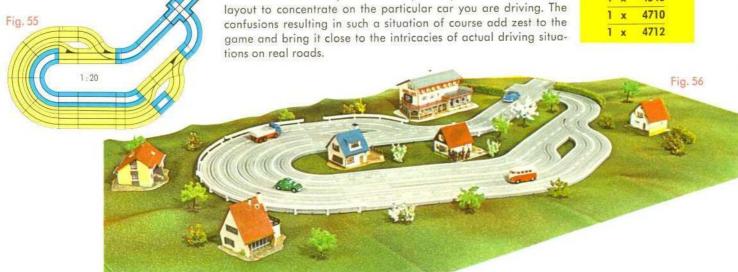
4003 +

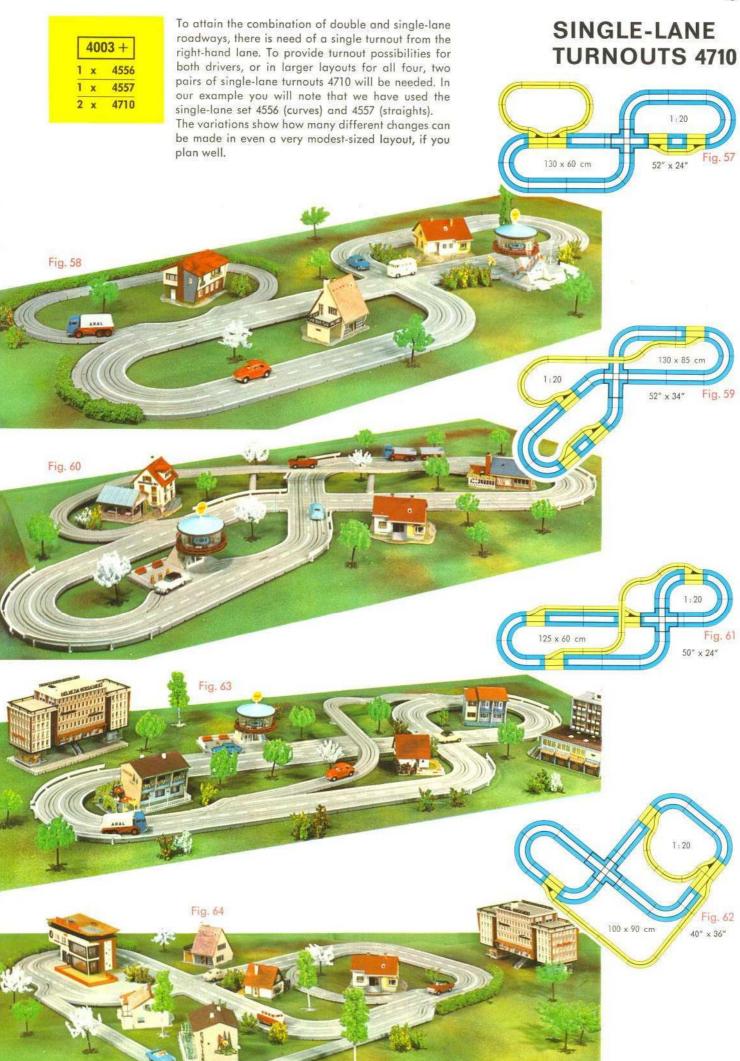
4120 4121



Between inside and outside double-lane loops the single-lane medium-radius curve 4546 is inserted. This fills in the interval between the standard 4390 curve and the outer 4245 curve. The intervals on the straightaways can be filled in with straight single-lane pieces. And finally this single-lane road can be joined to the rest of the layout with a single-lane turnout 4710. See Fig. 99 on page 21.

Some car will be required when operating four cars on such a layout to concentrate on the particular car you are driving. The





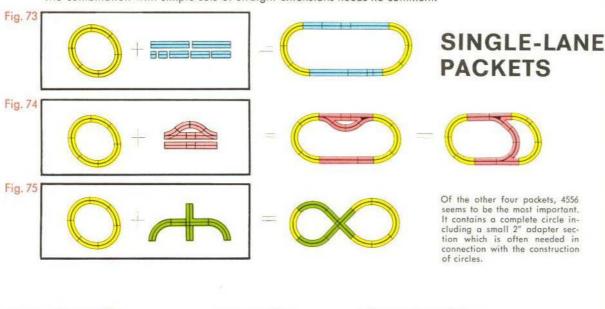
TURNOUT 4710 IN THE "PRETZEL" SHAPE

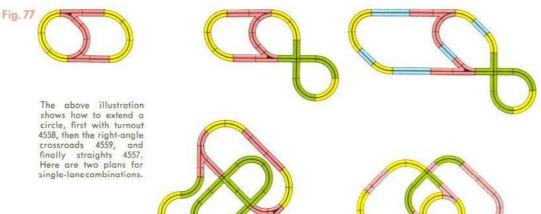
Returning to the well-known pretzel, we now repeat some earlier patterns with the addition of a single-lane turnout. These don't provide anything really new but afford some good comparisons.

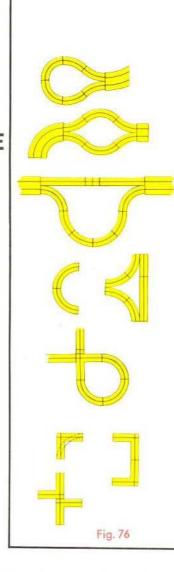




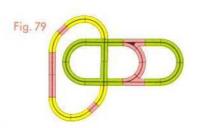
We propose to show you by illustrations the relationship of the various individual packets of single-lane roadway. The intermediate single-lane curve packet has already been mentioned. The combination with simple sets of straight extensions needs no comment.







You realize that the selection of the parts to be included in a given assortment is always based on sound considerations, so as to meet economic as well as practical considerations. It would be too bothersome and costly to offer single roadway sections separately for sale.



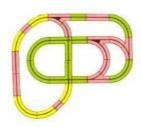
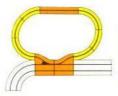


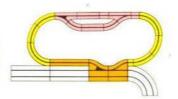
Fig. 78

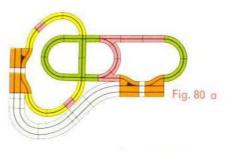
Figs. 80a and 80b show the transition from double-lane to single-lane roads. Sometimes it becomes necessary to split up a 2-lane road in order to avoid some obstacle. Also triple splits are conceivable.

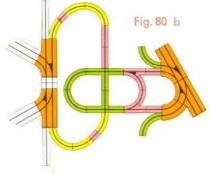
Single-lane roadway combinations with two right-angle crossroads and their extensions leading to combination with 2-lane roads. In the accompanying example one lane is twice led out into single-lane loops.



This example shows the extensability of a singlelane, looped turnout road with an additional 4558 turnout, suitable for a parking area.



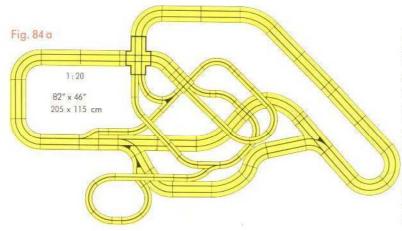






EXTENSION BY MEANS OF TURNOUTS

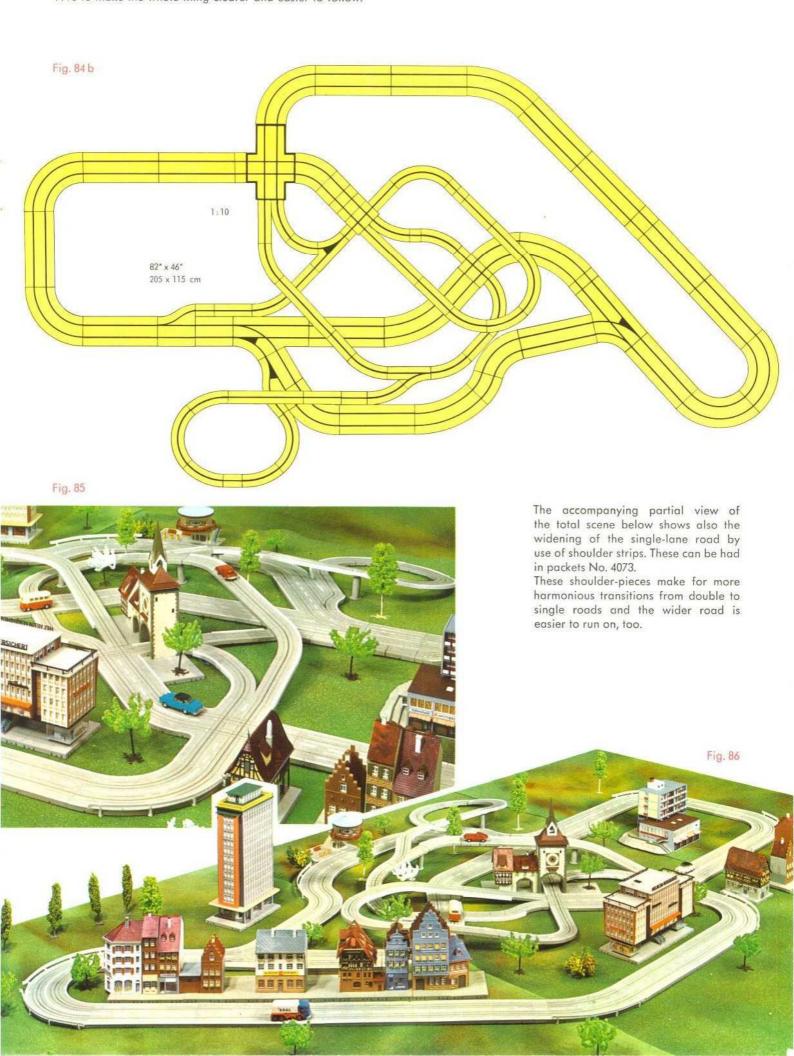
Here we come to the real purpose of a layout combining practically all available roadway sections. It is meant to demonstrate the applicability and combination possibilities of all the parts, but it also shows a perfectly feasible layout.

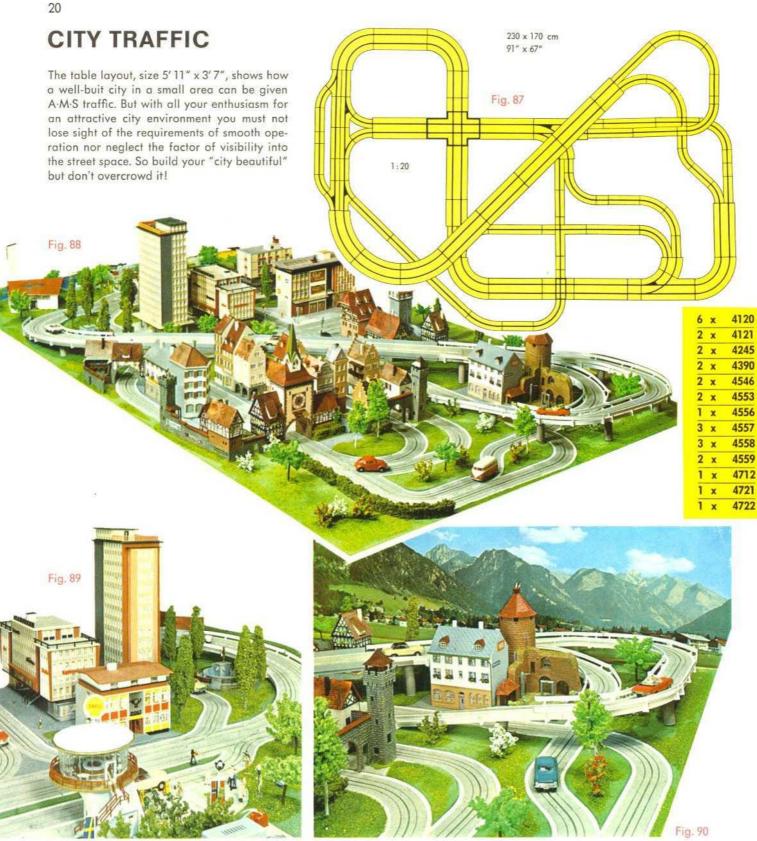


In this example, the basic scheme shown above is expanded, using turnouts 4710, 4712 and 4558. The single-lane turnout 4710 does not simply end with its companion piece to return the lane to the lane it branched from, but in the forked entrance to a single-lane system. And the forked single-lane branch 4558 runs into the return section of the 4710. So you can see right where how adaptable and variable A·M·S roadway sections really are.

	4003 +					
1	x	4120				
1	X	4121				
2	x	4245				
2	x	4556				
2	x	4557				
1	X	4721				

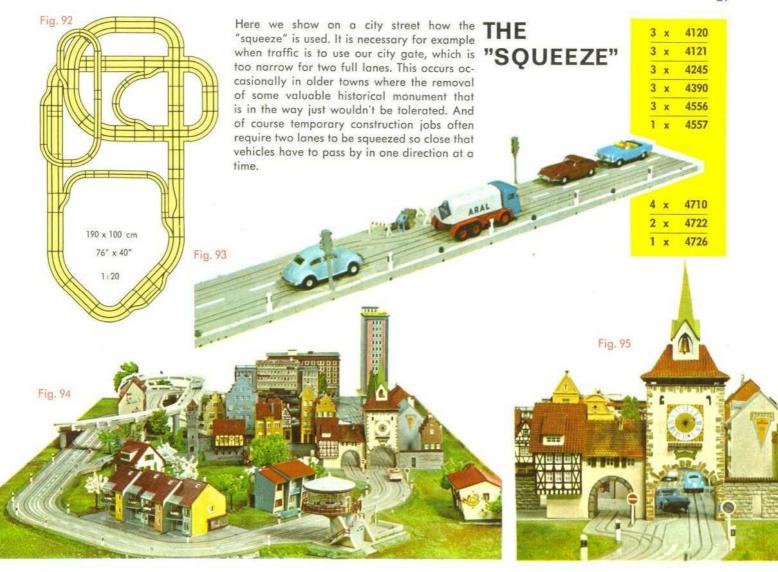
This extensive layout plan is here repeated to a scale of 1:10 to make the whole thing clearer and easier to follow.







The above principle is especially important when it comes to providing space at street intersections and when traffic lights are to be installed. Therefore it is best to start small and work up gradually to what can be installed in the space available.



INTERMEDIATE CURVES

As already mentioned, the single-lane road sometimes serves for parallel operation alongside a double-lane road. Then a single-lane turnout 4710 is always required.

In the accompanying sketches we show the development of single and double turnouts culminating in the construction of a five-lane road with intermediate curves 4546.

We start with an oval with two 4712 sets — four double turnouts — built in. The part of the road in which this lane-change is incorporated is expanded by insertion of 4710. And two variants are shown with a short single-lane section inserted. Finally the road is shown still further extended so that in addition to the straight single-lane pieces the single-lane curves 4546 are needed.

1:20

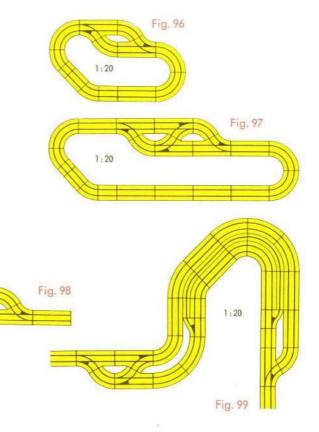
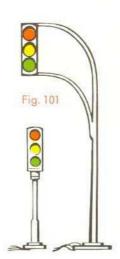


Fig. 100





LIGTHS

TRAFFIC There is no doubt about it, traffic lights make traffic playing that much more realistic. They can be operated by hand or, better, automatically by means of traffic-light control 4040.

The technical operation and function of this is described in A·M·S POST 2, TECHNICAL MATTERS.

The installation of traffic lights calls for some understanding of electrical matters.

It is quite possible to cut off the motive power by changing the lights to "red" - yet this does not correspond to reality, nor does it help much in your play.

Fig. 102



SCENIC **DECORATION**

If you want a permanent layout, well organized and good-looking, use the combination packet 4050, which contains elements for treating the roadside in correct model form. There you will find guard rails, etc.

In the same framework, don't forget traffic signs, lamp posts, etc. A set of decals comes with the traffic signs so you can have the right sign at the right place.



Fig. 103

PARKING AREAS

To provide still more variation in the operational possibilities, special set-ups for parking cars can be installed. People usually use for this single-lane turnout sets 4710, leading either to a gas station or a rest area, or sometimes a side loop. Of course, parking areas for both lanes can be provided if you use double-lane turnouts (4712).

The electrical hook-up is described in connection with the layout shown below, with four parking areas. We will assume that the power is already led to the road and the controllers are hooked up. We use switch 4034 and couple it to the power cord 4706 leading to one lane. Then the parking areas are insulated from the main road in two places each. This is quite simply done by using plastic joining pins instead of the metal one normally used. Of course, only one of the two power rails need be gapped. This insulated section of power rail is then connected to one of the four sockets of switch 4034. All the parking areas are treated in this way.

For the second lane the same connections are made by means of a second 4034. If we assume that each participant is operating three cars and each of these is standing in one of the three parking areas, the Fig. 104 play can begin. At the outset all the parking areas are turned off. Turn on one rest area and that one car can start out on the road. To bring another car into play the first has to be parked in an empty parking area. It takes some thought and care to turn a given parking area on or off at the right time, to operate the electric turnouts and of course keep an eye on traffic.

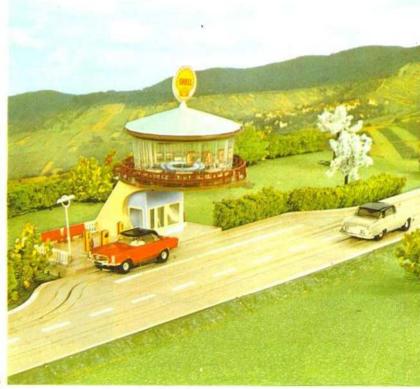
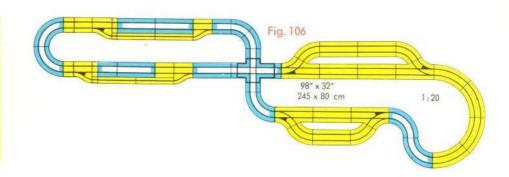




Fig. 105



By continually changing parking places, the traffic takes on a much less uniform and less monotonous flow. This makes operation by two participants very interesting. When operating two cars in the same lane one behind the other on half-wave current, the traffic density increases enormously. Here each participant can be assigned his own parking area or perhaps they can be shared. In each case, each participant has his own separate 4034 switch.

The 4034 switch can be used as a momentary contact for momentary operations, such as turnouts or for longer applications. For various reasons it isn't recommended to use the same switch for both these functions.

After you have acquired some experience with all this, you can begin to work out your own rules of operation for miniature rallye runs. Then the real fun begins.





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