OFFICIAL BOOK OF RULES

for

Model Railroading

EFFECTIVE AUGUST 23, 1952

This book has been prepared by the Lionel editorial staff to guide the operation of model railroads. Basic rules and instructions on signal equipment have been taken from rule books of major railroads.

THIS BOOK

is the property of

Peter the Great RAILROAD SYSTEM

NAME	EMPLOYED AS

How to Have Fun With This Rule Book

You can create a swell game by operating your pike by railroading rules. Suppose, for instance, that several of your friends or members of your family want to take part in the operation.

Choose a Superintendent-Dispatcher, engineman, conductor, brakeman, and see that all of them know their jobs according to the rules.

Then plan your time-tables and train orders. If you decide to operate on a time basis and have a small oval, plan to run your train around the oval several times to give you longer time between stations. The Dispatcher will write the train orders (p. 12). The engineman will control the transformer. Brakeman will take care of uncoupling and switches. Conductor will control movement of train and remote control unloading operations. When you have completed a train run, give everybody a different job, and start over. Or change jobs by penalizing anyone who breaks a rule (passing a red light, being behind or ahead of schedule). Make up your own rules to fit your particular pike. It's real railroading fun.

GENERAL RULES

All people working on this railroad will be governed by the rules outlined in this book.

Obedience to the rules is of first importance to safety.

This railroad requires faithful, intelligent discharge of duty.

A reputation for fair dealing and courtesy toward all passengers and fellow employes is as necessary to the success of this railroad as it is to the success of any other business.

Employes of this railroad must exercise care to avoid injury to themselves and others.

All persons employed by this railroad, regardless of office, are responsible for keeping equipment in good working order. This includes lubricating of locomotives, cleaning track when necessary, checking electrical connections, etc.

Employes must never obstruct the track during movement of trains, or permit others to do so.

All employes of this railroad must be acquainted with the rules listed herein and should report any infraction of rules to the Superintendent in charge.

RULES GOVERNING TEMPORARY TRACK INSTALLATIONS

The following rules will be observed by operators of temporary railroads — those railroads which are set up and dismantled on a temporary basis rather than as permanent layouts.

Temporary track must be taken apart and picked up when the operation is finished.

Locomotives, rolling stock, track and accessories must be put away neatly in boxes.

In case that temporary layouts are permitted to remain assembled overnight (or for longer periods) all members of the family must be notified so that there is no danger of stepping on tracks or equipment.

DEFINITIONS

BLOCK—A length of track of defined limits, the use of which by trains is governed by block signals, block-limit signals, cab signals or cab signals and block signals.

AUTOMATIC BLOCK SIGNAL SYSTEM—A block signal system wherein the use of each block is governed by an automatic block signal, cab signal, or both.

DIVISION—That portion of a railroad assigned to the supervision of a superintendent.

ENGINE—A unit propelled by any form of energy and used in train or yard service.

YARD ENGINE—An engine assigned to yard service.

PILOT—An employe assigned to a train when the engineman, conductor or both are not fully acquainted with the physical characteristics or rules of the railroad, or portion of the railroad, over which the train is to be moved.

ROUTE—The course or way which is, or is to be, traveled.

MEDIUM SPEED—Not exceeding one-half the speed authorized for passenger trains but not exceeding 30 miles per hour.

REDUCED SPEED—Prepared to stop short of train or obstruction.

SLOW SPEED—Not exceeding 15 miles per hour.

RESTRICTED SPEED—Not exceeding 15 miles per hour prepared to stop short of train, obstruction or switch not properly lined and to look out for broken rail.

TIME-TABLE—The authority for the movement of regular trains subject to the rules. It contains classified schedules with special instructions relating to the movement of trains.

SCHEDULE—That part of a time-table which prescribes class, direction, number and movement of a regular train.

MAIN TRACK—A designated track upon which trains are operated by time-table, train order or both or the use of which is governed by block signals.

SECONDARY TRACK—A designated track upon which trains and engines may be operated without time-table authority, train orders or block signals.

SIDING—A track auxiliary to a main track or a secondary track for meeting or passing trains.

CURRENT OF TRAFFIC—The movement of trains on a main track in one direction specified by the rules.

SINGLE TRACK—A main track upon which trains are operated in both directions.

TWO OR MORE TRACKS—Two or more main tracks upon any of which the current of traffic may be in either specified direction.

YARD—A system of tracks within defined limits provided for the making up of trains, storing of cars and other purposes, over which movements not authorized by time-table or by train order may be made, subject to prescribed signals and rules, or special instructions.

TRAIN—An engine or more than one engine coupled, with or without cars, displaying markers.

EXTRA TRAIN—A train not authorized by a time-table schedule.

REGULAR TRAIN—A train authorized by a time-table schedule.

SUPERIOR TRAIN—A train having precedence over another train.

OPERATING RULES

Before the operation of any railroad, either permanent or temporary, track must be cleared and a complete check of electrical contacts should be made.

This railroad will be operated on Standard Time according to the time zone in which it is operated.

Employes of this railroad who are operating trains by time-table should check their watches against each other.

In case of emergency causing delay of a train, the train crew must see that the train is protected both at the head and the rear end (by lantern or flag), and the dispatcher must be notified of location of the broken train.

In case of the operation of this railroad by several persons, the orders of superior officers must be followed by other employes without question. Wherever possible the responsibility of superior officers should be rotated so that all employes of this railroad will have an opportunity to become superior officers.

ENGINE WHISTLE SIGNALS

Whistle (or horn) signals shown here use "o" for short sounds, and "—" for long. Length of sound should depend on distance signal is to be heard.

Sound	Indication
(1) o	Apply brakes. Stop.
(2) — —	Release brakes. Proceed.
(3) — o o o	Flagman protect rear of train.
(4) — — — —	Flagman may return from west or south.
(5) — — — — —	Flagman may return from east or north.
(6) o o o	When standing–back. Answer to hand signal.
(7) — — o —	(a) Approaching public crossings at grade. (b) Approaching points where tracks or bridges are undergoing repairs and reduced speed is required. (c) Approaching interlockings, yards or other points where men may be at work on track and view is obscured by weather or other conditions.
(8) ———	Approaching stations, junctions, and railroad crossings at grade, also for the guidance of mail clerks on trains which collect U.S. mail from cranes.

TRAIN COMMUNICATING SIGNALS

These signals are to be used by conductor to communicate with engineer.

Sound	Indication
(1) o o	When standing—start.
(2) o o	When running—stop at once.
(3) o o o	When standing—back.
(4) o o o	When running—stop at next passenger station.
(5) o o o o	When standing—apply or release air brakes.
(6) o o o o	When running—reduce speed.
(7) o o o o o	When standing—recall flagman.
(8) o o o o o	When running—increase speed.
(9) o o o o o o	When running—increase train heat.

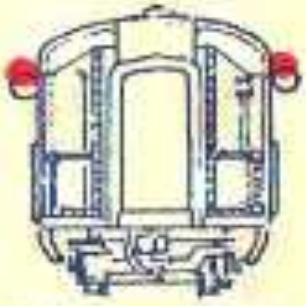
TRAIN SIGNAL LIGHTS

The head end and rear end signals shown on this and the next page will be observed by all employes. Although these indications may not necessarily be used on this road they should be learned in case employe is transferred to another branch or to another railroad. Headlights should be displayed to the front of every train by day and by night. It should be concealed or extinguished when train turns out into siding or spur, when train is clear of main track.

DURING DAYTIME

ENGINE HEADLIGHT IS LIGHTED

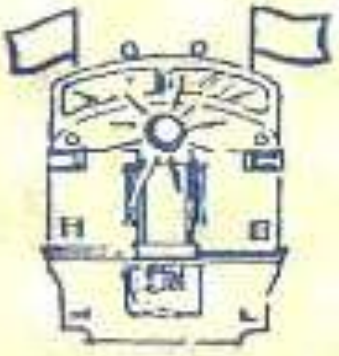
ENGINE HEADLIGHT IS LIGHTED



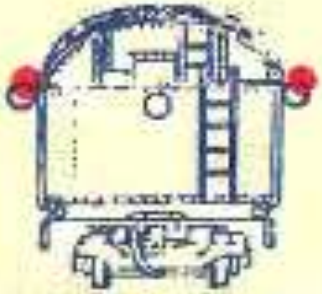
RED MARKER LIGHTS ON END OF PASSENGER TRAIN OR CABOOSE OF FREIGHT TRAIN NOT LIGHTED

RED FLAG ON FREIGHT CARS OF ANY TYPE AT END OF TRAIN

GREEN FLAGS ON FRONT OF ENGINES SHOW "EXTRA" SECTION IS FOLLOWING.



WHITE FLAGS ON FRONT OF ENGINE SHOWS IT'S AN "EXTRA"



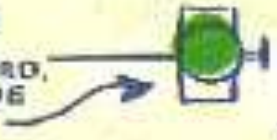
ENGINE RUNNING FORWARD WITHOUT CARS CARRIES RED MARKER LIGHT NOT LIGHTED.

ENGINE RUNNING BACKWARD HAS TWO UNLIGHTED LAMPS ON PILOT.

YOU CAN MAKE YOUR OWN FLAGS AND MARKER LIGHTS

CUT A SMALL SQUARE OF WHITE, GREEN OR RED PAPER AND GLUE IT TO A PIN.

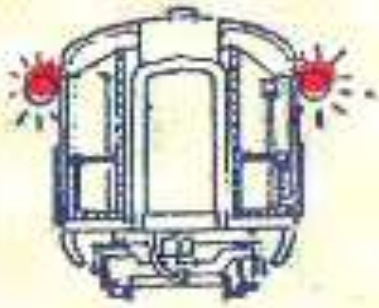
CUT FACSIMILE MARKER LIGHT OUT OF CARDBOARD, COLOR AND GLUE TO PIN.



TRAIN SIGNAL LIGHTS

DURING NIGHTIME

ENGINES RUNNING FORWARD BY NIGHT



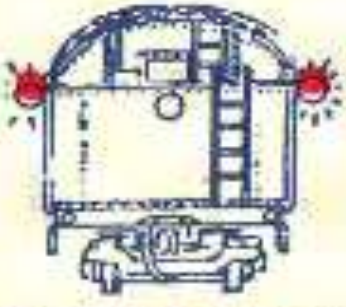
LAST CAR OF PASSENGER TRAIN OR CABOOSE AT NIGHT.

RED LAMP ON ANY LAST FREIGHT CAR.

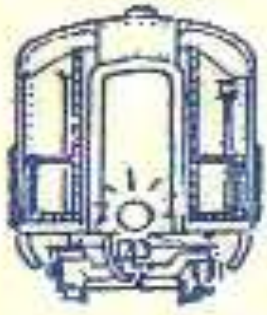
GREEN MARKER LIGHTS MEAN "EXTRA" SECTION FOLLOWING. —LIGHTS LIGHTED AT NIGHT

WHITE MARKER LIGHTS MEAN "EXTRA" TRAIN, LIGHTED AT NIGHT.

ENGINE RUNNING BACKWARD AT NIGHT HAS TWO LIGHTED RED LAMPS ON PILOT



ENGINE RUNNING FORWARD WITHOUT CARS, CARRIES TWO RED LIGHTED MARKER LIGHTS



PASSENGER CARS BEING PUSHED AT NIGHT

FREIGHT CARS BEING PUSHED AT NIGHT.

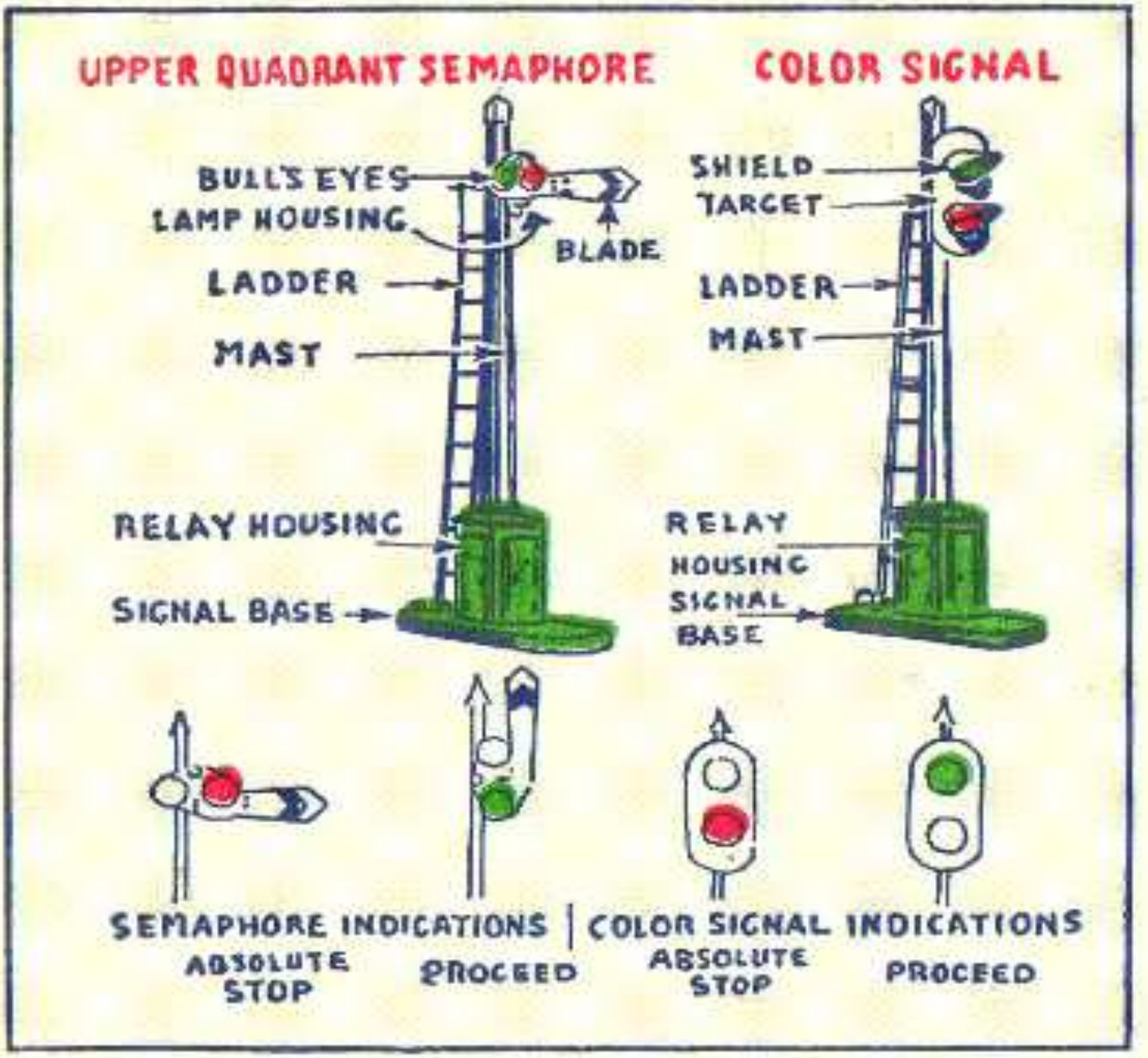
LUMINOUS PAINT THAT GLOWS IN THE DARK, CAN BE USED FOR MARKER LIGHTS — IT COMES IN COLORS

SIGNAL ASPECTS AND RULES

The block signals, semaphores and dwarf signals* (on switches) shown here are standard Lionel equipment. Block signals and semaphores may, of course, be wired to operate by remote control rather than automatically. There are many different combinations that can be rigged up.

Construction and maintenance men who install blocks and semaphores must be sure that such signals are placed on layouts where they are visible to both dispatchers and enginemen.

*Many railroad men call these "jacks".



SIGNAL ASPECTS AND RULES

RESTRICTIVE SPEED SIGNAL

-GREEN OVER RED SIGNAL MEANS SLOW, PREPARED TO STOP AT NEXT RED SIGNAL

A

B

POST 1
POST 2

STOP AND PROCEED SIGNAL

SEE FIG. 1

RED OVER GREEN MEANS STOP AND PROCEED TO NEXT RED SIGNAL PREPARED TO STOP

EITHER SIGNAL ON BRIDGE CAN BE USED AS ABOVE

SWITCH LIGHTS

APPROACHING POINTS

MAIN ROUTE

DIVERGING ROUTE

FOLLOWING POINTS

PROCEED

STOP

FIG. 1

CONNECTING POSTS 1 and 3 MAKE BOTH LIGHTS WORK AT ONCE.

—BLOCK 'B' IS INSTALLED IN USUAL MANNER. WIRING SHOWN MAKES BLOCK 'A' WORK AS RESTRICTIVE SIGNAL. ASPECT OF BLOCK 'A' CAN BE CHANGED BY REVERSING RED AND GREEN LAMPS.

HAND, FLAG AND LAMP SIGNALS

The signal indications shown below are, with few exceptions, used on all railroads and will be considered standard on this road.

During night operations crewmen may use small flashlight to signal engineman.

STOP—

SWUNG ACROSS THE TRACK.

REDUCE SPEED—

HELD HORIZONTALLY AT ARM'S LENGTH, WHEN THE TRAIN IS MOVING.

PROCEED—

RAISED AND LOWERED VERTICALLY.

BACK—

SWUNG VERTICALLY IN A CIRCLE AT HALF ARM'S LENGTH ACROSS THE TRACK, WHEN THE TRAIN IS STANDING.

TRAIN HAS PARTED—

SWUNG VERTICALLY IN A CIRCLE AT ARM'S LENGTH ACROSS THE TRACK, WHEN THE TRAIN IS RUNNING.

APPLY AIR BRAKES—

SWUNG HORIZONTALLY ABOVE THE HEAD, WHEN THE TRAIN IS STANDING.

RELEASE AIR BRAKES—

HELD AT ARM'S LENGTH ABOVE THE HEAD, WHEN THE TRAIN IS STANDING.

ANY OBJECT WAVED VIOLENTLY BY ANY ONE ON OR NEAR THE TRACK IS A SIGNAL TO STOP.

TIME-TABLES AND TRAIN ORDERS

Regular trains, both freight and passenger, are operated by time-table except in emergencies, when unusual road conditions make it necessary to write orders. Extra trains always operate by train orders.

OPERATING BY TIME-TABLE

Persons responsible for making up time-tables for model roads should first check running time of train between official stops to determine how fast train can traverse route.

All members of train crew must be familiar with the time-table of their run. Whenever possible, each crewman should have a copy.

Conductors and enginemen are responsible to see that trains make the advertised stops on time—or to report why this is not possible.

OPERATING BY TRAIN ORDER

Train orders will be issued by the Superintendent or dispatcher for extra trains or for regular trains in case of emergency. Orders must be brief and clear. They must be addressed to the Conductor and the Engineman. In such cases they are addressed as "C&E" as shown on page 14.

In train orders, regular trains will be designated by number, as No. 4, adding engine numbers when necessary. Extra trains will be designated by engine numbers and directions, such as EXTRA 681 "EAST" or "WEST." For movement of an engine of another railroad, the initials as well as the engine number will be used, such as EXTRA 2023 UP, EAST.

MAKE YOUR OWN TIME-TABLES AND TRAIN ORDERS

It's easy to make a time-table to fit your own pike with paper, pencil and a ruler. Follow the pattern on page 13 and fill in your own stations and times.

If you have just one station on your pike it can serve as all of them. At start of the time-table it can be "Big City." Take your train three turns around the track and it's "Lovelyville," and so on.

Then stop your train en route for a simulated "hot box" or an imaginary "broken train." Now you'll want a special train order (page 14) to supersede the time-table.

AUTHORIZED TIMETABLE

- **BIG CITY**
  - LOVELYVILLE
  - JUNIORTOWN
  - SANDSTONE
  - LAWRENCE CORNERS
  - COYOTE PRAIRIE
  - TIMBER CITY
  - SILO CENTER
  - COALTOWN
  - APPLE HILL
  - FAST RAPIDS
  - NEAR TOWN

and

- **LIONELVILLE**

THE .....RAILROAD

.....PRESIDENT

BIG CITY TO LIONELVILLE

STATION	TRAIN NO. 4 Express	# 6 Local	12 Local
BIG CITY	6:05	8:04	9:29
LOVELYVILLE	6:09		9:35
JUNIORTOWN			9:37
SANDSTONE	6:15	8:14	9:41
LAWRENCE CORNERS		8:18	9:45
COYOTE PRAIRIE (f)			9:49
TIMBER CITY	6:23	8:26	9:53
SILO CENTER			9:57
COALTOWN	6:35	8:34	10:01
APPLE HILL			10:05
FAST RAPIDS			10:09
NEAR TOWN			10:13
LIONELVILLE	6:45		10:17

This train does not carry baggage

f Stops on signal to receive passengers

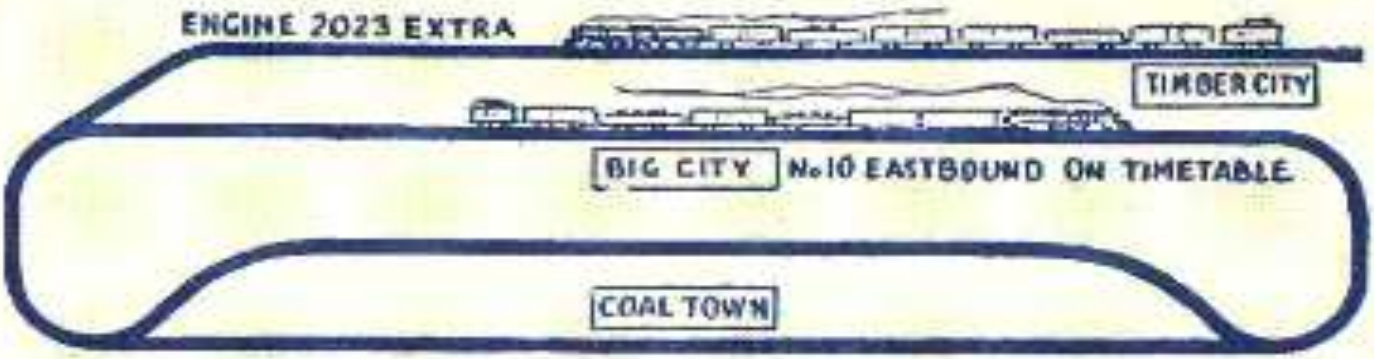
LIONELVILLE TO BIG CITY

STATION	TRAIN NO. 14 Express	# 16 Local	20 Local
LIONELVILLE	3:26		8:15
NEAR TOWN			8:19
FAST RAPIDS			8:23
APPLE HILL			8:27
COALTOWN	3:36	12:00	8:31
SILO CENTER			8:35
TIMBER CITY	3:48	12:08	8:39
COYOTE PRAIRIE (f)			8:43
LAWRENCE CORNERS		12:16	8:47
SANDSTONE	3:56	12:20	8:51
JUNIORTOWN			8:55
LOVELYVILLE	4:02		8:57
BIG CITY	4:06	12:30	9:03

This train does not carry baggage

f Stops on signal to receive passengers

TWO PRINCIPAL TYPES OF TRAIN ORDERS



The simplified layout above will illustrate the use of train orders (in this case Nos. 19 and 31). Assume that your regular train, No. 10, is running eastbound by timetable and, because of some emergency, you wish to give your extra train "right" on the main line over No. 10. Although train order number is the same, No. 19 form is "right-of-way" and No. 31 is a "restricting" order. The order will read like this:

FORM 19 FORM 19

the (Your Name) Railroad

TRAIN ORDER No. 12 SUPERINTENDENT'S OFFICE Aug. 5 19 52

TO C and E. AT Timber City

Eng 2023 (Westbound) will run as Extra from Timber City to Big City and will meet No 10 at Coaltown. No 10 will side track.

MADE Com. TIME 11:40 OPR. Rms.

FORM 31 FORM 31

the (Your Name) Railroad

TRAIN ORDER No. 12 SUPERINTENDENT'S OFFICE Aug. 5 19 52

TO C and E, No 10 AT Big City

Eng No 2023 (Westbound) will run as Extra from Timber City to Big City and will meet No 10 at Coaltown. No. 10 will side track.

CONDUCTOR OR ENGINEMAN	TRAIN	TIME ISSUED	TIME RECEIVED	OPR.
John Doe	10	11:40	11:45	Rms.

SPECIAL RULES • TRAIN CREW

SUPERINTENDENTS — DISPATCHERS

When this railroad is operated with both Superintendent and Dispatcher the Superintendent will be responsible for issuing both time-tables and train orders for extra trains . . . dispatcher will issue orders only in case of emergency.

Those in charge of issuing time-tables or train orders must be completely familiar with the line and should make practice runs of trains to determine the time element involved.

In case of accidents or unusual weather conditions dispatchers will send work crews to the area.

CONDUCTORS

Conductors are in complete charge of trains after they leave yards or terminals. They are responsible for seeing that all crewmen understand orders.

Conductors (along with brakemen) must inspect trains before they are moved, making sure wheels are properly aligned on tracks and all doors closed.

Conductors are also responsible for loading and unloading (remote control cars). They must also see that any livestock in freights is watered and exercised at proper intervals.

Passenger conductors, in addition to collecting fares, must watch out for the comfort of passengers.

ENGINEMEN

The engineman is in complete charge of the locomotive and is responsible to see that it is properly lubricated and in good condition before every run.

He is second in command to the conductor, to whom he reports, and must be prepared to take charge of the entire train if anything happens to the conductor.

The engineman will operate the transformer, both speed and whistle controls, and will control the train according to time-table, train orders and railside signals.

FIREMEN

The fireman reports to the engineman, and will, in case of emergencies, take over control of the locomotive.

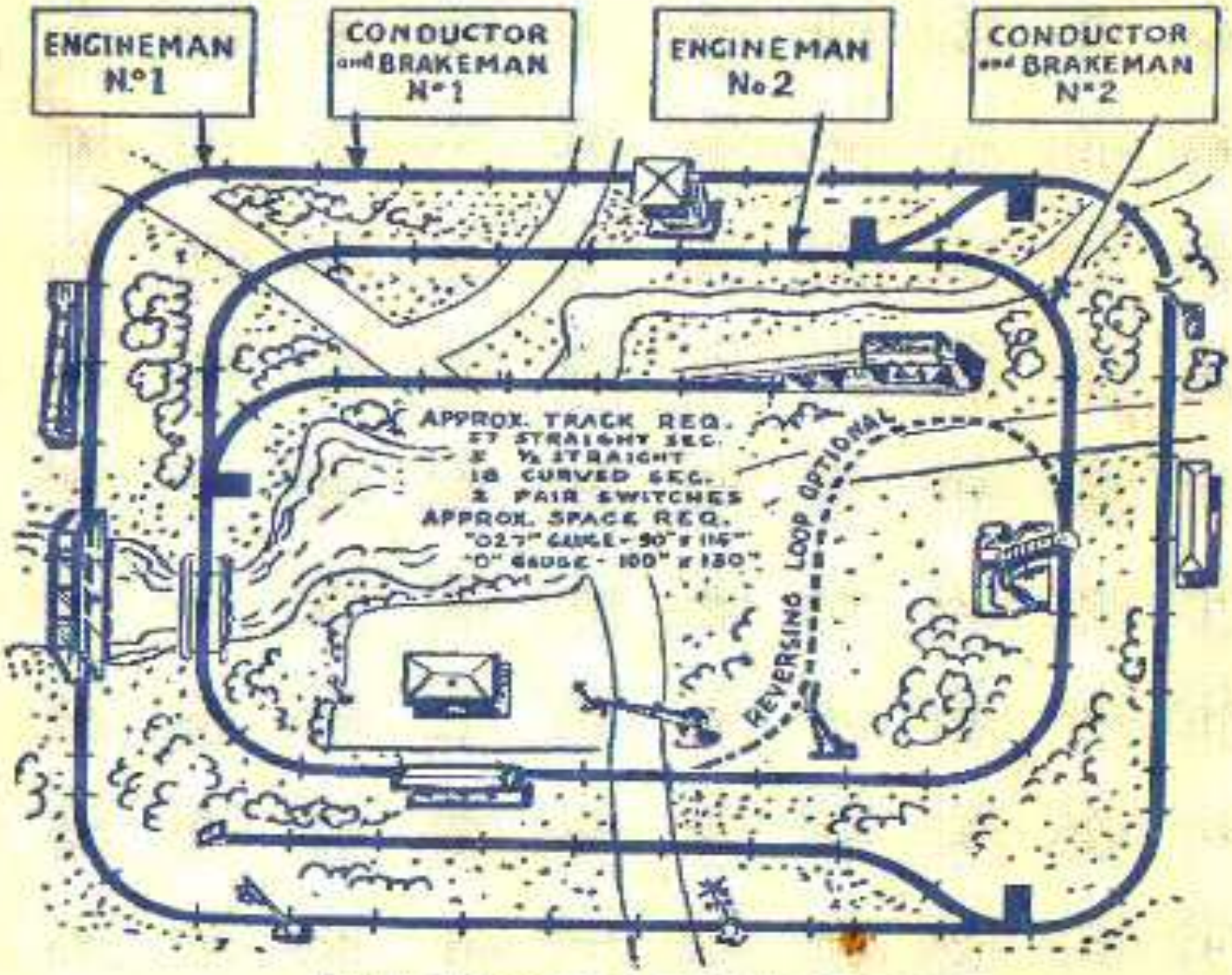
He will keep a constant lookout for all signals and give notice of such signals to the engineman, as follows: when a green signal shows he will call "green" to the engineman. Engineman will then repeat "green" to him.

BRAKEMEN

The brakemen will, of course, report to the conductor and, in some cases will be governed by orders of the engineman. They will handle the uncoupling of cars and will signal the engineman (by lamp or flag) in making up and breaking up trains.

MULTIPLE OPERATIONS ADD TO RAILROADING FUN

Here's a suggestion for multiple operation, using two sets of train crews and simulating two different railroads. Outer loop represents one road — the inner loop the other. Crossover permits moving trains from one road to the other, as indicated. In operations of this sort train orders must be carefully planned and rules accurately followed. As two roads are involved, timetables should be carefully interlocked. This interesting plan can, of course, be enlarged many times. If your equipment is limited, why not pool your tracks and trains with someone else — this will give you enough to complete the layout and will add railroad-wise crew members to operate it.



THE LIONEL CORPORATION
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