

Classic Model Railroading series

American Flyer Trains by A.C. Gilbert



3/16 scale 1/64 ratio O/S-gauge

Photos of popular pre- and post-war models
with a little history, how made,
repairs and project ideas.

A Cinder Sam e-book

AMERICAN FLYER - a summary

American Flyer 1907-1938

The original maker of our toy train subject was a hardware company in Chicago that began production of clockwork locomotives and passenger coaches about 1907. Freight cars were added in 1910. That same year the factory was renamed American Flyer Manufacturing Company. Electric trains were introduced eight years later.

A.C. Gilbert, whose firm invented the Erector Set, purchased American Flyer in 1938 and moved the factory to New Haven, Connecticut. He then redesigned the existing line of 0-gauge 1/4 inch scale (1-48 ratio) 3-rail trains.

Gilbert Years 1939-1942

New model railroading standards established S-gauge in 1937. It was to be 3/16 scale (1-64 ratio) and use 2-rail track. The same year several builders attempted to commercialize S-gauge, but their efforts saw little success. However, all toy train makers were trying to produce more detailed models and this activity must have prompted Mr. Gilbert in his choice to redesign in 3/16 scale.

The new look was much more realistic, except for the continued use of the old 0-gauge 3-rail track. Redesigned rolling stock was offered in both diecast and painted sheet metal forms; the latter holding up better over the next sixty years. Diecast locomotives copied real steam prototypes and used a worm drive for smoother operation.

American Flyer's new line was released in 1939 with a #500 series of diecast rolling stock. The #400 series sheet metal items entered in 1940 and 1941. Original link type couplers remained the standard. Thus, except for their track, Flyer's postwar lineup was set.

Gilbert Years 1946-1966

American Flyer began production of 2-rail S-gauge models in 1946. Engines and rolling stock were the same as prewar except for wheel spacing and insulation.

The rolling stock was now pre-colored plastic. Link couplers were changed from diecast metal to molded plastic; with a metal weight button soon added to prevent inadvertent uncoupling. New automatic knuckle couplers were first introduced in 1952, with the link type couplers being dropped after 1954.

During the 1950s A.C. Gilbert also originated a number of TV shows from his Hall of Science in New York City. These shows were called "The American Flyer Boys Railroad Club". The Hall of Science showroom included a train layout and displays of other products like Chemistry and Erector Sets.

Competition with Lionel was fierce, particularly with regards to operating accessories. Each firm tried to outdo the other, to the joy of their loyal customers. Pike Master track, with more ties for realism, was packed into sets starting in 1961.

However the toy train business was all downhill in the decade of the 60s; and 1966 was American Flyer's last year of production. The company was sold in 1967 to its arch rival Lionel; who in turn succumbed two years later. (Marx somehow managed to survive into 1975 before closing up shop.)

Lionel Era 1967-Current

Model Products Corporation (MPC), a part of the Fundimensions Division of General Mills the cereal maker, bought Lionel in 1969. But, it was not until ten years later that American Flyer S-gauge trains were reintroduced. They started with freight cars; then added diesel locomotives and passenger car models. Flyer fans were thrilled!

Discovering A.C. Gilbert's American Flyer Toy Trains

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YOU ARE READING A "CINDER SAM" BOOK

This book was written and published in 2012 by Harry Noble who received his first toy train before the age of two. Although arriving after the standard-wide gauge era, he has never-the-less followed the American toy train scene all his life. Prototype trains too! Retirement in 1999 freed up time to write about his experiences under the guise of Cinder Sam. Contact him at: 1124 Old Springfield Pike, Xenia, Ohio 45385.

INTRODUCTION

Since this author has written a book about Marx toy trains and another about Lionel toy trains, I guess it's about time he put one together for those good old American Flyer trains. Although there are three eras of Flyer ownership, this will be mostly about the A.C. Gilbert pre- and post-war years. My reasons are that these years best fit my lifetime (1937-?), current interest (0-gauge) and friends. In the latter category I thank Frank Barr, Keith Wills, Phil Noble, Harold Boat, Jon Goins and Bill Carey for their kind guidance. My own Erector Set, several collected Gilbert American Flyer train items and a shelf filled with these publications completes the extent of this author's knowledge:

"Collector's Guide to American Toy Trains", by Susan & Al Bagdade, 1990, Wallace-Homestead Book Company printer (A really neat book; recommended!)

"Handbook for Model Railroaders", by Wm. K. Walthers, 1937, 1939, 1944, The Modelmaker Corporation printer 2nd & 3rd ed. Kalmbach Publishing (Things haven't changed all that much)

"150 Years of Train Models", by Hal Carstens, 1999, Carstens Publications printer (A different look at model RR history)

"Classic Toy Trains" magazine, various issues and dates, Kalmbach Publishing (New stuff every month)

"Classic 0-gauge Trains" (history and price guide), by David Doyle, 2007, Krause Publications printer (History in a nut shell)

"Greenberg's Pocket Price Guide" for American Flyer S-gauge, 1995 ed., by Bruce Greenberg, Kalmbach Publishing (THE reference book for prices)

American Flyer catalogs for the years of 1940, 1951, 1956 & 1961 that were issued by the A.C. Gilbert Company (They didn't make everything shown!)

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Dec 45 Open Road for Boys

Dec 46 Railroad Magazine

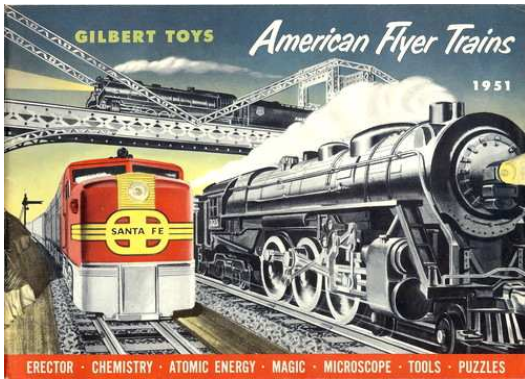
Dec 51 Toy Trains Magazine

Nov 53 Railroad Magazine

Feb 55 Model Trains Magazine

1933 pre-Gilbert "0" catalog

1940 Gilbert AF "0" catalog



1951 Gilbert AF "S" Catalog
selected inside pages shown below:



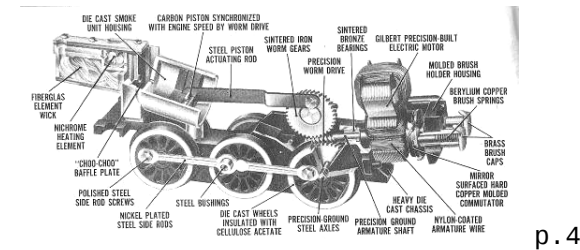
p.3
Actually Nathan 5-tone diesel horn



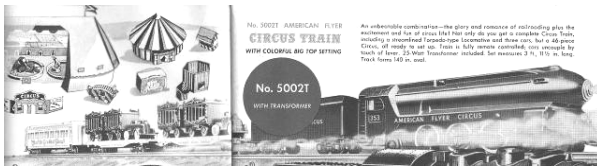
Popular Action cars p.21



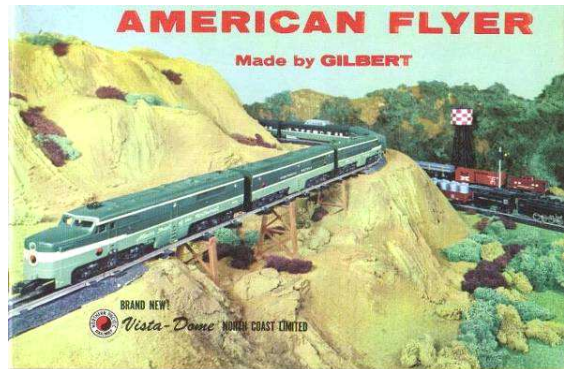
More Action cars p.22



p.4



Circus Train set #5002T p.8/9



1956 Gilbert AF "S" Catalog



4-8-4 Northern loco #332 p.12

1961 Cover





1986 post-Gilbert Lionel Catalog

AMERICAN FLYER 1907-1938

A detailed model of a steam locomotive, likely a GWR 4000 Class, is shown on a track. The locomotive is dark with gold-colored detailing and is pulling a passenger coach. In the background, there is a small white building with a green door and a figure standing near it. The scene is set on a model railway layout with realistic scenery.

This author has seen and operated products from the 1930s era. They are close to 1/4 inch scale and about the size of many Lionel pieces, but not quite as well made. Labeling was by stick-on paper tags. Spur gear drive engines were common as was a third rail sliding shoe pickup.

THE GILBERT YEARS – prewar 1939-1942

However, toy train manufacturers were trying to produce more realistic models. Lionel's detailed 1/4 scale 0-gauge Hudson and Marx's 3/16 scale 0-gauge lithographed boxcars are fine examples. All this "scale" activity must have prompted Mr. Gilbert in his redesign decisions.

American Flyer's new line was released in 1939 with its #500 series diecast rolling stock (2 passenger & 7 freight styles). #400 series sheet metal items entered in 1940 and 1941 (6 passenger & 11 freight styles). The diecast link

type coupler remained standard. Engine power was available in 0-6-0, 0-8-0 (1941), 4-4-2, 4-6-2, 4-6-4 and 4-8-4 wheel arrangements. Except for their insulated wheels and spacing, Flyer's postwar power lineup was set.

THE GILBERT YEARS - postwar 1945

A limited number of prewar designed trains were assembled from leftover parts late in 1945. This kept the assembly lines busy while the factory retooled to make new 2-rail S-gauge trains.

THE GILBERT YEARS - postwar 1946-66

American Flyer began production of their 2-rail S-gauge models in 1946. Diecast boilered steam engines were the same as prewar except for wheel spacing and the need for insulation. Newly assigned three digit numbers better defined each locomotive.

All rolling stock was now precolored plastic. Link couplers were changed from diecast metal to molded plastic; with a metal weight button soon added to prevent inadvertent uncoupling. New metal automatic knuckle couplers were first introduced in 1952. Link style couplers were dropped after 1954, and fixed plastic knuckle couplers were added in 1960.

In 1957-58 A.F. changed from 3-digit numbering to 5-digit; enabling further definition of their products.

Competition with Lionel was fierce, particularly in the area of operating accessories. Each firm tried to outdo the other; to the benefit of their customers. Gilbert's Hall of Science included an American Flyer showroom train layout in addition to displays of other products such as Chemistry and Erector Sets.

Pike Master track, with more ties for realism, was packed into sets starting in 1961.

However the toy train business was all downhill in the decade of the 60s; and 1966 was American Flyer's last year of production. The company was sold in

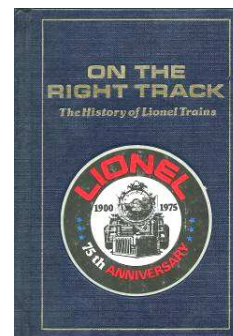
1967 to its arch rival Lionel; who in turn was bought out by Fundimensions just two years later. Marx somehow managed to survive into 1975 before closing up shop.

LIONEL ERA 1967-Current

Model Products Corporation (MPC) was a division of General Mills, the cereal maker. All General Mills toy companies were held within an organization known as Fundimensions. Lionel trains made during this ownership period were considered as MPC and/or Fundimension products. Production in Mexico led to some quality problems, but what I've seen worked O.K. However, the use of plastic wheels for a time led to some very lightweight rolling stock.

It was not until 1979 that Lionel re-introduced American Flyer S-gauge trains. They started with freight cars and later added diesel locomotives and passenger car models. Devotees were overjoyed.

Further restructuring and ownership into Lionel Trains Incorporated (LTI) and now Lionel L.L.C. have stabilized the company for continued operation well into the future.



1975

Fundimensions 75th anniversary book refers to American Flyer

EMD GP20 Diesel (1986)

#8551



LOCOMOTIVES AND NUMBERING

Newly assigned three digit numbers better defined each locomotive:

1st digit indicated "Locomotive"

3 = steam (or diesel)

2nd digit indicated loco "Type"

0 = 4-4-2

1 = 4-6-2

2 = 4-6-4

3 = 4-8-4

4 = 0-8-0

5 = Baldwin

6 = Alco PA/PB

7 = EMD GP-7

3rd digit indicated "Features"

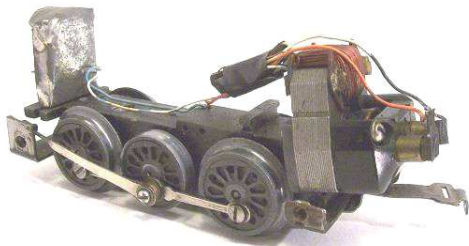
0 = none

1 = choo-choo

2 = smoke & choo-choo

6 = air chime whistle (1951)

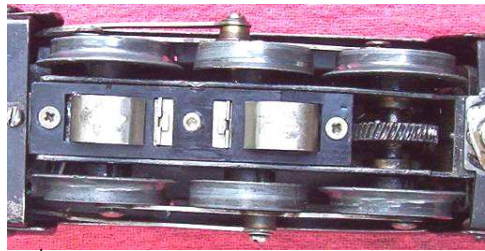
American Flyer's excellent line of diecast metal steam locomotives had profiles that resembled prototypes belonging to the U.P., NKP, PRR, NYC, B&O and Reading railroads. Only the B&O was streamlined. Various types of reversing units were used. If in the loco's tender, a multi-wire control cable connected the two pieces. Some-time in the 1950s Gilbert introduced plastic boiler shells on selected engines. Diesels I can understand, but I've not seen any steamers made that way. Tenders were metal or plastic. Other than insulated drivers and wheel gauge, third rail electrical pickups are the noticeable difference between prewar and postwar steam locomotives.



6-wheel frame-worm motor-no reverse



4-wheel frame-worm motor-2pos. rev.



3rd rail pickup on 0-gauge loco

4-4-2 Atlantic steam (1946-47) #300
Rev in boiler-no features-metal tender



4-6-2 Pacific steam (1946-48) #310
Rev in boiler-no features-cast tender



4-6-4 Hudson steam (1953-57) #326
Smoke/chuff/whistle-Rev in cast tender
6-wheel tender trucks; no center axle



Alco PA diesels (1953 chrome) #474/475



ROLLING STOCK AND NUMBERING

In 1957-58 A.F. changed from 3-digit numbering to 5-digit; enabling further definition of their products:

- 20xxx = sets
- 21xxx = locomotive
 - 210xx-211xx = steam
 - 212xx-219xx = diesel
- 22xxx = transformers
- 23xxx = accessories
- 24xxx = rolling stock
 - 240xx = boxcar
 - 241xx = gondola
 - 242xx = hopper
 - 243xx = tank car
 - 244xx = reefer
 - 245xx = flatcar
 - 246xx = caboose
 - 247xx & 248xx = passenger
- 25xxx = operating rolling stock
- 26xxx = track related
- 27xxx = light bulbs

S-gauge trucks types (1946-66)



Diecast or plastic link coupler, metal sideframes & plastic wheels (1946-54)



Metal or plastic knuckle coupler on plastic frames & wheels (1952-66)

Boxcar w/sliding doors (1946-52) #633

Plastic body & chassis; link couplers



Flat car & logs (1954)

#928

Diecast body; link couplers



Searchlight Action car (1953-54) #934

Plastic body; link couplers



Hopper car & load (1953-56)

#921

Plastic body; knuckle couplers



Tank car (1946-50)

#625

Plastic body-metal chassis-link cplrs
Warped body: typical of early plastic



Caboose-New England (generic) #24610

Plastic body-metal chassis-link cplrs
Note roof damage-common in all scales



The Reefer #923, stock #629 and Gondola #631 were also available.

New Haven Pullman (1946-53) #650
Plastic, with lights & link couplers



Heavyweight Pullman (1946-53) #652
Plastic, with lights, opening doors, 6-wheel trucks & link couplers



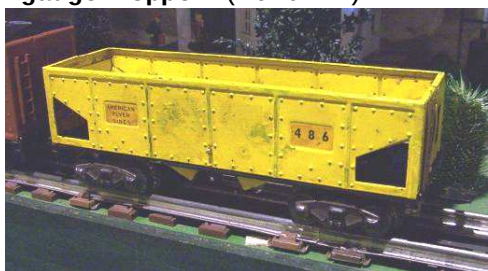
AUTHOR'S EXPERIENCES - prewar

E-BAY Find: AF powered Marx 2-6-0



My son found this engine and a box of Marx cars on the internet. He really was buying the cars and was surprised at the odd locomotive that showed up. Someone had severely rearranged the interior sheet metal of a Marx #898 locomotive to permit the installation of a Gilbert American Flyer 0-gauge worm gear drive six wheel motor unit. The workmanship was well done and the worm drive runs slow and smooth. It came as an 0-6-0 wheel arrangement, so I jury rigged some Marx 3/16 scale wheels into a pilot truck. We now own this unique 2-6-0 freight type engine. Our thanks to the original rebuilder.

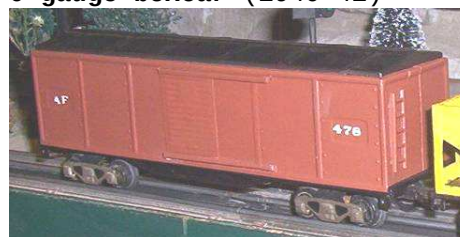
0-gauge hopper (1940-41)



#486

This 3-piece all metal car is sized just right to operate with Marx 3/16 scale rolling stock. And, the hopper unloading doors open! Conversion is simple. Just unbend the several tabs and drop the chassis. Next, cut off the truck mounting rivets from below. Place Marx trucks over the rivets and repeen. The replacement truck frames are thinner, so this is possible. Reconnect chassis and body; bend tabs. That's it.

0-gauge boxcar (1940-41)



#478

This photo shows a Gilbert American Flyer prewar 0-gauge enameled tin box car (only one was offered) which has had a Marx truck and coupler swap. The item shown was not in the best shape when purchased, so it was taken apart, painted and then reassembled. Once it had a red roof and white sides; now it has a black roof with brown sides. I've relabeled it "AF" and "478" with rub on letters. Since A.F. used stick-on paper tags, that was another option.

AUTHOR'S EXPERIENCE - postwar

S-gauge tender (1946-56)



This robust tender (no # but more than likely it's from a #300 series 4-4-2 Atlantic loco) has a molded black plastic body and screw attached metal floor (with two weights). I replaced the early S-gauge trucks with prewar 0-gauge ones from American Flyer and took out one weight. A homemade slot drawbar was placed at the front and a bent tab coupler attached at the back. (Later, a forked type rear coupler was

installed.) This tender goes well with my remotored Marx 2-6-0 loco, and its Reading Lines logo also matches their cabooses.

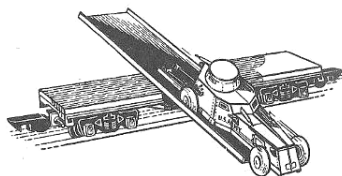
S-gauge hopper (1946-53)



#632

I bought this as an experiment because it seemed the right size for Marx 3/16 scale. It looks just fine with their boxcars, tenders and cabooses, but not gondolas for some reason. Perhaps it's the small lettering. Maybe I should repaint and decal this car. The trucks are simply screw mounted, so it takes only a minute to change over to Marx freight trucks. But you do need to add a 1/16 thick washer in order to bring the top up to the same height as the metal hopper I discussed elsewhere.

Unloading car (1940-41 & 1946-54)



No. 715 UNLOADING CAR 495

You can have endless hours of fun with this ingenious operating car which goes into action at a touch of a remote control button. Here's how it works: at pressure of button, platform on car swivels around at right angles, tilts up, and Automobile automatically rolls down incline. Car has infinite play-value possibilities. Transport new automobiles from factories to dealers located along your right-of-way! Includes automatic track section and single-button control box. Measures, 7 3/4".

#472/715

I've seen several of these Unloading Cars at train shows, but they had no vehicle. Your author does have one of those Tootsietoy armored cars; it was purchased new back in the 1940s. I've mounted it on a Marx Army flatcar.



Author's Tootsietoy for #472/715

ACCESSORIES - A.F.

75 watt Transformer (1946)



#7B

A larger **100 watt** version, the **#8B**, was produced during the years 1946-52. These transformers usually sell for a reasonable price for their wattage and their 15 volt output is slightly more than the typical Lionel or Marx item. I really like the feel of its black wood handle and, for safety, they have a built-in circuit breaker to prevent overheating if a short circuit does occur. Transformers seldom go bad, but cords can, and do, crack with age.

175 watt Transformer (1957-58)



#22060

This is AF's answer to Lionel's ZW transformer. It has lots of power to run two trains, plus accessories, at once. A "dead man" feature requires the control handles be held down, or they will pop up (left handle) cutting power to the track. A locking device (right handle) overrides the feature.

Tin Station (1931)



#96

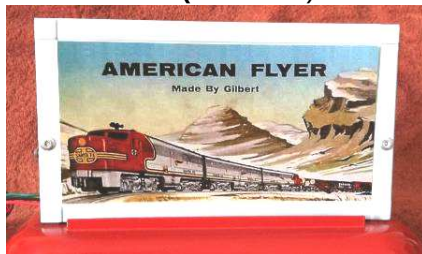
This pre-Gilbert 0-gauge lithographed tin station is much too large for 3/16 scale S-gauge, but it might look O.K. with Standard Gauge model trains.

Whistling Billboard (1946-47)



#577

Billboard Horn (1955-56)



#561

One of several noise making devices available, the whistling billboard may have been the most popular. On-board whistle and choo-choo sounds could be had, as well as fixed site bells, an odd sounding air chime whistle, this horn and a talking passenger station.

Blinker Signal (1946-48)



#582

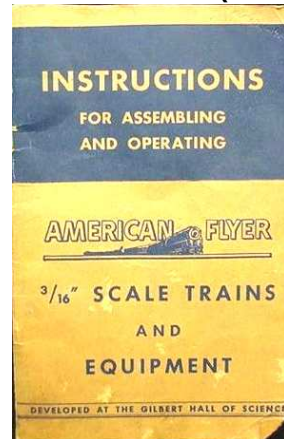
Straight Track Sections:



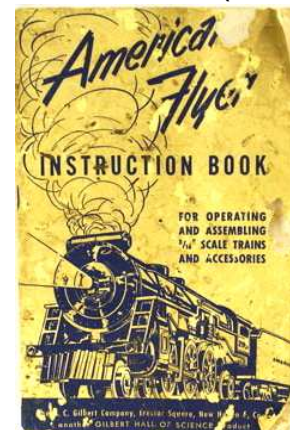
S-gauge front #700 (1946-56)
0-gauge rear #681 (prewar-1948)

The 2-rail S-gauge track sits on four higher crossties that make it stiffer than 3-rail track. But it looks out of proportion to 3/16 scale trains using it because of the height. Newer #26300 Pike Master track (1961-64) is more realistic with its full compliment of crossties per section. (See the 1961 catalog cover.)

Instructions (1949)



Instructions (1952)

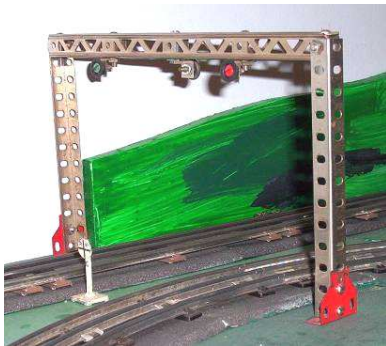


ACCESSORIES - BY OTHERS

Erector Set parts



Tin shack



This signal bridge was built using erector girders for the supports and cross beam plus washers and painted (red/green) screw heads to simulate the lights.

Plasticville buildings



1950 era catalog



Switch tower

Note: Plasticville buildings can be used as covers for hiding AF switch machine motors.

Colber Corporation products



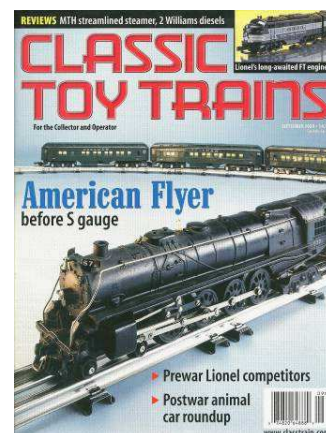
Colber street light

Colber made all sorts of items to fit American Flyer train sets. A partial list includes metal truss and girder bridges, electric street lights, sound records, people, operating crossing lights and plastic beacon/light/water towers. Some were made for, and sold by, American Flyer.

AMERICAN FLYER - today



2013 catalog



Magazine with S/O-gauge articles
Nine issues/yr by Kalmbach Publishing