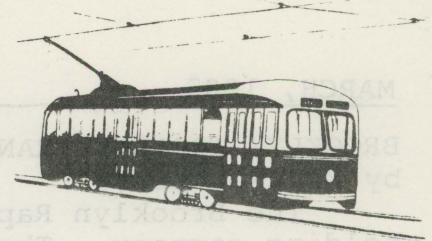


NEW YORK DIVISION

BULLETIN



ELECTRIC RAILROADERS' ASSOCIATION

Volume 28, Number 3

March, 1985

- In This Issue: BROOKLYN TROLLEY TRANSFER PRIVILEGES

R-62A ACCEPTANCE TESTS STOPPED TWICE

On December 20, 1985 the Transit Authority placed the first train of Class R-62A's in passenger service on the #4 line. That was the beginning of a 30-day acceptance test, identical to the one given the R-62 cars built by Kawasaki Heavy Industries, Ltd. However, the R-62A's did not do as well as their Japanese counterparts. From the start there were apparent problems. There were motor coupling failures; the housing cracked and caused a loss of lubrication. The propulsion contactor tips and arc chutes on the cars needed many adjustments. On several occasions the main car lights would go out for about ten seconds. Bombardier, the manufacturer, replaced defective motor couplers and adjusted others in the train. A design adjustment was made on the contactors. The intermittent lighting problem will still be watched as the manufacturer claims that the lights went out only over lengthy third rail gaps.

The above problems caused the Transit Authority to stop the 30-day test on January 1, 1985. A new 30-day test began on February 8th, but it too was stopped on February 11th. There seems to be more problems with the braking system. The R-62A's use New York Air Brake Company parts, while the R-62's use Westinghouse parts.

As part of the contract to build the 825 R-62A's Bombardier had to supply 11 cars, ten of which must run in regular passenger service for 20 hours a day, for 30 consecutive days. When that is done, the manufacturer can start to deliver the remaining 814 cars at a predetermined delivery schedule, about 25 cars a month.

R-68 PROGRESS REPORT

In mid-January, 1985, the Transit Authority announced that there were serious problems in the production of the R-68 car. Forty undercar frames had already been constructed in the Francorail plant in Crespin, France. These were built of Nicuage 70 steel and cracks developed when each was welded. A team from the NYCTA went to the manufacturers's plants at Crespin and at Creusot-Loire, and an agreement was reached that they would use the same type steel used by Kawasaki in constructing the underframes of the R-62's. Before the trip it was rumored that the Transit Authority was considering cancelling the R-68 contract because of the 12-month production delay, disenchantment with the car builder and their American counterpart, Westinghouse-Amrail, and because of the cracks in the underframes.

When the team returned to New York, it was announced that the problems were resolved and that the construction of the 225 cars for the BMT and IND lines would continue. A sample eight-car train is now scheduled for delivery for an acceptance test in January, 1986.

(Continued on Page 5)

BROOKLYN TROLLEY TRANSFER PRIVILEGES

by Mel Rosenberg

The Brooklyn Rapid Transit Company was incorporated in January, 1896 as a holding company. The names of the street railways which appeared on BRT transfers were The Nassau Electric Railroad Company, The Coney Island and Brooklyn Railroad Company, The Brooklyn, Queens County and Suburban Railroad Company, The South Brooklyn Railway Company, The Brooklyn Heights Railroad Company, The Brooklyn City Railroad Company, and The Coney Island and Gravesend Railway Company. These names ordinarily appeared as initials on the face of transfers. In addition, there were of course, the elevated and subway lines.

The bulk of the system was formed prior to 1899. The last company added was The Coney Island and Brooklyn, on or about December 26, 1913. As a result of financial strains brought on by inflation during World War I, labor unrest, and the Malbone Street wreck, the BRT became insolvent and a receiver was appointed on July 14, 1919. When the BRT was unable to pay the rent on the Brooklyn City system, due October 1, 1919, the BCR regained its independence effective midnight, October 18-19, 1919. Thereafter, for a period of nearly ten years, there were two separate and independent streetcar systems in Brooklyn.

On or about May 24, 1923, the BRT was superseded by The Brooklyn-Manhattan Transit Corporation, also a holding company. As before, the initials of the underlying street railways continued to appear on the transfers. It appears that in 1923, the BMT streetcar service over the Williamsburgh Bridge was suspended, and all through lines were cut back to the Brooklyn side. The City of New York, Department of Plant and Structures operated a Bridge Local over the bridge. In addition, many changes in transfer privileges were caused by the extension of the 14th Street-Canarsie Subway in various stages, especially during 1924. Only a few abandonments took place between 1920 and 1930: Hicks Street (1920), Wyckoff Avenue (1920), Montague Street (1924), Calvary Cemetery (1928).

On July 1, 1929, the system was consolidated as The Brooklyn and Queens Transit Corporation. Except for The South Brooklyn Railway, all of the underlying streetcar systems lost their identities. Dramatic changes followed immediately. About November 12, 1929, The Manhattan Bridge Three Cent Line abandoned that bridge local, and on December 15, 1929 the B&QT instituted bus service. On February 15, 1931, the B&QT replaced the Williamsburgh Bridge Local, operated by the City, with through service. In 1930, three car lines were discontinued: the Bergen Beach Shuttle, the Avenue C (Cortelyou Road) Line, and the Brooklyn Bridge Local. The Brooklyn Bus Corporation was incorporated on November 4, 1925. There is some dispute about when it began operations. According to the B&QT, the BBC began franchised operations on six lines on August 10, 1931, and by November 1, 1931 there were a total of 251 buses operating on 15 lines over 60 miles of route. The Cortelyou Road trackless trolley operation, it should be noted, was at all times a B&QT operation, issuing B&QT transfers (not BBC).

A few more car lines quit prior to 1941: Sixteenth Avenue (1932), Grand Street Shuttle (1933), Marcy Avenue (1933), Park Avenue (1933), and Meeker-Marcy (1939). During this period, several lines were through routed and others were extended. The City of New York, Board of Transportation took over the system on June 1, 1940. Beginning June, 1941, the system was gradually liquidated, even during the depths of World War II, when, despite one rail resumption, abandonments continued, until the final abandonment came in the Fall of 1956.

The "BULLETIN" is the monthly publication of the New York Division of the Electric Railroaders' Association, Post Office Box 3001, New York, New York 10008. Bernard Linder, Editor; Edward B. Watson, Feature Editor; William Zucker, News Editor; Raymond R. Berger, Chairman.

BROOKLYN TROLLEY TRANSFER PRIVILEGES

by Bernard Linder and Mel Rosenberg

Many passengers have often wondered why the Brooklyn trolley transfer privileges were so inconsistent. It seems strange that one line allowed passengers to transfer to nearly every intersecting line while another line, which was parallel to it, had hardly any transfer privileges. In this article we will explain how these inconsistencies evolved.

We don't know whether the horse cars issued any transfers, but we know that that there were six transfer points on the BRT prior to 1895. Square dated tickets, which were issued by transfer agents at intersections, were discontinued in a short time. Until 1900, separate tickets were issued by the conductor who punched day of the month, time, and direction of travel. Tickets were issued by the conductor from 1895 to 1897. There were ten transfer agents in the Southern Division in May, 1897 and in the Eastern Division in July, 1897.

Starting 1900, the BRT issued long transfer tickets dated each day with a clock face where the hours and minutes were punched. The transfer also listed the lines to which a passenger could transfer. Starting May, 1905, different color tickets were issued for AM and PM, but the time was still punched.

Effective December 1, 1903, transfers were issued only to a passenger paying a cash fare or presenting a continuing trip ticket. Since July 1, 1902, the number of transfer points had been increased from 262 to 292. Seven more were added on December 1, 1903, making a total of 299.

In 1903, the BRT discontinued transfer agents except where transfers were issued from a short line to through cars. These agents were stationed in the street and issued transfers to passengers leaving cars. Starting July 7, 1906, they were stationed at important points in the summer, but were discontinued because it was less confusing if the conductor issued the transfers.

Before the invention of fare boxes which automatically record the fares deposited, conductors had no difficulty stealing some of the receipts. The BRT tried to discourage the conductors from stealing by using recording devices that were available. Starting August 1, 1900, conductors rang up fares and transfers on one register. If the company thought that they had a fool-proof device, they were mistaken. In 1906, the BRT learned that a boy earned five dollars a day, probably more than a conductor earned, by selling transfers for one cent each and receiving another transfer in return from conductors on Gates Avenue, Nost-rand Avenue, Tompkins Avenue, and Putnam Avenue. After four conductors were arrested, the BRT installed separate registers for fares and transfers on February 11, 1907. This device wasn't fool-proof. Dishonest conductors were able to circumvent it by exchanging transfers with conductors of intersecting lines. When a passenger paid a cash fare, the conductor rang the transfer register and was able to hand in a transfer from an intersecting line. Of course, the conductors were required to hand in the number of transfers recorded on the register.

To eliminate abuses of the March 30, 1906 transfer system, they were revised again on May 1, 1907. Most passengers were allowed to ride only three cars for one fare. Passengers riding a line which issued a white continuing trip ticket received a yellow transfer punched for time on the next car. This transfer explained how to reach any point on the system, the shortest route, and the number of rides. When the passenger transferred again, he received a green transfer which was punched for the line issued. (Conductors turning in a green transfer with no line punched were charged five cents.) Passengers handing in a green transfer had no further privileges except on "feeder lines" where an additional ride was given on a conductor's feeder ticket or a transfer agent's ticket.

The following color code lasted four decades with hardly any changes: Continuing Trip Tickets--white, Feeder Tickets--salmon, Transfer (A) and (AA)--yellow, Transfer (B) or (BB)--green, Transfer (C)--brown, Transfer (D)--green, and Transfer (E)-- brown or yellow.

(Continued on Page 4)

BROOKLYN TROLLEY TRANSFER PRIVILEGES - (Continued from Page 3)

A new transfer system went into effect at 1:00 AM October 15, 1910. Transfers indicated direction to compel passengers to travel in the same general direction. Under the old system passengers could make return journeys for the same fare on more than 150 routes. Under the new system passengers could transfer from one line to another line at right angles, and then a third line in the same direction as the first line. Continuing trip tickets, special tickets, and transfer agent's tickets were still issued as usual. Passengers could ride three cars between lines of the same subsidiary, but only two cars between lines of different subsidiaries. By eliminating stop overs and trips in the reverse direction, 5,147 transfer privileges were reduced to 3,120. Transfers were exchanged at 520 intersections. During the next two years, 88 were added.

DIRECT TRANSFER LINES
4, Bergen St., 9, Hicks St., 11, Church Av., 14, Fifth Av. EL-Bay Ridge Div.; 15, Fifth Av. EL-P. P. & C. I. Div.; 16, Fifth Av. EL-Sea Beach Div.; 17, Fifth Av. EL-West End Div.; 19, Flatbush Av.; 20, Flatbush-Prospect Pk.; 21, Flatbush-Seventh Av.; 25, Fifteenth St.; 40, Marcy Av.; 49, Park Av.; 53, Seventh Av.; 54, St. Johns Pl.; 63, Union St.; 64, Vanderbilt Av.; 67, 39th St.; Coney Is.; 47, 70, 65th St.-Bay Ridge Av.; 73, 66th St.-86th St.

If destination cannot be reached by a DIRECT TRANSFER LINE it may be found in the list of SECOND TRANSFER LINES or under the heading IMPORTANT. Opposite the name of each Second Transfer Line are the number of the Direct Transfer Lines THROUGH WHICH SUCH LINE MAY BE REACHED BY ADDITIONAL TRANSFER. Under the heading IMPORTANT (Schedules "A" and "B") may be found the lines and points where conductors' and agents' Special Tickets are issued WITH OUT EXTRA FARE. This Company exchanges transfers with other Companies whose lines are indicated in italics, but assumes no responsibility beyond its own lines.
*OPERATED DURING SUMMER MONTHS ONLY.

SECOND TRANSFER LINES reached by any Direct Transfer Line indicated opposite
Avenue C---19
Belt---31
Broadway---49
Brighton Beach EL---11, 19, 25
Crosstown---19, 20, 21, 25, 54, 65
Court St.---19, 20, 21, 25
Fulton St.---19, 20, 21, 63, 64
Flushing Av.---19, 20, 21
Flushing-Knickerbocker---19, 20, 21
Greene & Gates Aves.---19, 20, 21, 64
Graham Av.---19, 20, 21
Remainder of transferring lines on back of ticket.

OVER. Remainder of transferring lines on back of ticket.
N.E.R. 06815 R. Co.
NOTE: Lines operating over a joint route between a terminus and a junction will neither issue nor accept transfers from either while on joint portion of route.
Good only in A.M. if P.M. Coupon is detached.
FEB 21 1909
Pop's Pat. - Time limit, Nov. 21st, 1905.

13. FIFTH AVENUE LINE
1 2 3 4 5 6 AM
7 8 9 10 11 12
1 2 3 4 5 6 PM
7 8 9 10 11 12



Transfer Agent's Special Ticket
VALID FOR ONE RIDE
on the
ST. JOHN'S PLACE LINE
from
Kingston Av and St. John's Place toward Rockaway Av only.

N.E.R. 00450 R. Co.
NO TRANSFER WILL BE ISSUED ON THIS TICKET.

NOTE: Lines operating over a joint route between a terminus and a junction will neither issue nor accept transfers from either while on joint portion of route.
DEC 15 1912
Pop's Pat. Time limit, Nov. 21st 1905.

STATION No. 34
1 2 3 4 5 6 AM
7 8 9 10 11 12
FRACTION OF HOUR 15 30 45
1 2 3 4 5 6 PM
7 8 9 10 11 12
FRACTION OF HOUR 15 30 45

Transfer To any of the following lines:
Hamburg Av, Broadway, Ralph Av, Marcy Av, Ocean Av, Vanderbilt Av, Bergen St, Seventh Av, Fifth Av, St. John's Place, Union St.

NOTE: This transfer will not be accepted at junction points on cars operating over same route as issuing line.
Good only at intersection, or junction of issuing line and within the time limit punched. Not transferable.
N.E.R. R. Co. 0781
PARK AV LINE
1 2 3 4 5 6 PM
7 8 9 10 11 12
JUNE 18 1906

TRANSFER FROM
Montague St. Line
TO
Court, Third, Seventh, Flatbush, Fulton, Putnam, Gates, Myrtle, or Ralph-Myrtle Lines.
Good only for day printed hereon, within time limit punched and at intersection of issuing lines. Not transferable. Subject to the rules of the Company.



MONTAGUE
OCT: 14
1908
SEE OTHER SIDE

Mel Rosenberg Collection

1 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
BROOKLYN HEIGHTS R. R. CO. Lessee of the Brooklyn City R. R. Co.
A22255 TRANSFER FROM 1177
GRAHAM AVE. LINE
Good only on next connecting car on line and in either direction punched, and after time punched. Not transferable. Subject to the rules of the Company.
VAN FEB MCH APR MAY JUNE JULY AUG SEPT OCT NOV DEC
1 2 3 4 5 6 7 8 9 10 11 12
1 2 3 4 5 6 7 8 9 10 11 12
1 2 3 4 5 6 7 8 9 10 11 12
1 2 3 4 5 6 7 8 9 10 11 12
1 2 3 4 5 6 7 8 9 10 11 12
1 2 3 4 5 6 7 8 9 10 11 12
1 2 3 4 5 6 7 8 9 10 11 12

This Ticket Transfers to Any Line Printed on Other Side.
APR 13 1914
Pop's Pat. - Time limit, Nov. 21st, 1905.
LORIMER ST. LINE BB
99997 **B. H. R. R. Co.**

Not transferable. Good at any intersection or junction of issuing line, within the time punched, unless restricted. This transfer is FINAL, except to feeder lines. The passenger is requested to note that the proper transfer is issued. Tickets issued by short cars are good to all lines named; such lines, if beyond terminus, may be reached by next connecting car on Agent's Special Ticket.
Good only in A.M. if P.M. Coupon is detached.

1 2 3 4 5 6 AM
7 8 9 10 11 12
1 2 3 4 5 6 PM
7 8 9 10 11 12

This Ticket Transfers to Any of the Following Lines
Calvary Cemetery; Nassau Ave.; Grand St. toward Maspeth; 91st Av. toward Ridgewood; Union Ave. at Throop Ave. & Lorimer St. toward Ridgewood; Tompkins Ave. toward Fulton St.; Graham Av. toward Greenpoint; Flushing-Knickerbocker toward Ridgewood; Flushing Av. toward Maspeth; (Good for B. B. Transfer); Myrtle Ave. toward Ridgewood; Gates-Prospect Park toward Ridgewood; Greene & Gates Aves. toward Ridgewood; Putnam Av. toward Broadway; Fulton St. toward East New York; Tompkins-Culver toward Avenue "P"; Nostrand Ave. toward Vanderveer Park; Flatbush Av. toward Vanderveer Park.
*Operated During Summer Months Only
Lines operating over a joint route between a terminus and a junction, will neither issue nor accept transfers from each other while on joint portion of route. Transferring lines, the routes of which come together and continue over the same tracks to a point of separation, will accept transfer tickets only at first junction point, good in either direction, unless otherwise noted.
LORIMER ST. (BB)

PROPOSED QUEENS IND SUBWAY SERVICE

It is anticipated that the new Archer Avenue Subway will be opened in mid-1986. At that time the following service will be operated: All E trains will be routed through the new subway. Trains will start at Jamaica Center-Parsons Boulevard and will stop at Jamaica Station-Sutphin Boulevard and Jamaica-Van Wyck. When they enter the existing IND Queens line south of Van Wyck Boulevard, they will be routed via the express tracks during rush hours and midday. However, we have been unable to determine their route during other times. N trains, which presently terminate at Continental Avenue, will make all local stops to 179th Street and will continue to operate part time, probably the same hours as presently. F and GG service will not be changed. J trains from Broad Street will be rerouted from the "L" structure to the new subway east of 121st Street and will stop at Jamaica Station-Sutphin Boulevard and Jamaica Center-Parsons Boulevard.

To encourage passengers to use the new Archer Avenue Subway, the Transit Authority will reroute its Southeast Queens bus lines Q-4, Q-4A, Q-5, Q-5A, and Q-5AB, which operate via the Merrick Boulevard corridor, from their present 169th Street and Hillside Avenue terminals to the new subway terminal. The Metropolitan Suburban Bus Authority, which operates its N-4 and N-5 bus lines on Merrick Boulevard too, agreed to reroute them to the new subway terminal. It is anticipated that these bus reroutes will divert one-third of the passengers from the Hillside Avenue line to the new Archer Avenue line.

When the 63rd Street Tunnel is opened late in 1985, the B and JFK trains will be extended from 57th Street and Sixth Avenue to 21st Street in Long Island City with trains stopping at Lexington Avenue-63rd Street and Roosevelt Island.

NEW NYCTA TRAIN SCHEDULES

The new IRT schedules, which went into effect on January 27, 1985, are nearly the same as previous schedules. Following are changes in routing: Four early morning and three evening rush hour #5 trains, which were formerly put in service at New Lots Avenue, are now put in service at Utica Avenue. During the early part of the morning rush, most #5 trains are put in service at 238th Street and only a few start from 241st Street. Under the previous schedule, all trains started from 241st Street.

In the December, 1984 "Bulletin" we described the November 25, 1984 BMT-IND schedule changes, but omitted the following: During the evening rush hour N trains no longer terminate at Kings Highway. All trains operate to Coney Island. The first evening rush hour N train from Whitehall Street was replaced by a put-in from Coney Island Yard making its first stop at 86th Street. Two other PM rush hour trains, which formerly started from Coney Island, now make their first stop at 86th Street. Because northbound evening rush hour N trains continue bypassing DeKalb Avenue about an hour later than previously, passengers who transfer at DeKalb Avenue and whose destination is the BMT Broadway Subway north of Canal Street, must follow a circuitous route via tunnel during this period. Under the previous schedule, Manhattan-bound passengers waiting at De Kalb Avenue could board a BMT bridge train (N or QB) at all times.

R-68 PROGRESS REPORT (Continued from Page 1)

Meanwhile, over 260 R-10's remain on the property. These are due for retirement when the R-68's are placed in service. In order that these cars remain operational until that time, 110 of them will be overhauled and repainted dark green with silver roofs. The first eight of them are now completed and they will be placed in service on the CC line soon. The R-10's were a group of 400 cars built by American Car and Foundry in 1948, the first cars for the Board of Transportation built after World War II.

BROOKLYN TROLLEY ALBUM

Here's additional information about the cars shown on our photo page:

Car Numbers:	Brighton 97	855-887	600-699
Type:	Parlor	Open with back-to-back seats	Open with rev seats
Builder:	Nassau Electric Railroad Co.	Brill	Stephenson
Year Built:	1897	1880	1898
Maximum Speed:	20 MPH	24 MPH	23 MPH
Length over Bumpers:	15'10"	35'7"	34'10"
Width:	7'9"	8'3"	8'5"
Weight:	9 tons	12 tons	12 tons
Seating Capacity:	10	70	60
Full Load Capacity:	---	100	102
Trucks:	Peckham #6	Brill Eureka	Brill Eureka
Motors:	2 GE #800, 27hp	2 WH #81, 60hp	2 WH #68, 40hp

Cars 600-699 were renumbered to 200-299 in 1908 and were retired between 1930 and 1934. Brighton 97 was converted to pay car 9900 in 1907 and was retired in 1933.

NYCTA CAR NOTES

After a lapse of two months, deliveries of R-62's have resumed. On February 21st, cars 1532-1551 were delivered to the Coney Island Yard via the West End line.

To compare the mileage obtained with R-62 filters, a train composed of cars 1501, 1490, 1494, 1498, and 1489 with R-62 filters, and cars 1476, 1475, 1492, 1491, and 1495 with NYCTA filters was placed in service on November 26, 1984. The test was scheduled to continue for six weeks and the train was taken out of service every Saturday morning.

About February 1, 1985, cars 9558-9567, 9604-5, 9676-7, 9680-1, 9716-7, and 9728-9 were transferred from line #7 to line #4. When they are rebuilt, cars 9534-9557 will be transferred to the #7. Several cars have already been transferred after they were rebuilt under the Overhaul Program.

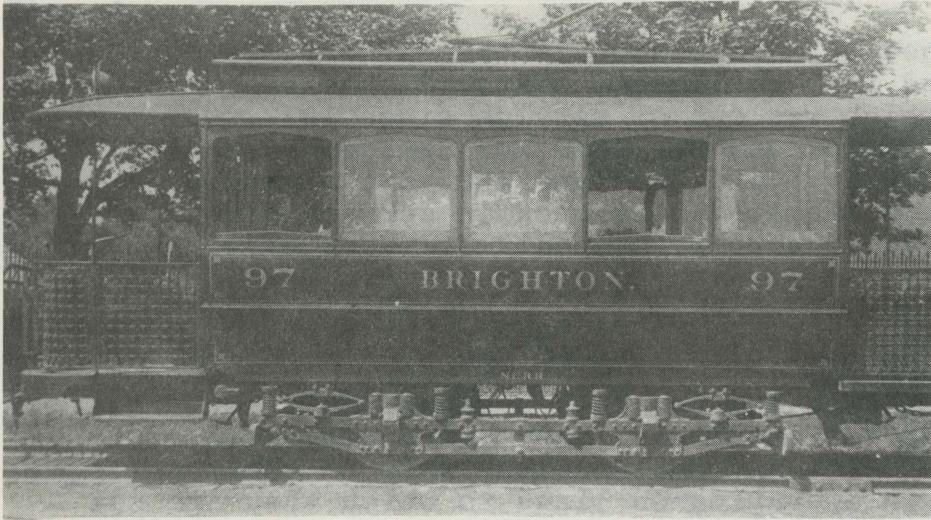
The following cars have been scrapped: 6586, 6592, 7115, 7169, 7574, 7591, 7608. Omitted from the November, 1984 "Bulletin" was car 7633 which was scrapped previously.

In the February, 1985 "Bulletin" we reported that the R-14's and R-15's were taken out of service on December 10, 1984. The News Editor received reports that R-14's and R-15's continued running at least until December 31, 1984 with 5911 on line #3 and 6200 on line #1, the last known cars in service. However, the official records of the Transit Authority indicate that the last R-14's and R-15's ran on December 10th. Perhaps the railfans who spotted cars after that date saw trains in non-revenue service, such as revenue collection or garbage collection trains.

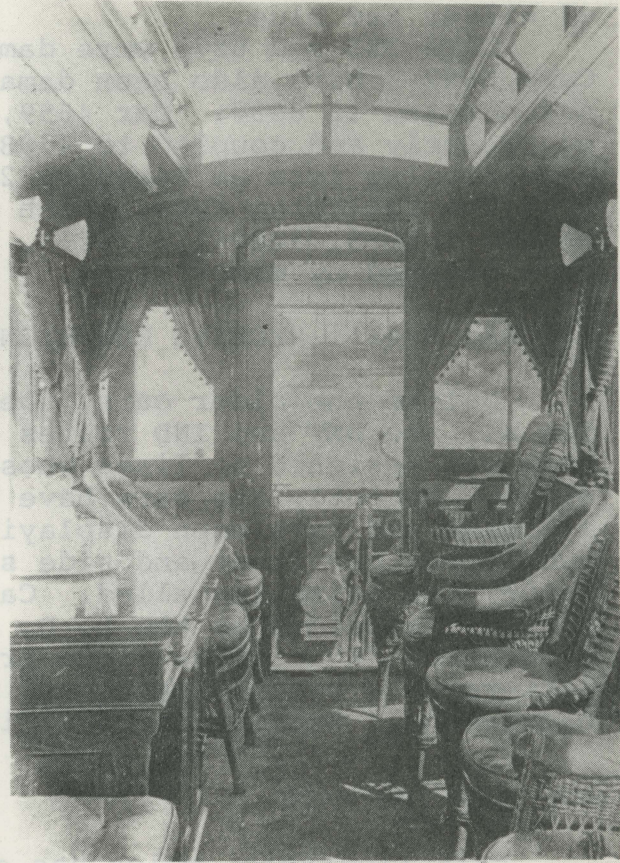
Several cars from the 6500 to 6559 group have been coated with silver gloss primer. The 42nd Street Shuttle cars have black tape frames around their numbers. Several R-16's have been painted the conventional silver and blue outside, but their interiors haven't been painted. The floor of 6337 is similar to the floor of an R-27, red on the sides and cream in the middle. During the week of February 11, 1985, the sides and front of 8080 and mismatched unit 8067-8398 were painted white, but their roofs weren't repainted. The outside doors of mismatched unit 8070-8169 are blue.

All Westinghouse R-10's and possibly several GE R-10's will be painted green with silver roofs. At present the following have been painted: 3011, 3022, 3029, 3107, 3136, 3145, 3157, 3168, and 3216. The first train of green (Continued on Page 8)

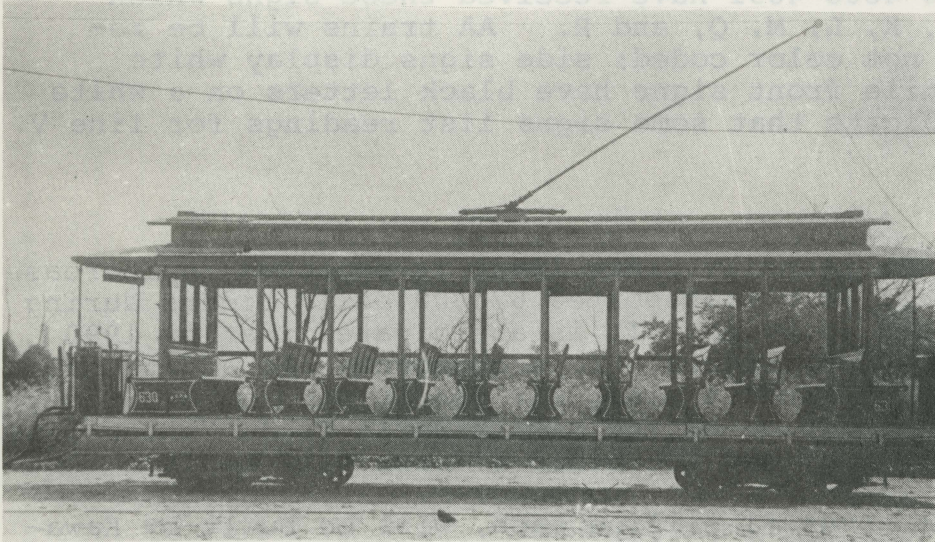
BROOKLYN TROLLEY ALBUM



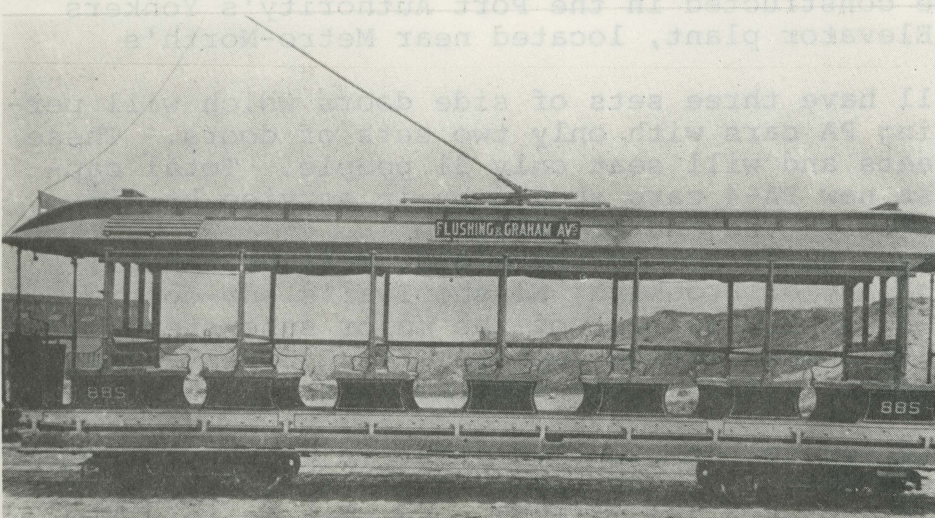
Side view of parlor car used for charters and company officials



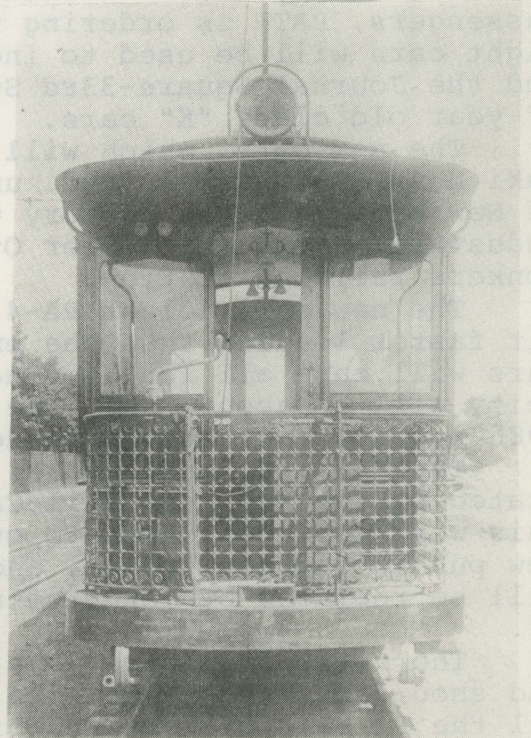
Interior of parlor car showing curtains, table, and comfortable chairs



Open car with reversible seats



Open car with back-to-back seats



Front view of parlor car

NYCTA CAR NOTES (Continued from Page 6)

and silver R-10's ran on the CC on February 22, 1985.

A light converter has been installed in 8358 whose interior has been painted silver and blue.

Cars 386 and 8876 were damaged in a collision in the 207th Street Yard. Cars 8682-3 have also been damaged in a collision. Car 8682 has been repaired and coupled to 8637. Car 4659, which was out of service since 1972, was repaired recently and coupled to 4708. Unfortunately 4659 was damaged by an air conditioning fire on February 2, 1985. Cars 4658 and 4667 are mismated.

The following cars, which were mismated, are back in service with their mates: 3458-9, 3480-1, 3722-3, 3754-5, 4308-9, and 4412-3. Cars 4174 and 7558 were damaged by minor fires.

SEVERAL R-42's RECEIVE NEW SIGNS

Unlike the older cars, the R-40M's and the R-42's signs don't have readings for all the BMT and IND routes and destinations. Many years ago, each group of cars was assigned to lines whose routes and destinations were on their roll signs. Recently the cars have been operating on lines to which they are not assigned and have been displaying blank or incorrect signs. To correct this condition, new front and side signs listing all the lines where these cars operate, are being installed. Cars 4808-4851 have received these signs which list destinations on the B, D, J, K, L, M, Q, and R. AA trains will be redesignated "K". These signs are not color coded; side signs display white letters on a black background, while front signs have black letters on a white background. Reliable reports indicate that some signs list readings for line V.

NEW CARS FOR PATH

PATH ridership, which has grown steadily since 1980, is expected to increase in the foreseeable future. Last year PATH transported 67,600 daily riders during the morning rush between 7:00 AM and 10:00 AM. It is anticipated that by 1990 PATH will carry 76,000 morning rush hour riders. To accommodate the additional passengers, PATH is ordering 95 new stainless steel air conditioned cars. Forty eight cars will be used to increase service on the Newark-World Trade Center line and the Journal Square-33rd Street line, and the other 47 cars will replace the 27-year old class "K" cars.

The new cars, which will cost about \$1 million each, will be built by Kawasaki Heavy Industries, Ltd. under licence from Nissho Iwai American Corporation of New York at a new factory to be constructed in the Port Authority's Yonkers Industrial Park, the former Otis Elevator plant, located near Metro-North's Yonkers railroad station.

The new cars, class PA-4, will have three sets of side doors which will permit faster loading than the existing PA cars with only two sets of doors. These cars will have all longitudinal seats and will seat only 31 people. Total capacity will be about 155. The first new PA-4 cars should be in service by mid-1986 and all cars should be delivered by the end of 1987.

The PA-1, 2, and 3 cars, most of which are 20 years old, will be rehabilitated by the New York Rail Car Company of Brooklyn, Nissho Iwai's sub-contractor. This work includes complete overhaul or replacement of the major subsystems, a new public address system, and other communication improvements. Cross seats will be replaced by longitudinal seats, reducing the seating capacity to 31 or 32.

The first four cars were delivered to the Brooklyn plant in January, 1985 and should be back in service by the middle of the year. It is anticipated that all the PA cars will be rehabilitated by the end of 1987. As soon as this project is completed, the class K cars will be retired from passenger service.