

Interborough Rapid Transit Company



Facts and Figures

- 1900 Contracts signed, ground broken
- October 27th 1904 First Subway operates from City Hall station to 145th Street & Broadway.
- Construction was done by cut and cover, and deep bore tunnelling methods.
- Deep bore tunneling from north of 157th street north to Dyckman Street. (168th, 181st, and 191st streets)
- 191st street is the deepest station in the system at 173 below ground level. (Opened January 14th 1911)

- Designed to accommodate 600,000 passengers a day
- By December 1904 half that amount was being accommodated
- With subsequent expansions (Bronx and Brooklyn) the daily traffic increased to 800,000 by 1908 and to 1.2 million by 1914

FARES

- Fare was set at 5 cents.
- You would pay your 5 cents at the ticket booth and receive a ticket which was then presented to a guard at the entrance to the platform, placing the ticket into the “chopper” he would chop the ticket in 2, allowing you to proceed to the platform.
- The IRT determined that its own employees were cheating it so the turnstile was introduced. The first turnstile took nickels. There were various designs of turnstiles before the now familiar four arm wooden model became the standard



Early Ticket Booth

This booth is located at the Wall Street Station on the 4/5 line.



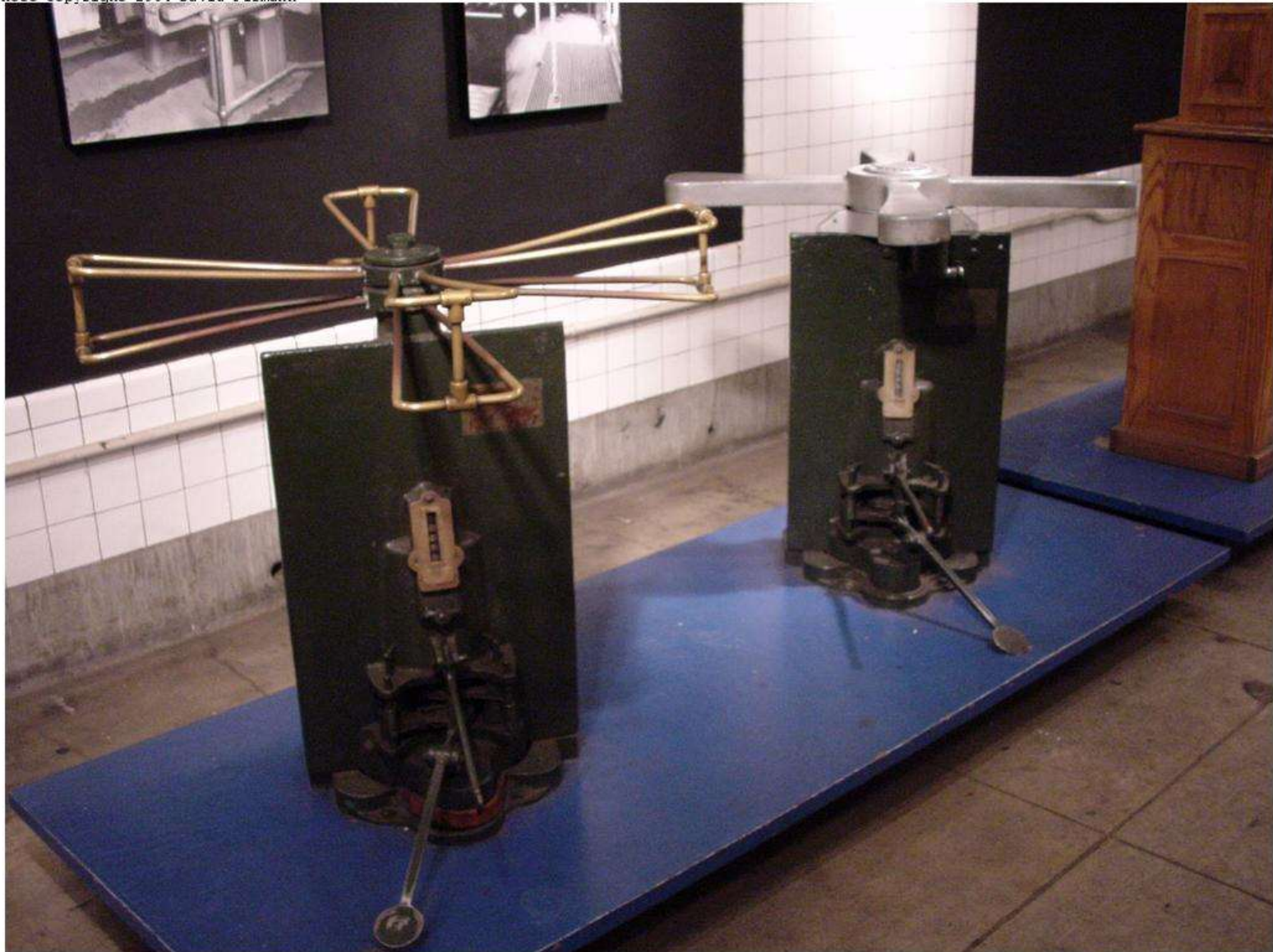
IRT Ticket



Photo copyright 2004 David Firmann



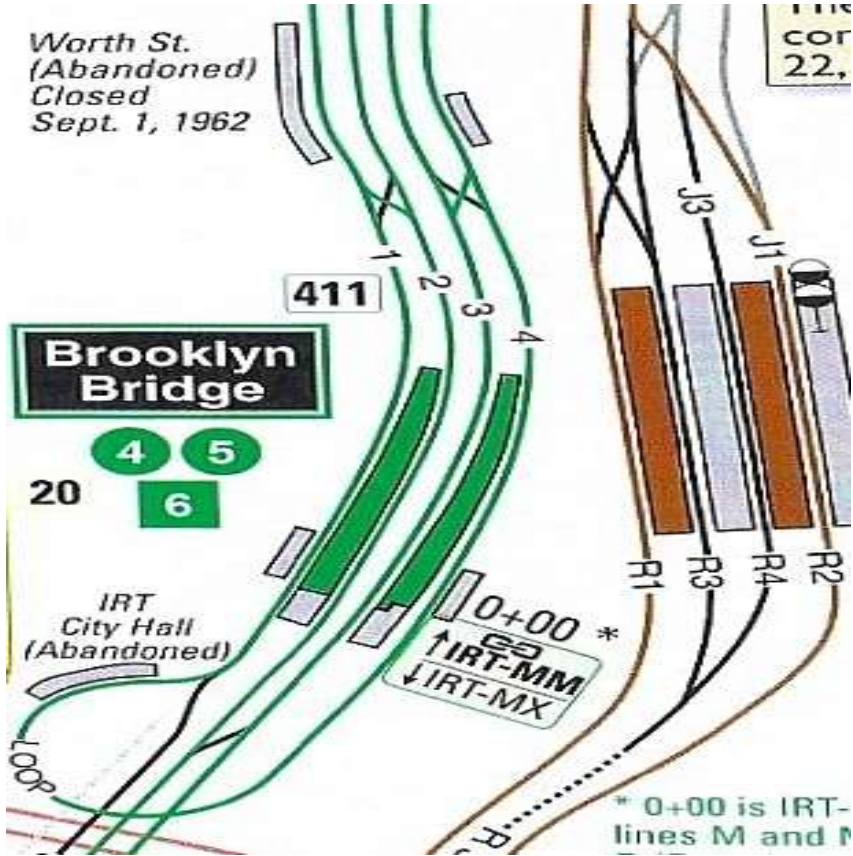
Photo copyright 2004 David Fermann



October 1904 route



City Hall Station, Closed December 31, 1945



Impact on the City

- When the IRT opened, the Bronx and northern Manhattan were largely rural.
- Tenement style buildings quickly sprung up within 2 blocks of the newly opened Subway and were concentrated north of 130th Street.
- This tenement housing allowed greater mobility for lower-class residents of the lower east side and other neighborhoods.
- From 1900 to 1920, the population of Upper Manhattan and the Bronx increased at a greater rate than the rest of the city.

207th Street March 16th 1906 West view



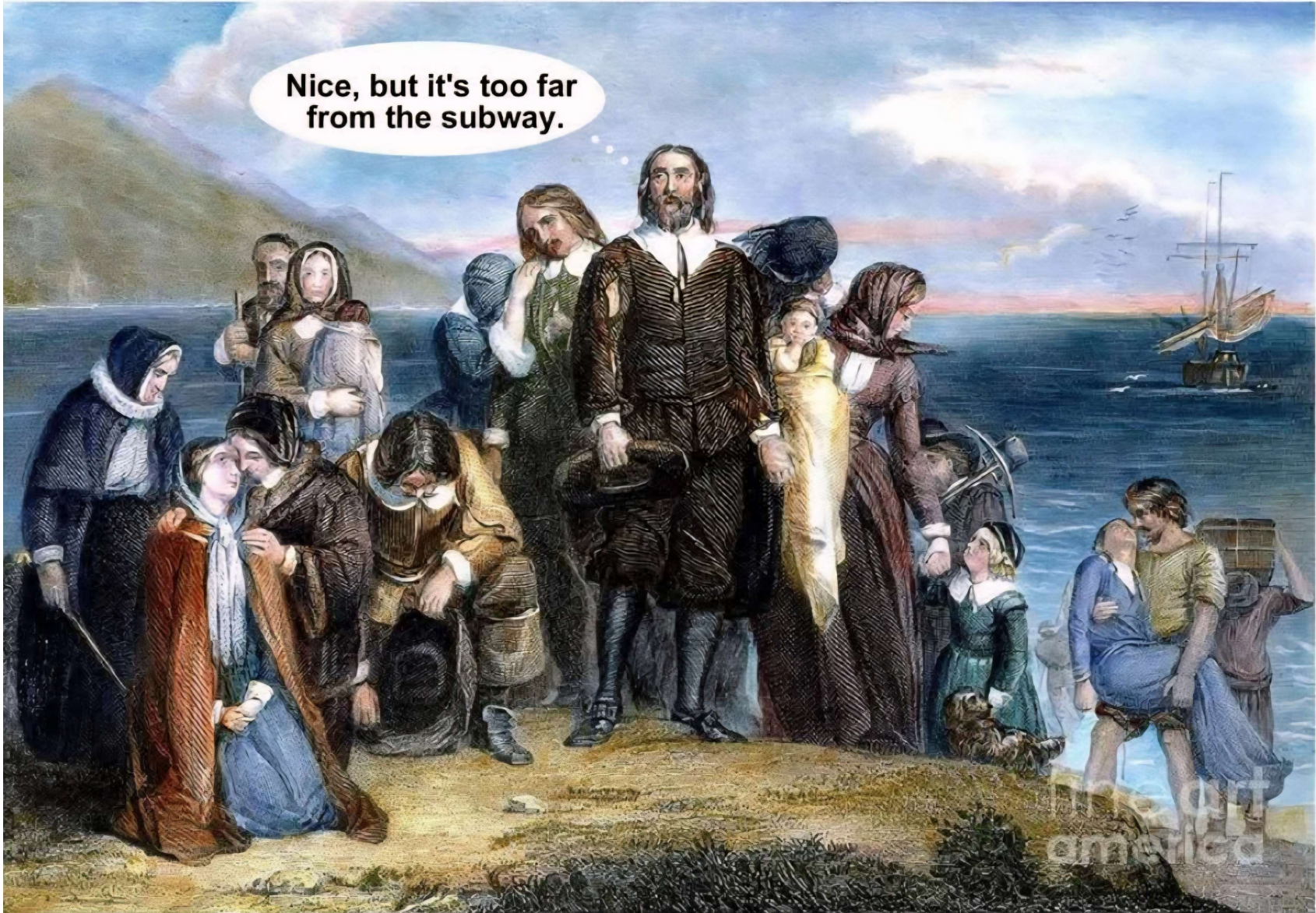
207th Street 1926



207th Street, circa 2009



Nice, but it's too far from the subway.



1927 IRT Fare Hike Proposal

- The IRT facing increased operational and labor costs petitioned the PSC for a fare increase to 7 cents. It was denied and appealed to the State Supreme Court. It was overturned, and the PSC appealed that decision. The case eventually reached the US Supreme Court in 1928. After oral arguments, things looked good for the fare hike. SO, what did the IRT do? Without a final decision, it went ahead and had 6 million tokens minted. In the meantime, the Supreme Court after re-hearing the case, ruled that the fare must remain at 5 cents.

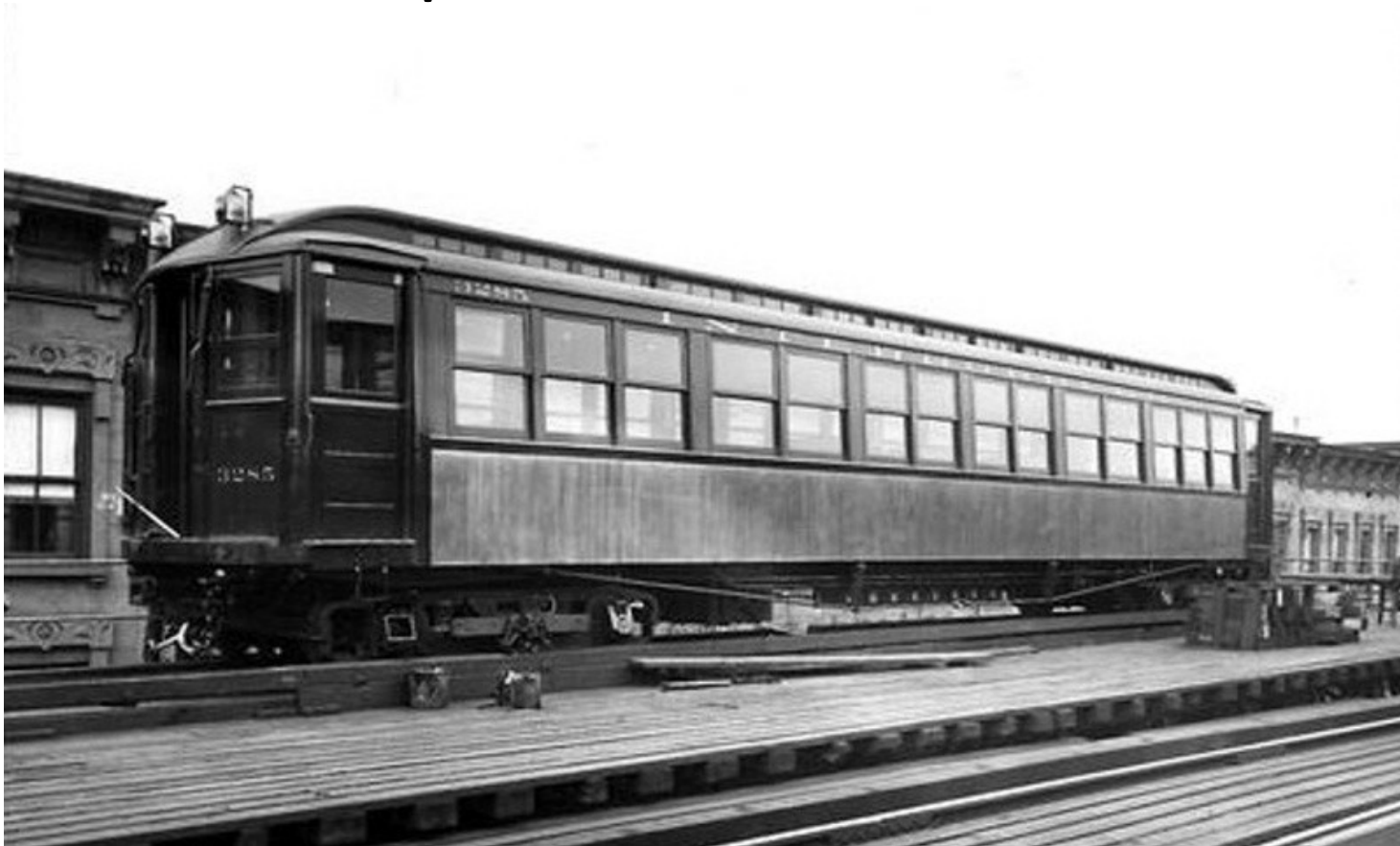


- The tokens went into storage, and in 1940 became the property of the Board of Transportation after the unification of the subway into city control.
- In 1943, a large portion of the tokens were sold to the Hudson and Manhattan Railroad Company (Today's PATH system) so they could use the metal for their own tokens of the era.
- What remained was sold for scrap in 1948. When the 20 year old bags were being moved, one broke open, and urban legend has it that some of the tokens fell into the pockets of the men moving the bags!!!
- The image is of a token at the Smithsonian museum of American History in DC.

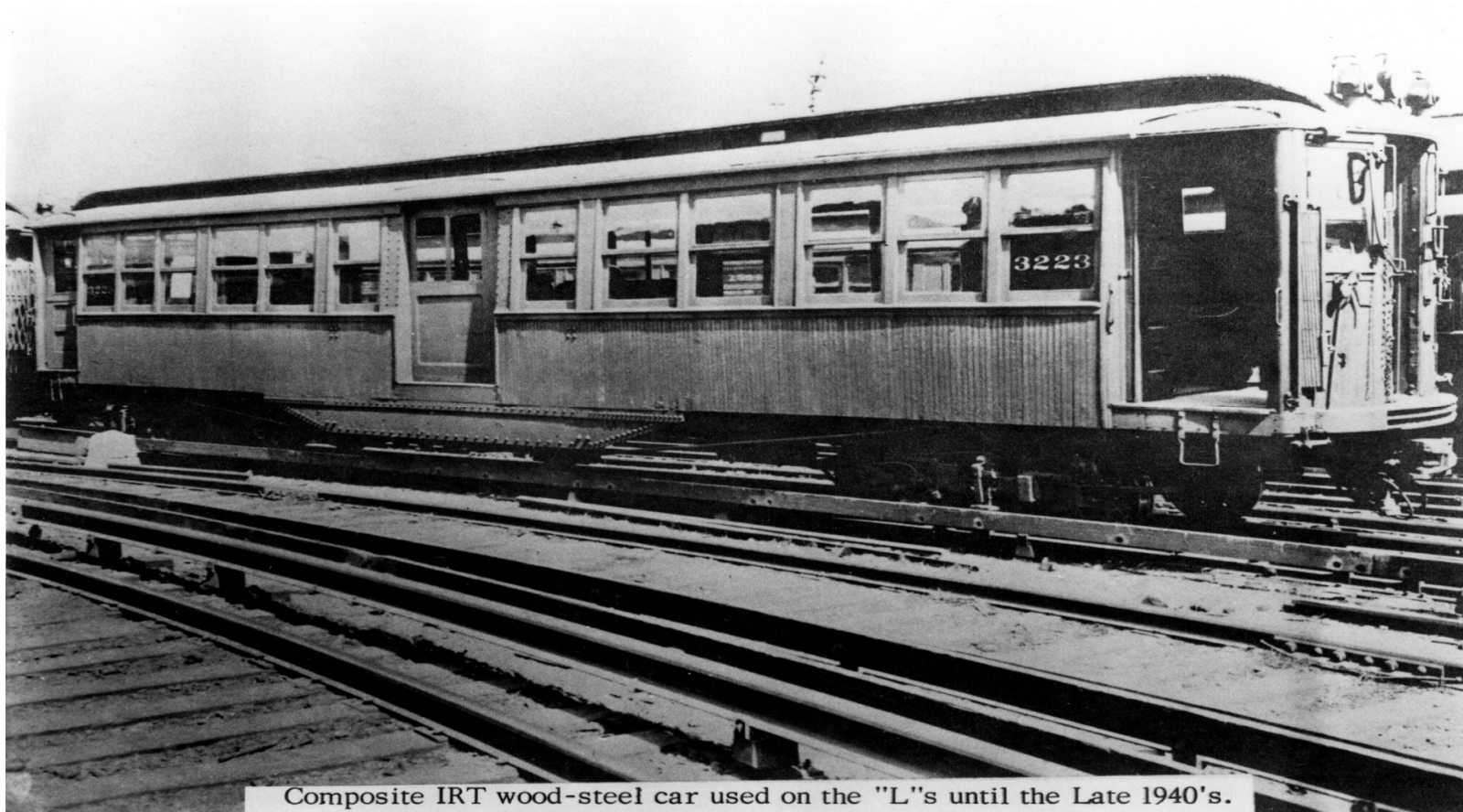
IRT Rolling Stock

- IRT cars measure 51 feet long, 8 feet, 9 inches wide
- In 1904 a local train consisted of 5 cars, express trains ran 10 cars
- Compared to the BMT and IND cars which measure 60 feet 6 inches or 75 feet 6 inches and are 10 feet wide.
- All operate on 4 foot 8.5 inch standard gauge
- IRT cars can operate over BMT/IND lines, BMT/IND cars cannot operate over IRT lines.
- All MOW equipment are built to IRT specifications.
- Run on 600v of direct current supplied over 3rd rail

Composite car as delivered

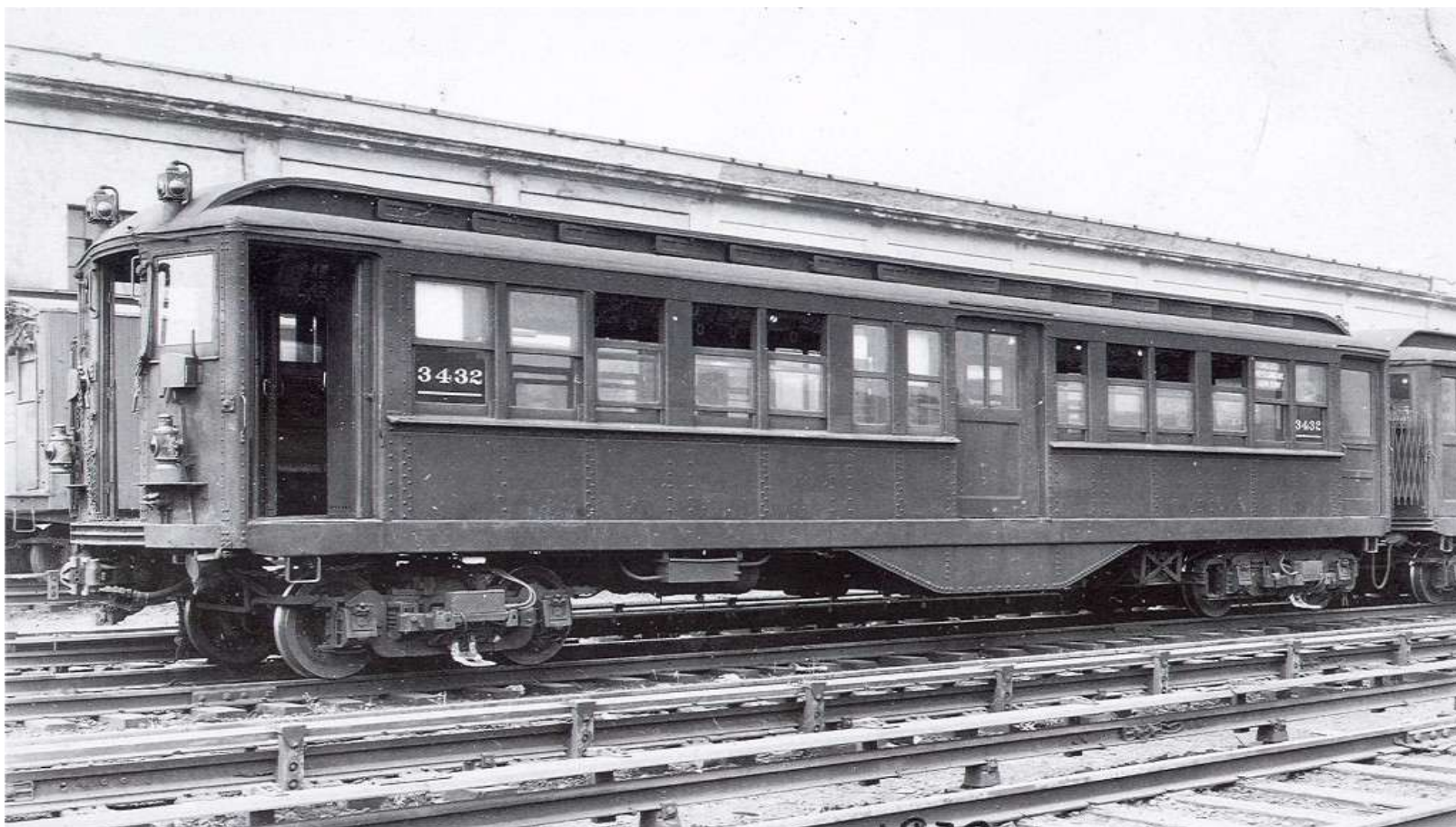


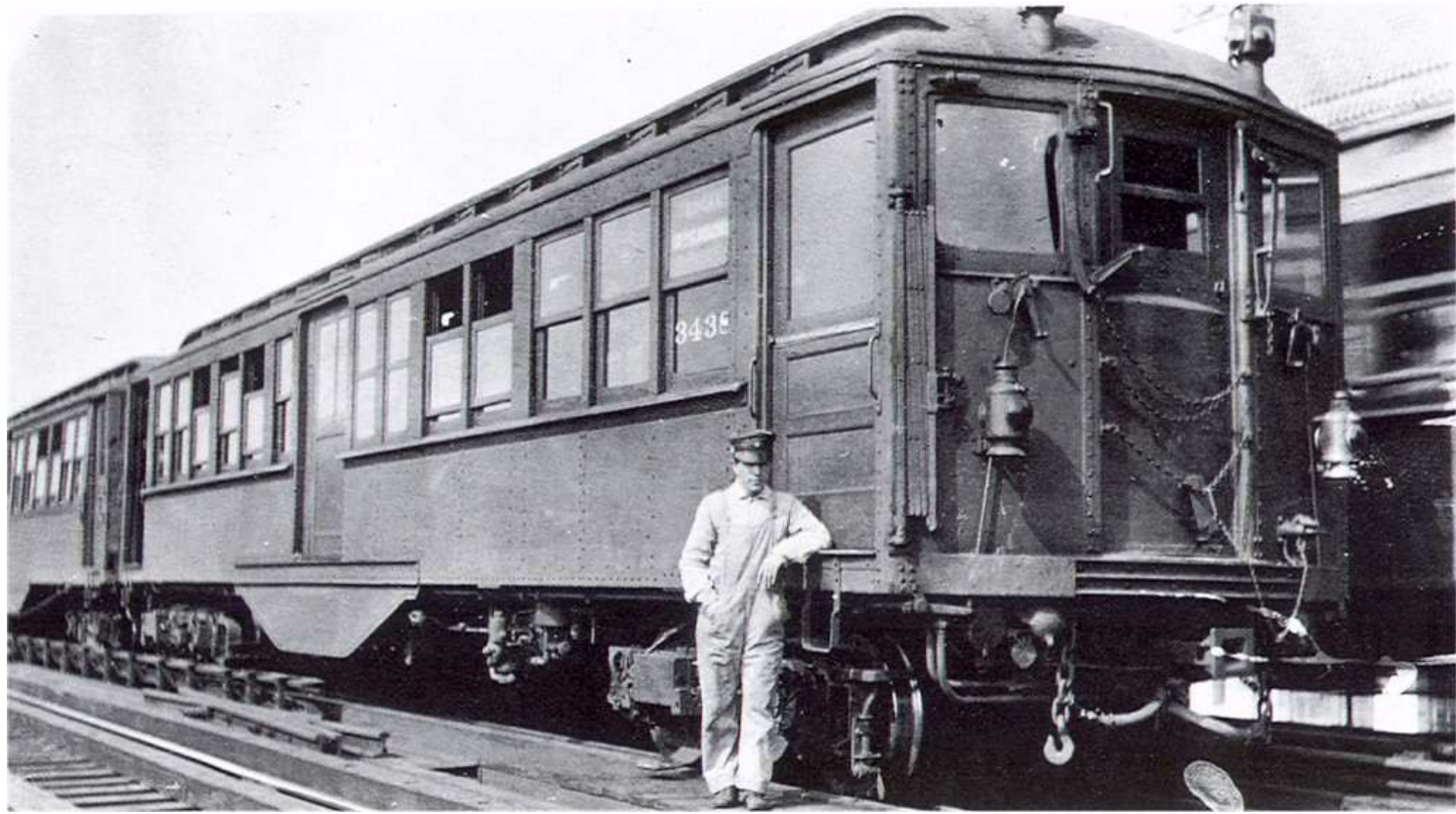
Composite car with center door addition



Composite IRT wood-steel car used on the "L"s until the Late 1940's.

Hi-V Car





Lo-V Cars





The main difference between Hi-V and Lo-V subway cars lies in their propulsion control systems. Hi-V cars used 600 volts of electricity to control the 600 volt contacts underneath the train, while Lo-V cars used 32 volts of battery voltage. This change significantly improved safety for both train crews and maintenance crews, as it eliminated the need for high voltage jumper cables between cars. Additionally, the Low-V cars simplified the braking process, making it more uniform and responsive.

Lo-V World's Fair Cars

- In 1937 the IRT looked to design a new car for the Flushing line in order to provide extra equipment for the upcoming World's Fair in 1939.
- Due to financial issues the IRT could only order 50 cars.
- The new cars featured three evenly spaced doors on each side, a new style roof contour that let fresh air in, but kept rain out. And a full roller curtain signbox so that each train's destination was clearly marked.
- Went into service November, 1939 and remained on the flushing line until 1949.

Lo-V World's Fair cars



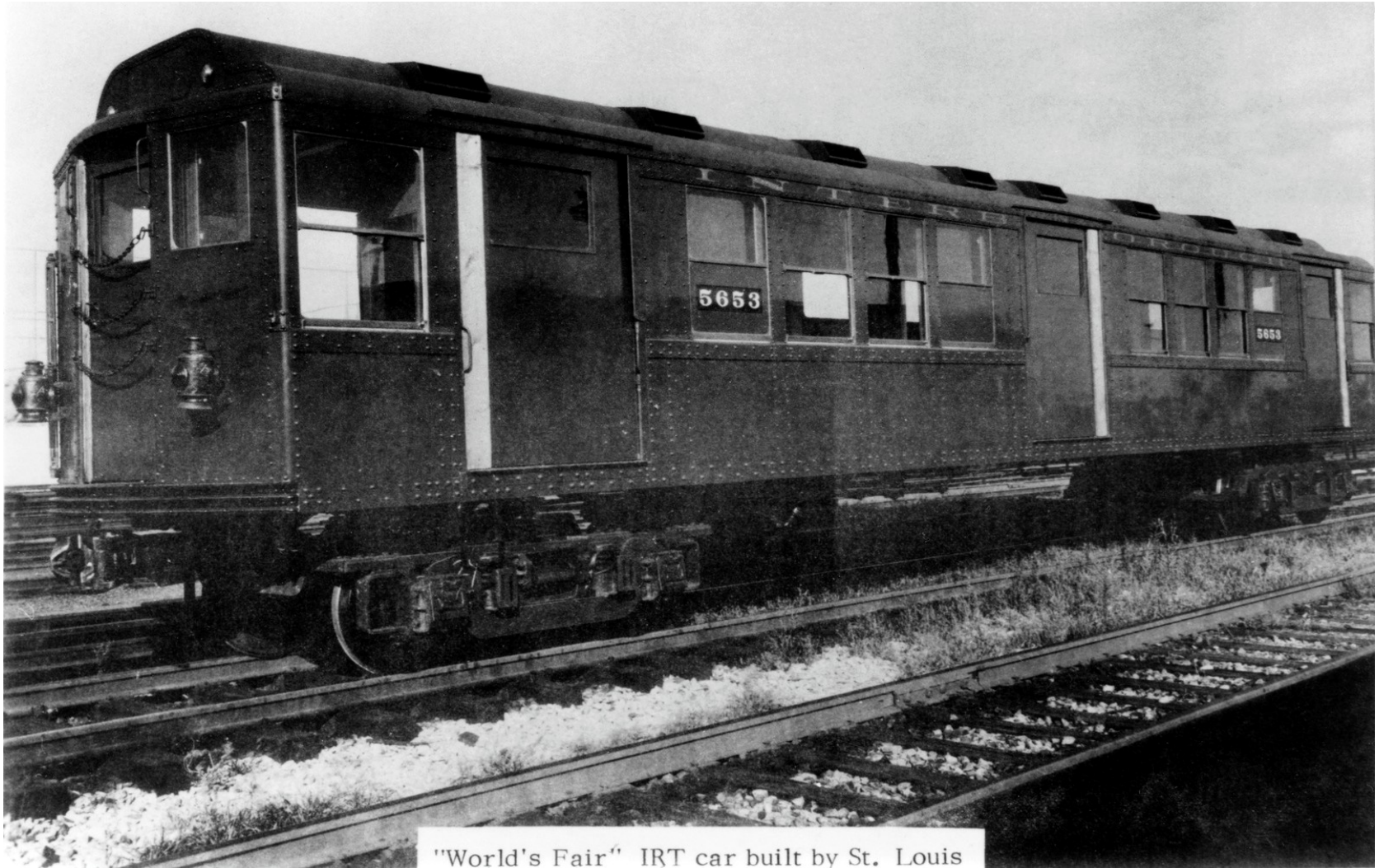


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Unification, June 1940



References

- From a Nickle to a Token --- *Andrew J. Sparberg*
- Secrets of the New York City Subway --- *Oscar Israelowitz*
- Tracks of the New York City Subway (2026 Ed.) – *Peter Dougherty*
- Under the Sidewalks of New York --- *Brian J. Cudahy*

- *Models by: Rapid Transit Trains*
- *www.rapidtransittrains.com*

Acknowledgments

Slide 12, *Tracks of the New York City Subway* – Peter Dougherty

Slide 10, Early Turnstile, NYCT Museum – David Pirmann

Slide 9, Ticket Chopper, NYCT Museum – David Pirmann

Slide 23, Composite Car Original Configuration – Frank Pfuhler

Slide 24, Composite Car – Nicholas Fabrizio

Slide 25, Hi-V car Collection of Joe Testagro, Photo by Ed Watson/Arthur Lonto

Slide 26 Hi-V car and T/O, Collection of Joe Testagro

Slide 27 Lo-V car @149th Street, Collection of David Pirmann

Slide 28 Lo-V car Fan Trip 181st Street, picture by Richard Panse

Slide 31 Collection of Nicholas Fabrizio

Slide 32 Photo, Edward R. Coffey Collection

Slide 33 Photo by Edward R. Coffey

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