THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

90 WEST STREET (140 CEDAR STREET)
NEW YORK

J. M. DAVIS
PRESIDENT

July 18, 1936

To Members and Friends
of the New York Chapter:

When I learned that the members and friends of the New York Chapter of the Railway and Locomotive Historical Society had decided upon an all-day excursion over the eastern section of the Lackawanna, combining a tour of inspection of the Company's property, it was our desire to perfect arrangements which would make your trip thoroughly enjoyable.

As a result of the interest and cooperation of your fellow member, Mr. T. T. Taber, a valued friend and patron of the Company, you are being presented with an outline of the Lackawanna's history and development. It will become apparent, as your special train traverses the line, that the Lackawanna has been developed intensively during the last thirty years, until it may be considered thoroughly representative of the American railroad system.

Members of your Chapter especially interested in terminal operation will find much to demand attention at Scranton, including the several yards and the locomotive and car shops, through which your party will be escorted.

The Lackawanna staff is delighted to be the host of your Chapter tomorrow. We hope that your trip will be both instructive and enjoyable.

Very truly yours,

J. M. Davis,

President.

The New York Chapter of the Railway & Locomotive Historical Society, Inc. welcomes you on its first trip on the Delaware, Lackawanna & Western Railroad. In line with its aims, of showing the progress and development made by the railroads during the past century, and in keeping with its slogan - "Linking the Past with the Present", the New York Chapter presents to you a historical sketch of the Lackawanna Railroad, and its component parts, representing the historical side of the trip. Your own eyes will show you the high stage of development achieved today on this railroad.

The historical facts contained herein are from the extensive collection of a member of the Chapter who has devoted several years of intensive study to the history of the D. L. & W., and the leased lines which today comprise the system.

The Officers and members of the Chapter, as well as the Officers and employees of the Lackawanna Railroad, hope that the day will prove both interesting and instructive, and that it will give you a better idea of the complexities of modern railroad operation, and just how far the railroad has developed during the last century.

Many persons are not familiar with the fact that for years, the Delaware, Lackawanna and Western Railroad has enjoyed the reputation for being, mile for mile, the most highly developed railroad in the United States. Its commutation service has set a standard by which other railroads serving the metropolitan area are judged. Its handsome, substantial suburban stations are superior to those of any other railroad. For years anthracite was burned in the locomotives, which made the commuters daily trips more pleasant, and now even cleaner, and more frequent service has been provided by the electrification of that service to Montclair, Gladstone and Dover. There is ample justification for the statement that rents and property values in the territory served by the Lackawanna's commuting service are higher than in other parts of New Jersey.

It is not generally realized that the Lackawanna has the shortest, and one of the most scenic lines from New York to Buffalo. It serves a prosperous as well as beautiful territory. Much anthracite originates along its Bloomsburg Division, and is swiftly moved to the seaboard and Great Lakes.

As you pass over the Lackawanna of today, note the heavy reinforced concrete bridges, the well kept structures and buildings, and last but not least, the beautifully maintained track and right of way. Much has been done on this railroad during the past hundred years.

You may be surprised to know that the Delaware, Lackawanna & Western Railroad, as operated today is not just one railroad, constructed and operated as such. It is made up of a number of lines, built independently and so operated, which thru purchase or long term lease were eventually knit together to form the property as at present operated. If you are making a trip over the present Lackawanna system from New York to Buffalo, you would either pass over, or intersect, the rails of the following companies.

Morris and Essex Railroad.	Extends from Hoboken to Phillipsburg, N.J. Now used as main line from Hoboken to Port Morris Junction.

Chester Railroad	This branch line, which leaves the main line at Chester Junction, four miles west of Dover, originally extended to Chester, but now runs south to Succasunna, New Jersey, only. It was built in 1868 to tap iron mines and gravel pits, and immediately leased to the Morris and Essex for its corporate existence. Passenger service on the branch was discontinued about four years ago.
Sussex Railroad	You do not travel over this line, which leaves the M. & E. at Netcong and runs northwest thru Newton to Branchville. The Lehigh & Hudson River Railroad operates freight trains from Maybrook, N.Y., over their road, to Andover Junction, and thence (with their own locomotives) to Port Morris yard.
Lackawanna Railroad of New Jersey.	Known as the "New Jersey Cut-Off". Built in 1911 to provide a shorter line with better grade, from Port Morris Junction, to the Delaware River.
Newark & Bloomfield.	At Roseville Ave. station (part of Newark) the tracks of the Newark and Bloomfield leave the M. & E. and run to Montclair.
New Jersey Westline.	Generally known by the later name - Passaic & Delaware Railroad, diverges from the M. & E. at Summit and wanders westerly to Gladstone, N. J.
Warren Railroad of New Jersey.	You do not see this line, unless you follow, as we are doing today, the M. & E., to Washington. The Warren was built to enable the D. L. & W. to run across New Jersey to connect with the Central Railroad of New Jersey. The D.L. & W. being a Pennsylvania company, could not build under its own name in New Jersey, so it advanced the money for construction of the Warren Railroad, from the Delaware River, to Hampton Junction, N. J. When the M. & E. finally built to Washington, N. J., it crossed over, and connected with the Warren at that point. The Warren never owned or operated any equipment, as it was taken over by the D. L. & W. as soon as completed.
Bangor & Portland.	This line leaves the old line of the D.L.& W. at Portland, Pa., and wanders thru the hills southwesterly, to Bangor, Bath and Northampton, with a branch to Martine Creek. It was built about 1880, and bought its first locomotive from the Morris & Essex in that year - the old "Madison" No.24, which it renumbered 1, and named "Bangor". It has been a very profitable line as it runs thru a slate and cement region. About 1904 the Lackawanna obtained complete control and have operated it ever since. No passenger service has been run in several years.
Delaware, Lackawanna & Western.	Chartered in the State of Pennsylvania originally as the Leggett's Gap Railroad, to build from Scranton to state line at Great Bend on the Susquehanna River opposite the present station of Hallstead. It connected with the Erie at Great Bend. The Southern Division, so called, was incorporated to build from Scranton to the Delaware River (where it connected with the Warren Railroad.).

Lackawanna & Bloomsburg.	This line now known as the Bloomsburg Division, was bought by the Lackawanna, outright. It extends from Scranton, southerly thru the anthracite fields to Northumberland, Pa., opposite Sunbury, Pa. Much of the anthracite shipped over the Lackawanna, today, is mined along the Bloomsburg Division.
Lackawanna & Montrose.	This little line leaves the main stem at Alford, Pa., and extends to Montrose, the picturesque county seat of Montrose County, a distance of about ten miles.
Valley Railroad.	This company was incorporated in New York to build from the state line, west of Hallstead, Pa., to Binghampton, N.Y., a distance of about 14 miles. The D.L. & W. operated it.
Syracuse, Binghampton & New York.	Extends northward from Binghampton to Syracuse, a distance of 80 miles. Had its own equipment so lettered, until 1899.
Oswego & Syracuse.	Extends from Syracuse, northwest, to Oswego, 35 miles. This line was built to handle coal and other commodities from the D.L. & W., S.B. & N.Y., destined for points on the Great Lakes, and Canada. The original stockholders of this line get a substantial dividend, guaranteed by the D.L. & W. which now operates the line.
Utica, Chenango & Susquehanna Valley.	Extends from Chenango Forks, 11 miles north of Binghampton, on the S.B. & N.Y., to Utica, 84 miles, with a branch from Richfield Junction to Richfield Springs, 22 miles. The latter town was once a well-known summer resort, to which thru Pullmans were operated from both Utica and Hoboken.
Erie and Central New York.	This is a comparatively new line, which extends from Cortland, N.Y. to Cincinnatus, N.Y. It traverses a rich farming and dairy region. It intersects the S.B. & N.Y. at Cortland. The Lackawanna obtained complete control of it about 1902.
New York, Lackawanna & Western.	This is really one of the newest, or youngest members of the Lackawanna family, as it was not built until 1880, and opened in 1881-2. It extends from Binghampton to Buffalo, a distance of 203 miles. Having a good grade, considerable fast running was done on this division in the old days. This line was built by the D.L. & W., and operated as the Buffalo Division. Very few of the original pieces of equipment were lettered "N.Y.L.& W.", and not for long.
Cayuga & Susquehanna.	This line which extends from Owego northerly for 35 miles to Ithaca, N.Y. is really the daddy of the Lackawanna system. It was built as the Ithaca and Owego, and celebrated its centennial in 1928- altho no official recognition of that fact, was taken.

You will be interested to know that prior to the general consolidation of the above mentioned lines, effected by President Truesdale, in 1899, practically all of the lines were operated independently, each having its own motive power and equipment. Its locomotives were designed and built by its own master mechanic, pretty much as he thought best. In May 1899 all locomotives were renumbered into one series, from No. 1 to 999, and the old divisional identity was lost. Incidentally, at that same time, many of the old records which would today be priceless to the historian, were burned up.

Today, on our special train, we do not pass over many of the different parts of the Lackawanna, but those over which we do pass are of special interest. From Hoboken we use the tracks of the Morris and Essex Railroad to Washington, N. J., the Warren Railroad from that point to the Delaware River, and the original D. L. & W. from that point to Scranton.

It is, indeed, fitting and proper that the New York Chapter of the Railway and Locomotive Historical Society pay tribute to the men who struggled to build the old Morris & Essex, by making a trip over the line, on this, the centennial year of the operation of the first train. That train, probably of one or at most two cars, was pulled by horses from Newark, at Broad and Orange Streets, up the steep hill to Roseville and on to Orange, on November 19, 1836. After leaving Newark, from the point where we pass the coal pockets just west of the station, to about Brick Church, we are following the path of the horses which plodded slowly, one hundred years ago. Think of the progress made in that time! Today speedy electric suburban trains, and heavy steel thru trains hauled by huge locomotives, make short work of the grade from Newark to Roseville. We must admit, however, that the grade has been considerably reduced, since Seth Boyden's little locomotive "Orange"puffed up it in September 1837. The perfection that we have reached today has been possible because of the toil, sweat, and planning of the men who have gone before us. On this centennial of the old Morris & Essex, as you pass over the line, think of what it must have been a hundred years ago!

In starting our trip we must mention the ferries, which daily carry thousands of persons and vehicles across the Hudson River. Prior to 1903 they were owned by an independent company, which cooperated with the railroad, but could not provide adequate service, so the boats were purchased along with the franchise which incidentally gives the exclusive right to operate a ferry in the city limits of Hoboken. The Lackawanna has maintained and consistently improved the service since taking over the ferry operations. Incidentally the history of the Hoboken Ferry is well set forth in the very interesting book entitled "THE ROMANCE OF THE HOBOKEN FERRY", by Harry Smith.

In February 1905 the old passenger terminal at Hoboken was destroyed by fire. Some temporary buildings were erected, and the construction of a modern terminal started. In August 1907 the present terminal was completed- but it has been improved and extended occasionally right to the present time. A railroad never stops. It must either progress and improve, or rapidly deteriorate.

Many of you may wonder why the New York Chapter requested the Lackawanna to assign one of the old 4-6-0 camelback locomotives to our train, instead of one of the modern 4-6-2 or even 4-8-4 variety. The reason is just this. The modern 4-6-2 and 4-8-4 will be in service for many more years, whereas the thirty year old 4-6-0 locomotives will soon all be merely a memory. Therefore, it is much more to the point that you should have a ride behind a locomotive which has been retired from main line service, and may be scrapped any time- that being the end of that type of locomotive- than for you to, this year be pulled by a locomotive that you may be reasonably sure will be ready to haul you five years from now.

At this point we want to call your attention to the dining car which is preparing to serve you. A modern dining car, fully equipped costs several thousands of dollars. You will find Lackawanna dining service all that you could expect. It is suggested that you have lunch not later than leaving Stroudsburg, so as to be ready for the program arranged on arrival at Scranton. For dinner on the return, you have all of the time you could possibly use!

To make your trip more interesting, and to provide you with something which will be of value, both as a memento of your trip over the Lackawanna, and historically, or for reference, the following outline of your trip contains the high spots, and much interesting information about the railroad and points of interest along it. As the information is accurate you may use it for future reference.

Station	Approximate Passing Time	Distance from Hoboken app.	Remarks
Hoboken, N.J.	Leave 9-30	oo	As we pull out of the yards, the roundhouse, and electric shed is on the right. The huge freight warehouse can be seen on the left, just beyond the junction with the freight tracks. There are two tunnels thru Bergen Hill (about 3/4 mi. long). The old (north) tunnel was built in 1877. Prior to that time the trains used the old Erie tunnel, from 1863, when the line across the meadows, from Newark, was built. Prior to that, the cars of the M.& E. were pulled by the N.J.R.R.& T. Co. (now Pennsylvania) from Newark to their station at Jersey City.
		1.00	
West End Junction	9-35		The Boonton Branch, operated by steam, and over which the freight is handled, diverges to the north. The freight roundhouse is at Secaucus, about two miles north. The 1600 (4-8-4) and 2200 (3 cyl.4-8-2) class locomotives are used for thru freight.
Newark	Stop 9-45		The Morris and Essex originally had its terminal at Broad and Orange Streets, a block south of the present tracks. In 1903 the line was changed, when new station was built and tracks elevated.
Roseville Ave.	9-49	9	Originally known as "Bloomfield Junction." The line to Montclair diverges to the north. The locomotive is grunting because of the grade- 61' to the mile, but the old original grade was about 140' to the mile, so it should not complain too much. It has worse grades ahead.

Station	Passing Time	Hoboken	Remarks
Orange	9-53	12	As we pass around the curve, to the south, the range of high hills, known locally as First Mountain of the Watchung range is on our right. We will have to climb over those, and many more formidable mountains, before we reach our destination. The first train on the Morris & Essex was pulled by horses, and operated from Newark to Orange on November 19, 1836.
Maplewood Stop	9-58	15	This is one of the many high class suburban communities along the Lackawanna. Notice the beautiful stations, and well kept right of way of the railroad. The towns along the Lackawanna have helped New Jersey earn its merited title of "The Garden State".
Millburn	10-01	17	Here ends the three tracks. The center track, known as No.1, is used for eastbound express trains in the morning and being reversible is used for westbound expresses in the afternoon. Now you will hear the locomotive bark in earnest, as there is a grade of 80' to the mile ahead.
Summit	10-07	20	This town was originally known as "The Summit of the Short Hills". Now we tip over the top of our first bad hill, and begin to really roll along-down hill, down hill to Chatham. Just west of Summit the Passaic and Delaware diverges to the south.
Madison	10-16	26	A beautiful residential town, with equally beautiful station. The only peculiar character in the town is the railroad fan, who, though he lives a mile from the station, has two operating automatic block signals in his backyard, in addition to filling the house with a great collection of "railroad junk heap salvage," as the N.Y. TIMES aptly described it. Another fan purchased a home with property to the track, so he could wave to his friends the engineers. These fans are a queer lot!
Morristown	10-21	30	If you look quickly and closely, just north of the west end of the station, down in a hollow you can see the main shops and roundhouse of the Morristown and Erie railroad a short, independent line owning about four locomotives. The Morris and Essex reached Morristown and inaugurated service by steam power January 2, 1838.
Denville	10-31	36	At this point we intersect the freight line, which left us at West End of the tunnel, and passed thru Passaic, Paterson and Boonton. There are no grades of consequence on that line, so all thru freight moves over it. The original Morris and Essex passed thru Rockaway, but we follow the newer line which is shorter. At East Dover Jct. the line from Rockaway comes in from the right.

Station	Passing Time	Hoboken	Remarks
Dover Stop	10-38	40	The end of the electrification of the suburban zone. The M. & E. reached Dover on August 1, 1848, with a schedule of two passenger trains to Newark, each way, and one freight- "with passenger car attached."
Wharton	10-42	42	Originally known as Port Oram, because it was a "port" on the famous Morris Canal. There were extensive iron works at this point as far back as 1850, account many iron mines in the vicinity, and availability of canal for cheap shipment of coal.
Chester Junc.	10-44	44	The Chester Branch, now abandoned from Chester to Succasunna diverges to the left. The other tracks you see are those of the New Jersey Central which wanders up from High Bridge, and eventually reaches Green Pond Jct. where it connects with the N.Y.S.& W.
Port Morris Junc.	10-52	49	We leave the main line at this point,which goes over the Cut-Off, which we will intersect at Slateford Junction. Port Morris is the first locomotive terminal west of Secaucus. The locomotives used on steam suburban service use this terminal, as do two L.& H.R. engines, each day and many Lackawanna freight jobs.
Netcong-Stanhope	10-54	51	At this point the Sussex Branch diverges to the right. We are heading south along the Musconetcong River. The old Morris Canal, which ran from Jersey City to Phillipsburg,(and is now abandoned)roughly parallels the railroad. It would be more proper to reverse that statement, for the canal was there first.
Hackettstown	11-05	59	State Fish Hatchery located at this point. On Jan. 16 1854 the M.&E. was opened to this town, unofficially, because no depot facilities were available, at that time. The line was officially opened May 23, 1854, with two passenger and one freight train operating.
Washington	Arr.11.15 Lv. 11.20	69	The Warren Railroad (D.L.&W.) was built thru Washington east to Hampton Junction, in 1854, where it connected with the C.R.R.N.J. The old D.L.&W. was broad gauge, that is, 6', so a third rail was laid from Hampton to Elizabethport, for the accommodation of the coal trains from Scranton. In 1864 the Morris and Essex reached Washington. It crossed over the D.L.&W.- the embankment may still be seen. The M.& E. finally reached Phillipsburg in 1865, over a temporary track, which was made permanent the following year. In 1867 a commodious passenger station was built for the joint use of the M. & E. and D.L. & W. at Washington. In 1869 the D.L. & W. leased the Morris and Essex in perpetuity, and has operated it ever since. As the M. & E. at the time of its lease was 4'-8½" gauge, the D.L. & W. laid a third rail to accomodate their 6' gauge equipment. They completed the Boonton Branch in 1871, and equipped it with a third rail, so as to keep freight trains from the heavy grades between Short Hills and Chatham. On one Sunday in 1876, the whole D. L.& W. line was converted from 6' to

Station	Passing Time	Hoboken	Remarks
Washington (cont'd.)			standard (4'8½") gauge, and has remained so ever since. Five minutes is allowed for stretching legs and taking photos of the train, after which we leave the old Morris and Essex and proceed over the old line of the D.L. & W.
Oxford Tunnel	11.27	71	When the D.L. & W. built thru Oxford, about 1852, Van Nest Gap was passed by a switchback over the top, until the tunnel was completed a few years later. Originally a double track tunnel with the advent of the huge power it has been made single track with spring switches at each end. All extra trains must obtain an order to do so before passing thru the tunnel.
Manunka Chunk Tunnel	11.39	79	Separate tunnels are provided for each track. The new 4-8-4 locomotives fit the tunnel so snugly that if one comes out of the shop with an extra coat of paint, it will be rubbed off if the locomotive goes thru this tunnel before the paint wears down. Right, at the west end of the tunnel, the Belvedere Delaware Division of the Pennsylvania comes in at the left, and uses the Lackawanna tracks to Stroudsburg. On the left you have your first view of the Delaware River - with the famed Water Gap ahead in the distance.
Portland	11.47	85	On the left is the track of the Bangor & Portland Division which runs back thru the slate country to Bangor and Bath. Often a solid train of cement will be sent from this branch thru to Hoboken, as there are also many cement plants along the line. Just west of the station the Lehigh & New England crosses overhead. Seldom does one see a train on it. Right at the station is the old covered bridge across the Delaware to Columbia- one of the very few remaining. It is worth a close scrutiny.
Slateford Junction	11.49	87	Just south of this point the tracks of the cut off, which we left at Port Morris Junction cross the Delaware on a cement arch bridge, and the two lines intersect a half mile further on. Soon we pass thru the beautiful and majestic Water Gap. If one closely observes the mountains on the New Jersey side, at the gap, the famous geological fault may be seen, which is visited by many students and scientists each year.
Stroudsburg	12.02 12.06	94	At this point the train is inspected, the locomotive takes water, and we are soon off toward the stiff climb to the top of the beautiful Pocono Mountains. Regular passenger trains having more tonnage than the locomotive can handle receive a helper to Pocono Summit or Tobyhanna.

Gravel Place	12-09	96	Freight trains stop for coal and water, westbound, and to receive a helper if needed. Pennsylvania locomotives of the Belvedere Delaware Division are serviced at this roundhouse.
Henryville	12-17	102	You have noticed that from Stroudsburg to West Henryville Tower there are four tracks. Two outside tracks are the "slow", and the two inside (Nos.1 & 2) the high speed. From Gravel Place to Pocono Summit the grade averages about 80' to the mile, which is a very stiff pull, and aggravated by reverse curves.
Pocono Summit	12-42	115	Top of the Hill! The ponds you will see for the next few miles furnish much ice during the winter. The Pennsylvania National Guard has its summer camp at Tobyhanna- on the right side of the track. From this point to Lehigh Summit we traverse a plateau, and are about 2000 ft. above sea level. Yes, it is VERY cold up here in winter. (Ask the engine crews!)
Gouldsboro	12-56	125	Named for Jay Gould who once operated a tannery in the town. Small yard for westbound freight trains at this point.
Lehigh Summit	12-58	127	Looks as if the railroad planted signal masts as if they were trees. Now we start down the west side of the Poconos. The grade averages about 66' to the mile right down to Scranton. It is not as bad as the grade on the east side of the mountains, except that the worst of it, 80' to the mile, is right out of Scranton station.
Elmhurst	1-10	136	The lakes you see are part of the city of Scranton water supply system. Below Elmhurst on the right you will see the single track Wyoming Division of the Erie. Originally it was the Erie and Wyoming Valley, an independent road. The old Pennsylvania Coal Company Gravity Railroad's abandoned right of way may be seen occasionally.
Nay Aug	1-15	141	Still dropping down the grade- almost into Scranton. You can see several coal breakers, and some of the small "bootleg" mine operations. It is easy to see that we are in a coal mining region. The old shops of the Erie & Wyoming Valley are at Dunmore.
Scranton	1-25	147	The city of Scranton is in the bottom of the Lackawanna Valley. The railroads serving it are- the Lackawanna, Erie, N.Y.O.& W., C.R.R.N.J., D.& H., and the Laurel Line, an electric (3rd rail) line to Pittston and Wilkes Barre. As we drop down into the passenger station, the modern locomotive shops of the Lackawanna may be seen on the left. These shops were built in 1910, and have been kept up to date in every way. The erecting shop has 34 pits, and will handle 30 locomotives at one time. On the left is the Scranton freight yard. Fast freights pull in for inspection and to set out or pick up cars, get a helper and start west up the 75' grade to Clarks Summit.

Scranton (cont'd.)

In back of the freight yard are the Scranton enginehouses, where passenger, some switch, and some freight power is serviced. It is a busy place. Freight and drag locomotives are taken care of out at Hampton enginehouse, three or four miles west-in back of the hill right ahead of you.

The river at the westend of the Scranton yards is the Lackawanna with the D. & H. running along its easterly bank, while the C.R.R.N.J. is on the opposite side. Just west of the river is Hyde Park Junction, where the westbound trains swing to the right for the climb to Clarks Summit, and thence to Binghamton and west, while the trains for the Bloomsburg Division go to the left to Kingston, Berwick and Northumberland. The heavy freight trains follow these tracks to Taylor Yard, and then head west around the hill to Hampton Yard, and the enginehouse, on what is known as the Keyser Valley Branch.

North of Hampton yard and enginehouse two miles is the Keyser Valley car shop where all of the repair work for freight cars is done. A mile or so north of that, the Keyser Valley Branch once more intersects the main line at Cayuga Tower.

From Scranton Passenger station we move west down the mainline, across the Lackawanna River, and swing sharply to the right, for the climb up the mountain toward Clark's summit. We are now on the original line of the D.L. & W., which was built in 1851 as the Leggett's Gap Railroad. As we swing to the right, the Bloomsburg Division diverges to the left. We will see a little of it, before the day is over.

As we climb the grade one may get a fine view of the City of Scranton, from the right side of the train. At Cayuga Tower, we stop and back down the Keyser Valley Branch, leaving the main line at that point. This branch line, which connects the Bloomsburg Division with the main line west, is used by slow tonnage freight, and especially coal trains. It is the only part of the Lackawanna which runs on the left hand track. The reason for the operation is that by so doing the movement of tonnage trains out of Hampton Yard is expedited, with less interruption to the light movement, and so avoids crossing over. Incidentally, when the Lackawanna & Bloomsburg was built, it operated on the left hand track for years, as the coal mines were all on the west side of the track, and the loaded movement was facilitated by avoidance of crossing over the other track.

Our first "Official Inspection" stop is at the Keyser Valley Car Shop. Here one will see the rebuilding of box and other cars. A number of cars are being equipped with the latest devices for loading and carrying automobiles. Perhaps in time, the public will become sufficiently educated to demand that their new automobiles be shipped to them by freight, and not run half to death over the highways; incidentally, the full railroad freight is charged against the buyer, regardless of how the car is shipped.

From the Keyser Valley Car Shops the train will be backed on down to Hampton Yard and enginehouse. It can be noted that a high hill separates this valley from the one to the east in which the city of Scranton proper nestles.

Hampton enginehouse is the terminal for the slow freight and mine runs. No passenger engines are serviced at this terminal. The 2200 class 4-8-2, three cylinder locomotives will drag the whole yard- even with the Yard Office chained on behind. They are used for coal or slow freight drags. The 1200 and 2100 class 2-8-2 locomotives are used on mine runs and for way or other lighter freight jobs. The 380 class are used on transfer or mine runs and are generally known by the nickname "Teddy Bears". Switch engines are switchengines altho the 198 is a large - and one

of the first large - 0-8-0 engines used for Hump Yard service.

From Hampton we pass thru the upper end of Taylor Yard and on the Bloomsburg Division, for the short run back to Scranton. Soon the train once more reaches the Hyde Park Wye, and runs into the yard, by the roundhouses and down to the Scranton Locomotive Shops.

The Scranton shops are among the finest in the United States. Every piece of equipment is right up to date. The party will visit the laboratory which is maintained to carefully check materials, etc., to insure the highest quality results.

The large model locomotive was built by the Scranton Shop foremen of wood and sheet steel for exhibition purposes. It is a replica of the 1135 class locomotives, and is twenty feet overall, with an extreme height of 48 inches, and width of 32 inches.

The locomotives undergoing repairs of all classes give a graphic picture of the work necessary to maintain locomotives for a high state of efficiency. It is much more difficult to maintain a two hundred ton, than a fifty ton locomotive, when all of the extra equipment now carried on a locomotive is considered- even if modern equipment is available in the shop. The days have gone forever when two men could lift and walk off with a side rod! On the locomotive of today jacks, chain hoists, air hoists, and travelling cranes of various sizes are required to lift the various parts. The piping work is extremely complicated, for in addition to that necessary for the airbrake, you have feed water heaters, boosters, exhaust steam injectors, and innumerable other gadgets which have to be hooked up to something!

From the Locomotive Shops the party will proceed to the enginehouses, where various classes of locomotives undergoing light repairs will be seen. The engine dispatchers office will be visited, and the thousand and one roundhouse operations which go to make up the smooth day in and day out operation of a railroad will be explaimed.

The party is requested to avoid the ashpits, for several reasons. 1, Flying dirt. 2, Danger of injury account crane and other operations. 3, Possibility of falling in the ash pits. Also, keep away from the coal pockets to avoid any chance of a lump of coal falling on one's head. Keep out of the freight yard, and avoid all main line tracks.

Many classes of locomotives will be placed in the open for camera fans. There will be both old and new locomotives, which will clearly demonstrate the progress which has been made in motive power development on the Lackawanna during the past thirty years.

A BRIEF HISTORY OF D. L. & W. MOTIVE POWER!

It is not possible in the brief space allotted to really cover all of the history and development of Lackawanna Motive Power, for to do so would require a separate history for each of the lines taken over by the Lackawanna, and which were operated more or less independently until 1899. As previously stated, each Master Mechanic had his own idea as to the class of locomotive best adapted to the operating needs of his division, and to a great extent followed his own judgment in design, construction and maintenance.

We will be able to touch only on the motive power history of the Morris and Essex, and the D. L. & W., proper - the line from Hampton to Binghampton.

MORRIS & ESSEX. The first locomotive on this railroad was the little 4-2-0 built by Seth Boyden, Newark, in 1837. It was named "Orange". Seth Boyden made the locomotive without the aid of drawings. It may be assumed that he carefully examined the first locomotives of the Paterson & Hudson River railroad, and possibly made some sketches,

but a number of unique devices worked out by him were certainly his own idea. The Orange did good work until 1863, when it was destroyed in a fire which burned the old Newark roundhouse to the ground. The second locomotive was also built by him, a 4-2-0, in 1838, and named the "Essex". This locomotive was used until 1851, when it was sold to the Iron Railroad of Ohio. It was shipped from Dunkirk by sloop, which foundered, so to this day, somewhere on the bottom of Lake Erie lies the historic locomotive "Essex". The third locomotive, also a 4-2-0 was built by Baldwin, Vail and Hufty, came on the road in 1838, and was named "Speedwell", for the Speedwell Iron Works at Morristown, from whom the locomotive was purchased. It was used until 1846, when it was traded back to the Speedwell Iron Works (Judge Vail) for the "Dover" a 4-2-2-, which had a traction increaser, the trailing wheels being so constructed that when the engineer wanted more weight on the drivers, he turned a jackscrew and raised the trailing wheels off the track, consequently throwing more weight on the drivers. The "Dover" lasted until 1866, when it was sold.

It is said that occasionally in the early days of the Morris & Essex, when the tiny locomotive was unable to haul its train up the grade to the "Summit of The Short Hills", that a yoke of oxen was hooked on to help them to the top of the hill! As the locomotive probably weighed only five or six tons, it is not to be wondered that help was needed.

The next locomotive was built in 1846, by Rogers, Ketchum & Grosvenor, in Paterson, N. J. It was numbered 4, and named "Sussex". It was a 4-4-0, and started the use of that type on the road. Until 1866 the 4-4-0 was used for both freight and passenger service.

As was customary on all railroads of the period, the M. & E. engines bore both names and numbers. The practice of naming them was discontinued in the eighties, but many locomotives still had their name on the cab until 1899. The first 115 locomotives (except #111) were named. One of the most famous, or perhaps best known was the No. 100- the "Centennial", which was a 4-4-0, built by Dickson for exhibition at the Philadelphia Centennial in 1876. After service on the through runs it was assigned to the millionaire's train- known as the "Morristown Vestibuled Express". Retired engineer Ben Day ran it for years. The writer has a complete record of the names, numbering, and renumbering of the locomotives, which required time patience and perseverance to dig out and put together.

The first real freight engines came on the road in 1866. They were numbered from #1 to #5 inclusive and named - "ORANGE, DOVER, MILLBURN, ROCKAWAY, and WARREN". These locomotives were 2-6-0 type and performed service until in the twentieth century.

Many locomotives were rebuilt at the Kingsland Shops. The records use the term "Rebuilt", altho it is apparent that the bell of the original locomotive was jacked up, and a new locomotive assembled under it.

The M. & E. converted their locomotives to anthracite in the fifties and sixties, and used that fuel until 1899. Most of the locomotives burned lump coal, which was for the most part thrown into the firebox in chunks, by hand. There was quite a knack in picking the right sized piece of coal and accurately tossing it to the desired spot in the firebox. Anthracite kindles slowly, but gives a long steady heat when finally ignited thoroughly.

The first culm burner (Fine coal- about the size of pea or smaller) was a 2-6-0 received from Danforth Cooke in 1887. There were only a few of such engines, which had the wide firebox, with center cab on the Morris & Essex, altho the D. L. & W. converted most of their engines to burn such fuel, which was a waste product of the coal mines.

The 4-4-0 reigned supreme in passenger service, until the D. L. & W. consolidated the lines in 1899.

D. L. & W. The first locomotive used on the road was the little "Pioneer" which came down from the Ithaca & Owego, and was used in construction service on the Leggett's Gap Railroad, from Scranton west. It was a little 4-2-0, quite similar to the "Orange" of the Morris and Essex, but was built by McQueen (Schenectady,N.Y.) in 1840. It came on the road in 1851. Being of little use, in 1855, it was converted to a stationary engine to pump water at the new well at the Scranton Shop.

The second locomotive was the "Spitfire" which was originally built by Braithwaite & Co., in England in 1838, for the Philadelphia & Reading, from which Company the Leggett's Gap Railroad purchased it in 1851. It was sold to the Spencer Coal Company in 1859 for $800. and remained in service until 1880.

The D. L. & W. being a very hilly and curved railroad always needed powerful locomotives, heavy and with small drivers. 4-4-0 locomotives were used for passenger 2-6-0 and 4-6-0 being used for freight. Like every other railroad, wood was used for fuel in the early days, but the abundant and inexpensive anthracite soon caught the eye of the company. In 1854 Danforth Cooke & Co. turned out the "Anthracite" which was designed to burn that coal. The "Carbon", No. 19, was turned out by Ross Winans in October 1854, as an anthracite burner. Four of Ross Winans Camels appeared on the road in 1856 as - "Maryland, Virginia, Vermont, and Connecticut." They caused much trouble and were scrapped in 1859. In 1856 a new type of anthracite burning locomotive was produced by New Jersey Locomotive Works, named "Experiment". It was followed by one from Danforth Cooke in 1857 named "Investigator", and two months later came the "Decision" by Danforth Cooke and Co. They were all "lump burners". Culm burners appeared in 1880, and from that time on, as shopped, most of the lump burners were converted to wide firebox culm burners, with center cabs.

As on the Morris and Essex, the D. L. & W. locomotives had both names and numbers. The last lot of named locomotives were built in 1880, the last being No.144, named "Bridgeville". In 1887 passenger (culm burner) locomotives #188 and 189 were named respectively "Wm. S. Sloan", and "G.M. Hallstead". After 1880 names were removed when locomotives received heavy repairs, in many instances. All names were removed in 1899, when the grand reorganization and renumbering took place.

The Lackawanna built many locomotives in its shops at Scranton and Kingston. Master Mechanic Charles Graham turned out a beautiful set of 4-4-0 locomotives at Kingston, numbered #240 to 247, incl., during the period 1889 to 1894. Master Mechanic Graham at Kingston, and Master Mechanic Dave Brown at Scranton greatly influenced locomotive design during that period and did remarkable work for the Lackawanna.

In the old days, much money was spent in painting, decorating, and maintaining the locomotives. They were assigned to regular crews who took tremendous pride in them, and kept them in perfect condition. Obviously it was possible to do so with the smaller power of that period, but in any case the mileage run by many of the old locomotives has never been equalled in pooled or "Chain Gang" service. The locomotives in passenger service on the Lackawanna were among the most handsome ever turned out, or kept up. Some had cabs finished in maple and black walnut,which cost as high as $800. Less than five coats of varnish was the exception rather than the rule! The crews spent hours polishing and tinkering with their engines.

The Lackawanna because of its grades made considerable use of the 4-6-0 and 2-8-0 types. In 1893 Master Mechanic Brown turned out a 4-6-0 at the Scranton shop, at a cost of $10,817. 73, which was known as "Dave Brown's Big Engine". Persons who later knew it as the #692 and contrasted it with the engines of the year in which it was scrapped, 1926, did not think it such a huge machine - but in 1893 it was!

In 1900 the first of the 1000 class were received. They were numbered 1001 to 1007, incl., and built at the Brooks Works. From that time on, the Lackawanna has followed the policy of purchasing bigger and better motive power.

To burn the anthracite waste coal, or "culm" wide fireboxes were necessary. There being no room for the operating equipment, account clearance limitations, the cab was placed just ahead of the firebox, thus separating engineer and fireman. Anthracite is no longer burned, so the necessity of that type of locomotive has passed. A soft coal burner does not require such a wide firebox, and with the use of automatic stokers, a much longer firebox with consequent increase in grate area can be used than with the older hand fired locomotives.

From a tiny 4-2-0 (Pioneer) and a 0-4-0 (Spitfire) the Lackawanna in seventy five years has progressed to huge 4-8-4 locomotives weighing 225 tons (without the tender).

What will the next twenty-five years bring forth?

A RECENT PRODUCT OF THE SCRANTON LOCOMOTIVE SHOPS.

As one inspects the large trim 0-8-0 switchers numbered from 201 to 260, it does not appear that these locomotives were made out of old 4-6-2 and 2-8-2 types which had outlived their usefulness on the road.

Under the direction of Mr. C. J. Scudder, Chief of Motive Power, and the late Mr. S. S. Riegel, Mechanical Engineer, plans were made and executed for the converting of locomotives #1151 to #1190 (except 1189), which were 4-6-2 freight locomotives, built by Schenectady, and Lima at various times from 1913 to 1924. Their principal dimensions were - Cylinders - 25 x 28", Drivers 69", Wt. Drivers 190,000#, Total Wt. 297,000#, Boiler Pressure 200#, Tractive Effort 43,100#. The weights varied a little with the different lots of locomotives received.

The rebuilt locomotives were numbered from #201 to 238, (but the numbers do not run in the same order. For example, the 1154 became the 202, and the 1157 the 201. If it is desired to know any old or new number, inquire.)

The new locomotives proved exceedingly satisfactory. They were turned out of the Scranton Shop between 1929 and 1933. The principal dimensions are:- Cylinders 27" x 30", Drivers - 58", Weight of engine 265,500# Boiler Pressure 210#, Tractive Effort- 67,300#.

Each of these locomotives cost the Company less than $16,000 to rebuild, and gave employment to a large number of men, over a considerable period of time. The railroad now has a number of powerful modern 0-8-0 switchers in place of a similar number of 4-6-2 engines which were of little use to the company.

Realizing the value of the new locomotives, Mr. Scudder then started work on the old 2-8-2 locomotives - the first built for the railroad, by Schenectady in 1912.

In January 1934 the first of the new lot - the #239 appeared, having been converted from the old #1202. The principal dimension of the 1200 class engines prior to conversion were - Cylinders 28" by 30", Drivers - 63", Wt. on Drivers 246,000#, Total Wt. 312,000#, with Boiler Pressure of 190#, giving a tractive effort of 60,300#. The weights of the 1200 class varied slightly, the above being approximate.

The new 200 class 0-8-0 locomotives have practically the same dimensions as the previous group, the weight being however 266,600#

Up to the present time rebuilt locomotives numbered thru 260 have been turned out, proving that a new 0-8-0 at bargain prices is worth considerably more than an outmoded 2-8-2. That is true efficiency - making something worthwhile out of something one is about to discard.

THE LOCOMOTIVE WASHING PLANT

At the Scranton Enginehouse may be seen the ingenious device for washing the locomotives, which is entirely automatic in its operation.

As the hostler slowly runs the locomotive to be washed toward the device, the locomotive runs over a specially insulated piece of track, which closes the circuit and starts the washer in operation. The arms are slowly swung toward the locomotive, and the electric pump starts operation to force the steam, hot water and a special cleaning oil out of the small nozzles at high pressure

The force of the oil, hot water and steam loosens and removes much of the surface dirt and grime as the locomotive travels thru the spray. When the locomotive has passed the washer, it automatically ceases operation, until another locomotive appears. It is an easy matter for one or two wipers to go over a locomotive which has passed thru the washer, and give it a high polish in a few moments.

PRINCIPAL CLASSES OF LACKAWANNA LOCOMOTIVES WHICH MAY BE SEEN ON JULY 19th, 1936.

Note:- This does not cover all types in service, and weights given are average, where they vary in the same class. If any member of the party desires construction numbers, or exact data concerning any locomotive on the Lackawanna, Program Chairman Taber will be pleased to answer any questions or furnish the desired data, after leaving Scranton on the return trip.

Numbers	Type	Cylinders	Drivers	Wt. on Drivers	Total Weight	Boiler Pressure
13- 69	0-6-0	19" x 24"	51"	131,700#	131,700#	170#
82- 145	"	19 x 24	51	130,000	130,000	170
156- 161	0-8-0	22 x 28	57	208,000	208,000	200
162- 185	"	"	57	208,000	208,000	200
198- 199	"	27 x 30	57	229,000	229,000	185
201- 260	"	27 x 30	58	265,500	265,500	210
350- 376	2-8-0	21 x 26	57	169,500	190,000	200
385- 399	"	26 x 30	57	213,000	239,000	175

						Total Weight
401- 408	Diesel Switcher. Tractive Effort- Start-60,900#				@4.8 mph-28,000#	203,000#
425- 426	" Winton "	"	"	"	61,000 @6.8 mph 25,200	204,150
450- 455	" G.E. "	"	"	"	60,900 @4.8 mph 28,000	204,000

						Boiler Pressure
504- 508	2-6-0	21" x 26	57	153,000	176,000	200#
534- 540	"	20½ x 26	63	152,500	173,500	200
541- 549	"	"	63	150,500	171,500	200
550- 569	"	"	63	140,000	161,000	200
724- 739	2-8-0	21 x 26	57	169,500	190,000	200
770- 797	"	"	57	157,500	178,000	200
964- 993	4-4-0	"	69	109,500	167,700	185
1008-1016	4-6-0	23 x 26	69	167,500	214,800	200
1031-1036	"	"	69	175,800	225,000	200
1101-1114	4-6-2	25 x 28	73	182,000	288,000	200
1115-1130	"	"	79	190,000	300,500	225
1131-1135	"	27 x 28	73	197,300	305,500	210
1136-1140	"	25 x 28	79	191,000	301,000	225
1228-1262	2-8-2	28 x 30	63	254,000	324,000	200
1401-1405	4-8-2	28 x 30	69	257,500	376,000	210
1450-1454	"	28 x 32	73	256,000	382,000	220
1501-1505	4-8-4	27 x 32	77	269,000	421,000	250
1601-1628	4-8-4	28 x 32	70	281,500	418,000	235
1629-1630	"	"	70	270,000	432,000	235
1631-1650	"	"	74	274,000	447,000	250
2101-2150	2-8-2	28 x 32	63	274,000	360,000	200
2201-2235 (3 cylinders)	4-8-2	25 x 28 inside 25 x 32 outside	63	275,000	396,000	200

Lackawanna Railroad

DINING CAR SERVICE

NEW YORK CHAPTER RAILWAY
AND
LOCOMOTIVE HISTORICAL SOCIETY INC

LUNCHEON

Baked Spiced Ham, Wine Sauce
Cold Loin of Beef Potato Salad

-*-

Mixed Green Salad

-*-

Chocolate Pudding, Whipped Cream

-*-

Coffee, Tea (Hot or Iced) Milk

-*-

75 Cents

-*-

Sunday, July 19, 1936

Lackawanna Railroad

DINING CAR SERVICE

NEW YORK CHAPTER RAILWAY
AND
LOCOMOTIVE HISTORICAL SOCIETY INC

DINNER

Tomato Juice Cocktail

-*-

Celery Radishes Olives

-*-

Lackawanna Special Steak
Roast Young Turkey, Currant Jelly
New Potatoes in Butter
Green Corn Saute with Peppers

-*-

French Ice Cream, English Biscuits
Fresh Cherry Cobbler

-*-

Coffee, Tea (Hot or Iced) Milk

-*-

$1.00

-*-

Sunday, July 19, 1936

BEST WAY TO TRAVEL AND SHIP

Lackawanna Railroad

SHORTEST LINE
between
NEW YORK
AND
BUFFALO

Superior Through Service
BETWEEN
THE EAST
AND
THE WEST

POCKET MAP

Lackawanna Railroad

The Route of Fast and Dependable Freight Service

THROUGH merchandise service between principal cities in the East and distributing centers in the West, Northwest and Pacific Coast.

LACKAWANNA RAILROAD TRAFFIC AGENTS, located in commercial centers, are at your service and ready to assist in the handling and working out of your shipping needs. Daily passing reports in the hands of all agents enable them to give immediate and complete information to customers.

INDUSTRIAL DEVELOPMENT

THE proper location of a new plant is of vital importance to a manufacturer.
Excellent factory sites and buildings are available along the lines of the Lackawanna Railroad. Its Industrial Department invites inquiries and will gladly assist manufacturers seeking a plant location and a favorable situation in relation to raw materials, markets, labor and power.

For Information Address
INDUSTRIAL DEPARTMENT, LACKAWANNA RAILROAD
90 WEST STREET, NEW YORK, N. Y.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD

Lackawanna Railroad

Lackawanna Railroad

ROUTES OF THROUGH PULLMAN SERVICES

New York-Detroit-Chicago . . . . . MICH. CEN. R. R.
New York-Cleveland-Chicago . . . . . N.Y.C. & ST. L. R.R.
New York-Detroit-Chicago . . . . . WABASH RY.
Syracuse-Philadelphia-Baltimore-Washington C.R.R. of N.J., R.Co., B. & O.
Scranton-Philadelphia . . . . . PA. R.R. (Parlor Cars)

"Port Morris Transfer"

"New York Transfer"

DELAWARE, LACKAWANNA & WESTERN RAILROAD
HOBOKEN—JERSEY CITY TERMINAL

HOBOKEN
JERSEY CITY
PASSENGER STATION
LONG SLIP
FREIGHT TERMINAL, WAREHOUSES AND L.C.L. FREIGHT HOUSE
Pier No. 3 (Covered-Storage and S.S. Loading)
Pier No. 4 (Covered-Storage)
Pier No. 5 (Coal Dumpers)
Pier No. 6 (Grain Pier)
FLOAT BRIDGES
To New York
To 23rd St.
To Christopher St. SLIPS
To Harrison St.
Hudson River

Lackawanna Railroad
NEW YORK HARBOR
showing
Freight Station Deliveries
Passenger Stations and
Car Float Lines
New York Transfer
NEW INDUSTRIAL DEVELOPMENT
Car Float Lines
Ferry Lines (Passengers) (Vehicles)
Hudson Tubes

LEGEND
Lackawanna Railroad — TWO OR MORE TRACKS / SINGLE TRACK
Connecting Lines
1928

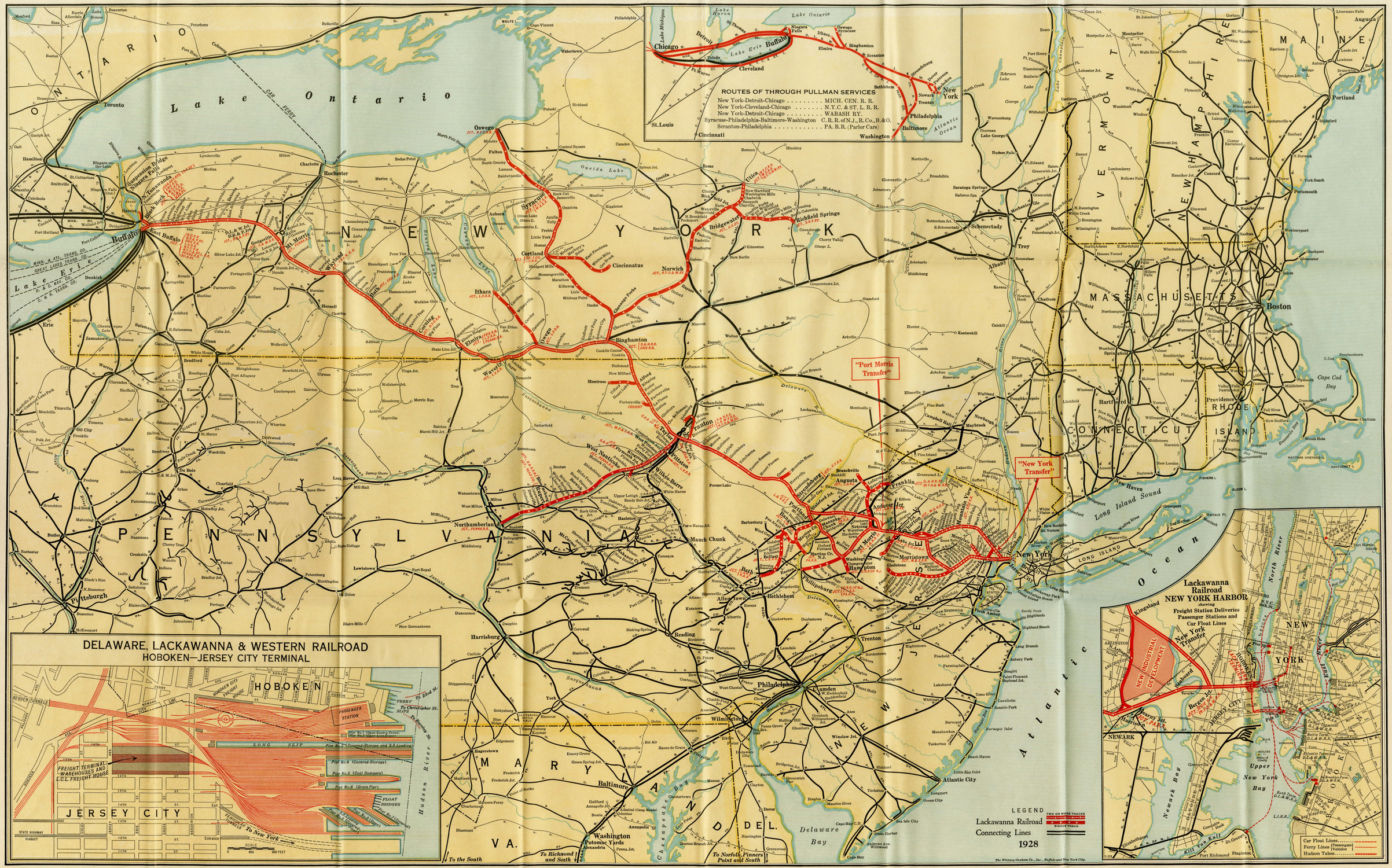
The Whitney Graham Co., Inc., Buffalo and New York City.

SHORTEST ROUTE BETWEEN NEW YORK-SCRANTON-BINGHAMTON-SYRACUSE AND BUFFALO

DELAWARE, LACKAWANNA AND WESTERN RAILROAD

Lackawanna Railroad

Lackawanna Railroad



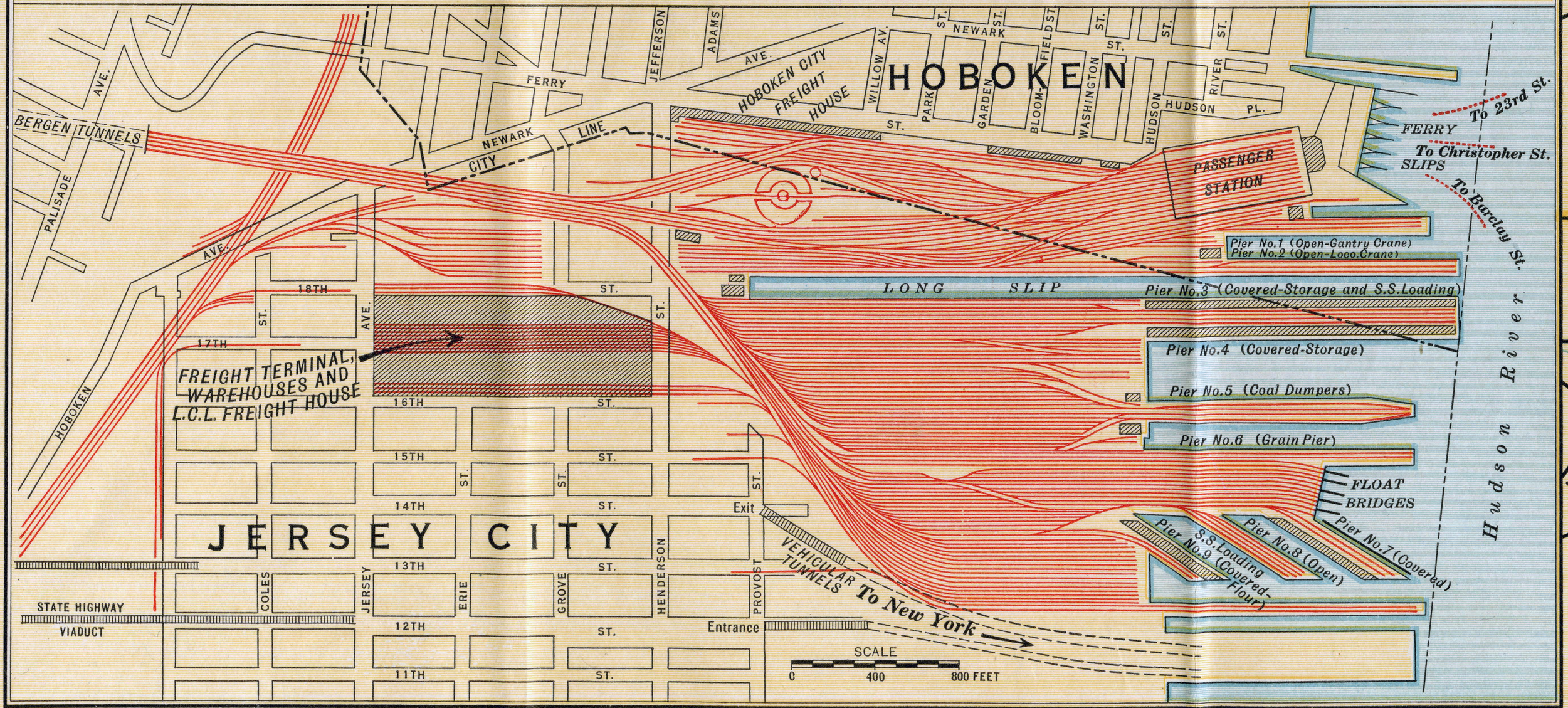
DELAWARE, LACKAWANNA & WESTERN RAILROAD
HOBOKEN—JERSEY CITY TERMINAL

SHORTEST ROUTE BETWEEN NEW YORK-SCRANTON-BINGHAMTON-SYRACUSE AND BUFFALO

McKeesport

DELAWARE, LACKAWANNA & WESTERN RAILROAD

HOBOKEN—JERSEY CITY TERMINAL



Lackawanna Railroad
NEW YORK HARBOR
showing
Freight Station Deliveries
Passenger Stations and
Car Float Lines

LEGEND

Lackawanna Railroad — TWO OR MORE TRACKS

Connecting Lines — SINGLE TRACK

1928

The Whitney Graham Co., Inc., Buffalo and New York City.

7-28

Car Float Lines.....

Ferry Lines {Passengers / Vehicles}

Hudson Tubes.....

ON-SYRACUSE AND BUFFALO