CHICAGO AND WESTERN INDIANA RAILWAY

THE GRAND TRUNK RAILWAYS ENTRANCE INTO CHICAGO.

Moguls for the Chicago & Western Indiana

The development of heavy switching locomotives is well exemplified in the ten engines of this type lately built for the Chicago & Western Indiana Railroad Company by the Lima Locomotive Corporation. The designs for these engines were prepared by the locomotive builders according to the specifications submitted by the railway company, and, although they represent nothing radical, they do exemplify the modernization of the heavy switching locomotive.

Our illustration shows the 2-6-0 type, generally known as the Mogul type of locomotive. They are quite similar to those previously furnished to the Chicago & Western Indiana Railroad Company by other builders, but they have been improved along the lines of service experience with the earlier ones. The journals have been made larger than the previous engines and improvements have been made to the side rod and guide yoke to facilitate taking down the front section of these rods. Strictly speaking, the engines are for interchangeable service and not for switching service exclusively. The Chicago & Western Indiana operates a limited suburban schedule, and the Mogul engines are used in passenger service as well as in freight traffic and switching operations. They are equipped with a peculiar design of stub pilot, which has been developed by this railway company, and which embodies the conditions necessary on a pilot for road service, and also the conditions necessary for a switching step. They are equipped with brick arch and superheaters and are therefore fully modernized in fuel saving devices. The steam is delivered through outside steam pipes and the piston valves are operated by Baker gear. Markel main rod ends are used. They are possibly the heaviest Mogul locomotives now in service and represent an ideal engine for short runs in interchange-

curves and various conditions of the track.

The tenders of these engines are of special design arranged with the fuel collar set in at the edge of the water leg to allow unobstructed view by the engine man. This arrangement was suggested by the railroad company in accordance with their experience with other tenders of the same capacity which had high coal boards, and which were ill-adapted for the service conditions on this account. The suggested improvement was worked out by Lima Locomotive Corporation and resulted in a handsome tender of rather unique appearance.

The general dimensions of these engines are as follows:

Gauge, 4 ft. 8½ ins.

Cylinders, 23 ins. by 28 ins.

Valves — Piston, diameter, 14 ins.; maximum travel, 6½ ins.; steam lap, 1 in.; exhaust clearance, 1/16 in.; lead, constant, ¼ in.; motion, Baker.

Boiler—Straight top; staying, radial; working pressure, 180 pounds; outside diameter, first ring, 76¾ ins.

Firebox—Length, 108 ins.; width, 69¼ ins.; thickness of sheets, ⅜ in. and ½ in.; water space, 4½ ins. and 4 ins.

Tubes—Material, steel, No. 201; diameter, outside, 2 ins.; thickness of tubes, No. 11, B. W. G.; large flues, No. 32, outside diameter, 5⅜ ins.; thickness of large flues, No. 9, B. W. G.; length of flues, 13 ft. 7 ins.

Heating Surface—Firebox, 185 sq. ft.; tubes and flues, 2,028 sq. ft.; total, 2,213 sq. ft.; superheating surface, 540 sq. ft.; grate area, 52 sq. ft.

Driving Wheels—Diameter, outside, 63 ins.; thickness of tires, 3½ ins.; journals, 11 ins. by 13 ins.; truck wheels, diameter, 33 ins.; truck journals, 6½ ins. by 12 ins.

Tender—Frame, 10 ins. by 13 ins. channels; wheels, diameter, 33 ins.; material, rolled steel; journals, 5½ ins. by 10 ins.; water capacity, 7,750 gals.; coal

Weight—On drivers, 165,200 pounds; on leading truck, 29,400 pounds; total, 194,600. Total weight of engine and tender in working order, 335,600 pounds.

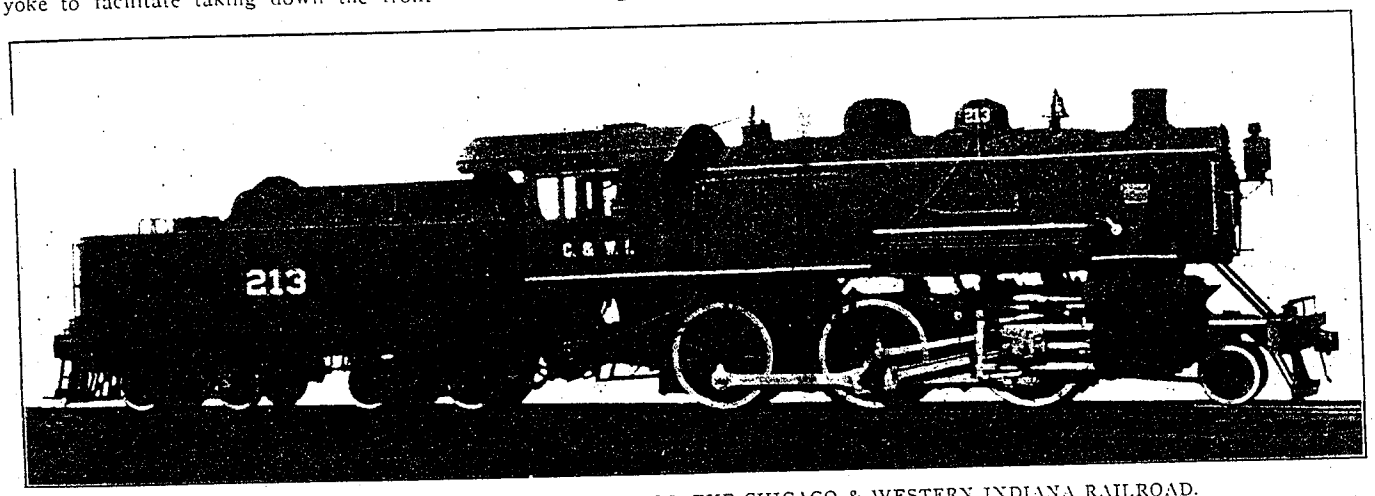
Wheel Base—Driving, 15 ft.; total wheel base, 24 ft. 1 in.; wheel base engine and tender, 56 ft. 10¾ ins.

Service—Mixed.

Fuel—Bituminous coal.

Superheater—Schmidt, number of units, 32.

Ratio of adhesion, 4.6.



MOGUL, 2-6-0, TYPE OF LOCOMOTIVES FOR THE CHICAGO & WESTERN INDIANA RAILROAD.

Level Crossing Signals.

The Lehigh Valley Railroad is making strenuous efforts to promote safety by reducing the number of accidents at highway level crossings. A conspicuous source of danger at highway crossings has been banks, brush and buildings that obstruct the view of approaching trains. These have been removed everywhere that the change was practicable and an excellent system of signaling has been introduced to give warning of the approach of trains. As soon as a train comes within a mile of a crossing a signal shows a red light and a loud sounding gong begins to ring. Both warnings are kept in operation until the train has passed.

Coal Supply.

As the consumption of anthracite coal is greater in the United States than in any other country, the belief is widespread that the United States contains greater anthracite deposits than other countries. That is a great mistake. Geologists estimate that the United States holds about 19,700 million tons of that valuable fuel. China contains 387,500 million tons. China is also very rich in bituminous coal deposits, but not so rich as the United States. It may come to pass, however, that China will provide the source of heating for the rest of the

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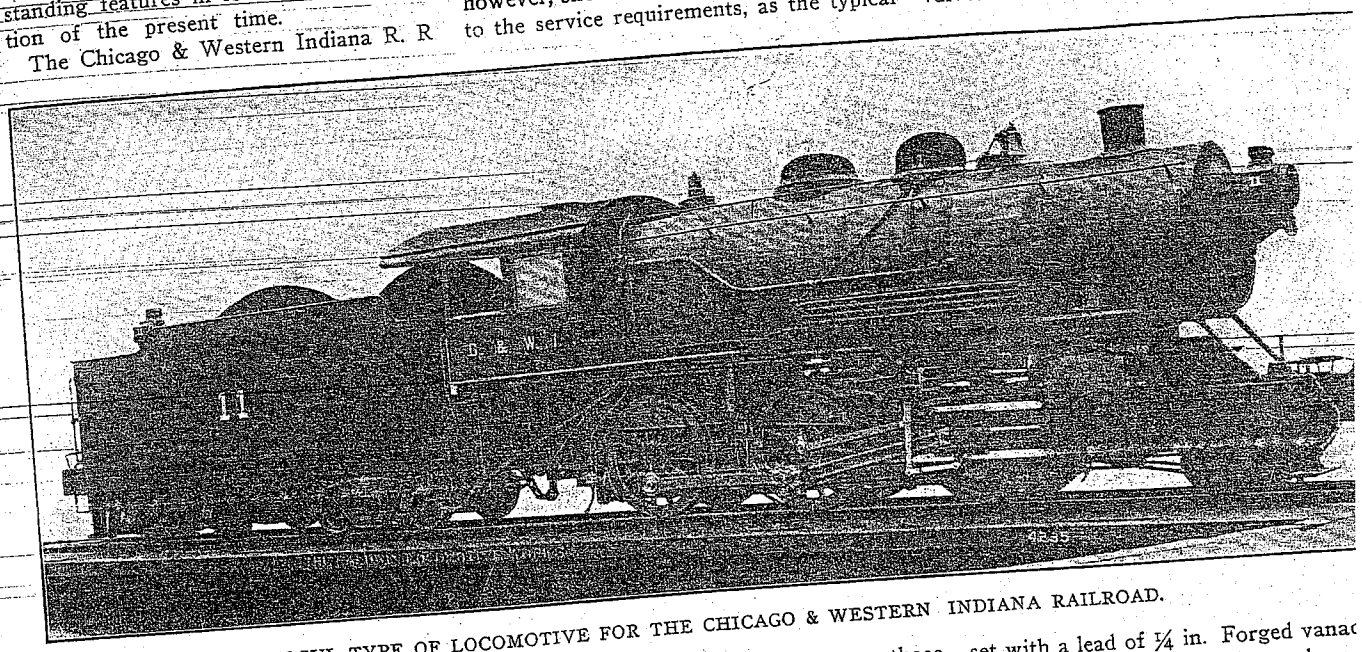

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Boiler—Type, straight, [illegible] diameter, 76¾ ins.; thickness ¾ ins.; working pressure, 1[illegible] soft coal; staying, radial

Fire Box—Material, steel; [illegible] ins.; width, 69¼ ins.

Chicago and Western Indiana Road.

At a meeting of the directors and officials at Montreal, July 24, there were present :— President Thomas and E. A. Bancroft, General Counsel, C. & W.I.Rd.; G. B. Reeve, 2nd Vice-President, and F. W. Morse, 3rd Vice-President, G.T.R.; President McDoel, and G. W. Kretzinger, General Counsel, Chicago, Indianapolis and Louisville Rd.; President Underwood and O. W. Johnson, General Counsel, Erie Rd.; President Carpenter and O. S. Lyford, General Counsel, Chicago and Eastern Illinois Rd.; President Ramsay, and Col. Blodgett, General Counsel, Wabash Rd. The object of the meeting was to confer as to what was to be done in order to comply with the decision of the Chicago City Council to compel the road to elevate its track between 16th and 23rd streets in that city. The work will doubtless be undertaken at an early date, but the negotiations, which involve a multitude of

details, have not been finally closed, though it is expected an agreement will be arrived at within the next few weeks. It is said the cost of elevating the road is estimated at about $6,000,000.

The C. & W.I.Rd. has 16.99 miles of line from Polk-st., Chicago, to Dolton, Ill. It has 48.58 miles of branches, and its second, third and fourth tracks and sidings make the total track 218 miles. It owns over 850 acres of land in Chicago, used for right of way, switches and transfer yards, etc., and for stations leased to various companies. The belt division and the Indiana elevator are leased to the Belt Ry. Co. of Chicago, and the rest of the property is leased conjointly by the Chicago and Eastern, the Wabash, the Chicago and Grand Trunk (now the Grand Trunk Western), the Chicago and Erie, the Chicago, Indianapolis and Louisville (each owning $1,000,000 of the capital stock), the Atchison, Topeka and Santa Fe, and the Elgin, Joliet and Eastern companies, the lessees paying all expenses of operation and maintenance on a mileage basis. The leases are all covered by the mortgage as additional security.

ONE KILLED, SIX HURT WHEN BOILER EXPLODES

Man Hurled Forty Feet When Struck by Furnace Door—Death Instantaneous.

Jan 6 1913

Carried 40 feet through the air by the impact of a furnace door, James Edwards, a railroad hostler, was instantly killed when the crown shield of the boiler of engine No. 2, Detroit, Toledo & Shore Line, gave way, causing an explosion at the railroad tracks and Junction avenue, Detroit, Sunday morning about 11 o'clock.

Six other men were scalded and bruised in the accident. They were blown from the engine's cab and stumbled over rails and into telegraph poles, blinded by the cloud of steam enveloping them. They were sent to hospitals and most of them returned to their homes after having their wounds dressed.

Wnelson

January 6
1913

house at the end of the elevator, 45x60 ft. in size, and 47 ft. high. In the power house is located one 750 h.p. engine, three boilers, condenser, boiler feed pump, and one 1,000 gallon underwriters' fire pump; also one 35 h.p. automatic engine, electric generator of 35 k. w. direct connected to shaft of engine; also marble panel switch board, etc. At the end of the power house is located a brick chimney 170 ft. high, having 4½ ft. flue. The outside size at base is 14 ft. square to a height of 20 ft., where the shape changes from square to octagon, and from octagon to round, the round part of the chimney being 150 ft. high, 13½ ft. at the bottom and tapering to 8 ft. at the top.

The whole exterior of the elevator is covered with corrugated sheet steel, and all interior woodwork is covered with crimped sheet steel. All floors are of steel and concrete, and this with the steel and concrete hopper bottoms ensures a practically fireproof elevator.

Plans and specifications for this building were prepared by J. A. Jamieson, of Montreal, who also secured the contract for construction. All the machinery and special labor-saving appliances, as well as the system of fireproofing, are of his design. On account of a large amount of dredging being required before the foundations could be put in, work was late in getting started, but it is now being rushed with a view of getting the elevator ready to handle this season's crop.

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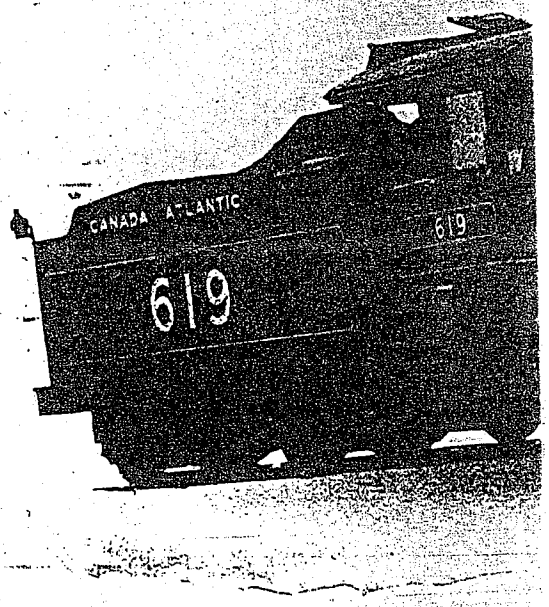


Railway Equipment Notes.

The Midland Ry. of Nova Scotia has added another locomotive to its equipment.

The Thunder Bay, Nepigon and St. Joe Ry. is reported to have bought a locomotive.

The Bruce Mines and Algoma Ry. is in the market for a locomotive and 15 or 20 flat cars.

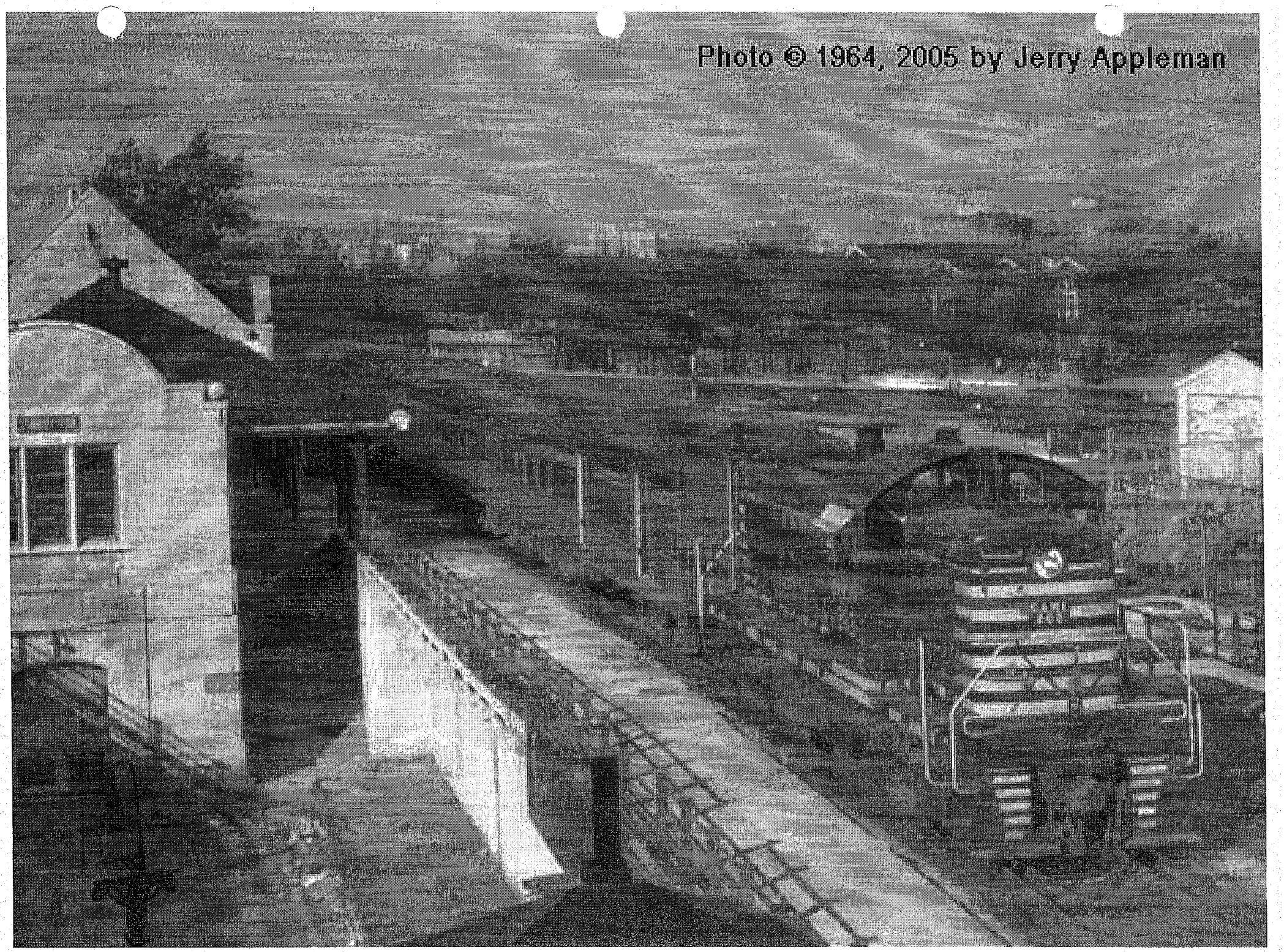
The C.T.R. is turning out an average of 10 box-cars a day specially for the western grain traffic.

The Cape Breton Ry. Extension Co. has asked tenders for 100 platform cars of 80,000 lbs. capacity.

The Pittsburg, Lake Erie and Pacific Ry. is reported to have recently added two locomotives to its equipment.

The Canada Atlantic Ry. is reported to have


Photo © 1965, 2004 by Jerry Appleman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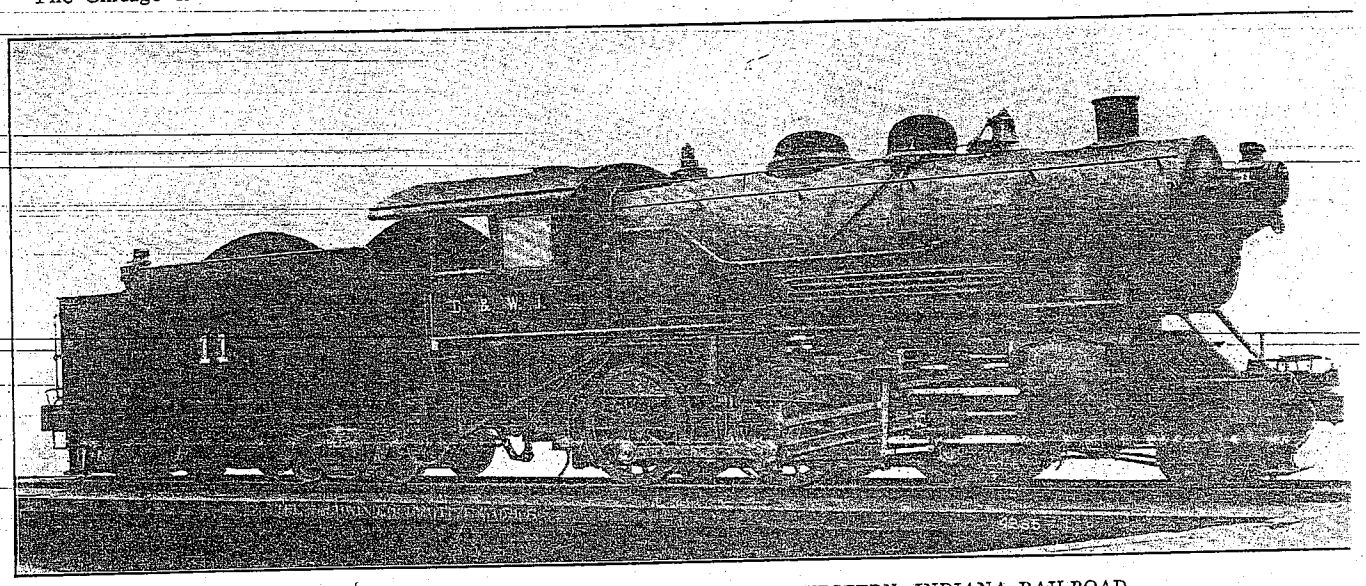
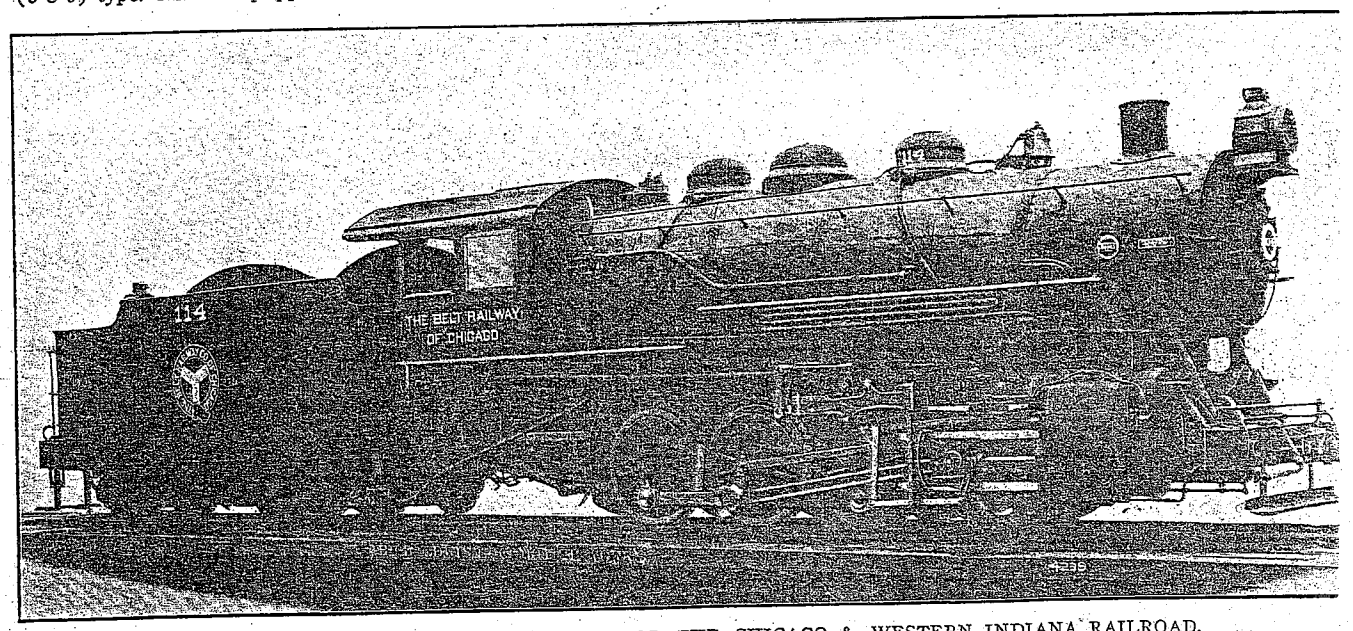


MOGUL TYPE OF LOCOMOTIVE FOR THE CHICAGO & WESTERN INDIANA RAILROAD.



SWITCHING TYPE OF LOCOMOTIVE FOR THE CHICAGO & WESTERN INDIANA RAILROAD.

News of the Week

(Continued from page 1439)

the matter is receiving the earnest attention of Congress and that no further action should be taken by the commission until Congress shall have had an opportunity to conclude its study of this very important subject."

The committee has not given any indication of an intention to hold public hearings on the bill but has arranged to hear some of the members of the commission in executive session on June 12.

Bill for Settlement of Government Loans Reported

A bill to give the Secretary of the Treasury, with the concurrence of the Interstate Commerce Commission, discretionary power to compromise or exchange indebtedness of railroads to the federal government arising from loans made under section 210 of the transportation act of 1920, where the debtor roads are in the hands of receivers, was favorably reported by the Senate committee on interstate commerce on June 9. The bill, S. 4254, was introduced by Senator Smoot, of Utah, and has the approval of the Interstate Commerce Commission as well as that of the Secretary of the Treasury, with certain amendments made by the Senate committee. The bill provides for arrangements either with receivers, reorganization committees or reorganized companies, and authorizes the government to purchase or subscribe to securities to the extent required or permitted by reorganization plans.

In a report to the committee the Interstate Commerce Commission furnished a statement showing that of approximately $350,000,000 loaned to carriers under section 210 all but $49,602,089 has been repaid, and the amout of principal in default is only $398,056, while the interest in default amounts to $2,881,636. This makes a total of $3,279,692 in default, which is owed by 14 railway companies, and is less than one per cent of the amount loaned. The largest amount in default is $1,040,154 of interest owed by the Missouri & North Arkansas on a loan of $3,500,000. The Minneapolis & St. Louis is in default of $558,527 of interest and the Waterloo, Cedar Falls & Northern owes $637,343 in interest. Only six roads are in default as to the principal of the loans, the largest amount being $106,000. There are 23 loans outstanding.

More Rail Joints and Tie Plates Produced in 1929

The American Iron and Steel Institute, New York, has just issued statistics showing the tonnage of various forms of iron and steel products which was produced in the United States in 1929 and with comparisons with other years added. Included among these statistics is a table showing the production of tie plates and rail joints for 1928 and 1929. This table follows:

	1928—Gross Tons			1929—Gross Tons		
Kinds	Iron	Steel	Total	Iron	Steel	Total
Angle splice bars	8,144	175,461	183,605	10,195	184,030	194,225
Tie plates	56,853	486,253	543,106	47,713	556,045	603,758
Fish plates	174	5,208	5,382	176	3,524	3,700
Other rail joints	....	21,270	21,270	.....	16,929	16,929
Total	65,171	688,192	753,363	58,084	760,528	818,612

These figures show that in 1929 the production of angle splice bars increased 10,620 tons and of tie plates 60,652 tons over 1928, while the production of fish plates decreased 1,682 tons and other rail joints 4,341 tons.

The statistics also show that the production of steel railroad ties in 1929 was 13,718 gross tons, which is only a slight variation from that in any year since 1925, with the exception of 1928, being 1,452 tons greater than in that year. The production of steel ingots and castings for all purposes was 56,433,473 gross tons which is the highest for any year on record, being 4,889,293 tons greater than in 1928, the highest previous year.

Banquet is Staged in Enginehouse

On June 4, the Detroit & Toledo Shore Line celebrated the completion of an installation of Direct Steaming at its engine terminal in Toledo, Ohio, by staging a banquet in an 8-stall section of the enginehouse. During the dinner and the ceremonies which followed, the remainder of the 24-stall enginehouse was in full operation. One of the special features of the arrangements was the serving of the dinner around two locomotives which were being held under steam, without fires on their grates.

More than 400 invited guests were present, many of whom were officers of the railways entering Toledo. The party also included municipal officers and chiefs of smoke inspection bureaus from Toledo and surrounding cities, and representatives of many of the industries of the city.

The ceremonies began with an automobile parade from the heart of the business district, starting at 5:15 p.m. and ending at the engine terminal where the banquet was served at 6 o'clock. Three features of the installation were noted particularly by the guests: The absence of the familiar smoke jacks; the complete elimination of smoke, steam and gases from the enginehouse; and the fact that the regular lighting system in the enginehouse was adequate for the occasion, so that no supplemental lighting was necessary.

C. G. Bowker, president, D. & T. S. L., presided as toastmaster. Short talks were made by representatives of the manufacturers who had furnished equipment and supplies for the installation and by representatives of the mechanical departments of the railways entering Toledo. Among the latter was Joel De Vault, general foreman, New York, Chicago & St. Louis, who is also president of the Toledo Smoke Abatement League. The principal speaker of the evening was Henry Kreisinger, engineer, Combustion Engineering Company, New York, who, in keeping with the occasion, discussed "What Soot Is, What Causes It and How It Can Be Eliminated or Minimized."

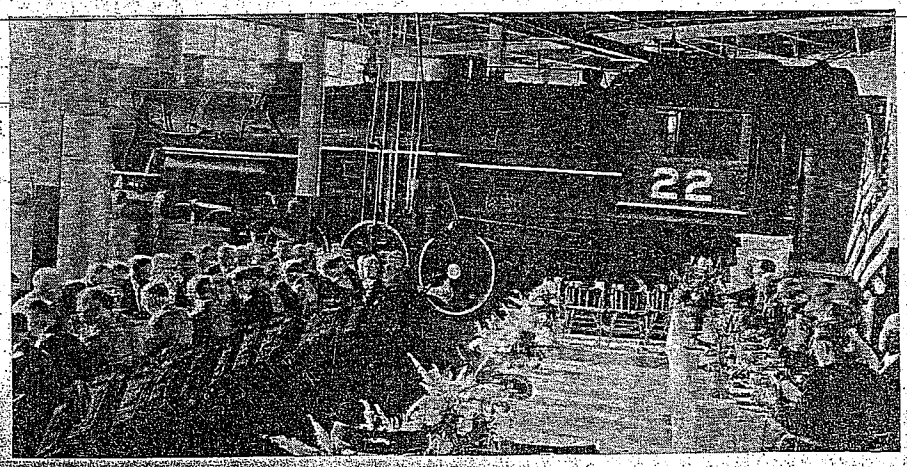


Photo by Stewart Hooker, Toledo Blade

Revenues and Expenses in April and for Four Months

Class I railroads in the first four months of 1930 had a net railway operating income of $238,507,532, which was at the annual rate of return of only 3.56 per cent on their property investment, according to reports compiled by the Bureau of Railway Economics. This was a decrease of 32.5 per cent as compared with the net in the first four months of 1929, which was $353,439,683, or 5.39 per cent. Operating revenues totaled $1,783,304,189, compared with $1,996,319,769 for the same period last year, or a reduction of 10.7 per cent; operating expenses $1,386,713,499, a reduction of six per cent.

In the first four months these roads paid $118,479,946 in taxes, compared with $128,610,077 for the same period the year before. For April alone, the tax bill amounted to $30,094,098, a decrease of $2,925,964 under the previous year.

Thirty-one Class I railroads operated at a loss in the first four months of 1930, of which 10 were in the Eastern district,