

it may have more than its local rate for the like distances to Pensacola, and as to such shipments a differential is found proper. This remedy, which is based upon the relation of rates to the two competing markets, will enable the Louisville & Nashville to increase the rates to Pensacola or, in conjunction with its connections, reduce the rates to Savannah, or to use both means in conforming to the adjustment required by the facts in the case.

Grade Crossings at Schenectady.

The New York Central & Hudson River is preparing plans for extensive alterations at Schenectady, N. Y., involving the separation of grades at a number of street crossings and improvements at the station, the total probable expenditure being about \$380,000.

The Tallenwan-Newchwang Railroad.

The China Gazette of December 11 says: We are informed that the railroad connecting Newchwang, Port Arthur and Tallenwan was finished last week and the trains are now running the full distance of 200 English miles. The most difficult section was between Port Arthur and Tallenwan. The Russians have displayed both energy and speed, the time occupied in construction being under two years. The line from Newchwang to Moukden is now working.

Concession for a Road in Chile.

Senor Valentin Lamber, 14-137 Calle Cerro, Santiago, has received a concession from the Government of Chile for a railroad between Peumo and a place called Las Cabras. It will connect with the Pelequen & Peumo line.

Mr. Callaway on Differentials and Export Grain.

President S. R. Callaway of the New York Central, in talking yesterday of trunk line policy and differentials, said:

"The attitude of the New York Central and its allied lines has naturally always been favorable to the protection and building up of the port of New York, as against the influences which have been at work to foster other Atlantic seaports. Differentials were only agreed to at first, because they were forced by such competition, which it was thought might be checked to some extent by such means. The Vanderbilt lines have always claimed that the differentials were too high, and as a consequence of this, in a great measure, they have been constantly reduced. The differential on ex-lake grain was done away with last year, and in other cases cut in two.

"It is a mistake to think that the granting of a small differential to ports less favored naturally than New York is going to ruin or even seriously effect New York's pre-eminence as an Atlantic seaport. The natural terminus on this side of the Atlantic for any sound and well-established line of vessels is the harbor of New York, and it is generally conceded that something more than a differential of a few cents this way or that is required to attract such lines to less favored ports. The trouble has not been so much with the differential as in the fact that all sorts of schemes have been put into effect, some of the roads terminating at other points even having gone so far as to practically subsidize steamship lines.

"Notwithstanding the differentials and other so-called disadvantages under which New York is said to labor, the fact remains, and is shown by the statistics, that the port of New York gets a very large share of the business. In 1899, for instance, the railroads carried to New York over 36 per cent. of all the grain of the country that came to Atlantic side-water, while the canal carried over 4 per cent., making a total of 40 per cent., and leaving but 60 per cent. of the entire business to be divided among the seven other Atlantic ports of export."—New York Times.

Sobu Railway in Japan.

The Sobu Railway Co. has increased its capital stock by 1,200,000 yen (\$800,000) for the purpose of duplicating its line between Honji and Iakura, 32½ miles. The gage is 3 ft. 6 in. The office of the Chief Engineer is at Tokio.

A New Railroad Extension in Brazil.

The Great Western R.R. of Brazil has signed a contract to build a branch line with a gage in the State of Parahybe from Pilar to Timbauba, 25 miles, to connect with the Conde d'Eu Line. Follet Holt of Pernambuco, Brazil, is General Manager and Resident Engineer. F. Parrish of 5 Gloucester Square, London, is Chairman.

Automatic Block Signals on the Fort Wayne.

The Pittsburgh Dispatch publishes an interesting note concerning the block signals now being put up along the line of the Pittsburgh, Ft. Wayne & Chicago, between Allegheny City and Rochester, Pa., 24 miles. There are four tracks on this portion of the road and automatic track circuit block signals are being erected for all of them. There are 184 signals and the blocks vary in length from one-half mile to about one mile, the shorter blocks being those nearest the terminus (Allegheny). These signals are arranged on the plan described by Mr. Rhea in his paper published in the Railroad Gazette of Nov. 24. At the entrance of each block there is a semaphore with a single arm, which can be shown in three different positions. The horizontal position or a red light will indicate stop; an inclined position or a red light will indicate that the block is clear but that the next succeeding signal will indicate stop; while the arm in a vertical position, parallel to the post, or a white light, will indicate that the block is clear and also that the next succeeding block will be found clear. The movements of the signal will be controlled by track circuits on the same general principle as that employed in the electro-pneumatic block signals on the Pennsylvania Railroad, but electric power will be used, instead of compressed air, for pulling down the semaphore arms. It is said that storage batteries fixed at each signal bridge will be charged by a dynamo at Con-way.

A New Railroad in the West Indies.

The Aruba Gold Concession Co., Ltd., is building a railroad in the Island of Aruba, West Indies, in connection with its gold, silver and copper mines and smelters there. Wm. P. Carlan of the Rowans, Colyton Road (Forest Hill Road), London, E. C., is President.

Supreme Court on South Dakota Rates.

The Supreme Court of the United States has reversed the decision of the Circuit Court in the suit of the Chicago, Milwaukee & St. Paul against the

Railroad Commissioners of South Dakota. The suit was to restrain the commissioners from enforcing reduced freight rates, and the Lower Court decided in favor of the railroad, but the case is now remanded, with instructions to make further investigation of the earnings of the lines in South Dakota. The opinion, written by Justice Brewer, criticizes the summary way in which the Lower Court disposed of the case.

Baltimore and Ohio Improvements in Washington.

Senator McMillan, chairman of the District Committee, introduced in the Senate, Jan. 11, a bill for extensive changes in the terminals of the Baltimore and Ohio railroad in Washington. There is a provision in the bill for the acquisition by the railroad of additional land between North Capitol St. and First St., N. E., and from C St. to Massachusetts Ave. for terminals. The bill also provides for a masonry viaduct from H St. to Florida Ave., on Delaware Ave., sufficient enough to accommodate five tracks. The Metropolitan Branch will be abandoned from the Y at H St. to some point north of New York Ave., where the new line on Delaware Ave. will join the Metropolitan Branch.

The E. & O. is also authorized to build outside of the city limits and south of T St., yard tracks, switches, roundhouses, shops, and other structures, and also to build beyond the city limits a branch-track or "Y" for a connection between the Metropolitan Branch and the Washington Branch, without entering the city.

The entire work is to be done under the direction of the District Commissioners and be finished in five years. The cost of the improvements will be divided between the District of Columbia and the railroad. Several bridges will be built and some streets will necessarily be closed.

Manhattan Elevated Railroad Extension.

The Manhattan Ry. Co., New York, has notified the State Railroad Commissioners of its intention to build the extension from 17th St., the present northern terminus of the East side lines of the company, north to Bedford Park, as recommended by the Board. The extension will be about one mile and a half long.

Underground Railroads for Berlin.

According to a Berlin newspaper, the Province of Brandenburg, Germany, will issue about \$2,900,000 bonds to build subsidiary railroads. Berlin is to build a system of underground railroads. The Minister of Public Works, 79 Wilhelmstrasse, Berlin, Germany.

Steel Making in India.

Major R. H. Mahon, Superintendent of Ordnance Factories at Cassipore, India, has recently reported to the Under Secretary of State for India on the practicability of making iron and steel in India. The sum of his report seems to be that with cheap labor of India it would be possible now to make iron and steel there in competition with the rest of the world. Large deposits of ore are found in Madras and Bengal, the country furnishes coal, and limestone can be cheaply got from Burma. To succeed, however, the plant should be capable of a large output, and it is recommended that it be established near Calcutta.

Korea's First Railroad.

A partial opening of the first railroad in Korea was recently made. It is projected to run from the city of Seoul to Chemulpo. The completed section runs from Chemulpo to a point about two miles from the river Han. The bridge across the river is still unfinished. From the river to Seoul an electric line is now running. The road was begun under American engineers and is being completed by the Japanese. Locating surveys were made in the latter part of 1898.

Chicago Still Leads.

The newspapers say that buffet cars are to be placed on both the surface and elevated street railroads of Chicago. Designs for the cars show hinged tables, about 10 to a car, so planned that they can be turned against the wall when not in use. Four seats will be placed at each table, and one waiter, it is estimated, can attend to two tables on a single car. The next step contemplated is reclining chairs to relieve the journey from the prairie wards to the City Hall. When the magnificent distances which Chicago had developed first became a factor in the life of the city—when a policeman, bringing in a prisoner whom he had arrested in the 18th Ward had to camp out over night on the prairie for lack of night cars—the people were still deficient in civic pride, and some were inclined to tell that policeman that he was himself to blame for catching the man; but now they have learned from personal experience that traveling with nothing to drink gets tiresome toward the end of the day, and they will no doubt make the street buffet cars a great success.

The Gas Engine.

A daily newspaper has lately printed what purports to be an interview with Mr. George Westinghouse on the future of the gas engine. A few extracts follow:

"The advantages of the use of gas engines can best be appreciated when it is understood that if a gas company were to supplant the present gas illumination by an equal amount of light obtained from gas-driven dynamos it would have left for sale for other purposes over 60 per cent. of its present output. In cities where the disposal of garbage is a problem, this garbage can be used with coal to develop gas for use in electric stations. The gas engine already rivals the steam engine in smoothness of working and regulation. Gas engines are economically operated with illuminating gas and experiments that have been long and carefully conducted justify the belief that within a short time gas will be commercially produced and sold at a cost far below the lowest price that now prevails. Gas companies, then, they think, will find their profit in supplying gas as fuel. Gas engines will drive electric generators for lighting currents, for saving power to manufacturers, street, elevated, suburban and interurban railroads. Light, heat and power will be so much cheaper than they are now that industrial conditions will be greatly changed for the better, and with them social conditions.

Boston Ship Channel.

There are indications that early in the summer work will be begun on the 2,000-ft. Broad Sound channel in Boston harbor, which the United States

is to dredge to a depth of 35 ft. A few days ago bids were opened for this work, but the lowest bidder stipulated that he should not begin work until May 1, 1901. The reason for this was that the same contractor had the contract for dredging the main ship channel. There have been conferences between the United States engineers, the harbor and land commissioners, representatives of the Chamber of Commerce and other interests, and as a result it is believed the work will be started at an early date.

Pig Iron Production in 1899.

The American Iron and Steel Association has compiled statistics of the production of pig iron in the United States in 1899; also statistics of the stocks of pig iron which were on hand and for sale on December 31, 1899. Twenty-one States made pig iron in 1899, against 19 in 1897 and 1898, Minnesota and North Carolina again entering the list.

The total production of pig iron in 1899 was 12,620,703 gross tons, against 11,773,934 tons in 1898, an increase of 1,846,769 tons.

The production of Bessemer pig iron was 8,202,773 tons, against 7,337,384 tons in 1898. Basic pig iron, 985,033 tons, against 785,444 tons in 1898. Spiegeleisen and ferromanganese, 219,768 tons, against 213,769 tons in 1898. Charcoal pig iron, 284,766 tons, against 296,750 tons in 1898.

The stocks of pig iron which were on hand in the hands of manufacturers or their agents December 31, 1899, amounted to 63,429 tons, against 291,233 tons on December 31, 1898. The whole number of furnaces in blast on December 31, 1899, was 283, against 240 on June 30, 1899, and 202 on December 31, 1898.

Milwaukee Street Railroad Franchise.

Last week the Superior Court at Milwaukee decided that the Mayor, City Clerk and 25 aldermen who voted for the extension franchise against the injunction of the court, as noted in our issue of Jan. 12, p. 25, are in contempt of court and cited these men to appear before the court. The court also decided that the ordinance was illegally and irregularly passed and is therefore null and void. Against this decision the Mayor and street railroad companies have appealed to the Supreme Court of the State, which has granted a writ of prohibition restraining the local court from going on with the contempt proceedings against the city and street railroad companies.

Chicago Public Works.

Commissioner of Public Works McGann has sent to Comptroller Kerfoot an estimate of the amount of money needed by the Department of Public Works, the estimate to be used in preparing the annual appropriation bill. These estimates cover the actual conservative requirements of the department and aggregate \$12,835,048, about one-half of which must be charged to the water fund. Among the items asked for is one for construction of bridges and viaducts of \$3,110,000. This item is based on estimates for the removal of bridges that are absolutely necessary. Five bridges are now out of service and many more may be taken out of service in the near future. In this connection Mayor Harrison has been quoted as saying that every department must be cut to make way for new bridges and that by the strictest economy it may be possible to build six bridges this year.

Traffic Notes.

P. S. Eustis of the Burlington has been elected Chairman of the Executive Committee of the Western Passenger Association in place of Mr. Charlton.

Greater or less scarcity of bituminous coal is reported at many places throughout the country, and at Montreal it is said that the Grand Trunk and the Canadian Pacific have difficulty in keeping their engines supplied. At Philadelphia vessels have to wait many days and sometimes weeks to get cargoes for New England, owing to the scarcity of cars for bringing the coal to Philadelphia from the mines. The rate by water from Philadelphia to New England ports is now from \$1.00 to \$2 a ton.

Items gathered by the daily newspapers indicate that the orders which have recently been issued by the principal railroads, both east and west of Chicago, to abolish the payment of commissions on tickets are more positive than anything that has been done for years. From Chicago it is reported that even the ticket brokers admit that they expect to be obliged to go out of business at the end of this month. They say that 95 per cent. of their business comes not from legitimate brokerage but from sales made directly for railroads. They say that the present orders had originated with the general passenger agents there would be no ground for alarm, but that when the highest authority in each company takes action they conclude that the order "means business."

The Railroad Commission of Texas is again at work on the oat tariff. The Gulf, Colorado & Santa Fe, the Missouri, Kansas & Texas, the Sherman, Shreveport & Southern, and the Fort Worth & Rio Grande made an advance on rates from points on their respective lines to points outside the State, but were prevented from doing business in other states, and the Commission sided with them. Following conferences, it was announced that the matter had been compromised to the satisfaction of all concerned. It appears, however, that the railroads are still changing the objectionable rates, and the Commission has, therefore, ordered an emergency maximum rate of 8 cents as before, on carload shipments between all points on the roads mentioned.

Lake Notes.

The new steel steamer John W. Gates, built for the American Steamship Co., was launched at the Lorain yards of the American Shipbuilding Co. on Jan. 20. The new boat is the first 500-ft. steamer on the lakes and is 52 ft. beam and 30 ft. molded depth. Another steamer of the same dimensions will be named the J. J. Hill will be launched in about six weeks.

LOCOMOTIVE BUILDING.

The South Shore, of Canada, wants two locomotives.

The Bangor & Portland will probably order one locomotive.

The Gulf & Ship Island expects to order two more locomotives.

WEST OF MINNESOTA