

Notes and News.

Poughkeepsie Bridge.—The large caisson for Pier No. 5, has been launched and is now receiving the upper courses of timber.

German Enterprise in Mexico.—German manufacturers of agricultural machinery are said to be arranging for a united effort to introduce their machines into Mexico.

The Bridge Pier in the Mississippi, at St. Paul, erected by the Minnesota & Northwestern Railroad, the Secretary of War says, is an obstruction to navigation, and asks Congress to take action.

Ries Electric Railroad Manufacturing Company.—This company has been organized at Portland, Me., with \$1,000,000 capital stock to build railroads and electric motors on the Ries system.

The Lehigh Valley Company is about to build a coal storage trestle in Chicago, which will be 100 × 886 feet. It will have a storage capacity of 25,000 tons, and arrangements for loading 30 cars at once.

The Dam across the Potomac at the Great Falls is nearly completed. The tunnel intended to carry the water supply of Washington from the dam is excavated for 18,538 feet, leaving 2,150 feet to be completed.

The Reese Safety Brake.—The automatic freight-brake invented by Alvan Reese, of Pittsburgh, is to be put on a number of cars on the Baltimore & Ohio road. The brake is made by the Reese Safety Brake Company, of Pittsburgh.

Compound Locomotives in England.—The London & Northwestern Company's experience with compound locomotives on the Webb system has been so favorable that it is now building 30 locomotives of that type, at its Crewe Works.

A "Hydro-Pneumatic Brake."—A brake thus described is to be manufactured by the Hydro-Pneumatic Car Brake Company, which has just been organized by William Susby, Jr., and others, at Newport, Ky., with \$1,000,000 capital stock.

Cable Railroad in China.—A cable railroad has been built at Hong Kong, running from the city to the top of the Peak, a steep hill on which are situated a number of dwellings occupied by the European residents. The road is 4,800 feet long and rises 1,300 feet.

Ship-building in England.—Ship-building on the Tyne, in England, in 1886, shows a considerable reduction from 1885. Last year 67 vessels were launched, having a total tonnage of 82,800, against 106,000 in 1885. The average tonnage of the vessels launched last year was 1,236.

South Pass Jetties.—The report of the Secretary of War notes that, at the South Pass jetties of the Mississippi River, the channel has been maintained as required by law, and Capt. Eads has received the required payments of \$150,000. The total cost of this improvement to date has been \$5,300,000.

Trial of English Permanent Way.—A contemporary reports that the Pennsylvania Railroad Company will try a few miles of track laid in the English fashion, with rails of bull-head pattern, heavy cast-iron chains, and about 2,000 ties to the mile, or one-fourth less than are usually used in this country.

Washington Railroad Stations.—The Engineer Commissioners of the District of Columbia, in their annual report refer at some length to the railroad question, and urge the concentration of the railroad tracks entering the city of Washington. They also recommend the removal of the railroad tracks from existing streets.

Burlington Brake Test.—The Wells & French Co. is building at its shops in Chicago a train of 50 box cars for the Eames Vacuum Brake Company, to be used at the Burlington tests in April next. These cars are, of course, equipped with the Eames automatic freight brake; they are fitted with the Boston automatic coupler.

Cairo Bridge.—The engineers of the Illinois Central Railroad are now making the final location for the bridge over the Ohio River at Cairo, and work has been begun on the approach on the south side, which will include a trestle 3,000 ft. long. The bridge itself will be about a mile long and 52 feet above high water; the approaches will be about 1½ miles long.

Refrigerator Cars.—The New York, Lake Erie & Western Company has built 10 refrigerator cars, at its Susquehanna shops, which are to be run as express cars on passenger trains. These cars are 50 feet long, and are divided into three 16-foot compartments. They have passenger-car running gear, Miller

platforms and couplers, and are fitted with the automatic brake.

Niagara Suspension Bridge.—Important improvements have been made this season in the Suspension Bridge over the Niagara River. These include the strengthening of the old anchors for the cables and the addition of new anchors. New steel towers have been erected in place of the old stone towers. The operation of transferring the cables to the new towers was successfully performed.

Union Switch and Signal Company.—This company has bought from the Pennsylvania Steel Company the interlocking switch and signal department of its works, including the Cummings and other patents covering the system adopted by the Pennsylvania Steel Company. The business will be transferred to the new works of the Union Switch and Signal Company at Swissvale, near Pittsburgh.

A Russian Oil Pipe Line.—The United States Consul at Odessa, Russia, has notified the State Department that arrangements are to be made to build a pipe line to transport petroleum from Baku to Batoum. The line will be about 550 miles long, and its greatest elevation about 3,000 feet. It is proposed to use 7-inch pipe. The Consul thinks that American pipe and pump manufacturers will have an opportunity to secure contracts.

Liquid Fuel in Russia.—Some of the large factories in Odessa are now using as fuel in their boilers petroleum refuse, which is brought to Odessa by sailing vessels and is sold at a very low price. It is claimed that with the furnaces in use, a ton of this petroleum refuse will make as much steam as two tons of English coal. Arrangements are being made to carry the oil refuse in bulk from Novorossisk, the port of the Black Sea petroleum fields.

English Iron Production.—*The Engineer* estimates the pig-iron production of the United Kingdom for 1886 at 6,800,000 tons, against 7,250,657 tons in 1885; a reduction of 450,657 tons, or 6¼ per cent. The decrease in production has been continuous since 1882, when the total reached 8,498,000 tons. The reduction was not by any means uniform, the furnaces in Scotland and in the Cleveland district showing a small increase last year over 1885.

Railroads in Persia.—It is given out from St. Petersburg that Russian influence, which is very strong at Teheran, will be brought to bear to prevent the building of any railroads in Persia by English or American contractors. The Russian Government, it is said, is decided in its opinion that any important line to be built in Persia must connect with the Central Asian road which Russia is now building, and the Persian railroad administration must be controlled by Russian influences.

German Rails for English Colonies.—The Government of Victoria (Australia) has placed a contract for 50,000 tons of steel rails with the Krupp Works, at Essen. The deliveries are to extend over two years, and the price is said to be about \$20 per ton, delivered on board ship. The bid of the Krupp Works was from \$2.50 to \$3 below the prices offered by English firms. Naturally, the English makers are much exercised in mind at so large an order from an English colony going to a German mill.

American System of Irrigation in Australia.—The Government of the Australian colony of Victoria has granted 50,000 acres of land to Chaffee Brothers, American capitalists, who are to colonize the land and improve it by irrigation. The land is near Mildura, on the Murray River, 11 miles above the mouth of the Darling. The conditions of the grant are that Chaffee Brothers are to spend \$1,500,000 on irrigation works, and are to improve at least 47,000 acres of the tract within 20 years.

The Heating of Cars by Steam is tried on several railroads this winter. The Connecticut River Railroad has in use the Emerson system; the Boston & Albany has the Martin system as prepared by the Martin Anti-fire Car Heater Company, of Dunkirk, N. Y.; the Long Island Road is trying the Martin system on one train, and the Gold system on another. The Gold system has also been put in use recently on the Providence, Warren & Bristol Road, and on the cable road at Hoboken, N. J.

Blast Furnaces of the United States.—Statistics collected by the *American Manufacturer*, show that on January 1, 1887, there were 333 furnaces in blast, having a weekly capacity of 127,660 tons of pig-iron; against 273 in blast, with a capacity of 97,050 tons on January 1, 1886. Of the furnaces in blast this year, 66 use charcoal as fuel; 126, anthracite coal, and 140, bituminous coal or coke. The weekly capacity of the charcoal furnaces in blast is 11,895; of the anthracite, 53,633, and of the bituminous furnaces, 90,032 tons.