

ness has been in Missouri 6s at an advance of $\frac{1}{4}$, Tennessee 6s of $\frac{1}{2}$, Virginia 6s of 1, Indiana 5s of $1\frac{1}{2}$, and in California 7s, 1875, of 6 per cent. The rise of about 10 per cent., on these latter since a fortnight, is due to the fact that the funds destined to pay the interest of January next have already been placed in the hands of the agents at New York; the favorable news in general as to the stability of affairs in California has doubtless contributed equally towards this movement. In regard to City and County Bonds, besides some transactions in Milwaukee City 7s, and Montgomery County 6s, we have nothing to notice. There have been for some time more sellers and buyers of this class of securities. There has been a moderate business in Railroad Bonds, with the exception of Illinois Central Constructions, in which the transactions have been large, closing at a rise of $2\frac{3}{8}$, on last week. At private sale very little has been done, and we only know of a few small transactions in Burlington and Missouri first mortgage, in La Crosse and Milwaukee first mortgage, and in the various issues of the Milwaukee and Mississippi Railroad. We introduce in our quotations the first mortgage bonds of this last company on the Wisconsin Southern Branch, and give below some details concerning the state of advancement of the construction on this branch, as well as on the principal line. The transactions in Railroad stocks have been very large, with less activity at the end of the week, and lower prices. The principal business has been in New York Central, at an advance of $1\frac{1}{2}$; Reading, of $1\frac{1}{4}$; Chicago and Rock Island, of $5\frac{1}{2}$ per cent; in Erie, at a decline of $\frac{1}{4}$ per cent; in Cleveland and Toledo, of $\frac{3}{4}$; in Michigan Southern, of $\frac{3}{4}$; in Michigan Central, of $\frac{1}{2}$, and in Cleveland and Pittsburg, at a decline of 2 per cent. Panama has risen $\frac{3}{4}$, and Illinois Central $\frac{1}{2}$ per cent., for loans on call. Paper, 8a12 per cent., according to class and length.

DE COPPET & CO.

Extract from Cammann & Co.'s Money Circular for the European Steamer of the 10th Inst.

NEW YORK, Tuesday, Dec. 9, 1856.

The favorable tenor of the recent accounts have, apparently, dissipated all apprehension of an immediate monetary crisis in Europe, and strengthened the confidence which was previously felt in a continuance of the present easy condition of money matters on this side. Our stock market has, consequently, had an improving tendency, and the accompanying quotations are generally, and, in some cases, materially higher than those contained in our report of 25th ult. There is an increased activity in investment securities of current descriptions, but the attention of operators is still attracted, principally, towards dividend-paying railroad stocks. State Stocks have been in demand, and are higher and firm. The transactions in Railroad Bonds have been to a fair extent. The only material improvement is in Illinois Central bonds— $2\frac{1}{2}$ per cent. on Construction, and $2\frac{1}{2}$ on Freelands. Erie 1875's have declined 1 per cent. In Railroad Shares the business of the fortnight has been large, with considerable buoyancy in prices, which was checked, on 5th inst., by the suspension of a leading firm, who, for some time past, have been operating for a decline, to an extent sufficient to exert an important and, at times, a controlling influence on the market.—Prices have since been unsteady, and close with an average decline of 1a2 per cent. from the highest points, which were reached on the day previous to the suspension. Our present quotations, however, show an advance of 2 per cent. in New York Central, $2\frac{1}{4}$ in Reading, 6 in Chicago and Rock Island, 1 in Panama and 1 in Michigan Central. Of Illinois Central the sales have been rather limited, at 116 $\frac{1}{2}$ a 117. There is a full supply of money, at 7 per cent. on call and 8a9 per cent. for first-class paper, although, during the last few days, the banks, in consequence of a drain of specie to other cities, have been rather stringent. The Foreign Exchange market has been rather

firm for this mail, with considerable activity in Sterling and Francs. CAMMANN & CO,

American Railroad Journal.

Saturday, December 13, 1856.

Railroad to the Pacific.

We copy in another column a bill now before Congress, professing to provide for the construction of three railroads to the Pacific.

A measure of greater magnitude can hardly occupy the attention of Congress. If passed, it would take from Government nearly all the arable domain it possesses. To this there may be no objection; but would the passage of the bill secure the construction of the proposed roads? When the deserts are reached, will any company go further? As no penalty is attached for stopping, would they not all abandon the works, as soon as the outlay exceeded the income from the lands along the line?

Again: before making extensive appropriations to any route, would it not be well to see whether a railroad can be built upon it. The practicability of the routes proposed is a matter taken for granted; a position which Congress, no more than individuals in similar circumstances, have a right to assume. In a matter of such vital importance as are the proposed works, our people cannot afford to make mistakes which may result in loss of confidence and courage, and postpone for years their completion.

The public lands can undoubtedly be made a substantial basis for at least one road. We shall discuss this matter more at length in our next issue.

Philadelphia Railway Agency.

This Agency was commenced in 1852, by the late O. A. Norris, and continued by him until his death, in 1854. Mr. THOMAS M. CASH, his successor, whom we have frequently met both in this city and Philadelphia, is a gentleman well qualified to fill the place occupied by Mr. Norris.

By an Advertisement of Mr. CASH in another part of the Journal it will be seen that in addition to his ordinary business, which we understand is in a most flourishing condition, he has leased a large building in Walnut st., Philadelphia, which is fast becoming one of the principal business streets in that city, in which he proposes to establish a depot for the exhibition and sale of every description of machinery; and if sufficient inducement is held out by the manufacturers of the same, proposes to erect a steam engine of sufficient power to run any machinery that they may desire to exhibit in motion—thus making his establishment an attractive resort for American manufacturers, as well as those who are desirous of purchasing.

Mr. CASH is we believe the sole agent in Philadelphia for the sale of the celebrated *Lowmoor Tyres*, made by the Lowmoor Iron Co. of England, of which Messrs. W. Balley Lang & Co. are the accredited agents in this country.

Messrs. M. & J. Wing, proprietors of the Jericho Works, Sheffield, Eng., manufacturers of steel, files, saws, etc., have appointed Mr. CASH as their Philadelphia Agent.

Car Wheels, in rough or on axles, from the celebrated Works of Messrs. Whitney & Sons of

Philadelphia, and Messrs. Bush & Lobdell of Wilmington, Del., and other celebrated makers.

Mr. CASH is also agent for the Railway Turning and Sliding Tables, and Pivot Bridges which are manufactured upon a new and economical plan by Messrs. William Sellers & Co. and are fitted with Parry's Anti-Friction Box," thus enabling one man, to turn the largest table together with engine and tender, without the intervention of gearing—and being made of iron are not liable to get deranged.

Mr. CASH also proposes when established in his new store, to keep constantly on hand a full assortment of samples of articles required by railway companies, car builders, machinists and others, a full description and enumeration of which will be found in a circular recently issued by him for general circulation. Those desiring a copy can be supplied, together with any further information, by addressing THOMAS M. CASH, 12 & 14 Walnut St., Philadelphia.

Chicago, Alton and St. Louis Railroad.

We give in another column the circular addressed to the bondholders in this road for the purpose of securing their assent to the proposition submitted some time since for the adjustment of the affairs of this company, and to relieve it from its present embarrassments.

The Locomotive.

No. 9.

BY THEODORE KRAUSCH, Civil and Mechanical Engineer.

Passing from the fire box to the smoke chamber are the flues; round tubes of iron, brass or copper, to allow the escape of the gases produced by combustion. The end of the tube entering the sheets is by some builders bevelled off and a steel thimble driven on to make the joint quite tight. Others again bevel the sides of the hole in the flue sheet and finish it up with an iron thorn, after which the tube and thimble are fitted. Thus the joints are secured and the head of the boiler is grasped by the tubes as in the case of an ordinary dovetail, in addition to the fastenings of stay-bolts as in the other walls of the fire box. There could exist no objection to this arrangement, were it not that, by this process, the ends of the boiler are drawn in towards each other, and the very effect is induced that we seek to prevent—namely, the loss of steam by leakage, produced by the unequal expansion of the metals used. This may be illustrated by a sudden extinguishing of the fire, when the flues will jut out in consequence of the concavity in the sheet, the thimbles will become loosened and slip out of the tube. If the thimbles are of soft iron a slight extension of the tube will reduce the diameter and the thimble is driven in, hence does not press so powerfully against the sheet, but leaves a leaky joint. This danger will not exist where steel or hard iron are used.

For the construction of the flues, it has been found most profitable to use brass in coke burning locomotives, while copper and iron will answer for wood burners.

The diameter of the flues and the length depending on the results of experience and the demands on the engine are, the former $1\frac{1}{2}$ to $2\frac{1}{2}$ inches; the latter varying from 10 to 14 feet. The number is from 100 to 300 according to the amount of indirect heating surface required. ▲