

ST. PAUL'S BIG PROJECT—Nine million dollars will be expended by the Chicago, Milwaukee and St. Paul in developing 180,000-horse power by harnessing 35 miles of the St. Joe river, between North Fork and St. Joe, and utilizing this electrical energy in carrying freight across the Bitter Root divide and operating a score of sawmills and plants. The work is to be completed in three years. This will be the greatest practical test of the substitution of electricity for steam power in this country, and, if successful, it will be employed on the entire line between Missoula, Mont., and the Puget Sound country, a distance of nearly 600 miles.

FRISCO NEW ORLEANS LINE IN OPERATION BY JANUARY—Supt. James, of the New Orleans division of the Frisco road, announces that the division between De Quincy and Baton Rouge would not be in operation before January 1, but the division between Houston and De Quincy would be opened to traffic by September 15. It is believed that the road will be opened as far east as Opelousas by that time.

TO BUILD NORTHWESTERN PACIFIC—Orders have been issued to begin construction work on the Northwestern Pacific, a joint Southern Pacific-Atchison enterprise, which is to give San Francisco a new rail connection with Eureka. It will eventually be continued along the coast into Oregon, to connect with the Drain Branch of the Southern Pacific, making an easy grade all the way to Portland.

This route will avoid the difficult Siskiyou climb, which is one of the disadvantages of the present Shasta route. The section of the road upon which work will be commenced immediately will be the 110 miles through the mountainous country between Willits, in Mendocino County, and Shively, in Humboldt county. Part of the construction will be very costly. The 110-mile stretch between Willits and Shively will cost about \$13,000,000, and there is one stretch of seven miles which will take \$3,000,000 to build.

ROCK ISLAND CUT-OFF ALMOST FINISHED—The cut-off which the Rock Island is building from Carrollton to Irving, Tex., will be completed within a few weeks. It connects with the Kansas City-Fort Worth line of the Frisco at Carrollton, and at Irving with the Fort Worth-Dallas line, of the Rock Island, and is planned to give the Frisco a direct entrance into Dallas over the rails of the Rock Island.

It is expected these will also be used for entering Fort Worth from Carrollton, and that by October 1st it will be operating freight and passenger trains into Dallas over the new route.

FRISCO FORMALLY TAKES OVER NEW ORLEANS LINES—At a meeting of the stockholders of the Colorado Southern, New Orleans and Pacific Railroad, held on August 15th, the corporation was formally dissolved and the line of road being constructed by it from De Quincy, on the Sabine River to Baton Rouge, became the New Orleans division of the Frisco lines.

The Beaumont, Sour Lake and Western and the Orange and Northwestern became the Texas division of the Frisco.

Vice President and General Manager George A. Clarke, who is in charge of the construction of the road, has become vice president and general manager of the New Orleans and Texas divisions of the Frisco lines. All other officials of the road have been placed under the Frisco regime.

UNION PACIFIC SURVEYS NEW LINE—Three parties of engineers in the employ of the Union Pacific have completed a survey for a projected line of railway along the Pacific through Chehalis, Jefferson and Clallam counties—from Moclips to East Clallam.

CANADIAN PACIFIC BUILDING NEW ROCKY MOUNTAIN LINE—Within two years the Canadian Pacific Railway expects to have two interchangeable routes for handling of both freight and passenger business through the Rocky Mountains to the prairies.

Heavy grades exist on the present line and gradually traffic is to be diverted to the Crow's Nest Pass line, which is now handling passenger as well as freight business to Spokane from St. Paul and vice versa.

A line is to be built from Golden on the present main line to connect with the Crow's Nest branch and so on through to Lethbridge, Alberta. The company has just awarded a contract for the construction of a bridge to cross the Belly River at Lethbridge. The structure will be one of the finest in the West, and will cost a million and a half dollars. This bridge will be completed in 1909, and with it opened a great part of the transcontinental traffic will be diverted to the Crow's Nest branch, which will be a little shorter than the present main line.

Work on the construction of the line from Golden southeast to the Crow's Nest will be started this fall and may be completed in a year and a half.

KEY WEST RAILROAD WILL BE COMPLETED IN TWO YEARS—The railroad which Henry M. Flagler and his millionaire associates are building over the Atlantic Ocean from the mainland to Key West, Fla., has made such progress that it has been announced that the line will be completed by the summer of 1909.

This railway is the world's most extraordinary engineering project.

The railroad will be 160 miles long. All the way from the mainland to Key West are small islands, or keys, as they are called, some an acre or less in extent. The builders of the road are connecting these keys with immense viaducts, supported by huge abutments of solid concrete.

At one point two keys are three miles apart, but the engineers did not hesitate. They found the ocean only forty feet deep, and they proceeded at once to construct a great connecting bridge. Cofferdams were sunk, and the bed of the ocean was dredged out in places to solid rock. Then the solid concrete foundations were laid.

The engineers are confident that the worst ocean storms will not disturb their bridges.

The railroad will be the most expensive in the world. It is costing \$200,000 a mile to build, which means a total expenditure exclusive of terminals, of \$32,000,000.

TO IMPROVE TEXAS TERMINALS—The Missouri, Kansas and Texas Railroad has adopted plans for extensive terminal improvements in several cities and towns of Texas. In the cities of Fort Worth and Dallas about \$600,000 will be expended in enlargements of the present terminals. It is stated that about \$400,000 will be expended in Fort Worth alone in building repair shops, round houses, side tracks, etc.

ST. PAUL RUSHING WORK ON ITS TACOMA LINE—The work of laying steel on the Chicago, Milwaukee and St. Paul Railway line between Tacoma and Sumner has begun and will be forwarded rapidly. Grading along the line east of Sumner is being promoted and all efforts are being made to have the steel well into the heart of the Cascades by fall.

FRISCO TO USE NEW LINE INTO DALLAS OCTOBER 1—The construction of the Carrollton-Irving "cut-off" line of the Rock Island will be finished and the line will be ready for regular use in a few weeks. This new line is being built from Carrollton, where it connects with the Kansas City-Fort Worth line of the Frisco, to Irving, where it connects with the Fort Worth-Dallas line of the Rock Island. The purpose of the "cut-off" is to give the Frisco a direct entrance into Dallas over the tracks of the Rock Island. It is stated that the Frisco will also use the Rock Island tracks into Fort Worth from Carrollton. It is expected that by October 1 the Frisco will be operating its passenger and freight trains into Dallas by way of the new route.

NEW HAVEN PUSHING WORK OF ELECTRIFICATION—According to statements by officials of the New Haven rapid progress is being made in the installation of electricity on the New York division. If present plans are carried out all trains west of Stamford that run into the Grand Central Station will be operated by electricity. This means both local trains and all of the fast Boston trains, with the exception of the Colonial Express and the Federal Express, which do not use this station.

The change from steam to electric locomotives at Stamford, it is estimated, will not take more than two minutes.

NORFOLK AND WESTERN TO BUILD NEW CAR SHOPS—The Norfolk and Western Railroad, has purchased for \$75,000, a tract of 75 acres adjoining the present site of their shops in Portsmouth, Ohio, to be used for extensions. It is said the capacity is to be trebled immediately with a corresponding increase in yard capacity, so that this shop will equal in capacity the plant at Roanoke, Va. About 4,000 men will be employed.

SOUTHERN PACIFIC TO LAY PIPE LINE—Contracts have been let by the Southern Pacific Company for the building of an oil pipe line 250 miles long, from its oil properties in Kern county to a point near Port Costa, on San Francisco Bay. A novel feature of the line will be the character of the pipe used. This pipe is rifled on the same principle as a gun barrel, the idea being that the swirling motion given to the oil will make pumping easier. Experiments have demonstrated that the rifled pipe to be laid will carry a stream of 20,000 barrels of fuel oil every twenty-four hours, and make it possible to locate the pumping stations about twenty-five miles apart, a much greater distance than those heretofore used. The rifled pipe is the invention of two Southern Pacific engineers.

With the completion of this pipe line it is possible that the use of oil burning locomotives will be further extended by the Southern Pacific, which now uses nothing else on its Sunset route. The elimination of smoke, dust and cinders, as well as the economics effected in the use of oil as compared to coal, are the advantages gained both from the viewpoint of the traveler and the railroad.

The building of the new California pipe line will enable the Southern Pacific to distribute oil very much cheaper than it can now be done by tank cars, and the project of having a large supply of fuel so close to San Francisco will have an important industrial influence upon the economy of operation for the system.

NORTHWESTERN TO ENTER MONTANA BY YELLOWSTONE—News has been received here that the Northwestern Railroad will enter Montana through the Yellowstone Valley and pass through Billings, which will be made a division point, where shops will probably be erected. The construction material, which has been stored at Lander, Wyo., the present western terminal of the line, is being moved to Belle Fourche, S. D., whence the road will be built northward about 100 miles and then extended due west up the Yellowstone Valley to Billings, thence to Livingston and Helena and across Idaho and Washington by the most direct route possible to Seattle.

FRISCO IMPROVEMENTS IN SECOND DISTRICT PUSHED—Extensive improvements are being made over the entire second district of