

### What to Read

Cost and Profits of Steel-Making in the U. S.—*Journal of Economics*, February. (Boston).

Another Fallacy in Bond Values.—*Journal of Accountancy*, April (New York.)

Fact Book About the Pennsylvania Railroad (Free.) Edward B. Smith & Co., 27 Pine St., N. Y.

Destiny and the Western R. R.—*Century*, April.

Lessons of the Financial Crisis.—(In press, \$1.) American Academy of Political and Social Science. (Phila.)

Offsets to a Trade Balance.—*Van Norden's*, April

Probable Effect of Tariff Revision on Securities.—Special Letter by Thos. Gibson.

Street Railways of Philadelphia.—*Journal of Economics*, February.

Lessons from the Failure of Germany's Bourse Law.—*N. Y. Evening Post*, April 4.

Is Standard Oil Facing Destruction?—*Broadway Magazine*, March.

### Railroad Electrification

Within two years, freight and passenger trains will be lifted over the Bitter Root Mountains on the backbone of the continent and dropped into the inland empire of the Northwest by electric power. The Chicago, Milwaukee and St. Paul Railroad is harnessing the "swiftwaters" of the St. Joe River for the electrification of the Idaho and Eastern Washington division of its new transcontinental line. In the "swiftwaters" of the St. Joe, a comparatively little known river of northern Idaho flows enough power to drive 500 Mogul engines with 160 miles of train, which is more than the St. Paul system now operates on all its lines.

Other transcontinental lines are preparing to save hauling coal for their engines to burn while going over the mountains. The Great Northern has ordered four 100-ton electric locomotives to be used in handling its trains through the Cascade Tunnel. They will be delivered in the spring of 1908, when it is

hoped the great power-dam in the Cascades will be finished. These new three-phase locomotives are the first of their type to be used for railroad service in this country, and they are larger and more powerful than any in Europe. Each locomotive will be equipped with four motors rated at 325 horse-power, which will make them able to haul a 1,000 ton train (or about 100 loaded cars) at a speed of fifteen miles an hour up a 2 per cent. grade. The motors will be used for "braking" on a down-grade as well as for hauling when going up. Going down they will be used as generators, assisting the air-brakes in holding the train and making additional current for the line. That Mr. Harriman has long planned a similar move is well-known. Already the Southern Pacific is electrifying its suburban roads around San Francisco. The great problem of the Union Pacific—the thirty miles of heavy grade over the Sierra Nevada Mountains—may be solved by electrification, for the electric locomotives have less difficulty with heavy grades than steam locomotives have.

The development that has already taken place marks the beginning of an era in which the use of water-power will help to save the diminishing coal-fields, and if the electrification of the railroads becomes general, to turn over many thousands of cars that are now carrying coal for the railroads' use to the other uses of commerce.—*World's Work*.

### Change Is Certain

There is always a disposition in people's minds to think that existing conditions will be permanent.

When the market is down and dull, it is hard to make them believe that this is the prelude to a period of activity and advance.

When prices are up and the country is prosperous, it is always said that while preceding booms have not lasted, there are circumstances connected with this one which make it unlike its predecessors and give assurance of permanency.

The one fact pertaining to all conditions is that they will change.