siderable extent the statutory law is nullified.

The Highest Ideals.

In theory, the measure which has passed both houses of congress separately but has failed from want of their joint confirmation, is in conformity with the highest ideals of our system of government. It concedes to the transportation companies the natural liberty of making agreements which will promote their mutual interests, but in order to prevent injury to public rights, subjects such agreement to the approval of the commission, a body of experts skilled in the problems and principles which affect railroad transportation, and further makes their decision subject to appeal to the highest courts of the country. I have been at a loss to understand the opposition of many railroad men to this measure. The claim that it takes the control of their property from their hands and subjects them to a species of paternalism, has little weight, when we consider that they are left in exclusive control of the actual management of their property, and that in this sense all government is paternal. The main objects of all social government are to prevent, redress and punish wrongs, and of the three the most important though probably least conspicuous, is the prevention of wrong. It is to our police regulations that we owe our ability to pursue our daily occupations without fear or danger of interruption from lawless trespassers.

Monetary Management.

I regret that the author of "Railway Economics" did not treat more fully of the financial management of railroads as related to the broader principles of economics which to some extent control all lines of business. It seems to me that the discussion of these principles would be of great value both to managers of and investors in railroad property. You can almost count upon your fingers the number of railroad companies in this country which have not at some time gone through the mill of bankruptcy and a receivership. Why is it? Doubtless other causes have intervened, but I believe much of this ruin can be traced to two main causes, first, *direct*, and second, *indirect*, over-capitalization. The term over-capitalization is not a happy one. As used, it applies to certificates of ownership and debts, while the actual capital is the property and the proper term would be over-valuation of capital. The term, however, is common and is now generally understood, although, in practice, it has often led to the treatment of debt as capital. A railroad debt is like the debt of an individual, and should be provided for and paid.

Capitalization.

1. Under the circumstances, the fact that the average nominal capitalization of railroads in the United States is only $60,000 per mile while in Europe it is double that amount, has little weight.

Actual Cost of Railroads.

We do not know the actual cost of railroads in either region; but we do know that in a thickly settled region like Europe, encrusted with the customs of thousands of years the obstacles to be overcome in the construction of railroads were a hundred-fold greater than in the United States. We know also that the cost per mile for the construction of the Pennsylvania railroad, including real estate, was over $213,000, and if equipment is included, was over $325,000, and that in New York and New England the cost of railroads approximated more or less to these amounts. On the other hand in the great middle West the cost of a railroad built over level prairies, together with real estate, would often cost not over $20,000 per mile. We must allow something also to the different manner in which railroads were originally constructed in Europe and America. It must be remembered also that nearly all the lines in America which have continued solvent were built and organized before the civil war, when a dollar meant a dollar, when financial policy was everywhere conservative, and when the people had not learned the exploiting powers of our corporation laws.

Recent Over Valuations.

I think that since that period railway economists generally agree that there has been a large direct over-capitalization in newly constructed railroads in the way of stock and bonds not fully represented in the value of the property.

To understand the effect of this over-capitalization one must clearly realize the existence of two economic laws, *first*, that through invention and other improvements every article in use by man, except possibly some of the products of land, has from the beginning of time been constantly growing cheaper, and *second*, that owing to the competition of capital with capital, rates of profits are constantly tending toward a minimum.

The promoters and managers of these railroads anticipated that the growth of the country through which they were constructed would bring the actual up to the nominal value of the property. The result has been exactly opposite. Why?

The Reasons.

At first upon new lines it is not difficult to make profits even upon watered capital. For some years there are few repairs and no renewals; the profits are absorbed by the pressure of the stockholders for dividends. No provision is made for the accidents of the business, for promoting the greater efficiency of their service, for repairs and renewals. Above all they have failed to perceive that the value of their property, as measured by the cost of its replacement has diminished. During the last thirty years the cost of everything that goes into the construction of a railroad, except the right of way and terminals, has decreased nearly fifty per cent! Steel rails from $100 to $25 per ton, tunnelling, cutting and filling, through the use of new facilities, fully fifty per cent, and so on through the whole list. It is true that in the meantime right of way and terminals have greatly increased in value, but on many of the railroads, these are small items as compared to the original cost of construction. From these statements it is obvious that either to bring up to or maintain the actual so that it shall be equal to the nominal capital of the corporation, new improvements and extensions should be added to its property. Then to further confuse the situation comes in the juggle of bookkeeping. What shall be charged to expense, what to capital? A new iron bridge is certainly an improvement upon a wooden one, but costs no more than the original wooden structure; a tunnel may save mileage and cut down a grade; for convient handling of business grades may be reduced and curves taken out, stations erected and side-tracks constructed, without any addition to the earning power of the property. In one view all these improvements might in whole or part be charged to capital; but if the above theory is correct, they should all be charged to expense; otherwise the evil is aggravated and under ordinary conditions the final result is bankruptcy.

Some companies have appreciated these economic principles and avoided the consequences of their violation. For many years the Pennsylvania has charged to capital no improvement which did not directly increase the earning power of its property, and has maintained a large surplus to meet the accidents and contingencies of its business. In this way the Lake Shore has reduced its grades, taken out all difficult curves and doubled its track without any increase in its capital account.

To a Receiver.

2. If this theory is correct, it is apparent how readily a solvent railway company may by an indirect process become over-capitalized and insolvent. It need only rest upon the idea that the original cost of its property will always continue its true valuation, notwithstanding the constantly growing cheapness or railway construction; neglect to provide for the accidents of its business, divide all its earnings among its stockholders, charge all its improvements and extensions to capital account, and accept the assumption that the growth of population and business will maintain the valuation of its property, and sooner