the sub-surface products of the earth we would at once return to the material conditions of the stone age. It is, therefore, incontrovertible that from the point of view of the human race, economic systems or laws which result in unnecessarily rapid use of the mineral stores of the earth are indefensible; but such are the economic theories and laws now dominant in the United tates.

The wastefulness of the competitive system may be proved with regard to every product which is taken from the earth. Lead and zinc in Wisconsin and Missouri are mined on a small scale under an extreme competitive system. The losses of these metals in their mining and metallurgy are nothing short of appalling. In southeastern Missouri, according to the late Dr. Bulkley, not less than 15 per cent. of the metal is left underground; the losses in concentration approach 15 per cent.; the loss in smelting and concentration frequently amount to 15 or 20 per cent.; thus making a total loss of from 45 to 50 per cent. These great losses are due to the system of numerous small holdings, combined with the competitive system. High royalties on the part of the small feeholder are demanded of the operator. The operators desire to get large returns at the earliest practical moment upon this small investment. In consequence, ore is left in the ground that should be mined; unnecessary losses take place in concentration, also unnecessary losses occur in smelting.

But the most disastrous losses in mining as far as the future of the human race is concerned are in connection with coal. Director Holmes of the United States Bureau of Mines, in a paper upon mineral wastes, presents the facts in regard to the ruinous wastes of the unrestrained competitive system in connection with coal. He says that in the early days of mining when there was much sub-division of ownership; that not more than 30 to 40 per cent. of the anthracite coal in the beds mined was brought to the surface, leaving from 60 to 70 per cent. in the ground. He states that even at the present time that not more than 50 per cent. of the anthracite reaches the surface. The situation is similar for bituminous coal, but until recently the losses for such coal was substantially half. This loss has been somewhat reduced, but it continues to be appalling. Holmes estimates that since the beginning of mining in the United States, "two billion tons of anthracite and three billion tons of bituminous coal have been left underground in such condition as to make its future recovery doubtful or impossible." The principles which from the point of view of conservation should apply to the mining of coal are well known. So far as practicable the mines should be so worked as to make one superimposed vein after the other available. Coal slack should be reduced in amount and utilized. No considerable percentage of coal should be left in the ground as pillars. If these reforms were introduced, the losses could be reduced to half the present amounts and possibly to one fourth.

But to ask that any such proposals should be put into operation is purely chimerical. Under the Sherman law there is no opportunity to limit output, divide territory, or regulate prices. Five thousand bituminous operators could produce two hundred millions of tons of coal per annum beyond present demands. If the operators could agree upon limitations of output, and division of market so as to reduce freights, and could arrange for reasonable prices, which would give them no more than their present profits, they would then be able to follow these principles in mining their coal; for they themselves would be gainers in prolonging the life of their mines, and far more important many future generations would be the immeasurable gainers in that they would have an adequate coal supply.

Under the competitive system, we are recklessly skimming the cream of the natural resources of a virgin continent with no regard for the rights of our children or our children's children. They will have a heavy score against us if we continue to ignore the future and to apply the unrestrained competitive system in total disregard of their rights.

My proposal to remedy these conditions is neither regulated competition, nor regulated monopoly, but retention of competition, prohibition of monopoly, permission for co-operation, and regulation of the latter. At the present time there are state and notional movements to still further extend the advantages of co-operation to the farmers. Since it is unquestionable that the sense of justice of the citizens of the United States will support the courts in prohibiting class legislation, we shall therefore, I believe, ultimately permit co-operation in all lines of business alike. If we, however, retain freedom of competition, permit concentration sufficient to give efficiency, allow reasonable co-operation, and prevent monopoly, this will require regulation just as it has been necessary to regulate the railroads. This done, the Sherman law will be forgotten. Has there been any prosecution of the railroads for violation of the Sherman law because of collusion in fixing rates? And yet, everyone knows that they are just as flagrant violators of the Sherman Act as any other class of corporations in the United States. Are the freight rates the same for different roads between any two points? Are the passenger rates between Philadelphia and Chicago identical on all roads? Can you do better in price by travelling over the Pennsylvania, than over any other road? The rate is the same providing the speed is the same. How does it happen that the roads all got together? Just by Providence, I suppose. It was doubtless by a providential act that these rates were fixed identically upon all the roads, under the same conditions, all over the country.

Why is it that nobody proposes to indict the railroads for collusion? Simply for the reason that the rates which they can charge are controlled by commissions, national and state. Nobody any longer wishes to make them further trouble, because the public is protected by its commissions. The railroads are just as amenable to attack under the Sherman Act as any other combination in the United States, but when the railroads are giving reasonable rates, and are competing in giving reasonable service, even if the law is on the statute book and is the hallowed thing that has been described—the sense of official justice is such that they are not attacked in the courts. Will the Attorney-General of the United States or the Attorney-General of this or any other state, bring suit against the railroads for conspiracy in fixing rates when the public is properly protected? I have not heard the proposal made anywhere.

Minnesota and Wisconsin men have arranged to purchase the Second Relief gold mine and 10 stamp mill in Erie camp, Nelson mining division, B.C., and have commenced to clean up around the mine preparatory to working it. Mr. Edward T. Seaman, from Wisconsin, is in charge of the work being done.