

the navigable streams to transport the needed commodities both ways.

Would it not, however, be prudent to take care not to exhaust this apparently inexhaustible supply of the products of pine forests? Is not past experience demonstrated that they can and probably will be exhausted, and that too, more speedily than most people would suppose possible? Few persons, unless in the north-west, are fully aware of the magnitude which this lambe trade has acquired, and of the rapidity at which it is constantly increasing; and probably fifty years hence little of those valuable forests will remain.

I have thus adverted to a few of the evils threatened to the agricultural interests by the wholesale and indiscriminate destruction of timber now going on in most parts of the United States. I will not enter upon the discussion of many other interesting considerations which the question suggests, such as leaving the whole country bare of shade and foliage and unattractive to the eye, as well as the certain future scarcity of wood for fuel and timber, for fencing, ship and house building, and the many purposes for which it is indispensable in the mechanic arts. The subject is certainly important, in a national as well as an economical point of view. Certain it is that should the present wholesale destruction of timber go on increasing, as it bids fair to, with the increase of population, without the adoption of some plan to renovate those valuable forests, posterity will have little reason to thank us. No large extent of country, however fertile, can be very desirable as an abode to man without a fair proportion of timbered land. Wood is almost as necessary to civilized man as the bread he eats.—G. DE NEVEU, in *Cincinnati*.

More Light Underground.

Science is intended to give us a shield against the ills of life. A people that sits still, and views their calamities as simple "*visitations*," must have fallen back upon the savage life. An Italian priest, called upon to bless a plot of land, where a few blades of corn were contending with the enemies which usually beset them, on well-managed soil, gave the applicant a sensible rebuke. "It is of no use for me to bless your land," said the priest; "what you want is measure." At one time the people of this country were accustomed to resign themselves piously to flood and draught. In these days of progress such *visitations* are regarded only as the proper punishment of indolence and slovenly management, since they have been disarmed by the drainer's tool and the two inch pipe. Science has taught us to catch the lightning and conduct it innocuous to the ground. We shall probably at some future date control storms of wind and rain, and until we have found out the

secret necessary for this feat, we continue to insure ourselves against their effects, so that their fury, instead of being discharged with crushing force upon the shield of one individual, is received harmlessly upon the united shields of the many. We are continually finding out that we are not the sport of unseen powers to the extent we once held to be the case, or in the manner the peasants of Norway and Sweden believe themselves to be. We have learned that we need not propitiate the wind or the rain, the lightning or the frost, the fever or the fire. The Almighty has surrounded us by certain conditions, subversive of life, not that we should be victimized, but that, having the will, we should rise superior to them, and that in the act of battling with circumstances, we should undergo that discipline which is necessary to the full development of our manhood. We are superior to the elements around us. At one age or another man has regarded himself as the creature of circumstances, but experience has taught in so many cases that he is the master of circumstances, that he may well arrive at the conclusion that he is the master of all circumstances. As to "inevitable laws," there are very few such straight lines to constrain us, save our duty to the Great Maker, and for the rest laws are finite, and retain their supremacy only so long as human experience retains its present scope; to-morrow may change all, and either give us a new view which may result in a new law, and the abrogation of an old one, or such a view as shall change the application of the old law.

The farmer who, next to the sailor, seemed to be the most helpless and exposed of human creatures, has of late years gained considerably in this sense of mastership. While he has been busy in producing food, his friend the chemist has been unremitting in his attention to certain influences which for ever were opposing his efforts. These which were represented as antagonisms, and so impersonated, were discovered rather to be negative than positive influences: influences arising rather out of the indolence of man than such as specially aroused themselves to counteract his inactivity. Sir Humphry Davy, Liebig, Lawes, and Gilbert, have each shown that nothing is wanted to save farmers from the losses to which they have been exposed, but such a knowledge of the agencies around them as shall enable them to work *with* them, to subject them to their will, and to use them for the production of desired results.

Perhaps no chemist has given the farmers more assistance in this respect than M. Bonssingault. From the laboratory of that most persevering of experimentalists they have from time to time received highly valuable contributions to scientific discovery. Never has he given a record of experiments there conducted of greater interest than those recently published under the title *Agronomie, Chemie Agricole et Physiologie*. He has been directing his attention to