

The traditions of the present tribes, as well as the archeological evidences in connection with its discovery, all attest its great antiquity. As corn is supposed to be a native of this continent, its discovery under these peculiar circumstances will aid in throwing considerable light on its origin and history.

HEALTH OF NEW YORK DURING FEBRUARY.

ON the opposite page will be found a graphic representation of the daily mortality in the city of New York for the month of February, together with certain meteorological data for the same period. The deaths are those from all causes, those from a few of the prominent causes which are constantly at work in all populous centres, and those of children under five years of age. These statistics are furnished to *Science* through the courtesy of Dr. John T. Nagle, of the board of health. The large number of those who die after having just commenced to live is a striking feature here, as it is in all reports of mortality. That the number is as low as it is, is accounted for by the few deaths which at this season of the year are caused by diarrhoeal affections; for seven days in the month there having been no deaths due to this form of disease, and in eleven days only one death each day, while the highest was but two deaths. When the spring has fairly set in, and the warm days appear, we shall expect to see this condition change, the disease assuming a more prominent place among the death factors, until, during the intense heat of the midsummer, it will overtop them all, and carry off its victims by the scores. Scarlet-fever was, during the month, a little more active as a cause of death than the diarrhoeal diseases; and yet the difference was so slight that the lines representing the mortality from these two affections cross each other repeatedly, and often coincide. Consumption occupies the most prominent position in the diagram, — a disease which has prevailed in all communities for ages, and which has been the subject of as much study and experimental research as, perhaps, any disease which affects the human race, and yet one which still ravages the world, and appears only in a slight degree to be amenable to treatment. Much has been done by sanitarians to point out the influences under which it thrives, and the means to be adopted to lessen its prevalence; and it is more than probable, that, if the advice which has been so freely given were to be put into practice, the number of deaths would be greatly reduced.

The meteorological data are obtained from the

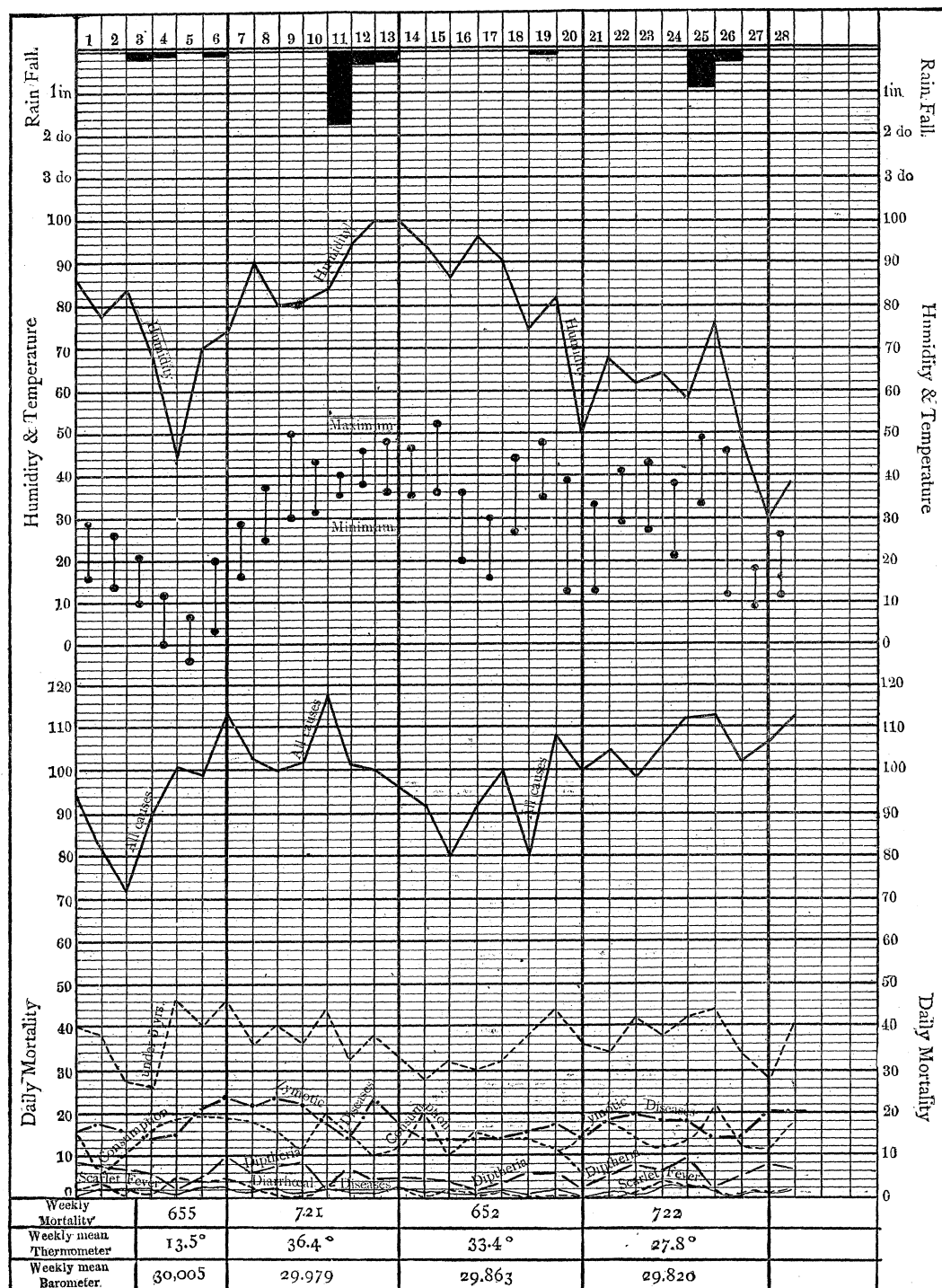
observatory in Central Park, through the kindness of Director Daniel Draper, Ph.D. The instruments from which these observations are made are placed fifty-three feet above the ground, and ninety-seven feet above the sea. The daily mean humidity is obtained from readings taken at seven A.M., two and nine P.M. The 'rainfall' recorded on the 4th as .10 of an inch was in reality 5 inches of snow; the .01 of an inch on the 6th was also snow, which fell to the amount of one-quarter of an inch. These, as is usual, have been reduced to water, and so recorded. February will be remembered as a month in which the thermometer fell to a very low point, -4° F. on the 5th; while on the previous day it was at 0° , and on the 6th but three degrees above that point.

RAILROAD TRANSPORTATION.

MR. HADLEY's book deserves high praise. It is clear, scholarly, well written, well arranged, temperate and impartial, and yet vigorous and outspoken. It supplies a need which Mr. C. F. Adams's book on railroads filled with great, even though incomplete, success, for matters as they stood ten years ago, — the need of a compact discussion of what the railroad problem is, and what it means. It gives a brief history of the growth of the railroad system, points out the problems and evils that are now before us, and discusses the solutions and remedies. There are excellent chapters on the railroad experience of other countries, and abundant references to the literature of the subject. The book may be strongly recommended, both to those who are specially interested in railroads and the railway problem, and to the general reader who wishes to inform himself on one of the most important of public questions. It is much to be wished that studies of this kind should be read, and not only read, but bought. We have by far not enough of intelligent and careful investigation of our industrial and political problems; and it is a regrettable fact that the publication of such investigations has not been found, as a rule, to be profitable to the publishing-houses, not to mention the authors. The growing importance of such questions, the arousing of public attention to them, the increasing number of thoughtful men who wish information, ought to give a widening circle of readers of books like Mr. Hadley's.

The most important conclusion which the reader who approaches the problem through this book will reach — the conclusion which enforces itself on anyone who gives intelligent study to the sub-

Railroad transportation, its history and its laws. By ARTHUR T. HADLEY. New York, Putnam, 1885. 8°.



ject, but which, unfortunately, has impressed itself but little on the public mind—is, that there is no one solution of the railroad problem, and no one remedy for the evils which exist. The problem is a vast and complicated one: in truth, there is not any one problem. There are a number of different problems; and it is not the least of the merits of this book that it clearly distinguishes them. Perhaps the best part of the book is the discussion of the most difficult of them all,—the question of railroad-rates. Mr. Hadley makes a plea, unanswerable in its essentials, in favor of the much-maligned and much-abused principle of charging ‘what the traffic will bear.’

Some things we have learned on these problems; but a great deal more must be learned, and learned chiefly from experience, before the railroad system settles down into a permanent form. For example, it is pretty well agreed, even in this land of non-interference, that government regulation in some form is desirable. Almost every state in the union has its railroad commission. But how far public interference shall go, is quite an open question. There are those who believe that it should go far, and that the tendency is and should be toward eventual state ownership and management. German economists have adopted this view pretty generally, and they have followers in this country. They may be right; but experience up to the present time is by no means clear in favor of their view. Mr. Hadley, in his chapters on the railroad experience of European countries, and especially in his concluding chapter on the results of state railroad management, shows that, even in continental Europe, the question of state railroads is by no means settled. Only in Prussia is state management an established fact, and apparently a success. But in Prussia the conditions are peculiarly favorable; and even there the future must be awaited, before we can judge of the system. How far public regulation can go and ought to go in this country, at the present time, is still more an open question. Mr. Hadley evidently believes that a federal railroad commission is pretty sure to come in the future, and believes it to be desirable. But he does not commit himself as to the extent of the powers it should have, although he presents strong reasons for its having, at least at first, only advisory, and not judicial or administrative powers.

In his chapter on competition and combination, Mr. Hadley expresses strongly his opinion that the economic principles which apply to most forms of production and trade do not apply to railroads. In fact, he says that the law of competition, as laid down by Ricardo and his followers, is ‘false in theory,’ so far as railroads are concerned. I

must confess that this seems to me to be overstraining the matter. Whether one considers the theory to be false, depends very much on what is one’s conception of it. Correctly stated, the theory of Ricardo and of ‘orthodox’ economists, simply says that, given such and such premises, such and such conclusions follow. If the premises do not correspond to facts, the theory does not apply. Perhaps it ‘breaks down;’ but does it become ‘false in theory’? No doubt the premises correspond, in important respects, to facts, in a less degree in the case of railroads than in almost any other branch of industry. The theory, then, fails to apply in a corresponding degree, and we must approach the economic problem from other points of view. But Mr. Hadley himself points out that the theory is by no means without its force and application, even in railroad matters. He tells us in one place that, “where the profits of an existing concern are high enough to tempt it, a competitor will come into the field” (p. 103), and refers to the West shore road as a conspicuous instance. And elsewhere he tells us that when the legislature of Wisconsin, by the Potter law, fixed rates at unremunerative figures, railroad construction stopped, facilities on existing roads could not be kept up, and the state was compelled to repeal the law. “The laws of trade could not be violated with impunity” (p. 135). Are not these applications of Ricardian laws, at least after some rough fashion? No doubt we cannot solve all economic problems by these laws, and no doubt, in some directions, the development of industry in modern times requires us to apply them more and more cautiously. But we should not therefore throw them entirely overboard, as if they did not yield us any help at all.

But this is a question which interests chiefly the economic student; and perhaps, after all, it is only a question of choice of language. There is no ground for substantial difference with what Mr. Hadley has to say in his chapter on competition and combination. There, and throughout the book, are the marks of thorough study and clear-headed thinking.

F. W. TAUSSIG.

MINOR BOOK NOTICES.

Reiseerinnerungen aus Algerien und Tunis. Von Dr. W. KOBELT. Frankfurt-am-Main, Diesterweg, 1885. 8°.

It is curious to contrast this ponderous and thoroughly scientific work of a German physician with that of the vivacious Monsieur Melon, which we noticed some time ago,—the one so chatty and superficial, the other so dull and accurate. We read the Frenchman’s book, and cast it away without the slightest thought of ever looking at it