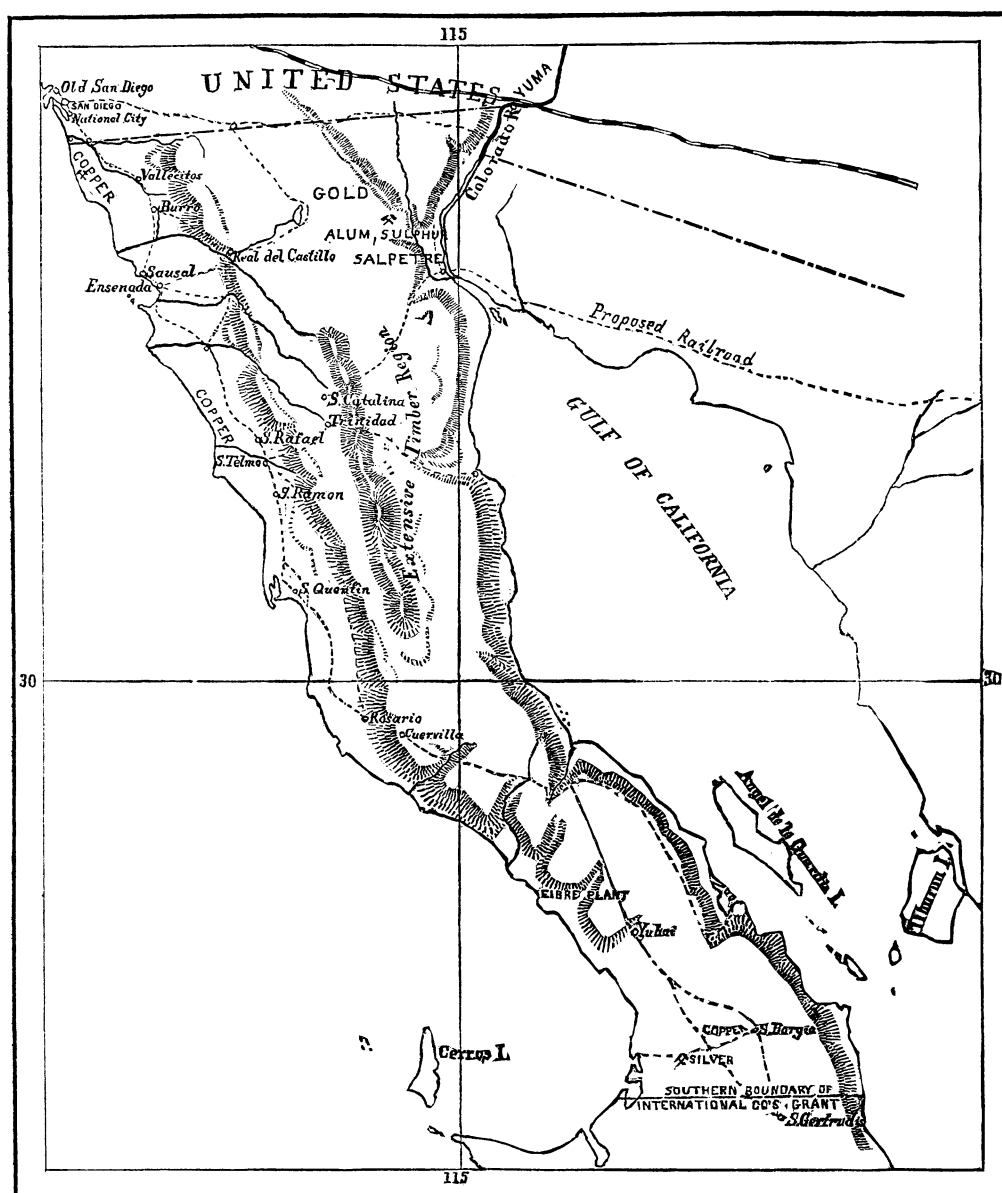


connection with forecasts of weather along our entire Atlantic sea-board.

An officer detailed from the Hydrographic Office to visit Havana last September, in order to consult with Padre Viñes, the leading authority on West Indian hurricanes, secured also the cordial co-operation of Capt. Carbonell, the director of the newly established marine observatory there; and the French and Spanish cable companies have granted the franking privilege for telegrams over their lines whenever the weather is disturbed. The chief signal officer, United States Army, has offered every assistance in his power in order to secure the best results during the coming hurricane sea-

COLONIZATION OF LOWER CALIFORNIA.

COMPANIES which attempt to promote immigration into Mexico have to contend against serious political prejudices, which are not readily counterbalanced by even great prospective productivity of the land they offer for sale. Most attempts on large and small scales have failed on account of this fact. One of the most important and promising enterprises of this kind is that of the International Company of Hartford, which, by the Colonization Act of 1883, received a grant of the northern portion of Lower California. It appears that the company finds some difficulty in inducing sufficient



son; and it would seem, that, by means of earnest co-operation, the dangers of storms that traverse the Bay of North America might be greatly reduced, and a large loss of life and property be avoided annually. To navigators, especially, this is a subject of great importance, as timely warning may enable them not only to avoid the dangerous regions of an approaching storm, but actually take advantage of it to prosecute their voyages. The attention of all those interested in the commerce of the Bay of North America, and the security of the inhabitants of its shores and islands, is therefore specially called to the importance of this subject.

THE Long Island College Hospital recently graduated a class of forty-seven men.

numbers of colonists to settle in this region; and, as a chapter of its charter requires the settlement of a certain number of families in a certain period, difficulties arose. The *New York Times* remarks upon this subject in a recent issue.

The International Company, as is well known, has its principal sphere of operations in Lower California; and the chief aim of Mexico in granting such large concessions to the company was to secure the speedy survey and settlement of that territory. A leading stipulation, in fact, in the company's charter, which was granted in 1883, was that within ten years there should be settled in the territory granted at least two thousand families as colonists; and it was the alleged failure to have brought in the requisite number of settlers up to the time of the close of the inspection of the

company's affairs by the government, within the past year, that was made the most serious charge in the inspector's report. It is too soon to say what the outcome of all this will be, though it seems highly probable that the company's charter will be modified, and its administration re-organized.

Mexico was a long time in cutting loose from the old Spanish ideas of national exclusiveness. Various slight changes were made from time to time in the laws of the colonial period, aimed at foreigners; but it was not until 1842 that foreigners were allowed to own real estate in Mexico, and even then they were hedged about with many restrictions, such as the prohibition of holding more than two pieces of property in the same political department. Yet the country has long been desirous of enjoying the benefits of immigration. Efforts to secure them have been made along two lines. Many contracts have been made for the survey and opening of unoccupied lands, payment for the work being partly made in grants of lands, with the hope of inducing colonization to take them up; and the government has directly undertaken to plant and support colonies. Both methods have resulted, in the words of Minister Pacheco in a special report on the subject made last year, "only in bitter disappointment and the loss of large sums to the national treasury."

Particularly costly and disastrous were the attempts at colonization made by President Gonzales during the term of his administration. Italian immigration was the thing he aimed at. Large bodies of immigrants were induced to come from Italy; many Italians went to Mexico from New York, the Mexican consuls getting so much a head for every one shipped, and were located on government lands selected for the purpose. But the plan was wretchedly conceived, and came to nothing except great suffering to the immigrants, and immense expenditures to the treasury. The minister of public works, in the report alluded to, referring to these experiments, says that the outlay upon them amounted to upward of \$1,500,000, and that there is practically nothing to show for it all to-day.

It would be easy to assign reasons for this long series of failures. The unsettled condition of the government, bad systems of taxation, poor methods of farming, and lack of means of transportation, have undoubtedly had much to do with the unsatisfactory results; but perhaps a deeper cause than any other is the lack of demand for small holdings of land. The system of great ranches seems to be the only one possible or profitable in the case of the land at present unoccupied. Small farming can be carried on successfully only in the neighborhood of cities, and there all the available land has long since found owners. A farm of a few acres in a remote location is practically of no value to its owner. This was pretty thoroughly shown in the experiments tried by Juarez. He had the French communal system made obligatory in certain localities, in the hope of raising up a generation of small proprietors; but in a very short time it was found that all the owners of small holdings had sold out, so that the land was again in the hands of one or two ranchmen. That there is really no demand for small properties anywhere along the American frontier, is also shown in the ridiculously low prices set upon government lands in the border States. According to a presidential decree of last December, the price of public lands in those localities for 1889 and 1890 was fixed at an average of about fifty cents the hectare, or say twenty-five cents an acre. With thousands of acres for sale at such prices, and no bidders, the difficulties in the way of Mexican colonization are of themselves apparent.

Notwithstanding the numerous failures at colonizing portions of Mexico, we cannot but consider the prospects of a great part of the area owned by the International Company as favorable. The rapid progress of Southern California cannot fail to have a beneficial influence upon the adjoining region, which is very similar to it in character. Formerly the whole of the peninsula was considered a desert; but it has been shown that in its northern portion there is an abundant supply of water. This is derived from the great chain of mountains indicated on the accompanying sketch-map, the highest parts of which are said to be more than ten thousand feet in height. Mr. C. Nordhoff, in his pamphlet "Peninsula California," quotes the following description of this mountain-range from a report of its explorer, Col. D. K. Allen: "This great mountain region

lies about one hundred miles south-east of Ensenada, seventy-five miles east of San Quintin, and from thirty to thirty-five miles west of the Gulf of California. The range is about one hundred and ten miles in length, and from fifteen to thirty in width. Water is abundant everywhere, and only has to be husbanded in order to furnish a great supply for all the lands on the north end of the peninsula. These streams can be easily and cheaply dammed, and all of the pine can be put into them and floated down to the heads of the valleys. This can be done with the San Rafael, which is a grand stream with five large branches, draining nearly all of the north end of San Pedro; also with the San Domingo, which drains the western side of the mountains; and the logs or timber can be taken out at the upper end of San Rafael valley near Colnett, or at the upper end of San Quintin valley near San Ramon. Either water route is perfectly feasible."

The peninsula is undoubtedly rich in minerals, but its great development in this direction can come only with a denser population. Gold, silver, and copper are at present worked by various companies. With these possibilities of irrigation, with a healthful climate favorable to the carrying-on of valuable cultures, with good pastures in the mountainous region and an ample supply of timber, and with rich mineral deposits, there can be no doubt that the country will be developed as soon as its political state appears sufficiently stable.

HEALTH MATTERS.

The Use of Tobacco.

IN a communication to the *New York Medical Record*, Dr. F. H. Bosworth discusses the effect of the use of tobacco on the health. He says that the Anglo-Saxon races have been smoking and chewing now for nearly four hundred years. They contracted the habit from a race which, as far as history and tradition teach us, were remarkable for their vigor of body and mind as well, and, as far as we know, were an unusually long-lived people. In the time that we have been using the weed there is no evidence to show that the race has in any way deteriorated, but, on the contrary, it is abundantly shown that the average duration of life has increased nearly fifty per cent. There is no evidence to show that in this time the race has been more subject to disease, but rather that they are less so. There is no evidence to show that the race has lost any thing in its intellectual activity, but, on the contrary, it has been a time of most marvellous fecundity in all that is great in literature.

He gives the following analysis of tobacco, that of Passelt and Reinmann, which is accepted as correct by authorities:—

Analysis of the Leaf.

Nicotine.....	0.060
Volatile oil.....	0.010
Bitter extractive matter.....	2.870
Gum and malate of lime.....	1.740
Chlorophyl.....	0.267
Albumen and gluten.....	1.308
Malic acid.....	0.510
Salts of pot. ammonia, etc.....	0.734
Silica.....	0.088
Water.....	88.280
	100.00

Leaving out from this analysis the volatile oil, extractive matter, albumen, gluten, and chlorophyl, and negative and inert matter, and we have left a substance containing 1 part of nicotine, 4 parts of salts of lime, ammonia, etc., with 88 parts of water in 100. The percentage of nicotine in various kinds of tobacco varies; Havana tobacco containing but two per cent of this poisonous element, while Virginia tobacco contains about seven per cent, according to some analyses. The moral of this is that we should always smoke the choicest brands of Havana cigars. In smoking, the ammonia salt may become the source of considerable discomfort in the burning and smarting tongue which results from excessive and continuous practice of the habit: of course, in chewing, this action is not noticeable. We thus are reduced to the action of nicotine for the possible deleterious influence of the plant. This element, as before stated, is present in varying proportions in the tobacco-leaf;