

TINKERING THE EARTH TO MAKE A NEW CLIMATE

Extraordinary Project to Dam Up the Strait of Belle Isle, and Thus to Divert the Arctic Current, Which Gives New England Raw Winds and Cold Winters.

ONE of the most gigantic undertakings in altering the climate of a great length of seacoast is that which is seriously suggested by Mr. F. S. Hammond, of Boston, a gentleman with maritime and engineering experience. The results he aims at are stupendous, yet he says they can be attained at comparatively slight expense, and that the direct benefits secured would more than pay the whole expense in less than a year. By a single engineering construction, which, he says, should be built by the United States, Canada and Great Britain, acting together, Mr. Hammond proposes:

- First—To destroy the dreaded "east winds" of Boston.
- Second—To change the climate of the New England States to that of New Jersey and New York.
- Third—To give the maritime provinces of Canada a mild and genial climate.
- Fourth—To make Labrador habitable.
- Fifth—To reduce the transatlantic voyage to three and one-half days.
- Sixth—To keep Canadian ports open all the year round.

No such stupendous results as these have ever been achieved by any one engineering work. Yet, according to Mr. F. S. Hammond, all that is needed to secure them is an embankment no longer than nine miles and with a depth of less than two hundred feet. This embankment, says Mr. Hammond in a letter to the Journal, should be built across the Strait of Belle Isle, which separates Labrador from Newfoundland. Such an obstruction would completely close the Strait of Belle Isle to navigation, rendering it impassable. Yet this would be no hardship, as it is now but little used, and the climate there is so inclement and the commerce so meagre that there are no towns or villages of importance facing those waters.

On the other hand, the change which would be wrought by blocking up the Strait of Belle Isle at its narrowest part—that is, between Point Amour Light, on the Labrador shore, and West Point, on the Newfoundland shore—would be very great. A glance at the map will show that the Strait of Belle Isle is a narrow passage of water emptying from the north into the Gulf of St. Lawrence.

It has long been known that this strait has exercised an evil influence on the climate of the Gulf of St. Lawrence, pouring into the Gulf the icy waters of the Arctic and affecting the whole of the Labrador and Newfoundland shores. Recent experiments made for the Marine Department of the Dominion Government show that the current in the Strait of Belle Isle is fundamentally tidal, running about two knots in either direction. Frequently, however, icebergs, stranding at the entrance of the Strait of Belle Isle, have partially blocked the channel. In the iceberg season there is generally a large collection of bergs about the northern entrance to the Strait of Belle Isle, but none except the very smallest has ever been able to pass through the strait. The reason for this is that the strait is comparatively shallow, its average depth in the narrowest part being less than one hundred feet.

Mr. Hammond has pointed out that the cold Arctic current, which comes from the polar regions through Baffin's Bay and Davis Strait, and which carries all the large icebergs into the Atlantic Ocean, empties much of its water through the Strait of Belle Isle into the Gulf of St. Lawrence. This huge Arctic current, which comes direct from the polar regions, is the northern counterpart of the Gulf Stream, but instead of being temperate it is icy cold.

Wherever the cold, icy currents from the north enter the oceans of the world, there fogs and mists are created, the air is always chilly, and climatic conditions are created that are extremely injurious to health. The reason for the almost perpetual fogs to be found on the Banks of Newfoundland is that it is at this point that the icy current from the north meets the warm waters of the Atlantic Ocean. The reason fogs are to be found in the Gulf of St. Lawrence is that the icy current from the north is carried into the Gulf through the Strait of Belle Isle, back of the island of Newfoundland. All of this, says Mr. Hammond, would be changed by the building of the embankment across the Strait of Belle Isle at its narrowest part.

But much more interesting is the change which he says such a construction would effect in the climate of the New England States. As is well known, Boston's climate is peculiar because of the east winds blowing off the ocean that are singularly penetrating and chilling. The reason for this is that Boston receives part of the icy northern current that comes from Davis Strait through the Strait of Belle Isle, but which never reaches New York, as it is diverted into the ocean by the point of Cape Cod and disappears about Nantucket. It is this icy northern current, says Mr. Hammond, which gives the whole of its climatic peculiarity to the New England States. The amazing coldness of the water at Bar Harbor, where sea bathing is impossible during the hottest days in summer, is one result of the current flowing through the Strait of Belle Isle.

Another result pointed out by Mr. Hammond is the penetrating coldness of the New England winter, especially along the sea coast. The whole of the province of New Brunswick is affected by this northern current. The ports of Eastern Canada are rendered practically helpless during six months of the year by ice forming in the harbors, and this, says Mr. Hammond,



is the result of the current flowing down through the Strait of Belle Isle, while Prince Edward Island, Labrador and the whole of Newfoundland are almost frozen up by the same cause.

Dam up the Strait of Belle Isle, says Mr. Hammond, and you at once change the climate of all these vast regions by removing the cause of their coldness. The waters which flow through the strait into

the Gulf of St. Lawrence new cling close to the coast southward until they are shunted into the Atlantic by Cape Cod, which alone seems to protect New York from their evil influence.



Cape Cod is the dam which protects the Middle States from the northern icy current, and now Mr. Hammond proposes to build another dam in the Strait of Belle Isle, thereby giving to the intervening regions the same climate that New York and New Jersey now enjoy.

With a climate such as that of New York or New Jersey, the maritime provinces of Canada would witness an enormous development. With harbors free from ice and open all the year round the Canadian seaboard cities would, it is believed, receive a great stimulus. The climate being changed heavy snows would disappear from Quebec, Labrador and Newfoundland.

It is at this point that Mr. Hammond points out one of the most remarkable results to be achieved by building a viaduct across the Strait of Belle Isle. If the viaduct were big enough, he says, railroad trains could run across it. This would make St. John's, Newfoundland, the eastern terminus for the North American railroads. St. John's is the point which the Atlantic liners pass a little to the eastward two

or three days after leaving New York. These days of sea travel, says Mr. Hammond, could be saved by dispatching the ships from St. John's, the passengers going there across the Strait of Belle Isle embankment in railroad trains from New York.

Mr. Hammond says the benefits accruing from this great work would be equally divided between the United States, Canada and England. The American and the British governments should, he says, undertake the work, and its cost would be comparatively slight. The viaduct would need to be not over ten miles long, and less than 200 feet deep. Its foundation could be built by dumping in the channel of the strait rocks from the surrounding shores, and then building solid masonry on top.

The work, says Mr. Hammond, could be finished within one year at a cost of about \$9,000,000. The benefit to the real estate of New England and Canada would, it is claimed, make this sum look insignificant, and Great Britain would derive valuable results in a quicker transatlantic passage and increased commerce.

THE GLORY OF SMITH COLLEGE

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professors are powerless to instruct them. So high is the standard of taste in ice cream and soda water set by the Smith College girls that the town of Northampton, Mass., bids fair to become a centre of national fame for these delights. Here you may obtain ice cream suited to every season, to every variety of temperature, to every state of mind or body. The guidance of a student is, of course, of inestimable value. With her assistance you are sure to obtain refreshment beautifully adjusted to your needs.

Kingsley's is the great centre for the diffusion of ice cream and soda water in Northampton. Here you may study the Smith College girl in the sphere in which she is supreme. Perhaps it is no longer necessary to remind the world that the college girl is not lean or spectacled. She is a more robust person than the average of womankind, her physical vigor only rendered more attractive by the graces of intellect and refinement. She is not devoted alone to abstruse learning, but everything she undertakes she does thoroughly and scientifically. Thus it is that she achieves greatness as a connoisseur of ice cream.

The appreciative vendor of ice cream and soda water, who incidentally keeps pills and other remedies, has just given 1,000 soda tickets to be sold at ten cents each in aid of the Students' Building, which is to be erected.

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The profundity and range of their scholastic studies are only equalled by their knowledge of the ways in which the cream of the cow and the juice of fruit may be compounded under the influence of a very low temperature. It is contended by some learned persons that there is a direct connection between an easy familiarity with the differential calculus and an appreciation of the finest varieties of ice cream. The connoisseur whose young life has been passed behind the dry goods counter can never hope to acquire the same discriminating taste as the graduate of a college for the higher education of women.

It is a delight to the aesthetic senses to watch the Smith College girl occupied in the absorption of ice cream. It is a liberal education to be permitted to accompany her in the exercise. The undergraduates of Harvard and Yale who have had their experience know that there is a branch of learning in which their own



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