

TO MOVE THE EARTH AND MELT THE POLE

A \$190,000,000 Newfoundland Jetty Would Cause Axis to, Shift, C. L. Riker Believes.

END OF ICEBERG MENACE

Plan to Send Gulf Stream Unchilled Into Arctic's Heart, Abolishing Fogs and Extreme Cold.

Carroll Livingston Riker, a New York engineer, proposes in a small book issued yesterday to change the climate of the whole Atlantic Coast of North America, and to alter even the solar inclination of the earth. His plan is to send the great heat-bearing Gulf Stream, unchilled, into the very heart of the Arctic. The warm current, he maintains, would melt the frozen Polar seas, and by this substitution of water for ice he believes the earth would swing around a bit on its polar axis and present to the more direct rays of the sun the regions that are now uninhabitable for most of the human race.

Not only that, but he would at the same time, he declares, open the ice-bound harbors of Eastern Canada for a whole year's shipping; do away with the fogs of the Labrador and Newfoundland Coasts and on the Northern Atlantic, and finally put an end to the great wandering iceberg on the steamship tracks that made the Titanic disaster possible. The total cost of this work he estimates at \$190,000,000, a sum far below the cost of the Panama Canal, and the accomplishment of the work he declares will be much simpler.

Mr. Riker has carried out several notable engineering feats. He built the first refrigerating warehouse in the world, and installed the first cold storage system in a transatlantic ship. He designed and built the first powerful pumping dredge used by the United States Government to fill the Potomac flats, near Washington, D. C., at a cost of about half the Government's first estimate.

Mr. Riker's Amazing Plan.

This amazing proposal is made by Mr. Riker in all seriousness and sincerity. He believes that it can be done, and in this way:

A jetty would be built extending eastward from Newfoundland across the water on the Great Banks, and east thereof, until a wall is formed which will intercept the cold Northern Labrador current, turn it eastward until it meets the north-flowing Gulf Stream in deep water. The greater part of the cold stream would pass under the warm current, he declares, and the ice-laden upper part be deflected north again.

To carry out the plan the jetty, says Mr. Riker, would need to be 200 miles long, but a jetty thirty miles long, projecting out from Cape Race, would modify the climate from Newfoundland to Cape Hatteras, and do away with the fogs, the extreme cold of the Winter, and bring an earlier Spring to the northern parts of this continent.

In this plan it has already appeared that Mr. Riker's one aim is to stop the cold north current from meeting and neutralizing the warm Gulf Stream. The two great ocean rivers meet now off the coast of Newfoundland. The warm river loses its heat, while the cold river sweeps on south and even enters the Gulf of Mexico before it gives up all its cold. The Gulf Stream divides, and part of it, greatly weakened, flows north along the west coast of Greenland.

"The immediate effect of the clash," says Mr. Riker, "is the production of almost continuous fogs on the Banks, and the carrying of icebergs south into the path of transatlantic steamers. If the Gulf Stream ran unbroken a few hundred miles further north it would melt the bergs where they originate and before calving. The offspring of these two great currents are the monstrosities into which the Gulf Stream soon divides, they becoming aimless wanderers, without force or effect, compared with its previous irresistible, majestic sweep, and thus enfeebled wholly unable to cope with the head-on southeasterly opposing flow of the European Polar current after its projection to the surface as it surmounts the great mid-Atlantic backbone, 400 miles south of the Farraday Hills."

Then the engineer asks this question: "How shall the integrity of these two great streams be preserved so that they shall be of the utmost service to mankind?" And his answer is, "By inducing the Labrador current to make a sand bar of its own deposits, eventually raising it to the surface of the ocean as a neck of land to keep them apart, in the shoal waters of the Great Banks."

"I hear the exclamation 'visionary,' " he says. "But the idea is not visionary. On the contrary, it is exceedingly practical if we will but consider the facts in the case as can be demonstrated."

"It is proposed to construct this jetty principally by the scouring action of the Labrador current, which will form a natural deposit of about three thousand to one, against and about any such obstruction as a narrow backbone of rip-rap (broken stone) to be laid easterly from Newfoundland, in the shoal water upon the Great Bank, to its easterly extremity, about two hundred miles, that will deflect the south-flowing Labrador current (as described) into an easterly one of considerable velocity, whose lower, heavier stratum will sink, when its momentum is overcome, into the deep water of the American polar current, and with it proceed, as that branch of the polar current now does, southward through its channel, the great American Valley, in the bed of the Atlantic, east of the Grand Bank, that extends from the Telegraph Plateau on the north to the torrid zone, and more than two miles beneath the Gulf Stream."

"The lighter top, fresher water, with its freight of ice and bergs, having a natural tendency to the east and north, as do all lighter strata, will not tend to lose its easterly momentum, as does its heavier stratum, but with the heavier part will meet the Gulf Stream at the end of the jetty in a parallel flow, projecting it on the north side in their easterly journey together, long after the cold saline and heavier stratum has lost its momentum and sunk, and until its ice has melted and its fresher water has been assimilated by the ocean or until it is lost in the north."

Restoring Coastal Conformation.

"It seems that the proposed jetty would be but the re-establishing of a part of the original and very recent coastal conformation of that part of Newfoundland, as appears to be indicated by the Virgin and East Rocks, and other impediments almost or upon the line of the proposed jetty."

"Excellent material and natural facilities for constructing the rip-rap core or current impediment for the jetty are at hand in the greatest abundance. Nature has provided these at great elevation, as loose strata, easily handled rock and as rock of sedimentary and other formation having the proper specific gravity, and also the water with which through proper conduits from some locations to sluice them into place for harbor and nearby construction or into large hopper barges for distant locations."

"Nature seems to favor this undertaking in nearly every way, offering by the agency of water, also provided by high elevations, in some cases to bring the rock down to the location desired by gravity, and also in every instance to quarry the rock, to transport it uphill against gravity, set it up in place just where directed in the dam better than man could. Again, by the agency of water in the form of current and wave action, quarrying and elevating rounded sand and gravel, then projecting it from the ocean depths uphill to the apex of the dam, placing it against the directing and obstructing rip-rap core, and in building the beach to high-water mark, only requiring a centre core, or, as it were, a rock fence to guide her in her task. And the deposit will be greatest during the

Winter months, when man's work will be discontinued."

Instead of meeting in the shallow water off Newfoundland as at present, both the great currents would turn eastward and their waters would mingle in the very deep sea east of the Grand Banks. The Gulf Stream would pass over the colder and heavier part of the Labrador current and bear along with it the lighter and ice-laden part. This, the engineer holds, would reverse the centre of the Gulf Stream's sweep toward the pole, giving its heat to the countries to the west and establish a steamer lane free of fogs and icebergs 400 miles further North than the present track, with a great saving in time for ships between this country and the ports of Europe.

Would Have Beneficial Effect.

The effect on the coast line of the United States would be remarkable and beneficial, Mr. Riker declares. The withdrawal of the Labrador current would stop the scouring counter currents which have taken acres of land all along the coast from New Jersey south. A reconstruction of the coast line, he says, would follow and the land that has been eaten away by the conflicting currents would be built up again by an unhampered one.

As for the effect on the inclination of the sun to the earth, the engineer says:

"It seems probable that the melting of the heavy icecap covering Greenland and other lands bordering on the polar sea, with or without such withdrawal of polar waters, would influence the inclination of the northern hemisphere more directly to the sun by reason of the greater weight of the antarctic ice-cap at the south pole, and therefore greater centrifugal force or tendency of the south pole to assume the periphery in our solar orbit and thus add materially to the heat of the northern hemisphere, producing an area of perpetual day as far south as Scotland, for a long season, with no corresponding long night."

Mr. Riker has even worked out the method he would use in building the jetty. He would have a backbone of rock 30 feet high above the bed of the ocean as narrow as can be laid. Against this the Labrador current would deposit its sand which it carries in great quantity from the north. A wall thirty feet high would cause an incline of sand a mile long on the north and half a mile on the south, and within a few months the deposit would cover the wall. When this filling was complete a second backbone would be laid, and so on till the wall was high enough to deflect the northern current and to get the deposits of sand from both streams. He would require a fleet of about twenty hopper barges which would carry the rock from the high land on the coast to the position in the sea. This work, he declares, would not be difficult, due to the position of the source of supply of the rock, and gravity would take care of much of the loading. This is the estimate of the cost:

"Nine thousand six hundred cargoes of 20,000 cubic yards each, aggregating 192,000,000 cubic yards; allowing 8,000,000 cubic yards for harbor construction, it would aggregate 200,000,000 cubic yards."

"The cost of delivering the rock into cars should not exceed 50 cents per cubic yard, for delivery into barge 10 cents per cubic yard, and for transportation by barge 15 cents per cubic yard—a total of 75 cents per cubic yard, which should include interest on investment, depreciation on plant, and executive charge, a total of \$150,000,000; cost of floating plant and entire equipment, \$45,000,000; cost of other plant and equipment, \$20,000,000. Total, \$215,000,000. Less value of second-hand material, \$25,000,000. Total actual cost, which includes all interest charges, \$190,000,000."

BIG UPTOWN PAULIST CHURCH

\$200,000 Project to Include School and Monastery Opposite Isham Park.

The Paulist Fathers are perfecting their plans to build a \$100,000 church, a school and a monastery on newly acquired property in North Manhattan. According to the announcement made yesterday by the Rt. Rev. John J. Hughes, Superior General of the order, the order had been quietly buying property for this purpose, and it was only a short time ago that the deed was signed for the last plot of ground upon which is to be erected the new group of buildings. While plans are being made for the church a temporary structure of wood will be erected at once as a place of worship. This will have a seating capacity of 1,000 persons and within a few days, it is announced, ground will be broken.

The Paulist Fathers have bought twenty-two lots opposite the new Isham Park. Their property has a frontage of 200 feet in Broadway, 200 feet in Cooper Street, and 296 feet in Isham Street. It was purchased in different lots through an agent. One plot, with a frontage in Broadway and running down Isham Street, was bought from the estate of the late William B. Isham, and it faces and is directly opposite the new park.

The proposed church will be known as the Church of the Good Shepherd. The work is in charge of the Rev. Thomas Daily, who has been appointed rector by the Superior General. It is planned to make the new church one of the most imposing Catholic churches in the city. It will be a massive granite building, built on the general lines of the great Paulist church in Fifty-ninth Street, but a more modern building.

Connected with the church will be the monastery, and separated from it and on the other end of the land will be built the school house. The school will have entrances in three streets. The school will cost \$60,000, and the monastery \$50,000.

DIES IN CAR IN TUNNEL.

Heart Disease Kills Charles W. Ball In Madison Avenue Trolley.

A southbound Madison Avenue car was passing under the Park Avenue tunnel at Fortieth Street yesterday morning when a man suddenly toppled over and fell to the floor of the car. When it reached Thirty-second Street, he was lifted out and an ambulance sent for. A doctor from Bellevue Hospital said he had died from heart disease. From cards and papers found in his clothing, he was identified as Charles W. Ball, a traveling salesman of Westport, Conn.

Coroner's Physician Weston later in the day issued a permit to members of the Knights of Pythias to remove the body to the National Casket Company's rooms in Great Jones Street. It was learned there that the body was to be embalmed and shipped to relatives at Westport, but particulars as to the man's further identity were not forthcoming. Members of the Knights of Pythias, when questioned, denied knowing anything about the man.