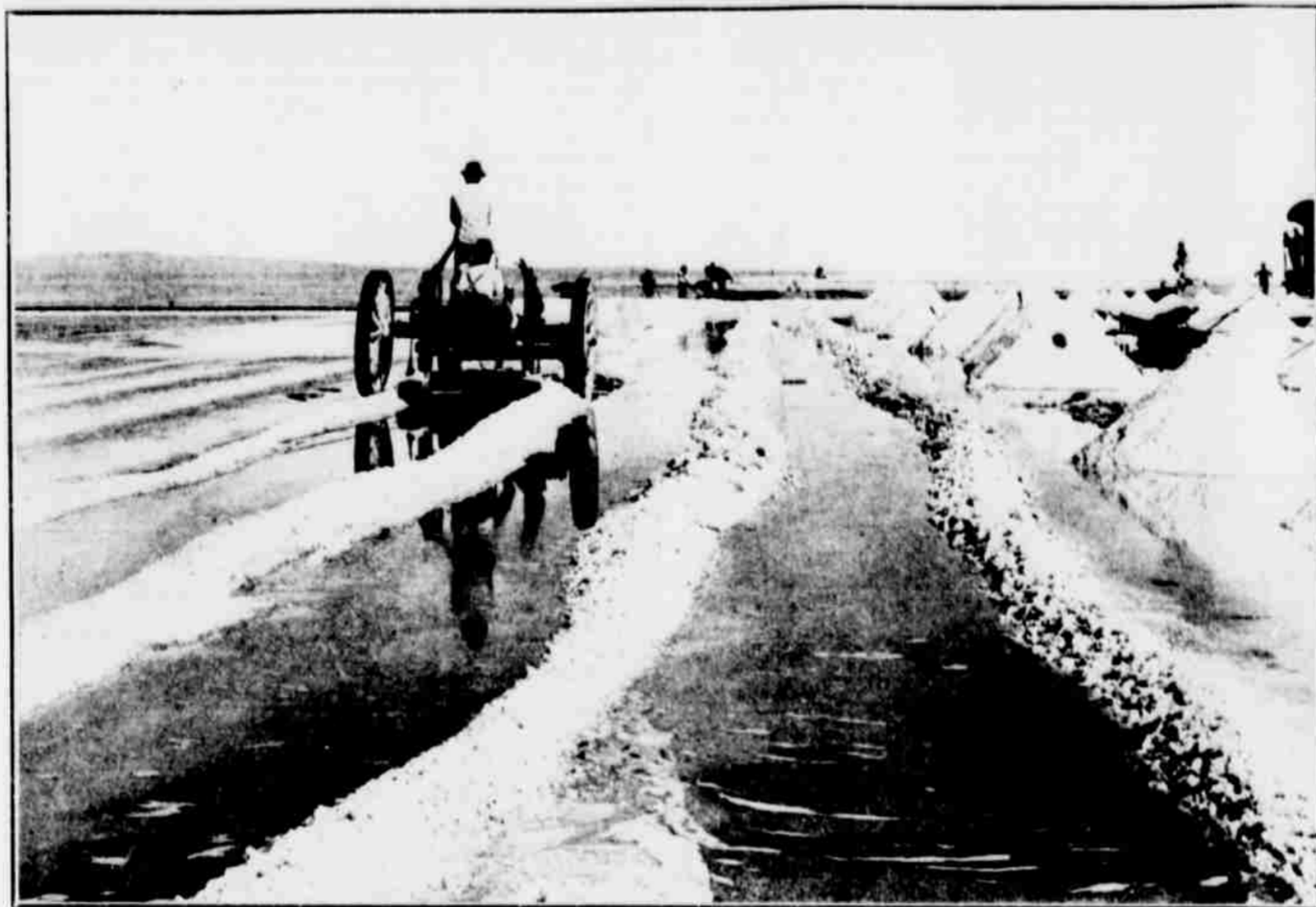


# Salt Field of the Southwest Left by a Flood

ONE OF the most curious pieces of real estate in existence is now the subject of a suit brought by the government to recover the property. It is a salt farm—1,000 acres of solid salt, which is plowed and hoed and hilled up like so much earth. It lies in a depression, 264 feet below the level of the sea, in the midst of the great Colorado desert, just north of the Mexican line in the state of California, and the town which has grown up on its border takes its name, Salton, from the crystal deposit.

For many years salt has been taken from this district, but on a small scale. In 1892 a temporary stoppage was put to the local industry by the overflow of the Colorado river, forming what was known as the Salton sea. In time the water receded, evaporation followed, and there was left a residuum of almost pure crystal salt, a vista of unimaginable and almost unbearable brilliance and beauty. From a distance the effect was that of a sheet of the purest snow, glittering in the sunlight; but when the first explorers ventured upon the newly formed crust they were unable to endure for long the fierce refraction of the light, and fled blindly with aching eyeballs from that insufferable radiance. Equipped with colored glasses they returned and soon a company was working the richest salt crystal field in existence.

All that was necessary was to plow out the salt and grind it up. A salt plow was devised and built. It has four wheels and a heavy and powerful steel beak, or breaker, and the motive power is steam. Then a grinding mill and drying plant was put up, a dummy line run up to connect with the Southern Pacific railroad, and the work of taking out five and a half tons daily at from \$6 to \$35 a ton began. The great difficulty, however, was to get labor. Probably nowhere else on the earth's surface do men work under such terrific conditions of temperature as at the Salton salt farm. The normal heat of the Colorado desert, which is such that few white men can live in that region, is enormously increased by the refracted and reflected rays of the sun. For weeks at a time the temperature of the field reaches 140 degrees every day. Under these conditions, of course, no white man can work. The salt plowing is done by Japanese and Indians, mainly the latter,



GATHERING THE SALT ON THE GREAT SALT FIELD.

who seem to endure the rigors of the climate without evil effects. To watch the steady, stoic performance of the red-skinned toiler as he hoes, shovels and scrapes the field, or operates the engine that propels the plow, is to appreciate the qualities of the Indian as a worker under the most trying conditions. Some of the Indian laborers even work without glasses; but all the Japs protect their eyes from the baneful glare

with the darkest of spectacles, and even so they are often laid off with optic inflammation. In addition to the other discomforts of the salt fields the flying particles generate a peculiarly irritating and persistent thirst. The workers drink great quantities of water, and this serves as a safeguard against sunstroke, as it keeps them perspiring freely.

The deposit of salt varies in thickness

from one to eight inches. It forms in a crust and the plow breaks this salt covering by throwing a broad but shallow furrow of salt lumps up in parallel ridges on either side of the machine. Here and there underlying the crystal plain are springs of water. When the crust is broken the springs seep forth their dirty, brackish water and the Indian lads follow the plow with hoe in hand, knocking to and fro the

clumps of salt and mud in this water, until the earth is dissolved and then the crystal salt is stacked in conical pyramids to await transportation to the mill.

The salt crystals do not dissolve during the washing, doubtless on account of the quantity of saline already in the water. No sooner has the plow gone over the field than the crust begins to form again; therefore it would seem that the salt fields of Salton are inexhaustible. The salt is allowed to remain in the pyramids until complete evaporation of all water takes place, when it is transferred to the flats and carried to the mills at Salton. The factory is a structure about 600 feet in length and consists of a milling and drying plant. When the salt arrives at the mill it is thrown into a bulkhead breaker and reduced to uniform particles, which are run through a burr mill and thoroughly ground. There is an almost imperceptible portion of carbonate of soda mixed with the native salt and this simply aids in the cleansing process. When thoroughly ground the salt is sifted like flour through bolting cloth, put through an aspirator, which removes all foreign substances and is then ready to sack. Aside from the refined or domestic salt there are tons and tons of hide salt shipped annually from Salton. This grade is only sold for commercial and industrial purposes.

The most delightful time to visit the crystal lake is upon a moonlight night. The spectacle is magnificent, but weird. The rows of glistening pyramids, the glitter of the moonlight from the facets of millions of crystals, the distant background of low, black hills, the expanse and stillness of the shadowless plain, strike one with awe and wonder that can never be forgotten.

Last December the United States land office unearthed some records which seemed to indicate that the salt farming company had no right or title to the valuable property it is now working. Owing to the peculiar geographical conditions consequent upon the overflow of the river forming the Salton sea and the subsequent subsidence and disappearance of the sea, the legal points involved are quite intricate. The case will probably come up soon for adjudication. A. S. C. FORBES.



PARTIAL VIEW OF THE GRAND STAND DURING A RACE AT THE STATE FAIR AT LINCOLN—Photographed by a Staff Artist.

## How the America's Cup Has Been Defended

(Copyright, 1899, by William E. Simmons.) IN VIEW of the effort and money expended in recent years on the defense of the America's cup, it seems strange that in the earlier contests for the trophy no one should have deemed it expedient to build a yacht for the specific purpose of beating the challenger.

The famous schooner America, which so soundly beat the British boats in the first of the international races, was not built as a racing yacht. Even as late as thirty years ago yachts were not specially built to defend the cup; yet the American yachtsmen of those days were lacking in neither enthusiasm, enterprise nor means. Perhaps they rested secure in the conviction of the all-around superiority of American yachts; perhaps, again, it was confidence in numbers, for in the first match for the cup sailed in American water the New York Yacht club pitted its entire fleet of schooners against the challenger, Mr. James Ashbury's "Cambria," and many of the twenty-five Yankees beat the British boat badly. This race was notable in yachting annals chiefly for the reappearance of the original cup winner, America, which, after twenty years of a varied career as a trader, a blockade runner and a training vessel of the navy, was put in racing trim at a cost of \$25,000, and finished in fourth place. This was really the first step taken in the direction of building a cup defender.

Mr. Ashbury challenged for the following year, 1871, but objected to the principle of defense en masse, stipulated for seven races instead of one, and insisted on racing against a single defender. While apparently acceding to his terms, the committee designated four schooners to appear at the line each day, from which a defender could be chosen according to the nature of the weather. His objection to that proceeding was regarded as little short of impertinence; an acrimonious controversy followed and he retired from international yachting forever. His death in London, in comparative obscurity and poverty, was announced on the morning of September 10, 1895, the day of the second race between the Defender and Valkyrie III; a race that produced another controversy even more lengthy and acrimonious.

In the third and last schooner race for the cup in 1876 a single defender was required by the terms of the challenge, and the Madeleine was named to meet the Countess of Dufferin. General Benjamin Butler sailed the America in a leeward race and beat the Madeleine to windward, but was beaten on the run home. He, however, beat the challenger by nearly half an hour.

The first boat built for a defender was the sloop Pocahontas. In 1881 the Bay of Quinte Yacht club (Canada) challenged for the sloop Atalanta, about eighty feet on the water line. The flag officers of the New

York Yacht club, Commodore "Jack" Waller, Vice Commodore James D. Smith and Rear Commodore Herman Oelrichs, employed a rule-of-thumb designer, a man of skill, but not of scientific training, named Kirby, who had built the Madeleine and the fifty-foot sloop Arrow, which beat everything in its class, to build the Pocahontas on the lines of the latter. But the Pocahontas was a flat failure. The Gracie and the Mischief beat it on every point of sailing. The latter was chosen to defend the cup, but the selection was criticised because its owner was an Englishman and the Gracie was believed to be the better boat. The owners of the Gracie, Charles R. Flint and Joseph P. Earle, put it in the contest, and, sailing a leeward race, beat the Mischief handsomely in the first encounter, the Atalanta being almost out of sight astern.

The pitiable failure of the Atalanta warranted the authorities of the New York Yacht club in protecting themselves from any further fiascos from that quarter. The cup was accordingly returned to Mr. George L. Schuyler, the surviving donor, who re-committed it with an amended deed of gift, restricting the right of challenge to yacht clubs located on or near the ocean.

The challenge of the Genesta brought forth two new cup defender candidates in 1885. The Priscilla, an iron boat, was built from A. Cary Smith's designs for Commodore James Gordon Bennett and Vice Com-

modore William P. Douglas of the New York Yacht club. The Puritan, a wooden boat and a radical departure from the existing type, was built by Edward Burgess, then unknown outside of Boston, for Commodore J. Malcolm Forbes, General Charles J. Paine and others of the Eastern Yacht club. The Puritan came in for lively criticism from New York yachtsmen when it joined the club's cruise at New London and the run to Newport next day seemed to show that the Priscilla was the better boat. Two days later, however, the Puritan showed its heels and proved its fitness for the post of honor.

Mr. Beaver-Webb, the designer of the Genesta, and the latter's skipper, Captain Carter, watched this race from the bridge of the flagship. At one of the most exciting stages of the contest the skipper was seen to whisper something to the designer. After the match had been decided Mr. Beaver-Webb was asked one night at the New York Yacht club by one who had noticed the occurrence what Captain Carter had said. The designer replied with a faint smile: "He said he wished the tree that furnished the timbers for the Puritan had never grown."

General Paine built the Mayflower in 1886 from Burgess' designs to meet the Galatea, and another and last attempt was made with the rule-of-thumb model. Latham A. Fish and other members of the Atlantic

Yacht club built the Atlantic from designs by "Phil" Elsworth, who had designed the schooner Comet and other fast yachts. The Mayflower completely outclassed its rival and forever relegated the old type racing models to obscurity.

It has been generally supposed that the Volunteer, built in 1887, was a distinctively Burgess boat, but Mr. Burgess has told the writer that she was as much General Paine's design as his. She was of steel and the first metal boat, built for the specific purpose, selected to defend the cup. The Mayflower was no match for her, nor was that year's challenger, the Thistle. Before the start of the first race the Thistle capered about the line with the impetuosity of a race horse, while the Volunteer moved like a beast of burden. A wail of disappointment escaped from the anxious spectators. "What's the matter with the Volunteer?" asked an alarmed patriot of his companion. "She is tied down," replied the latter. "Don't you see her head sails are trimmed to windward?" When the start was given her sheets were trimmed properly and she bounded away from the Thistle as if the latter were anchored. After the race Mr. Bill, the managing owner of the Thistle, naively said to a reporter that he could not account for the

(Continued on Seventh Page.)