

Making Millions Out of Sea Sand

A GOOD sand bank for mine," said the Long Islander, as he looked down into the 100-foot pit, where a score of men were shoveling the golden earth into carts, "and the dickens take the gold mines."

Long Islanders who live along the sound have been firm in the belief that a sand bank beats "color" as a moneymaker ever since a shrewd Quaker restored the fortunes of his family by digging up the dune on the seafloor of his farm, loading it on barges and sending it to New York, to be used for building purposes. That was the inception of a systematic sea sand industry that has brought riches to hundreds of men and especially to the numerous descendants of many of the first white owners of the land. It was likewise the opening up of America's biggest sand field and the beginning of the end of the effort to supply New York's demand for sand by digging it up along the beaches around Coney Island and in upper New Jersey.

The original settlers on Manhasset Neck, where sea sand fortunes were first made, and around Hempstead Harbor, where numerous sand banks are now being worked with as much method as is a gold mine, and which have netted their owners approximately \$3,000,000 within the last six years, were Quakers. The Quakers invariably portion their property equally among their children. Vast farming tracts had thus become divided into small farms or mere garden patches fifteen years ago and many an owner of a few acres of land was having a hard time making a living.

Among the number was the man who started the sand industry. He had a large family, two of the children were all but ready to go to college and he had not the money to send them; his farm furnished just enough to keep him and his supplied with the necessities.

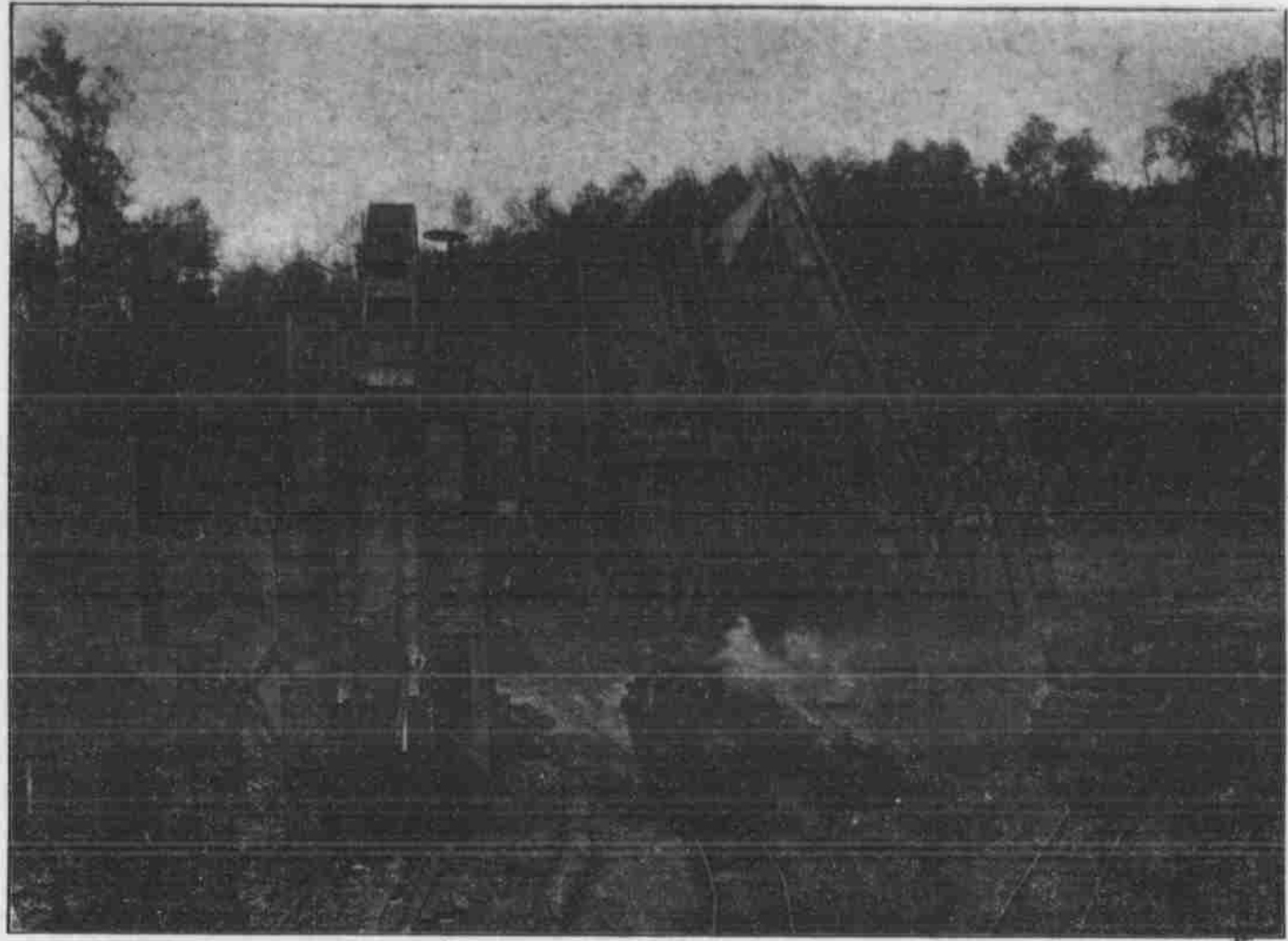
In the midst of his anxiety over his children's future he thought of the sand hill at the sea end of his property. Then it occurred to him that sand is used for building purposes. "The very thing," he said, "I'll get that sand to New York somehow and the money that it brings shall educate my children."

It did more. It made the man wealthy. He left a will that gave to each of his offspring an inheritance worth not a few thousands of dollars.

The sand bank region is full of similar cases. There is the story of the manufacturer who failed and had left only his ancestor's farm, the pride of his heart, and that was heavily mortgaged and in danger of being taken from him. He pocketed his pride, sought out the two men who had been trying to buy the sea end of the farm for a sand bank and sold them fifty acres for \$1,000 an acre and a small, but profitable, share in the business. For farming purposes the land was hardly worth \$20 an acre. Now the man has paid off all his old indebtedness and is rapidly accumulating another fortune, although it has been only four years since he met financial disaster.

This man's rise and that of many others to wealth through sand are invariably told to the visitor in such towns as Roslyn and Port Washington in this fashion:

"See that man over there? Four years ago he was as poor as Job's turkey. Now



VIEW OF A SAND PIT, SHOWING THE SCREENS, RAILWAY TRACKS AND OTHER METHODS OF MINING.

and that looks askance upon the neighbor who will permit such desecration for material gain. It was this attitude on the part of land owners that six years ago caused the sand industry to shift from Manhasset Neck to Hempstead Harbor.

This shift gave rise to a systematic and scientific sand industry. The banks on Manhasset were worked in a primitive way. The sand, with no attempt to separate it from gravel and loam and other extraneous substances, was worked by hand, loaded into carts and dumped on to barges drawn up at the end of a rickety pier leading from the pit. Then it was towed to New York, where it found a ready market, and later on was screened by hand, in front of some building under construction, just before it became a component part of the plaster being mixed in a mortar bed.

The sand is still towed to the metropolis—15,000 tons, or 32,000,000 pounds, of it daily—but that is the only part of the old method that still generally obtains. A few spades and carts are no longer all that is necessary to get out the sand; their place has been taken by a mechanical plant that represents an investment of all the way from a few thousand to many thousands of dollars. This radical change was caused by one sand bank owner's believing

of cups, filled by hand and steam shovels, and various means of transporting the products—fine and rough sand and gravel—to the barges anchored by the pier. Sometimes this is done by carts; again toy locomotives and cars puff from screen to washer and steam shovels for freight and then pull out over the barges and free themselves of their burden. But one firm has gone a step further—it hauls its sand by trolley and in this way loads between ten and twelve barges a day.

This is by far the largest sand bank on Long Island and one of the biggest in America. The bank itself consists of nearly 500 acres, bought at prices varying from \$1,000 to \$1,500 an acre, and the plant is so large that the great pit, which begins almost at the water's edge, extends back a fourth of a mile and is nearly a third of a mile at its widest part, is not capable of holding it all, three buildings having their foundations in the bottom of Hempstead harbor.

At this plant the sand is not only screened and washed free of loam and other foreign substances, but it is dried. An endless belt carries a steady stream of sand high over the shore road into one of the buildings out over the water and on to a red-hot metal surface, which evaporates the moisture in the very few seconds it takes the sand to travel over it and fall down a

The foremen are usually Swedes and the men under them always Italians. They find pretty steady employment all the year around. Bad weather and holidays cause the only interruptions. Building strikes have no terrors for them or their employers, for if the sand is not wanted for consumption in the nearest market—New York and the suburbs—it finds ready sale in Philadelphia, Boston and other eastern cities.

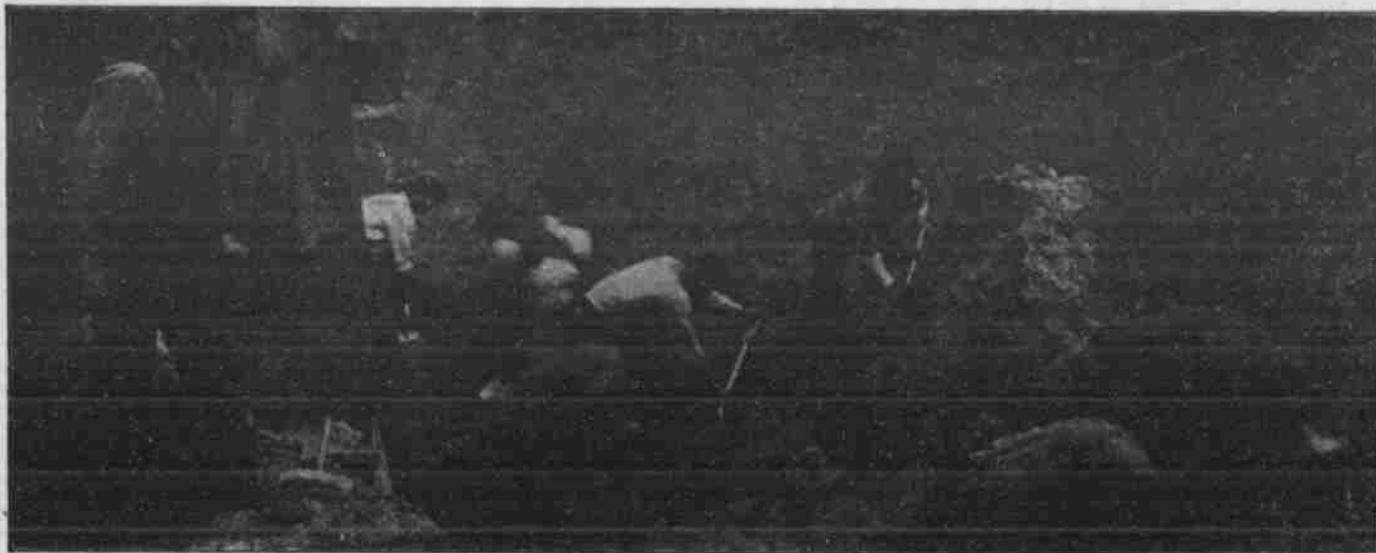
As a result the amount of sand taken out of a pit in a year is staggering. The average daily output of a bank employing forty men is 1,000 or 1,500 tons. That means a yearly output of some 300,000 tons or 600,000,000 pounds of sand. And as 1,500 tons yields a profit of \$100, a bank producing that amount daily clears to its owners something like \$30,000 a year on 450,000 tons.

According to the sand bank owner who furnished these figures, 15,000 tons of Hempstead Harbor sand are marketed in New York nearly every working day by a dozen or so sand banks. Roughly estimated, that gives 4,500,000 tons a year, the net profit on which reaches close to \$400,000.

No wonder that the Long Islander, as he stands on the hill at the head of Hempstead Harbor and beholds the sand banks on both sides and the piers leading from them to deep water, exclaims:

"A good sand bank for mine, and the dickens take the gold mines."

THOMAS G. CLAYTON.



MEN FEEDING SAND TO THE SCREEN.

he owes that big place yonder and heaps besides. Sand did it.

"Morning, Mr. Hicks. He's another one of 'em. Turned his farm into a sand pit and tells me that he and the men who are in with him are making \$100 a day clear money. 'Tisn't so long ago since he was wondering where his next dollar would come from."

And so it goes, until the visitor wonders how anyone in the sand bank country has escaped making his "pile" out of sand. But not a few who could have sedulously refrained from doing so. In the language of the Swedish foreman of one of the sand banks, "it's their funny ideas about ancestors that keep them poor." There's many an old Long Island family that will not sell its ancestral home for love or money, no matter how much it needs the latter,

that he could get the better portion of the sand trade by sending his sand to market all ready for use. And by this scheme he got it and kept it, until his rivals were able to put machinery in operation that also made it possible for them to supply clean sand to customers.

A typical sand bank plant looks like nothing so much as the exterior works of an anthracite coal mine, only the structures, instead of crowning an elevation, are on the floor of the pit, the semi-circular wall of which not infrequently towers 100 feet above. The washer is largely responsible for this similarity in appearance. It is built on the same general plan as a coal breaker, has the latter's ample proportions, and is pyramidal and towers like it.

In addition to the washer each pit has one or more screens fed by an endless chain

hopper into a canal boat. Then when the boat is filled the hatches are banded down and five hours later the sand is delivered, perfectly dry, to the wharf of the New York consignee.

An innovation at another sand bank is a centrifugal machine that blows up tons of sand in a day into screens and the washer, and that does away with a great portion of the hand labor that is necessarily required where even steam shovels and steam railroads and trolley systems are employed. At the average Hempstead Harbor sand bank forty men find work, and at least one bank has a pay roll that contains over 300 names.

Scarcely any of the employes of the sand banks are native Long Islanders. From the beginning, despite offers of good pay, they have steadfastly refused to work in them.

Bonded Not to Marry

"I hereby declare that I will not get married during the term for which I am hired to teach this school. Failing to keep this provision, I hereby agree to forfeit the sum of \$50."

This is the contract that young women teachers of prepossessing appearance may be called on to execute to local boards of education throughout the interior of Illinois.

Cupid is responsible for this new turn of affairs among the female teachers of that state. It is claimed that many of them are sending in their resignations, most of them to enable them to get married, that the directors find it advisable to be guaranteed against loss, for it is a matter of some expense to the school district to hire a new teacher, even if they can get one. At Dixon the other day two teachers resigned in one day, and at Lake Geneva and other places there are similar vacancies. In hiring a teacher nowadays one of the desiderabilia is to find out how long she wants to work.

Her Retort

He was explaining why he didn't get home until an early morning hour.

"The fact is," he said, "an old college chum—a stranger in the city—came to the office, and I felt as if I ought to entertain him a little—"

"Oh, it was charity!" she interrupted.

"Why, yes," he returned, brightening at the suggestion, "you might call it charity to spend a little time and money on a lonesome—"

"But charity," she interrupted again, "begins at home."

Then he gave up the explanation business.