

# Tequesta: THE JOURNAL OF THE HISTORICAL ASSOCIATION OF SOUTHERN FLORIDA

*Editor: Charlton W. Tebeau*

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# Tequesta

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## Pirates and Treasure Trove of South Florida

DAVID O. TRUE

The history of piracy in America had its roots in Hakluyt's compilation of the "Principall Navigations, Voiages and Discoveries of the English Nation" in 1589. Almost one hundred years later, in 1678, Esquemeling's classic "Bucaniers of America" was printed in Dutch. It was received with a flood of enthusiasm, being translated into Spanish, French and English. In England it was the best seller of its times, and it was issued in tides of editions and additions. Not since then has there been a better account written of the doughty Henry Morgan, his butchering contemporaries or their bloody cohorts, than was so indelibly inscribed by this erudite Dutchman who 'went a piriting' with them. In 1724 Capt. Chas. Johnson issued his "History of the Pyrates," another monumental work on the latter day champions of individualism, and by many it is regarded as the greatest of all pirate books.

In the early years of piracy, the Spanish treasure fleets sailed by way of the Windward Passage east of Cuba or the Old Bahama Channel along its north coast. But the English occupancy of Jamaica and the French pirates at Tortuga made these routes too dangerous. The golden argosies, making up at Havana, coasted along with the Gulf Stream in the New Bahama Channel, flanking the east coast of Florida. Thus these ships became doubly vulnerable to depredations from bases on this peninsula. First when sailing in "the great arc" along the north coast of the Gulf of Mexico the "Flota" made its way from Vera Cruz to Havana, when the west coast pirates took toll. Again, when the almost unmanageable, but gorgeous galleons wallowed, drifted and sailed toward the north tip of the Bahamas, the east coast pirates had opportunity to assault them once more. The Spanish held St. Augustine, Pensacola, St. Marks, and some other small centers, but the few sorties

that they made toward the suppression of piracy were totally ineffective. Florida became a great golden horseshoe, from which pirates operated almost at will, cutting out rich galleons and snuggling down in the recesses of her coves, bays and rivers. Nature, too, took sides in the unequal struggle; many great fleets of Spain were caught in hurricanes and tossed to their doom on our reefs and shores. There was no Esquemeling or Dampier to record the exploits of these early years. We find an account here and there in Spanish records, and piece the picture from other information that we glean much as an archaeologist unfolds the forgotten past. The towns of Florida were more apt to be sites of poverty, and too often of starvation, not of riches, and there was no glamour where there was no loot. In respect to the period beginning a century and a half ago, history has been treated more generously and we know, sometimes in detail, what the pirates of those days were like.

Under the waters of Choctawhatchee Bay are the wrecks of a dozen pirate ships, some dating after the American occupation, and culminating with the glamorous story of Billy "Bowlegs" Rogers and his millions. Farther down the coast, near Apalachicola, is a place on the Costal Highway where the sign reads "Money Bayou." Here it is recorded, the pirate Copeland in late years buried money in three kegs, which were duly discovered according to directions on the chart, but disappeared into the quick sands when disturbed. Up the river from Apalachicola is another kind of treasure, the sunken steamer "Alice," which went down with 300 barrels of whiskey on board, worth somewhere between \$300,000 and \$600,000. She lies under twenty-eight feet of accumulated clay and sand, and a well known diver has twice made his way down to the hull, and vows that he will get the cargo next time.

Near St. Marks, I am told, the pirate Lewis Leland made his headquarters. Along the northwest coast are five different headstones, bearing his name and date of birth and death, and each was a marker for a treasure that he had buried. He had the happy habit of "marooning" large numbers of his crew, so it is not too surprising that he passed in his chips with a knife in his back.

Farther south along the shore are the Anclote Keys, one of the few names according to Mr. Marchman that have come down to us unchanged. These keys were the home of a nest of pirates sufficiently strong to capture Ft. St. Marks, as detailed by Dr. Boyd of Tallahassee.\*

Charlotte Harbor was the home of numerous pirates, the best known of whom was Gasparilla, to whom Tampa owes so much of her fame and

\* "The Fortifications of San Marcos de Apalache," a pamphlet reprinted from the *Florida Historical Society Quarterly*, Vol. XV, No. 1, 1936.

glory. According to charts, the treasures that he and his men buried are to be found on various islands in the bay and at some places on the adjoining mainland.

On Sanibel Island, Black Caesar spent a last couple of years, after leaving Biscayne Bay and before having his career ended for him at Key West.

Just north of Miami, near the little town of Ojus, a couple of pirates, famous two centuries ago, careened their ships and made their headquarters on Snake Creek, then known as Rattlesnake Creek.

Farther north along the coast, numerous inlets provided shelter to various purveyors of misery and misfortune, all the way to Amelia Island and one time sleepy Fernandina, whose history alone would fill a modest volume.

All the books that contain any worth while data on piracy in Florida would constitute a very scant private library. Those that tell us about our own small corner of the state are very few.

There are the Spanish and the English "Cotejas," pertaining to the wrecks, and containing acrimonious accusations in both languages. "Flight into Oblivion" by Prof. J. A. Hanna of Rollins College, details an engagement between the fleeing General Breckinridge and pirates occupying Ft. Dallas, in what is now the downtown area of Miami. Dau's "Florida, Old and New" and two of Verrill's books, "They Found Gold" and "Romantic & Historic Florida" contain some accounts of interest. Both authors mention the plate fleet that went down near Carysfort, and from the lucidity of one relation, the author must have been on at least one of the wrecked ships as she was battered to pieces on the reefs amid spume and spray. Residents of Miami will be delighted to read the story of the colored man who dug up a treasure chest and purchased a large interest in one of our principal department stores with the proceeds. Those of us who heed current gossip will recognize both the individual and the estate on which the iron bound chest was located.

Both authors, too, relate the loss of the *Santa Margarita*, the site of which they place near Palm Beach. This was one of the world's fabulously rich ships, and there is hardly a book regarding treasure that does not mention her. Various writers and salvage experts have placed the wreck all the way from Palm Beach to the Mona Passage. A deep sea diver, repairing a cable to Cuba during the Spanish American War, announced that he had found this wreck, and a ship was especially fitted

out to salvage its millions. Only some souvenirs were found, the salvage ship was wrecked and a book was written about the venture. If a writer can place a deep sea cable at Palm Beach or near there, I see no reason why he cannot place the galleon there too! One of the earliest works that I have is a copy of a small pamphlet of a dozen pages, printed in Havana in 1622. It tells of the wrecking of the *Santa Margarita*, together with the flagship of the plate fleet, off Matacumbe. Miraculously, many of the passengers and crew escaped.

Another book that is admittedly fiction is "Coral Ship" by Kirk Munroe. Any boy of sixty or so can light his pipe and get one more thrill by reading this fascinating yarn spun around a treasure ship of Black Caesar's era, located on one of the keys of Biscayne Bay.

One more book, the "Commodore's Story," by Munroe and Gilpin, should be read by every resident of South Florida. It contains an inimitable history of early beginnings of Coconut Grove and Miami. Mention is made of Black Caesar and Parson Jones. There is one short chapter devoted to local treasures, including the find of Ned Pent, also the "Silver Ship" at New River.

On page 301, we read as follows: "Wide interest was excited in the early days of the Bay by a report that 'old man Brown', beachcomber, had found a fortune. He was an early settler who had a small and solitary house on New River Sound, not far from the south end. Walking the beach after a severe hurricane he found two bars of metal exposed by the cutting away of the sand, which he took to be lead. Shortly after, in Key West, he sold them as lead, and very soon after heard that they were really silver! Hastening back to New River, he found that the surf had already covered the spot with sand so deeply that he could find nothing more.

For many years there were frequent attempts to find the timbers of this wreck again, without success. Every spring the boys—Dick Carney, Harry Peacock and others—would go to New River turtling, making a grand lark of the affair, and staying a month or more. There was a small canal, cut during the Seminole War, between New River and Hillsboro, by which they could go quite near to Hillsboro Rocks, where Brown was said to have picked up his bars, and of course a considerable amount of the turtlers' time was spent in that neighborhood! At last Jennings—a Carolinian, who had started an extensive planting of tomatoes, with contract labor, south of Coconut Grove—became so much interested in this quest that he offered to finance a more carefully planned effort.

A company was formed and incorporated in order to insure exclusive right to what might be found, and for a few shares of stock the Commodore designed a caisson whereby the wreck might be uncovered when found. The whole affair got into the papers, with a solid page in the New York Sunday 'Herald', which rather annoyed Jennings. The Commodore told him, jokingly, that this was a 'wonderful opportunity. Nothing attracts the public as much as a treasure, and if you were mean enough you could make a fortune by selling this stock.' He took it half seriously, and answered with great indignation, 'Well, I might be a gambler and a blackleg—but I wouldn't do that', and the Commodore could only answer heartily, 'Bully for you'.

They went at the search with determination, eventually got on the timbers of the wreck, and actually found some curiosities and a few coins, but never recovered anything of substantial value. In the course of the search they discovered the remains of an old privateer, surrounded by cast-iron guns. Several of these were recovered, and mounted as decorations in the lakefront sea-wall of the Clarke property at Palm Beach, which now occupies the site of "Cap" Dimmick's old hotel, the Coconut Grove House."

I have talked with some of the men who camped on the sand ridge about nine miles north of Ft. Lauderdale, where this treasure ship had been driven ashore in a hurricane. Some of the group who worked on the wreck, said that a stranger with a chart had stopped with a local judge. He told that thirteen sailors had survived the storm, had packed gold about their persons and started trudging north along the beach. Their burdens became too heavy, so they buried this money about four miles north of the wreck, and almost every year someone does a lot of heavy digging around Boca Raton. All but one of these men were killed by Indians, and the one who escaped gave the chart to the man who brought it to Miami. A local group put up enough money to purchase a diving outfit, in which one of the men explored the ship, finding that the silver bars had corroded into a solid mass that they were unable to break up. They placed a half stick of dynamite on it, and it all sank out of sight; so they gave up. All but the persistent man who had done the diving. He sold off his real estate, hired salvaging equipment at Jacksonville, and without anyone knowing about it except the hired crew, he took up all the silver. Then he went to New York City, where he joined an exclusive club and bought a membership on the New York Stock Exchange; a man of means, even in that part of the world. Finally, a local resident firmly anchored his ship with the stern against the old hulk, and let the

propeller wash her out. Some dozens of wine jars were broken to bits, and the captain told me that he had been advised later that these had contained gold ore, and that he had washed a fortune into the sands along side.

Since the earliest dates of Florida history there have been recorded the wrecking of ships along our south coast. During the first century after its discovery, Indians salvaged valuables from the wrecks, and murdered various of the survivors. Private wreckers came from Cuba and found their salvaging adventures so profitable that the Governor of Cuba wrote to His Majesty suggesting that the government take a hand in the recoveries. It was not until 1714 that one of the events of greatest importance in our region took place; the wrecking of a whole plate fleet, except one vessel, on Carysfort Reef. This one ship brought back the sad tidings that thirteen others had been lost, some of them great galleons, loaded with silver from Peru, gold from South America and the Philippines, silks from China, and spices and dyes from the Indies. Also, nearly all the passengers and crews had been lost. Almost no time was lost in bringing divers and diving bells from Spain to begin "fishing" on the wrecks. The pirates of Florida, from Providence across the channel, and even from Jamaica, swarmed like vultures on the reef. Within two years the thrifty Governor Spotswood of Virginia had dispatched a ship, the "Virgin" of Virginia, to hunt up the wrecks and take a hand. Incidentally, and unfortunately for the "Virgin," she met up with a Spanish Man of War within a couple of days out, and was promptly escorted to Puerto Rico. Just ten years later Capt. Chas. Johnson, already mentioned in the Introduction to this book, tells of these wrecks in this fashion.:

"It was about two years before, that the Spanish Galleons, or Plate Fleet, had been cast away in the Gulf of Florida; and several Vessels from Havana, were at work, with diving Engines, to fish up the Silver that was on board the Galleons.

The Spaniards had recovered some Millions of Pieces of Eight, and had carried it all to Havana; but they had present about 350,000 Pieces of Eight in Silver, then upon the Spot, and were daily taking up more. In the meantime, two ships, and three Sloops, fitted out from Jamaica, Barbadoes, etc., under Captain Henry Jennings, sail'd to the Gulf, and found the Spaniards there upon the Wreck; the Money before spoken of, was left on Shore, deposited in a Storehouse, under the government of two Commissaries, and a Guard of about 60 Soldiers.

The Rovers came directly upon the place, bringing their little Fleet to an Anchor, and in a Word, landing 300 Men, they attack'd the Guard, who immediately ran away; and thus they seized the Treasure, which they carried off, making the best of their way to Jamaica."

Thus was the art of highjacking introduced to Florida not far from Miami's own door steps. And not so far either from Key West, which spawned those hardy acquisitive wreckers of a century later. Off Key Largo the pirates assembled a whole fleet to do their own salvaging on these wrecks; all were under the direction of this same Henry Jennings.

It was just a little north of this that Black Caesar had his base of operations until he was driven out by fear, leaving so suddenly that part of his men were still at sea when a pilot guided him to the West coast. Since he is sort of "home folks," we regard him with more than ordinary interest. Many years ago, a colored preacher reached Miami, coming from the Carolinas, according to Munroe and Gilpin. He confided to Dr. Gifford that he had brought with him a chart to some treasure locations, probably Caesar's, and had made recovery of three out of four locations. At the meeting of the State Society at the Biltmore Hotel, there was displayed a chart of Black Caesar's treasure location. It was loaned by Miss Marie Cappick of Key West, who has a wealth of treasure lore. From another source, I quote as follows: "Caesar was an escaped negro slave, half Scotch from his father and a negro mother. Escaped and joined the pirates, and worked himself up. He moved to San Carlos Bay on the west coast when settlers began to settle along the east coast. Was finally whipped and captured and taken to Key West by U. S. Sailors where he was burned to death tied to a tree, fire lit by widow of the preacher from Baltimore whose eyes he had burned out and who engineered his capture on Sanibel Island. When he moved he took his treasures except the 26 tons of silver which he did not care much about—Caesar got the silver bars on a ship 800 miles east of Cuba and sailed the ship to Caesar's Creek, took off the silver and let the old merchant ship pile up on the reef or rocks north of the creek where it was destroyed by a storm."

I have further data, but it involves treasure on Sanibel Island, and with gas rationing, it might not be wholly fair to tell of the fabulous treasure which is at present so far away.\*\*

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\*\*Note: This article was written and read at a meeting of the Association during the era of restrictions.

But there have been times when residents of Miami took an interest in ventures beyond walking distance. One of the first radio detectors was brought into this country by a local syndicate. The instrument was brought in by plane from Panama. When I was in Pensacola I heard of the locations around that section, known to the son of a man to whom the charts had been given. This man had left Pensacola and lived in Dania, and he had a number of locations. Near Camp Walton there is a huge oak which directs one to a chest at Spanish Cove. In a near bayou is a ship, directions to which are markings on trees along the shore. And in another bayou, according to charts, were seven great concrete boxes, in which were the millions captured from seven plate fleets of Spain. There were some fifty "expeditions" all told, that at one time or another took a hand in investigating the locations on Choctawhatchee Bay, and a list of the men who went there from Miami would constitute a blue book of the business and professional men of the city.

One may add, in a whisper, that the land on which the famous Suwanee River treasure is supposed to be located, is owned by Miamians, and for twenty-five years or so, other Miamians have been some of the "also present" who have donated money, hope and exertion on this story-book treasure. Others have sought in vain along the St. Johns River near Green Cove Springs; have uncovered an old English ship off Soldier's Key, and a fellow member of our society has told of uncovering another old ship, as detailed in the National Geographic Magazine.

Before the lighthouse at Carysfort had been constructed, a light ship had been anchored there. The Captain of the lightship had a small garden on shore and had built a wharf. He is also said to have had buried in his garden some 1600 or 16,000 gold doubloons. One day he was ashore with two or three other white men, when they were attacked by Indians, and the Captain was killed. Since then there have been many searching for his hidden horde, but it has never been found.

Many years ago a Spanish ship was driven on shore at Duck Key, and all but one of the crew were lost in the storm. The son of this survivor told my friend of the approximate location, but he had not been able to locate the money, which his father had salvaged from the wrecked ship.

On Oct. 20, 1940, an announcement was made in a local paper that a group of leading attorneys, with Mr. Harry Gwinn, were on a trip to Key West to hunt for treasure. A party, of which I was a member, had been to this location a short time previously. Our guide had lived in Key West, and when about ten years old, at play, found a round piece of

leather, sewn like a ball, and within it was a written description. It was dated 1876, and stated that on a certain "hill" on Boca Chica "the treasure of Pirate Demons was buried." It gave explicit enough directions from a certain marked tree. Our train from Miami obligingly stopped at a trestle about four miles north of Key West, right on Boca Chica itself. All day long mosquitos attacked us by the billions, for it was summer time, and the sun bore down in its most scorching mood. Head nets and rain coats gave us little enough protection. Near the supposed location we found some broken pottery and a few old bricks, and these were our only rewards for a day of hard work. When we got onto the train for home, the porter sprayed us with a flit gun, to keep the "var-mints" as he called them, from coming on board.

A resident of bygone years, living on Elliott's Key, had a negro helper whom he put to work one day, digging a well in one of the old pot-holes. A little digging, and he had uncovered a skeleton! Nothing would induce the colored brother to dig there any longer. So the white man continued the work, and just beneath the skeleton, he came upon a treasure. He at once retired to a life of ease in Key West, on the gold coins and bars that the "bogie" had failed any longer to protect.

I first heard of treasure on Upper Matacumbe, when told that children of a local resident had been found playing with some gold coins that the narrator had purchased. They were part of a small lot found in a pot hole near the railroad track. Some time later I was told that a man by the name of Curry lived on the island, and while digging a well in 1832, he had come upon a large concrete box. Within it were wine jars containing a huge treasure. He finally moved to Key West when some friends of his were killed by Indians on a neighboring key. He is said to have returned in a ship by night, and that he then removed the treasure, which he had left in his hurry to escape the Indians.

Don Dickerman, who operated the "Pirates Den" here, introduced me to a man who was born in Spain, and whose father brought him to this country when he was but eight years old. Some of his ancestors had been pirates. One was "Bartalomeo el Tigre Negro," who operated from 1578 to 1600 and was hanged by his own crew. Another was "Ricardo al Rojo," who lasted as a pirate from 1786 until 1793, when he met a violent death, trying to highjack a load of slaves off Cuba.

According to this man's story, he visited Spain in 1910, being assigned to a sub chaser that made a call there. He managed to visit the old castle that had been his ancestral home. His family had been very rich, for one of the ancestors had recovered nine million dollars buried

near Havana. Politically, they were on the wrong side, and his father had been fortunate to escape with his life, only to be pursued by his enemies and killed by them in this country. In the castle was one old fireplace, from which our narrator, following directions, lifted some loose tiles. This disclosed a passageway thru a hollow column that extended below the wine cellar. There he found charts to seven different treasures, all in the region of North Miami. These he kept in an aluminum fishing rod case on board his house boat on the Miami River. When the 1926 hurricane struck, other boats and debris that washed down in the high and rapid waters pounded his own boat to pieces, and his charts were washed out to sea.

He remembers but one location near Arch Creek. One of his ancestors owned the pirate ship "Carazon" and while it was careened and most of the crew away, other pirates highjacked his treasure, and a deserter from this other ship told of where the money had been buried. A chest with fifteen bars of gold was buried on the east side of Arch Creek, and another chest with forty-five bars was buried on the farther side. A very old gumbo limbo tree stood near the road, not far from the rock arch, a few years ago. It was marked when I saw it, with a curved arrow, and certain directions and measurements took one to the site of the fifteen bars of gold. Doubtless, one band of pirates, or the other, took it up, for it was not there when we tested the location some years ago.

When I was visiting Key West, on one of my trips, a resident said that some time before he had found a small brass cannon in shallow water, and that its muzzle was plugged up. It was too heavy for him to salvage in his skiff, and was not then worth a special trip to go back after it. Later he heard that it contained a deposit of coins and jewels. I did not have time then to make a trip for it, and later on the papers carried the story that the treasure had been recovered.

In a Miami paper, under the date of August 3, 1940, was a headline to the effect that a six year old negro girl was to inherit a fortune of \$150,000. Mr. Merrick told me how this fortune had been acquired, and it is information pretty generally known by Miamians. Years ago some men arrived from the north, with a treasure chart and hired the negro to sail them about the keys to the south of us. They spent long and disappointing days in a vain effort to find the right key, and at last were on the point of giving up. Finally they told their pilot that they were looking for a key with two big palm trees. This was sufficient identification; their guide took them directly to the right key, and they recovered the treasure, which they took back north with them. From the

proceeds they sent him what is said to have been 15% of what they had found. His honesty and trustworthiness were thus adequately rewarded.

One treasure that has not been recovered to my knowledge, is one to which a chart has been in circulation for long years. The original is on an old piece of sacking, which was sent by a man, dying in a Baltimore hospital, more than one hundred years ago, to a friend in Key West. The chart reads "For guide, Captain Key 20 miles South by West there lies seventy thousand dollars in pieces of eight in a barrell. Turtle Island, Florida. Capt. Sanford." Now, eighty thousand dollars is pretty small potatoes compared with all the ten million dollar locations that lie beneath the sea, or hidden back behind the bushes. I have been on Captains Key often enough to know that this is not the location. One can go there from Miami by boat, as we once did. It rained, and we found that the cabin leaked in every part of the roof and on all sides. We got plenty wet, but no pieces of eight. At another time we went to Tavernier and hired a skiff to which we attached an outboard motor. Just as we left the key to return, the motor ran dry. In filling it, by some chance the motor and boat got on fire. We managed to beat the fire out with an old cap, and then had to row all seven miles back in.

If you want to find this barrel for yourself, take a chart of the keys, put it on the dining room table as I did, calibrate a string twenty miles, pivoting on Captains Key, and see if you can cross anything that looks to you like Turtle Key.

The last pirates that I heard of in this region, were two who were pursued in 1888, only a few miles north of Miami. One was killed, and the other lived until a few years ago, so old that he could not recover three caches that they had hidden. But he confided in a friend, and this man not long ago found one of them. It was an iron wash pot, encrusted with coral, located almost under a side walk near 79th street. It contained a hundred pounds in gold coins and bars, and a friend of mine saw the imprint of the coins on the sides of the old iron pot.

If one goes hunting for treasure for fun, he will at least have fun. It is one of the few domains of adventure left open to civilized men. Enough people have found treasure to make the risk somewhat better than a slot machine, at least. Governments and government officials have taken such ventures seriously, and have been successful many times. The stories of people who buried treasures, or lost them in wrecks; those who robbed and murdered, and those who have made recovery, all together fill no small niche in history, particularly in Florida. And the stories, both of fact and fiction, have contributed largely to our literature.

# Medical Events In the History of Key West

By ALBERT W. DIDDLE

## I. THE MARINE HOSPITAL

**C**LOSURE of the United States Marine Hospital, Key West Florida, on February 15, 1943, marked the termination of hospital facilities rendered by the U. S. Public Health Service<sup>1</sup> for approximately 98 years to seamen and to citizens of Key West. Its history was associated with trials and tribulations modified by political bureaucracy, wars, epidemics of contagion, climatic conditions and geographic location. In spite of various unsatisfactory conditions, it was an oracle for the art of healing in the community. Now that a new order is to be established, it has been regarded worthwhile to give an insight into the medical situation of this locality by recording some of the more important past events concerning the institution.

Historical facts and legends go back beyond the eighteenth century when the Indians inhabited the Florida Keys. According to tradition, tribes from the isles trespassed on hunting grounds of those living on the continent. Subsequently the latter drove the former to Key West and slaughtered most of them. Skeletal remains found, thereon, ironically accounted for the original name, "Cayo Hueso," meaning, Bone Island. Several decades later the title was altered to Thompson's Island and finally to Key West, which is the corrupted English pronunciation of the Spanish title.

The first white people to set foot on Key West were pirates and shipwrecked victims, who probably came in the latter part of the sixteenth century, from Cuba. Permanent settlers did not arrive until near the end of the eighteenth century. On August 26, 1815, Don Juan de Estrada,

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<sup>1</sup> Prior to 1898, the Marine Hospital Service was a part of the U. S. Treasury Department.

then Spanish Governor of Florida, presented the territory of Key West to Teniente Juan Pablo Salas of Havana, Cuba, for services rendered in the Royal Artillery Corps. Salas had no particular use for the property. Thus he welcomed the prospective buyers. John Simonton and John B. Strong, Simonton eventually purchased the 2000-acre tract for \$2,000.00 on January 19, 1822. Through business relations in Mobile, Alabama and the State of New Jersey, and political connections in Washington, D. C., he became cognizant of the strategic value of the island for commercial and military purposes. In addition, he believed climatic conditions ideal to construct a salt processing plant.

Prior to Simonton's transactions, Salas had made a conditional sale to Strong, who transferred his claim to John Geddes. The latter effected a landing in conjunction with Doctor Montgomery and took possession of Key West in April 1822, by countenance of Captain Hammersley of the United States Naval Schooner "Revenge" which was then at anchor in the harbor.

Within the next two months, Salas made a compromise between the two by settling the claim in favor of Simonton and forfeiting 500 acres of land on the Florida coast to Strong.

One month before Geddes' foray, the island had been officially occupied and taken possession of, by Lieutenant M. C. Perry, Commander of the U. S. Schooner "Shark" in the name of the United States, under the title of Thompson's Island.

By the year's end, Commodore David D. Porter had established headquarters in Key West from where he was to command a task force ordered to rid the Caribbean Sea of pirates known as the "Brethren of the Coast." In the course of events, hospital quarters were erected for his men. These were the first housing facilities ever provided here by the U. S. Government for the care of sick seamen. Doctor Thomas Williamson from the "Seagull" was appointed hospital surgeon on April 8, 1823. He served in that capacity until October 21, 1823. During Porter's stay (1822-24) of duty, he was continually appealing for more medical aid. However, help was seldom obtained. From July to September of both years, yellow fever was prevalent. In a report to the Secretary of the Navy in 1825, we find sickness appeared to a "distressing extent," but was "less severe than heretofore."

According to the Annual Register of the Navy Department for 1826, Surgeon's Mate Samuel Biddle was stationed at Thompson's Island from July 1825 to February 14, 1826, when he died.

The era 1822 to 1830 revealed a young village in its infancy struggling to organize a local government. The inhabitants' principal occupation included: salvaging wrecked ships, which had been incapacitated either by storms or by running aground in the shallow straits nearby; and fishing for the Havana market.

By 1828, the Town was incorporated. February 1829 it was surveyed. The next year the census was recorded as 517 (368 white; 149 negroes, 66 of whom were slaves). Almost every nationality was represented. In May 1831 Key West had its first burial of one of the oldest settlers. The same year a company of infantry was established on the island. Several months afterward, Doctor Benjamin B. Strobel was mentioned as the Surgeon of the Army Post. By this time, the increase of commercial and military activity had made Key West the largest city in Florida. It was to retain that prominence until 1860. Very early the need for a hospital, where sick seamen could be treated, was manifest.

The allowance for ports south of the Potomac at that time were: "for suitable boarding, lodging and nursing three dollars per week; for necessary medicines, the usual apothecary rates; for medical services, twenty-five cents for each day, when the aggregate time for which rendered shall average less than twenty-five days to each patient. When the average time to each patient does not exceed ten, six dollars and twenty-five cents for each patient, and when there is a greater number than ten, three dollars and twelve and a half cents for each patient; and for funeral charges six dollars."

This was so inadequate that Monroe County demanded redress. In 1835 William Whitehead called attention to the need for a Marine Hospital at this port.

An object long had in view by the citizens of Key West is the establishment here of a Marine Hospital, or accommodations for the sick of a more general character than exist at present.

Situated as Key West is, it is calculated at all times to become a receptacle for the sick of vessels leaving the ports of West Florida, Alabama and Louisiana, and also of those bound to the northward from the Coast of Mexico, as there is no port offering equal advantages as a stopping place, and none between Charleston and Pensacola possessing the superior attraction of a hospital. Such being the case, seamen are brought here sick to be left to the care of strangers, dependent upon private charity (there being no municipal regulations for their support), and the hospital fund of the United States for their

nursing and subsistence. We would therefore recommend an application to Congress, through our delegate, for the establishment here of some public accommodations for the sick seaman, whereby his comfort may be in some measure secured while incapacitated by disease—to which they are liable—from pursuing his usual vocations.

In February 1836, the territorial delegate from Florida, Colonel Joseph M. White, introduced in Congress a resolution inquiring into provisions for greater care of disabled and sick seamen in Key West than those provided for by the disbursement of the Marine Hospital Funds. This was a step forward but the motion failed to carry. In short order a memorial was prepared and sent to Congress setting forth the many reasons why a hospital was especially needed. After repeated efforts by citizens of Key West, the building of a hospital was sanctioned by the U. S. Treasury Department. The site selected was a piece of land, "which was covered by a mortgage to John Bancroft as Trustee from John Simonton," who in turn, because of business interests, was largely responsible in starting the move to obtain a hospital at this port.

On July 8, 1844, A. Gordon, who also had a small interest in the hospital site and who was Collector of Key West, set forth the opinion that the proper location for the hospital was on the waterfront of the harbor adjoining the town lots (now the corner of Emma and Front Streets) just outside the "corporate limits of the town." Here, "it is near enough to allow the physician to render medical services to the citizens as well as to the patients in the hospital. The sick may be landed at the spot from boats or vessels without being carried through the town." He went on to say that he believed one thousand dollars per acre, the price demanded by Colonel Simonton, too much for the grounds. His comments on how to build the structure were adopted with little modification. "Permanency," he said, "requires that the principal material should either be brick or the stone of the Islands—if of the latter, which would be cheaper and equally good, it should be covered on the outside by a coat of cement mortar, which would effectively prevent the absorption of moisture."

The building was erected under the guidance of Colonel Simonton in 1844. It was two stories high, measured 100 x 45 feet and was equipped with 60 beds. A wharf was constructed on the west side to enable small boats to come alongside and anchor. Few alterations were made in the structure for many years except to repair damages wrought by storms.

During the Civil War the grounds, etc., were not maintained properly, largely because there were not sufficient appropriations. A report by Doctor William F. Cornick, Surgeon of the Marine Hospital, to the Commissioner of Customs, in December 1869 disclosed: "The Hospital building is very much out of repair. The fences are old and broken down. With reference to the records<sup>2</sup>, there is but one book and that a 'Register of the Sick.' . . . There is one steward, one matron, one cook, three attendants and one washerwoman." In 1870, he wrote several letters asking about the regulations regarding the washing of the clothing of the Chief Surgeon and the matron of the hospital.

In 1871 an apothecary was requested for the hospital. However, it was many months before that office was filled. Previously, medical supplies had been purchased by contract from a local pharmacist. December 31, 1873, a horse was requisitioned to transport patients to and from the clinic.

Eventually a third story was added to the building. Here dwelled the Surgeon in charge with his family. Other personnel lived in an adjacent house, except the nurses who had quarters in the city. Not till 1917 was a home built for occupancy by the Chief Physician. When he moved from the third floor, this permitted doubling the capacity for patients to 125 beds.

About 1907 and 1917, respectively, the north portion of the hospital grounds and the waterfront were transferred to the U. S. Navy. The beach area west of the institution was filled in for a distance of several rods beyond the water's edge. Thereon, wharves and buildings were erected..

From 1835 to 1919, inclusive, the island was hit by several severe hurricanes and the population affected repeatedly by either smallpox or yellow fever. Hurricanes came in the fall of 1835, '46, '73, '94, 1909, '10, and '19. During these storms buildings were frequently damaged and sometimes some of the inhabitants injured or killed. With the tempest of 1846, many of the dead were disinterred from their graves. Thereafter, burials were no longer made in the graveyard to the northeast of the hospital, approximately where the Marine Barracks now stands. Instead, the bodies have been laid to rest in an area on the higher, central portion of the island. As late as 1855, interments were completed in Saint Paul Episcopal Churchyard.

<sup>2</sup> A letter from The National Archives, Washington, D. C., on February 5, 1943, revealed that most of the records of the Marine Hospital made before 1869 were either lost or destroyed.

A hurricane of violent character occurred October 6, 1873, destroying window blinds, breaking glass panes, tearing plaster from the ceiling and ripping doors from their hinges in the hospital.

Other minor storms through the seventies stimulated the acting head of the Marine Hospital to request of the Surgeon General of the U. S. Marine Hospital Service, in the year 1880, that a seawall be erected along the adjacent waterfront to protect the building from the southwest breakers. Two plans were presented for the construction: first, by piling; second, by using cement and rubblestone. Since the cost of the two was estimated to be approximately the same, the concrete was recommended for its greater durability. However, since the appropriations were limited, only the 150 feet in front of the hospital was finished. In later years, it was extended.

The worst hurricane struck October 11, 1909, causing total damage to the extent of between two and three million dollars in Key West. Water stood four feet deep on the hospital grounds. The lower floor of the building was flooded, the kitchen put out of commission temporarily and the yard covered with debris. The seawall and wharf were partially demolished and a great deal of the sandy beach was washed away. Repair and replacement, respectively, were made during the next few months. The following year another windstorm visited the city. It was a "recurring hurricane." Apparently having finished with the vicinity, it returned with renewed violence. Again the seawall was destroyed in part. Subsequently it was rebuilt and extended the entire length of the waterfront (about 600 feet).

Besides the destructive storms, the natives experienced several epidemics of yellow fever and smallpox. The transient nature of the population and the ingress of travelers increased the possibility of outbreaks of disease for several decades. During these periods the citizens often became panicky. Sometimes the sick were abandoned and left to die. In other parts of the state, the migrants saw lights burning and food cooking on the stoves in houses of the neighbors who jettisoned all property to be the first to flee. The terror-stricken in other sections were turned back at county borders at the point of a gun. Laws were formed at one time to prevent people having the contagions to disembark at this port. In the early years (fifties) where there was a "hint of the appearance of yellow fever in the city, trunks were hurriedly packed and the first steamer leaving Key West took the family away," not to return until the "Northers" blew away "the poison of disease" in the late fall. In the early days the malady was known as "Stranger's fever" because newcomers other than

children were usually the only individuals susceptible. The majority of native adults had had the fever. The illnesses amongst the older people generally ended fatally while the children experienced mild attacks. Observation, even in those days, proved that having the disease gave a permanent immunity.

The first severe epidemic of yellow fever came in 1835. No other authentic reports of disease appear until, "In June 1852, the steamer 'Philadelphia' of the Panama R. R. Line, lay near Sand Key, seven miles off with cholera on board. No cases were brought on shore. In July of the same year the 'Eldorado' of the same line anchored three miles off with about 300 passengers, 75 of whom were sick with cholera, yellow fever and chagres fever. The disease broke out on passage from Colon, proving very fatal. The vessels lay here for about one week; the dead were thrown overboard, some bodies drifting to the shore and were picked up and buried. A few passengers from the 'Eldorado' landed, but no cases of cholera or yellow fever occurred among them." Elsewhere it is related that the "Star of the West"<sup>3</sup> was cut loose from her moorings as soon as the local authorities learned that disease existed on board the vessel. The floating dead, which had been dumped overboard, were gathered by boat hooks and towed out of the harbor by small boats into the tide channel, from which they went to sea, "probably to be eaten by sharks." It seems certain that cholera did not spread amongst the natives of Key West, for in 1874, the Marine Hospital authorities in a letter to the U. S. Treasury Department said that "cholera had never existed here."

During 1857, '58, the years of Civil War, '67, '69, '70, '73, '74, '75, '76, '78 and '84, yellow fever prevailed as an epidemic each summer. The usual mortality was 50 to 33 per cent. During the first two years mentioned, Doctor George Troupe Maxwell, was surgeon in charge of the Marine Hospital. Sometime within that interval, he and his nephew performed a postmortem examination on a sailor who had died of yellow fever at the hospital. "The nephew and his wife, and Mrs. Maxwell and some of the negro servants contracted fever. The two ladies died, as did also some of the servants." It was reported that the nephew "took" the fever "from the postmortem, the uncle escaped because he had had it before coming to Key West."

December 4, 1861, the Marine Hospital was designated to accept patients of the U. S. Navy. In a letter dated March 24, 1862, Flag Officer,

<sup>3</sup> Although it was not possible to confirm absolutely the identity, it is probable that the "Eldorado" and "Star of the West" were the same ship.

William W. McKean, at Key West wrote, "I sent by the 'Carolina' 22 sick men from the Marine Hospital at this place, the surgeon having recommended their return to the north. I would bring to the notice of the Department that no surgeon has yet been ordered to this hospital. It has been attended for some months by an Army Surgeon, but a few days since, General Brannon informed me that he should be compelled to withdraw this officer, and applied to me to detail a naval surgeon to take charge of the hospital. This I was unable to do. . . ."

The next summer Doctor David T. Lewis was appointed Surgeon of the Marine Hospital. He died a few weeks later (September 3rd) of yellow fever after an eleven-day illness. While he was ill and for about three weeks afterwards, Doctor Horner, Surgeon of the Fleet, visited the hospital daily, and administered medical aid. On September third and tenth, Charles Howe of Key West, Collector, submitted a request to the Secretary of the Treasury for, "furniture, beds and bedding" to provide for the increasing number of patients and to replace much of the furniture "unavoidably destroyed during the epidemic." Between July first and September tenth, 49 deaths had occurred, "and nearly all by yellow fever—black vomit—more than one half this number were naval seamen."

In this same year and during the following one, as many as 30 cases of yellow fever were hospitalized at one time. Many soldiers stationed in Key West died of the disease within this interval. The local Catholic priest, Father S. Hunincq, made note of having fortified one group of ten soldiers with the Sacraments. These men apparently died suddenly within the same interval.

Treatment of the illness often touched ridiculousness and as Doctor Porter, Senior, in later years said, "It demonstrated First, the amount of ignorant medication the human system can stand and throw off. . . ." An exemplary case drawn from *The Journal of Practice* signed by surgeon's steward, J. W. Plummer of the U. S. S. Honduras, reads as follows: "Samuel D. Holt, acting third engineer, age 27, . . . was ushered in, August 8, 1863. Fever started with a chill and colic. A week previous given dosages of compound spirits of ether and whiskey. Ensuing day, fever strong and marked intense pains in the head. Gave calomel and rhubarb—15 grains each. Cold to head. Treatment afterwards consisted of acid drinks, liquid potasse citrate, and occasionally one ounce of castor oil. Thirty drops of laudanum and six drops of oil of turpentine to check bilious discharge. . . ."

Since the rules of the Marine Hospital excluded contagious diseases,

vessels infected had to proceed north in 1862 and 1864 when yellow fever prevailed in Key West.

It was not until 1872 that a dreadful epidemic of smallpox appeared. Shortly thereafter, Doctor Robert Murray, whose life history deserves some comment, was appointed Surgeon to the hospital. This man was to be associated intermittently with this institution for 31 years. He eventually attained a national reputation as an authority on how to restrain the march of yellow fever from points without the United States to adjacent territory of this country. During a 31 year interval he gave aid in 17 of 24 epidemics. Another version claimed he encountered the disease 25 times in 31 summers in 50 towns, 11 states, besides on board ship. Death came accidentally while he was en route to investigate an outbreak of the disease at Laredo, Texas, in 1903. His earlier life had been spent in Ohio. During the Civil War, he ran away from home at the age of 15 years and joined the Union Army. He was wounded five times and finally imprisoned by the Confederacy at Richmond for one year. One of the injuries involved the right eye leaving a permanent defect. As a result, lachrymation was chronic. It is said he was quite sensitive about the disfigurement, and in an effort to hide the blemish, he would turn his head off to the side when carrying on a conversation. There is also the story that one kidney had been removed in earlier life. Several years later while serving at a northern post, the Chief of the Marine Hospital Service received a telegram saying, "Stop sweating, going to Key West." It was ascertained that the impulsive move had been made because he reasoned that the remaining kidney was being overworked concomitant with the onset of colder weather and lessened activity of the sweat glands.

Doctor Murray had studied medicine by apprenticeship as well as graduating from two medical schools: Cleveland, Ohio, and Jefferson in Philadelphia. An internship was spent at "Blockley" Hospital, otherwise known as the "Philadelphia City Hospital." Then, after a year in the regular Navy from 1871 to 1872, he entered the U. S. Marine Hospital Service. It appears that during his career, he brought more improvements to medical standards in Key West than any other man outside of Doctor Porter, Senior. Soon after assuming duty at this station, he prepared a report to the Acting Secretary of the U. S. Treasury, W. A. Richardson, emphasizing the inadequate facilities to meet the catastrophe of 1872.

In reply, I will premise by stating that Key West is an isolated

province town with a population of over 8000 which is rapidly increasing. The island is comparatively barren, almost all supplies having to be brought by water and in consequence the prices of articles are very high in comparison with Cuba and New York. Even fruits of this and neighboring islands are dearer than in New York.

When the smallpox broke out last autumn a degree of fear and terror affected all classes surprising to one so familiar with the disease as myself. The laws of Florida make no provision for public hospital or care of the poor and no epidemic of smallpox ever having occurred here, there was no provision at all for the care of the unfortunate poor nor isolation of the more favored. Application was made by the city authorities to allow the smallpox patients to be admitted to the Marine Hospital which was referred by the Collector to the Department. The answer by telegraph was that the request could not be granted and also that affected seamen could not be admitted. The military authorities also refused the use; isolated four unoccupied buildings. The city authorities built a couple of plain houses which were put under the charge of the Health Officer, Doctor Joseph Otto.<sup>4</sup> The poor were admitted and treated free, the Sisters of Charity giving their services; those able to pay were required to give \$2.00 per day for the use of the buildings alone. Subsistence and medical attendance not considered. In consequence of the telegram the Collector sent all the affected seamen who applied to him for relief, to the city hospital. It should be stated that on the outbreak of the disease, Doctor Baron, the Surgeon of the hospital, began to arrange a ward for their reception of seamen supposing of course he would have the care of them; but for the reason alone given none were sent at all nor was the doctor informed of those who were sent to the city hospital.

The terrible conditions under which patients were nursed is revealed in a report concerning William Turner, who died after the epidemic had subsided and after the hospital had been closed for extra accommodations.

The doctor charge (\$35.00 for seven days) is reasonable as he had to go a mile and a half twice a day to see the man. The nurse was (\$18.00 per week) cheap at any price as it was almost impossible to procure anyone to attend such cases. Several deaths occurred for want

<sup>4</sup> Doctor Otto, as a young man, fled from Prussia during the student's revolution. He escaped the country in a load of hay, found passage to New York City and subsequently became attached to the U. S. Army as a physician during the Seminole War. Afterwards, he remained as contract surgeon for the Army at Key West.

of attentions. Doctor Otto was often compelled to attend personally to the care of the patients, to lay out the dead and in two instances to assist in burial, reading the services by lantern light and filling up the grave. The difficulties which beset the care of the patients during a period of three months are inconceivable to those who live where the disease is more common.

Political jealousy and misunderstanding soon developed between the civilian and Marine Hospital authorities. Up to the time of closure of the institution, differences and distrustfulness continued more or less. Such circumstances were to develop during Doctor Murray's term of duty, partially because he was a very righteous person who believed that it was a physician's duty to adhere strictly to the Hippocratic oath and aid all the sick regardless of their station in life. This opinion indirectly was opposed by the Collector of the Port and the Mayor when he offered treatment to merchantmen ill with yellow fever. Antagonism grew largely out of ignorance on the part of the officials. They had the idea that disease would be introduced to the hospital and spread amongst the population therefrom. Although it was not known at that time, their ideas contained some truth. Nevertheless, an example of the situation is demonstrated in the handling of the U. S. S. *Ticonderoga*, which had arrived from Brazil in August, 1873. The captain's clerk, Nathaniel White, had died of a fever on August 12th, after a 90 hour illness. Immediately Admiral Mallany, of the Fleet, inquired of the local authorities, that in case any other men became sick could they be sent to the Marine Hospital. The Health Officer of the City replied that no objections would be tendered provided the cases were transported to the hospital by water rather than through the city. The same day the Board of Health sanctioned the action. The ship was quarantined the usual seven days. On the eighth day the forehole of the vessel was broken out. Three days later four men were ill with fever. Doctor Penrose, the naval surgeon, in conjunction with Doctor Perry (USN) and the Health Officer confirmed the diagnosis of yellow fever. Permission to bring the patients to the Marine Hospital were not completed till late that afternoon. Since the ship had received imperative orders to put to sea at once, it was necessary to move the patients ashore promptly. They were loaded into a boat by Doctor Penrose and brought abreast of the hospital about sundown. As a landing was about to be effected, a messenger from the Collector's Office appeared and forbade the hospital steward to admit the patients. At the same time the Health Officer came alongside in a boat

and delivered an order from the Mayor that they were not to land anywhere on the island. The naval surgeon returned to the ship with the sick men, but reappeared about one hour later accompanied by a group of marines, commanded by Lieutenant Fisher, who had been ordered by the Admiral to put the four men in the hospital, by force if necessary. Doctor Murray and his staff were taken by surprise in the halls of the hospital and arrested while the men with yellow fever were placed in bed. After Doctor Penrose had apologized to the staff for the turn of events, the ship's crew withdrew and left word from the Admiral that, "Any complaints could be made to him."

Although Doctor Murray was in sympathy with the Navy, he felt it his duty to report the incident immediately to the Collector. This he did by personal interview about one hour later. The Collector swore vengeance on the Admiral. He overruled the Board of Health and in conjunction with the Mayor placed everyone in the hospital under quarantine. Doctor Murray and the Health Officer felt the order "nonsensical" and that it "arose from fear and jealousy." The hospital staff was prohibited in procuring ice, food, coffins, etc. The yellow quarantine flag was run up by the city officials in front of the hospital. Two hours later it was purposely torn down by Doctor Murray. This move compelled the Mayor to keep a policeman at the gate through whom the hospital staff was able to maintain contact with the outside world for the next several days while the local authorities "cooled off." Doctor Murray went on to say,

There have never been any restrictions nor contentions about the admission of yellow fever patients to this hospital prior to this (This is not entirely true; for in 1862 and 1864 such cases coming from ships were not permitted to land). In fact the hospital was built chiefly to accommodate them and pernicious remittent fever from the lower Gulf Coast, there being no available relief short of 400 or 500 miles. Almost every year yellow fever has been treated here. In 1862 and 1863 there were as many as 30 cases here at one time. Also in 1854, '5, '8 and '9 cases were admitted without question. In August 1872 this same health officer brought a man here with diagnosis of yellow fever. Smallpox was always admitted and during the epidemic of 1872 the surgeon, Doctor C. S. Baron expressed his willingness to provide for cases. The few cases occurring then, among the seamen had previously been sent to a shanty hastily erected by the city, where they were allowed to remain at an enormous cost to the service. . . . This building is large enough to accommodate any

number likely to come and if cases of smallpox come a tent can be placed in the lot, completely isolated from the hospital and the town.

He later said he felt that as a physician he should have the right to decide who was ill and with whom he was to associate. The objections of the local authorities of Key West "arose from spiteful jealousy . . . The Collector charged him with a desire to run the hospital and to get a cheap notoriety among naval officers."

The next few years were essentially uneventful until February 22, 1887, when the Honorable I. G. Harris, Chairman of the Committee of Epidemic Diseases in the U. S. Senate, presented a bill for an appropriation of \$50,000.00 to make one of the Dry Tortugas Keys a quarantine station for ships going north from southern waters. Six months later a severe epidemic of yellow fever appeared in Key West. It was believed to have been conveyed by a man named Bolio, whose family was in the hotel business with establishments in Havana and Key West. Ostensibly while on business in this city, he became ill with the disease. According to the annual hospital report, the first case became known May 21, 1887.

Seven days later there were five cases and three deaths and on the first of June the existence of the disease was reported in four different localities in the city. The War Department authorized the President of the Board of Health to use the hospital attached to the military barracks for the treatment of yellow fever patients, and upon the request of the state and local authorities, bedsteads, bedding, subsistence and medical supplies were furnished from the Marine Hospital stores. The Secretary of the Treasury also authorized the employment of nurses and guards to assist the local Board of Health at the Barracks hospital and in guarding infected premises. June 10, 1887, 22 cases and eight deaths reported to date.

Upon the request of the President of Board of Health of Tampa, Florida, and the recommendation of the Bureau, extra help was employed by the Post Office Department to disinfect all mails coming from Key West and Havana before landing at Tampa. The requirements of local quarantine at Tampa, as reported by the Board of Health, were 15 day detentions of passengers and disinfection of baggage. But the period of detention was finally cut to 10 days at my request.

The incidence of disease continued to increase. Two hundred and eighty-two cases and 62 deaths from yellow fever were reported in Key West up to September 14, 1887. A majority of the latter were native

children. After that date the epidemic gradually subsided.

This epidemic gave weight to the measures recommended by the Committee of Epidemic Disease. Ships arriving at Key West were either treated by isolation or sent to the government refuge stations at Sapelo Sound, Dry Tortugas, or Chandeleur Island. The Board was fearless in its action as shown in 1895 when the Spanish cruiser, "Infanta Isabella," directly from Havana, sought to enter the port of Key West. It was forbidden the right to do so without complying with the governmental regulations. The ship's captain was given the option to proceed to sea. This was accepted. However, instead of remaining thereon, she went directly to Tampa Bay, and passed without stopping at the station at Mullet Key. Early the next morning, the State Quarantine Launch "Germ," sighted, captured and boarded the vessel. The ship was forced to return to the Quarantine Station and undergo the required treatment.

Yellow fever was responsible for quarantine of this port for two months in 1892. In 1897 and 1899, respectively, severe epidemics occurred. During the outbreak of 1897, attempts were made to gather epidemiological data in Key West by the U. S. Marine Hospital Service. This was met with suspicion and insurmountable difficulties. Doctor Eugene Wasdin, passed assistant surgeon, wrote the Surgeon General of the U. S. Marine Hospital Service in September of the same year, saying,

In explaining the difficulty of obtaining autopsies and bacteriologic studies, . . . strange as it may seem, it is next to impossible to get this material. This is due to two causes: one to the evident antagonism of local physicians and the outspoken hostility of the mass of the populace. The former, at this place, still refuse to diagnose cases of yellow fever, the latter are loud in their denunciation of "experts," in which class are numbered all quarantine officials. The proposition of taking blood from a foot vein by hypodermic puncture has been resisted and finger tip puncture can alone be done. Even this procedure has aroused unfavorable comment. Again and again it has been refused. A number of deaths have occurred and strenuous efforts made to get autopsies have failed.

Within the same interval all of the Sisters<sup>5</sup> of the Convent of Mary Immaculate had yellow fever. None died. Quarantine was maintained

<sup>5</sup> Sister Louis Gabriel was among those who contracted yellow fever. She came to the Convent in 1896, served as a nurse during the period when the U. S. Army took over the institution for a hospital during the Spanish-American War, and has remained on as a very active member of the school these 47 years.

for several weeks. This regulation necessitated the keeping of a messenger who maintained contact with civilian activities, brought in medicines and food and other provisions by procuring information, etc. respectively, by shuttling to and from a fire station nearby.

The epidemic of 1899 was the worst in the history of the island. Many cases were in the hospital. A total of 1320 persons had the disease, 68 died. Assistant Surgeon, W. R. Adams, of the Marine Hospital was in active charge of the patients. He contracted the fever and died after a six-day illness. The state health officer of Florida estimated that approximately 6000 persons, who were susceptible, had arrived or had been born in the city since the outbreak of 1887. Of this number about 13 per cent had the disease.

Two other contagions were to spring forth in Key West in the nineties. The first was smallpox which appeared among the civilians in 1896 following an incorrect diagnosis of chickenpox in the case of an adult negress. Since it showed evidence of becoming widespread, medical aid was soon obtained from the State Board of Health. In spite of the existing danger, a report reveals that the citizens were still uncooperative. Doctor J. H. White, surgeon of the Marine Hospital, "was contacted by Doctor Joseph Y. Porter<sup>6</sup> on July 14th." Up to that time 28 cases with seven deaths were recorded. A detention camp (Camp Harrison) "on the South Beach of the Island, some three miles from the center of the city, a hospital was built by Dr. Porter." The structure was 186 x 30 feet. "East of this some 1000 yards or more, Doctor Porter had placed the 25 tents provided by the service." A request was then sent to the mayor to have those people infected isolated in the new quarters. Compliance with the plan was refused. The State Board of Health issued immediately an order to the mayor to have all the patients moved in 12 hours or else medical assistance would be withdrawn and the city placed under strict quarantine. Through telegraphic communication, cooperation was obtained from the U. S. Navy Department and the U. S. Marine Hospital Service to enforce the edict. Captain Sigbee of the U. S. Battleship "Maine" was asked, "that no vessel or person thereon should be permitted to leave the harbor of Key West without written permit from the State Board of Health stating that the passengers and crew had been satisfactorily vac-

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<sup>6</sup> Doctor Porter was one of the committee members to establish a public health service in Florida. He served as the first State Health Officer from 1889 to 1917. During his term of office he contributed much to the elevation of medical standards in the state, particularly in the fields of sanitation and disease control.

cinated." The main channel was guarded by a motor boat from the "Maine" while the upper harbor was controlled by the launch of the Board of Health. Events moved peacefully until one day a rumor was circulated that a vessel from Galveston, Texas had run aground several miles outside the main channel. Immediately everyone with a boat scurried forth from shore toward the wreck. The motor boat was kept busy sending small boats back to port. However, the captain of a tug boasted that he would not be stopped even though he did not possess the required certificate. On the way out of the harbor his vessel outdistanced the motor boat. In the meantime, the deck officer of the "Maine" had been watching the progress of events, and as a warning, fired a blank shot in the direction of the fleeing tug. Since the ship continued to advance, a shot was dropped just ahead of its course. The effect was instantaneous. A "hard about" was executed and members of the guilty crew proceeded hurriedly to the State Health Officer for vaccination. This incident had a lasting effect, for during subsequent quarantines the people retained the idea that the U. S. Government stood behind regulations protecting the life and health of its citizens.

Early in the course of trying to enforce the order to isolate infected patients, the populace threatened violence. In some instances the parties to be moved declared their intention to fight to the death before they would go. Nevertheless, it was only a short time before one family agreed to be detained. Thereafter objections ceased and all were placed in the hospital.

A major obstacle in the care of the patients was shortage of water. Rainwater collected in cisterns constituted the only source for drinking water on the isle. No rain had fallen all summer so that most of the wells were dry. Water to bathe and remove the pus laden scabs from the individuals with variola had to be bought and hauled from the Masonic Temple cisterns at 50 cents per barrel. It was worth 62 cents a barrel in Key West for civilian use.

During this epidemic only one person with smallpox died. Doctor Porter completed the tremendous task of a house to house inspection and saw that approximately 13,000 of the 16,500 inhabitants had good vaccination.

The war of 1898 also brought problems. Many injured and sick seamen were housed in the Marine Hospital. The majority of Army personnel went to the Army hospital located on the Convent of Mary Immaculate, which had been offered, gratis, to the War Department by the Mother

Superior for the duration of the conflict. Actually it was used from April to August of that year for a total of four months. Many cases of typhoid fever were treated there. Only one soldier had yellow fever; he died. Toward the end of the summer, the members of the State Board of Health and the U. S. Public Health Service were involved in a major dispute with the naval authorities at this station when an undefinable fever of short duration suddenly broke out among a contingent of Marines who were encamped in an unoccupied cigar factory. A short while before the sickness began, a young, enthusiastic assistant surgeon, recently out of school, arrived from New Orleans to act as the naval surgeon. At the onset of the disease, he promptly made the diagnosis of yellow fever: so convincing was he, that some of the local practitioners became of the same opinion. This diagnosis was quite disturbing because thousands of susceptible people including hundreds of service men were in port. Immediately the U. S. Public Health Service sent Doctor A. H. Glennan, a former surgeon at the Marine Hospital, here during the epidemic of yellow fever in 1887, to Key West to make an investigation. First of all, when he arrived, he was surprised to find that he must put on a rubber hat and coat over his clothing in order to be permitted to examine the patients. This being the hotter part of the summer, it was quite an ordeal to see a hundred men. On the basis of clinical history and physical findings, he agreed with the State Board of Health that this was not yellow fever but probably dengue. Three days later the characteristic skin rash appeared confirming his opinion. Between five and six thousand persons had the disease before the epidemic ended. No deaths resulted. In spite of the obviousness of their mistake, the naval authorities refused to relinquish their original diagnosis. They were so cocksure that they succeeded in having the entire Fleet, which was anchored in these waters, ordered to northern ports. During the cruise northward, several more of the seamen evacuated also developed dengue and had to be left in Miami and Jacksonville, where 300 and 1,000 cases, respectively, occurred.

Merchants in Key West had purchased large stores of food and other provisions to meet the military demands. Sudden transfer of the Navy personnel left the business men with much perishable stores on hand. This was a total loss. As a result of the entire affair, many of the local officials among the U. S. Public Health and State Health Services and citizens were left embittered toward the Navy.

Fear of other epidemics led Doctor Porter to certify in 1901, that machinery to disinfect baggage be purchased from the State Board of

Health. Two years later, he informed the Surgeon General of the U. S. Public Health Service that there was no further need to fumigate baggage of passengers coming into Key West, as those ships with infections on board were sent to Tampa Bay or Mullet Bay. Also it was about this time that Finlay's work on the role of mosquito in carrying yellow fever had been reported. Thus previous methods of restraining the spread of the disease were being regarded with skepticism.

After the war, the out-patient clinic of the Marine Hospital became a source of political graft. A letter from the chief surgeon in June 1905, disclosed the fact that the dispensary service had degenerated into a gigantic system of outdoor relief for the negroes of Key West. This skuff-duggery was accompanied by "owners" and "agents" ("Not bona-fide by captains") issuing certificates.

From the medical log of the Marine Hospital, a summary given for the previous year on June 30, 1906, reads:

Hospital and Out-patient Service: During the past fiscal year there were 104 hospital cases treated, being a decrease of 74 from the previous year. The out-patient relief was 526, a falling off of 674 cases from the previous year . . . The decrease in cases treated is due to the collapse of the sponging industry of Key West its old and only maritime enterprise except fishing and wrecking . . . Diving for sponges has been introduced by Greeks who have driven the old style method of "hooking" out of business and Congress has been appealed to in the matter to regulate the new rivalry. It is apparent that this trade is lost to Key West and thus a large source of alleged "seamen" cut off from the hospital relief.

For the fiscal year 1916, 31 naval personnel were transferred to the Marine Hospital for treatment. Then, the average complement of the U. S. Naval Station was 131.

Between 1906 and 1922 the town continued to grow rapidly because of the tobacco industry. Within this period Surgeons S. E. Banks, E. K. Sprague, John T. Burkhalter, H. M. Manning and G. M. Guiteras successively occupied the headship of the hospital. In 1911 and 1917 respectively, Drs. John B. Maloney and W. R. Warren, who were local practitioners, were appointed consultants to the institution.

Like all other Marine Hospitals, this one was filled to capacity during the epidemic of influenza in 1918. The disease apparently began September 12th. The clinical course among the early cases was mild but later it became more severe with deaths following in a few hours. The con-

tagion spread so rapidly that physicians were unable to cope with the situation. In response to a request from Doctor Guiteras, officials in Washington, D. C. sent a physician and two nurses to Key West on October 15th at the height of the epidemic. A telegram from Surgeon G. M. Guiteras to the Public Health Service in Washington, on October 25th, states:

Influenza report October 15-25. Naval training camp admitted 23, discharged 37, remaining 7. U. S. Marine Hospital admitted 10, discharged 14, died one, remaining 14. Naval Hospital admitted 12, discharged 98, deaths 4, remaining 152. Army Barracks admitted 13, discharged 7, remaining 6. Civilian population estimated total cases to date 4000 with 23 deaths. Total deaths of influenza in Key West from October 1 to date from all sources 54. Epidemic declining.

From March to November, 1918, Doctor Guiteras had charge of a large force concerned with the sanitation as a war measure to protect the unusual large personnel of the Navy and Army in Key West. Under his guidance a commendable degree of cleanliness was maintained. As soon as the conflict was over, this organization was eliminated and the naval sanitary corps cut to zero. During the first half of 1919, repeated requests were made to the City to keep the premises clean, but a report to the Secretary of the Navy for that year reveals the sanitary conditions "left much to be desired."

Activity of the clinic receded after the war. It gradually became a haven for the more destitute by 1932. In 1928 care for the veterans of the Spanish-American and World War I was authorized officially. The next year, Joe La Scala, a patient in the Marine Hospital, and Francis C. Brady, a veteran of the Spanish-American War, brought charges of vice, graft, and other abuses against the hospital staff. A federal investigation proved the matter a hoax. In fact, one of the complainants was found insane while the other had been a victim of bribery.

In 1930 the Marine Hospital was one of 24 institutions accredited by the American College of Surgeons for internships. Key West was then the thirteenth largest city within the state and one of 16 centers having a certified hospital. The same year the *Miami Daily News* on September 27th quoted the following figures from the annual report of the Marine Hospital: "312 major operations" with "no deaths" had been performed. There had been "30,440 hospital days."

The financial collapse in 1929 was accompanied by a progressive diminution of financial enterprises at the port. Approximately 85 per cent

of the civilians eventually had to seek relief. Military operations practically ceased. The naval dispensary closed in 1932 so that out-patients of the Navy had again to go to the Marine Hospital. This had not been necessary since 1908, but continued as such until 1939 when the Naval Dispensary was reopened. The city was caught with no facilities to give proper medical aid to the poor. Even so, it was apparent that local physicians were largely responsible in blocking several attempts by the Federal Government, the Commonwealth Fund and the Rockefeller Foundation to endow a municipal hospital. They and the citizens could not agree as to the management of such an institution, because the local practitioners were without the qualifications to staff such a hospital. The result ended with Public Health Service taking the brunt of the responsibility for all emergency medical care requiring hospitalization. Those who could afford it frequently went to Miami, Havana or other large city for consultations. After the depression had gained momentum, the hospital frequently ran into the "red" financially. Compared with the standard rate of \$3.75 per patient-day charged by the U. S. Treasury, this institution would often have to ask a fee of five to seven dollars a day to break even. This remained true to the day the clinic closed its doors. Desperate circumstances in Monroe County led to an agreement whereby a special rate of \$2.00 per case was made for cases from the Community Clinic. This arrangement was never discontinued after the depression. Although the Good Samaritan deeds were supreme in importance to the vicinity, most of the civilians remained unwilling to try and help defray expenses incurred by them.

Evidence of another World Conflict in the future caused the Navy to enlarge the Naval Station promptly from 1940 onward. The city grew rapidly from a population of 12,927 to an estimated 35,000 in 1943, due largely to military men and defense workers coming with their families. The Hospital became the base for administering medical aid to the severely injured survivors of the ships torpedoed by the Axis in the upper Caribbean during 1942. Naval and Army personnel requiring hospitalization were admitted here until November 1942 and the summer of 1942, respectively, when the Naval and Army hospitals were completed.

Since there were no official regulations providing for hospitalization of naval and marine dependents, facilities had to be obtained elsewhere outside the jurisdiction of the Navy. The Marine Hospital offered the only feasible place. With the consent and aid of Captain Robert B. Team, USN, who was then Senior Medical Officer of the Naval Station in Key

West, Lieutenant R. L. Pearse, USNR, in charge of the Family Clinic, made arrangements with Doctor Anthony P. Rubino, Chief of the Marine Hospital, to permit admission of naval patients to that institution at the daily rate of \$3.75. This courtesy was retained from 1941 till February 15, 1943.

The latter part of June 1942, Doctor Andrews, the last physician to serve an internship here, left for duty in the Panama Canal Zone. Shortly before Doctor Rubino had been replaced by Dr. T. H. Rose. He and Doctor P. D. Holloway constituted the permanent medical staff for the next few months.

With the progress of events, it became necessary to enlarge the Naval Base. This required condemning some of the city property and the site of the hospital. The grounds of the latter were transferred officially to the U. S. Navy Department on November 21, 1942, with the understanding that the Public Health Service would continue to admit patients until December 21, 1942, and close January 1, 1943. Before and after the transaction, the townsmen of Key West petitioned responsible authorities in Washington, D. C., to keep the service going under the control of U. S. Public Health Service or guarantee that adequate hospitalization be provided elsewhere for the citizens. Even the Maritime Union opposed the closure on the basis that their members would have no other hospital available for a distance of several hundred miles radius.

Indirectly the Naval Officials became concerned because according to Navy Regulation 1186, the medical attendants of the Service in addition to their regular duties may be required to attend families of officers and enlisted men in cases of emergency and where other medical aid is unobtainable.

At the time of this episode, several naval dependents were due to soon need hospitalization for obstetrical care. All those expecting delivery after December 14th were advised to seek medical care elsewhere promptly. Excerpts from a memorandum submitted to the Commanding Officer of the Naval Station, on the medical facilities available in Key West emphasizes the situation:

There are at present six civilian doctors in Key West licensed to practice in Florida. Two are Cuban and one is very old. One is not in good repute with the local medical society. The bulk of the medical practice is performed by three doctors who have been in Key West many years. All three of them are about 60 years old and suffer from various disabilities. One of them does only office consultations

and refuses to see patients after 6 P.M. The other two have cottage hospitals to do some obstetrics and minor surgery but will almost never answer any calls after 6 P.M. None of the physicians are members of the F. A. C. S., or qualified by any of the boards of specialties. They almost never have county meetings and cordial relations do not exist among them. They have made nocooperative effort to benefit the inhabitants of Key West. However, when a young doctor attempted to establish practice in Key West a few years ago, the older and established doctors were somewhat inimical. He soon left the island.

There are three civilian hospitals in Key West, none of which are approved by the F. A. C. S., nor have they trained nurses in attendance, satisfactory laboratories, trained attendants to give anesthesia, means for giving transfusions rapidly or adequate means for feeding patients.

Because of the absence of qualified practitioners and suitable hospital facilities, the Marine Hospital, in the interest of humanity, has been forced to admit all patients suffering from major medical and surgical ailments. This has apparently been going on for generations. Although the local population is not entitled to the service, they have come to regard it as their right. The Marine Hospital is approved by the F. A. C. S., staffed by Public Health Service doctors and equipped to handle safely all situations usually managed in a hospital. The patients can be fed, laboratory studies made and trained attendants are available for care and anesthesia.

Local civilians are admitted through the Community Clinic and pay two dollars daily to the Treasury Department for all services. Only emergency cases are entitled to this service. Mrs. Robert Spottswood is the effective member of this clinic and administers its affairs very unselfishly and honestly. She is the daughter of a former Key West doctor (Dr. Maloney). Her knowledge of the local situation has been very helpful.

During the past year the daily census of the Marine Hospital has revealed a daily average of about three community clinic patients . . . Most of the patients have been suffering from automobile accidents, acute appendicitis or chronic conditions that have become acute from neglect . . . The Public Health doctors have quietly and efficiently given the civilian population of Key West a service for years. In conclusion the opinion was given that, "The local population is both

incapable and unwilling to arrange for their own medical care. Some agency is necessary ultimately to care for the seriously ill in Key West.”

The afternoon of January 1, 1943, several hours after the Marine Hospital was supposed to have ceased operations, service was extended another seven weeks by orders from Washington, D. C. Alteration in plans produced disagreeable circumstances for Doctors T. H. Rose and P. D. Holloway. Most of their staff of nurses, orderlies and other help had procured other jobs or made arrangements to accept transfer to other stations. In addition part of their equipment and the majority of supplies had been moved out of Key West. It was necessary to struggle along with an inadequate quantity of everything. However, duties were nobly performed up to February 15, 1943, when the doors were closed to the admission of patients. Mr. Neale, steward of the Hospital, took inventory of all the property and disposed of it through official channels; completing the task April 1, 1943. About this time the Navy released \$70,000.00 to remodel the interior of the building in preparation for the housing of WAVES.

It can be said without reservation that this institution probably netted the city of Key West more humanness than any other establishment within its limits. The type of work performed will represent a goal for others to exceed. It appears that benevolence was often demanded and given to the population at considerable expense to the U. S. Government; that the citizens were often unwilling to cooperate and help provide their own medical facilities when extended the opportunity to enlist philanthropic aid; and that the Federal Government will have to continue to be responsible for this hospitalization. Time will tell!\*

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A large part of the data consulted in preparation of this manuscript was housed in the attic of the Marine Hospital. When it ceased functioning as a hospital, the periodicals, books and other documents were taken up by the U. S. Public Health Service. Other documental sources are given in the references while some material was kindly supplied by these individuals: Sister Louis Gabriel, Convent of Mary Immaculate, Key West, Florida; Father Terrence King, Catholic Rectory, Key West,

\* The opinions or assertions contained within this article are not to be construed as official or reflecting the views of the U. S. Navy Department or the Naval Service at large. Released for publication by Bureau of Medicine and Surgery, U. S. Navy, October 4, 1943.

Florida; Captain H. A. Baldrige, USN (Retired), Curator, U. S. Naval Academy, Annapolis, Maryland; Captain Dudley Knox, USN (Retired), Officer-in-Charge, Naval Records and Library, Navy Department, Washington, D. C.; Lieut. Comdr. R. L. Pearse, USNR, Durham, N. C.; P. M. Hamer, Director of Reference Service, the National Archives, Washington, D. C.; Doctor T. H. Rose and P. D. Holloway of U. S. Public Health Service; Miss Marie L. Cappick, Miss Marguerite Lacedonia and Mrs. Robert F. Spottswood, all of Key West, Florida.

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# Some Reflections on the South Florida of Long Ago

JOHN C. GIFFORD

**W**HAT I shall have to say is probably not what many would call history. There is the old saying, "Happy is the land without a history." The originator of this saying had in mind conflicts and tales relating to the so-called great—which are not unlike the yells of triumph of the primitive man over his kill or the exaggerated tales of hunters and fishermen of today.

No matter how commonplace, the man who does constructive work well measures big in my estimation. I am interested in the inventor of the wheel, the man or woman who first milked a cow, the man who discovered bread, the man who made the first barrel, and above all, the men who introduced or developed the many things necessary for food, medicine and clothing. The school, the church, and the home are pillars of civilization, but there is a bigger pillar on which all depend, and that is food. Therefore, the science of subsistence is truly basic, and the history of this science in this Antillean Area is what has interested me.

Otis Barrett says "that agriology, the comparative study of mankind's modes of living before the civilized epoch, is one of the most interesting, yet most difficult of natural sciences".

Archaeology and history merge. One is dependent upon artifacts, the other on written records. When I find potshards (and they exist by thousands in kitchen middens everywhere) I wonder who molded the pot, and the source of the clay, but I wonder more as to the source and kind of food it once contained. The pre-Columbian man did his part and passed it on to the early settlers. The Indian chewed gum, ate corn on the cob, and gave to the white man such things as tobacco, (according to some historians tobacco first crossed the Atlantic from Florida to Portugal) chocolate and quinine. It is the part played by these early plant products that has puzzled me. I can often locate an old Indian camp-site by the wild cotton plants and cacti growing around it, both brought, no doubt, ages ago from nearby Cuba or Yucatan. The Yucatecan peninsula points

toward Florida and is not far away. Early travellers tell of meeting their large canoes far out at sea, and among the things for trade was chocolate. When it finally reached Europe it was mixed with milk to furnish the milk-chocolate of today, and the name no doubt is an imitation of the splashing sound when the Indian agitated the mixture of water and ground chocolate with his home-made molinet (the original egg-beater).

It is hard to segregate the indigenous from the naturalized immigrants. The hand of man has been working for a long time. The plant, the place, and the people cannot be separated. Bows, lances and clubs came first, after these the ox yoke, whip-stock, tool handle and the like, then finally the age of the match, toothpick and lead-pencil. We are now in the lead-pencil age. Over a billion lead-pencils are used each year in this country, and Florida cedar has been almost exhausted by this demand. It has no peer in this regard. It is light, easily sharpened, and rests comfortably over the ear or in the hair. It has been one of the most important adjuncts of our so-called civilization. Even the fact that its mark can be rubbed out is an advantage which gave rise to the common name, rubber, another great American Indian product. Our tropical Indian played with rubber balls, and the word "caoutchouc" is probably in imitation of the sneeze produced by the smoke in coagulating the gum of the tree. It is said that Mr. Goodyear of rubber fame, a member of Dr. Perrine's company, sought refuge in a wild rubber tree on the night of the Indian Key Massacre.

Chewing gum, so essential to the world, comes from the juice of the saponilla, a sturdy tree common on the Florida Keys. The ancient Mayan used it and mixed it with various medicines for the teeth and gums. It is now one of our greatest pacifiers. Stock in these companies is bought and sold in Wall Street in great volume by big traders. It has led to the discovery of many ancient ruins. About one out of every ten billboards along the highway advertise chewing gum. It has probably reduced the demand for chewing-tobacco, which is another plant of Indian origin. The plant first used was not tobacco. The Y-shaped tubes inserted in the nose were called "tabacs," but the substance smoked was powdered cahoba, a drug that deadened the conscious self, and brought the subconscious to the fore so that the subject told the truth, a drug which might be used to good effect on many people. Finally tobacco came into general use so that the tax on cigarettes alone amounts to \$350,000,000 a year, \$50,000,000 more than the annual cost of our Navy. (Not so today.)

Another common plant was a species of holly similar to the famous mate of South America. It was called the Black-drink of the Creeks. It contains caffeine, and when consumed in quantity clarifies the brain and body, and fitted the Indian for service in his council meetings. It is common in Florida and ought to be used when our legislature meets, instead of other kinds of liquors. The word "Osceola" is from "asi-yahola," "asi" the name of the leaves of the plant, and "yahola" the long-drawn-out cry when they started to drink. It is possible that our word "hello" comes from "yahola."

Intermittent fevers were common throughout the South, and among many bitter barks the Florida-quinine, or Georgia-fever-bark, was a common household remedy. The bark was soaked in rum, and at regular intervals the family and slaves lined up for their proper doses. Down on the Keys prince-wood bark was used. Both belong to the quinine family and have been almost exhausted. Dr. Perrine introduced the first powdered quinine into this country from France. Without this quinine exploration of the tropics would have been much delayed. It is still necessary in many places. During the Civil War the supply of quinine and other drugs was short in the South, and my friend, Dr. Charles Mohr of Mobile, now dead, was delegated to find substitutes in our own fields and woods. In this line he was very successful, and we have many things now not used, quite as good as articles imported from foreign parts. We need to study what the Indians and early settlers knew before it is too late.

When I first settled in South Florida the country was still wild. It was covered with a thick growth of Caribbean-Pine on the rocky highland. Although much of the land was unsurveyed there were many blazes on the pine trees. I soon learned that these blazes marked the tasks for the comptie gatherers. There were homesteaders here and there, and their only cash crop was comptie starch. Barrels of snow white starch were shipped by sailboat to Key West and then elsewhere by steamer. Here and there were little comptie mills. Nearby were bad-smelling heaps consisting of comptie refuse, much used for fertilizer. Many of these settlers depended on this starch while waiting for their groves to grow. The Indian hollowed out a pine log in the shape of a trough. After washing off the dirt, the squaws pounded these roots into pulp with heavy wooden pestles. They filled the troughs with water, the floating roughage was cast aside, and the white farina settled to the bottom. After thoroughly washing the starch it was dried in the sun and furnished an essential food for the whites, reds and blacks. It was superseded

in time by grits, but in the early days it was essential to the life of the backwoods settler. The *comptie* grew only on high dry land, and it was a picturesque sight to see Indians, negroes and whites together, digging these wild roots in the dense pinewoods. In those days the horseflies were troublesome, and rattlesnakes not uncommon. The red water resulting from the washings was poisonous, and if a dog or other animal drank from the puddles he soon died a painful death. It is more than likely that some aboriginal experimenters lost their lives in testing *comptie*. This water and refuse, however, were rich in nitrogen, so that limes, guavas and other trees planted in the clearings grew in great profusion. This industry died a natural death with the exhaustion of the *comptie*, and was followed by the sawmill which left very little in the way of natural resources.

The early settlers depended also on the cabbage palmetto, once so common in the Florida of old. The berries yielded a healthful medicinal drink called "*metto*." Canned palmetto salad is now famous, but it is a crime to sacrifice a tree which has been many years in the growing for a dish of salad. Many Indian and Cracker children have been reared on palmetto cabbage and alligators' tails. Of course, those near the sea had plenty of sea truck, including the famous turtle-egg pancakes.

In 1831 a forester, Patrick Matthew by name, wrote a book on "*Naval Timber and Arboriculture*." Mr. Matthew believed the only way to have peace was by universal empire: one powerful but just people must rule the world, and of course, the British Empire was his choice. This required a great navy, and since steel was not in use for ships at that time, Mr. Matthew felt that the greatest occupation for man was the production of crooked timber for ship construction, also, of course, for casks for water on ship-board and containers in which to age and transport their precious liquors. About two years previous to this book, a forest reservation of live oaks under the control of the Navy was established on Santa Rosa Peninsula near Pensacola. This was the first forest reservation in the Western Hemisphere, and its purpose was to provide live oak for the navy. They needed timber with natural crooks for ship-construction. This reservation lasted only two years because "the artificial propagation or culture of live oak was not authorized, nor necessary, in view of the existing forests of natural trees." The country must have been well supplied with timber a century ago, plenty of choice yellow pine for planking, and live oak natural crooks for timbers, although both Spanish and English must have used a lot of it near tide-

water for ship-construction. There are many famous live-oaks throughout the South, duel oaks where old timers shot at each other at dawn; suicide oaks, and oaks in the shade of which many important events occurred. They afforded grateful shade on old plantations where they served as shelters for farm machinery and stately avenues to Colonial homes. The Indians extracted a cooking oil from the live-oak acorns, and ate the sweet acorns of the cow-oak, the ribbons of the wood of which furnished the fine cotton baskets and woven chair seats of the South.

The lime was essential in those days. Pirates and buccaneers, for the sake of their health, planted limes by water holes in the West Indies to have the fruit handy for the prevention of the dreaded scurvy. Mouldy flour, wormy cheese and salt meat, without fruits or vegetables in time always produced the deadening sea-scurvy. Old English ships were called "lime-juicers." For many years there were lime trees around such springs as Harney's Punch Bowl in Miami. They are still there. Canova, an Indian hunter during the Seminole War, tells how they landed at Fort Dallas to deposit some captured Indians and then proceeded to Harney's Punch Bowl for water and limes. He tells also how he would have starved to death in the Glades without the chocolate-like substance in the seed of the fruit of the cocoplum. The coconut although not native was probably introduced very early by the Spainards to supply oil for lighthouses and cooking.

The pineapple industry was once the largest in the world on the East Coast of Florida and on the Keys. It is now almost a thing of the past, and like several other things, has gone to Cuba, Hawaii, and the East Indies.

The great sisal industry of Yucatan owes its impetus to the elder Mr. Deering, who once lived in Coconut Grove where he planted a few acres of sisal. Dr. Perrine introduced it into Florida. Later Mexico prohibited its exportation from Yucatan and Quintana Roo. Mr. Deering found in its fibre the best twine for the reaper-and-binder. I was on the old ship *Lizzie Henderson*, which took sisal slips from *Lignum Vitae Key*, where Dr. Perrine first planted them, to Nassau and Cuba.

In 1892 I saw grapefruit for the first time in Tampa. It was used only for ornament, for because of its bitterness only Negroes ate it. Today it is America's greatest breakfast fruit. Florida has the leadership in this industry, but will surely lose it if she ships green immature fruit.

In the early days cassava, or yucca, or tapioca was a common Florida

plant. It is still the mainstay of many tropical peoples, and probably the easiest of all crops to produce. It yields a famous starch, also the pepper-pot or cassareep, which is still the basis of some of our best food dressings, such as Worcestershire sauce. People circled around the old iron pot which was constantly simmering. Into the stew they threw many things, but by means of it there was warm food of some kind at all times. Our Seminole had the same with comptie for a base. In it there was a big wooden spoon from which all ate at any time. The heat killed the germs on the spoon when it fell back into the steaming stew.

I have mentioned only a few of the things which have helped to mold the Florida of today. There are many others, and to me the past relationship of plant, place and people is real history. From the days of Doctors Turnbull and Perrine, Florida, has been the proving ground of many soil industries. Just why so many finally failed and prospered elsewhere is hard to explain, unless it was due to the constant influx of new people, not soil and plant conscious, and not accustomed to the producing and processing of tropical and sub-tropical crops. They had other traditions and tradition is still as strong as ever in the lives of most of us.

# Adjudication of Shipwrecking Claims at Key West in 1831

By ALBERT W. DIDDLE

On April 20, 1831, an announcement was made, "to the Public" concerning the settlement of civil cases for the Maritime Industry of Wrecking in the Carribean, in the primary edition of the *Key West Gazette*. The notice read: "All vessels arriving at, or departing from this place, shall be reported at as early a day as possible. . . . In the event of a wreck being brought to this place, we shall endeavor to transmit the earliest information, and in every instance, when it is practicable, we shall publish in what manner the salvage may be determined, whether by arbitration or the decision of court."

Previously methods of handling wrecking claims had gone through a series of modifications. In the early twenties and before, no established rule existed. During that period most of the cargoes and ships rescued had usually been taken to Nassau or Havana for adjudication. As early as 1823 a wrecker law adopted by the Territorial Council of Florida permitted a notary or justice of the peace to call a jury of five persons to determine the disposition of "rescued property and the quantum of salvage." It was charged that wreckers along the coast generally carried their goods to Key West and under summary proceedings were allowed an exorbitant percentage, sometimes amounting to 57 to 95 per cent of the goods saved. That law was declared "invalid" by Judges Smith and Lee of "The Admiralty Court of the South Carolina District," and the tribunal incompetent.<sup>2</sup>

"Loud complaints had gone up regarding the doings of the Justice intrusted with the important work. Consequently the superior courts were given original and exclusive jurisdiction in all civil cases of Admiralty of Maritime jurisdiction." Nevertheless, the wrecker courts had defenders. It is on record that 95 per cent of the net proceeds of the property saved went to the salvagers in the celebrated case of the *Brig Revenge*.<sup>3</sup>

By 1826 the U. S. Government had effected a law requiring all salvage claims along the Florida Coast and from the waters thereabouts to be arbitrated in the U. S. Under the new ruling most of the legal business was transferred to Saint Augustine. Since the headquarters of wrecking was in Key West, the location was inconvenient. Therefore, in 1828 Congress gave Florida another judge, establishing the Southern Judicial District with the seat of justice in Key West. James Webb was the first man appointed to the bench in November 1828. He remained in office ten years. After his resignation William Marvin served this office from 1839 to 1845.

No other modifications in the laws governing this business were instituted until February 23, 1847 when Congress drafted a rule to make all salvors obtain an occupational license from the judge of the District Court of Florida. The court was obligated to see that each master had a seaworthy and well-equipped ship and to ascertain that the owner of the vessel was a reputable person.

Regardless of where settlement was tendered various arrangements for making payment to the salvaging crews were employed. Individual circumstances frequently required different procedures. For purpose of illustration cases have been taken from the *Gazette* news weekly in 1831.<sup>1</sup> The first libel suit published in this paper was brought by L. T. Sellers, claimant, against Thomas Rooke, libellant. The salvaged property was sugar from the schooner *Waverly*, which had been grounded March 24th on Florida Key 150 miles from Key West. April 12th Judge Webb executed this verdict: "Exertions of the libellant and crew perserved the cargo (with) extreme peril and labor" on their part. They shall receive "one-half of the amount of the sales." This was usually the maximum obtained by the salvor through the court. However, not less than one-third of the net value of the cargo or vessel was ordinarily accepted as full payment.

Occasionally one-half of the property rather than cash was forfeited. Compensation of this nature was recommended when the *Exertion*, of Eden, mastered by Captain John Thomas, went on the rocks near Tortugas with cotton on board. The barque, en route to Providence, R. I., from New Orleans, was a total loss "having bilged before assistance could reach her." The damaged cargo, sails and rigging were rescued by Captain Hoxie of the Schooner *Pizarro* aided by five or six fishing smacks.

If the shipowner could not pay cash, part of the spoil was decreed

for sale. This was done when the Brig *William Tell*, which was commanded by Captain Riley, was grounded on the night of April 11th at one o'clock in the morning on Bird Key near Tortugas Light. The voyage had begun eleven days previously at New York. The next port was to be New Orleans. The cargo consisted of an assortment of dry goods, cutlery, etc. Some of the commodities were shifted to the wrecker of Captain Hoxie and the Brig with its crew brought to Key West. The court allowed \$3,000 to be paid by sale of a portion of the freight to meet the charge.

Sometimes the libellant and the claimant compromised upon a certain price for service rendered. Such was true in the case of the Brig *Mary Hart* eight days out of New Orleans headed for New York with 180 hogsheads of molasses below deck. The vessel cast away in "heavy Weather" on Mosquito Shoal near Key Tavernier on May 30th. Wrecking parties from the Sloops *Brillant*, *Packer*, *Martha-Jane* and *Johnson* and Schooners *Thistle* and *Weden* removed part of the cargo. Shortly thereafter the damaged ship was towed to this port. One thousand dollars was the settlement made to the salvors for their work.

As would be expected the fall or hurricane season increased the relative number of disasters in the Caribbean. One of the initial catastrophies of the autumn of 1831 was associated with considerable bickering as to how much the salvors were entitled to for the work expended when the Brig *Concord*, commanded by Captain M'Known, was wrecked on Tortugas Reef October second. The vessel was 27 days out of New York en route to Mobile with \$15,000 worth of groceries, dry goods and other material on board. During the first three weeks, stormy weather had been encountered repeatedly along the Atlantic Coast. The ship's sails were torn to shreds. Agroundment occurred at night in a thick, heavy, blowing gale. Rescue of the balance of cargo and crew was performed under the direction of Captain Clift of the Sloop *Spermacetti* from Tortugas Light. When the case came to trial, the keeper of the beacon, Edward Glover, received \$750 and expenses from the U. S. Court for his aid in the effort. Many persons were under the impression that a much larger sum should have been allowed. "Some thought that at least \$5,000 would be given." However, Judge Webb voiced the opinion that lighthouse keepers might be "induced to operate their light for other than preservation" particularly if "temptation" of large fees was made available. In addition to the above sum the final judgement entailed payment of one-half of the net proceeds from the auctioned commodities

after miscellaneous expenses were deducted to the libellant, John Appleton.

Similar arbitration was ordered when the Brig *Doris* of Matanzas on the way to Portland, Maine, went on the rocks at Carysford Reef November 16th. Though damaged, most of the cargo of 300 hogshead of molasses were removed. Thirty percent of the amount collected from the sale of the goods or an equivalent of \$2,145 went to the wreckers.

Although the Good Samaritan Spirit to save lives and seacraft usually existed, business interests stirred the scavengers forth. Rumor of a shipwreck resulted in a frantic effort on the part of all persons engaged in the salvage industry to seek out and raze the incapacitated ships. Naturally the rescuers were not always successful in finding their game. For instance, on October 21st the Spanish Schooner *Seguroda* anchored at Key West. The crew gave out information to the effect that on the way from Charlotte Harbor they saw the Schooner *Ploughboy* stranded at Key Andote. As soon as the news had spread about town three fishing smacks and the Schooners *Florida*, *Rooke*, *Ariel* and *Bizeul* were ready to join the prospecting party. In the meantime there was mutiny aboard the *Ploughboy*. The crew deserted leaving no one on deck except the mate and Captain Stover. The two men heaved overboard "20 hogshead tobacco and a quantity of Pig Lead . . . one anchor and chain." Then the craft floated free with the incoming tide. Ultimately they maneuvered the ship into Key West without further aid.

Adjudication of the case of the *Florence* demonstrates how the shipmaster contacting the wrecked vessel first, reaped the greater portion of the spoils. The barque carried 300 tons of dry goods, furniture and other commodities. She had been off the ways only two months when damage on Tortugas Reef occurred November 9th. The total value of ship and cargo came to \$20,000. For salvaging the vessel and part of the load the wrecking chief was given \$3,000. Another \$200 was distributed among the crew.

Generally the citizens of the islet directly or indirectly benefitted by the wrecking industry. On the other hand they were often burdened with the care of the survivors who had to be clothed, sheltered and provisioned. Most of these unfortunates awaited means to continue their travel. Others took up residence in the community. The majority were law abiding but occasionally there were those who made a nuisance of themselves. A case in point was when the passengers from the *Maria*, which was mastered by Captan McMullin, became belligerent and

created a rumpus in town. The ship had become stranded on Carysford Reef November 25th, 15 days out of Philadelphia. The haul consisted of dry Goods, provisions and 230 laborers for the "Canal." Captain Houseman and Barker, respectively, of the Sloop *Sara Isabella* and Schooner *Motto* removed the cargo, crew and passengers. The latter were sheltered in a temporary encampment in Key West. Tents were provided. On December first the laborers had "free indulgence in their orisions to Bacchus." They threatened McMullin and his men. On a Friday so many of them congregated on Brown's Wharf that business had to be suspended. The citizens appealed to the Commandant of the Post, Major Glassel and Captain Shubrick of the U. S. Sloop of War *Vincennes* for military aid. Cooperation was granted promptly. A group of Marines under the command of Lieut. Engle landed at Greene's warehouse while troops under Lieut. Manning patrolled the streets. There was no further trouble.

In conjunction with the establishment of a policy for the civil cases coming under the Admiralty Courts, it became necessary to clarify the position of U. S. Naval Craft in lending aid to ships in distress. This was done officially in September 1831. The Federal Government issued a memorandum to the effect that "No compensation will be tendered for aid to distressed vessels (by any) ship of war."

Before dismissing our subject a brief account on the economical side of the wrecking industry is worthwhile. "Early in the thirties 250 to 320 American vessels" entered Key West annually and "ten to twenty foreign" were also included. See Table I. The imports and exports were less than \$100,000 a year. From December 1824 to December 1825, \$293,353 worth of salvaged property was sold here. The same year \$100,000 was paid for duties.

By 1835, there were 20 good sized vessels engaged regularly in wrecking. In addition there were some few of small tonnage. From 1848 to 1859, 618 ships were damaged on the Florida coasts with cargoes valued at \$22,000,000. Salvors collected \$1,595,000 for bonuses plus \$2,666,000 for expenses incurred in the trade. At the time the statistical report was made it was estimated that an equal number of wrecks south of Cape Canaveral remained unadjudicated. <sup>2</sup>

TABLE I

Number of ships entering Key West 1826 to 1830;  
Entrance at the Customs House.<sup>1</sup>

Year	1826	1827	1828	1829	1830	Total
Foreign ships	30	16	23	19	30	118
American ships	167	247	304	264	260	1242
Total	197	263	327	283	290	1360

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# Population Growth in Miami and Dade County, Florida

JAMES J. CARNEY

In several respects the growth of the population of Dade County is an interesting, if not unique, phenomenon. In an age when national trends disclose a definite movement away from the cities, Miami continues to expand with rapid vigor. In a nation, which, according to some (pessimistic) observers, is approaching economic maturity, Dade County exhibits potentialities which are proving an irresistible lure to men whose pioneering instincts lie close to the surface. In such a community, the reasons for population growth lie in the strength of inducements to immigration—the study of birth and mortality rates is unimportant.

The spectacular growth of Dade County's population began in the years immediately following World War I (Table 1). In each five-year period since 1920, Dade's population has increased by 56,247 persons on an average. Assuming this rate to continue—and there is every reason to suppose that it will—Dade County should have a population of nearly 500,000 in 1960.

The tourist traffic has been the most important single cause of this growth. The influx of tourists has been stimulated through promotion, improved means of transportation, and the increasing importance of leisure in the average American's scale of values. It has resulted in the creation of many jobs, especially in retail and wholesale trade, and in services in general. Job opportunities are the most important factor in the growth of population through migration.

There is a definite correlation between business activity, especially in trade and construction, and the rate of population growth in Dade County. The period of prosperity in the 1920's witnessed an increase in total population of approximately 100,000. The collapse in the construction industry towards the end of that decade preceded the general industrial depression by several years, and its effects upon Miami's population growth were evident at once. Between 1930 and 1935, Dade's population increase was 37,000—admittedly great, but only 65% of the average increase for the five-year periods since 1920. Between 1935 and 1940, returning pros-

perity increased job opportunities, and the population gain was roughly 87,000.

During the war years, the population growth was retarded to some extent. The 1940-1945 increment was approximately 47,000, some 9,000 below average. War industry and military installations largely, but not wholly, compensated for the loss in the tourist traffic in this period.

The war gave Dade County an opportunity to begin a program of economic diversification through encouragement to industry. Dade County has established a Coordinating and Planning Committee to prepare for the undoubted growth which the county will experience in the future. Intelligent planning promises to lend considerable impetus to industrial growth, and the prospects for increased population based upon the job opportunities thus created are good. Economic diversification will expand as a result of the technological developments in aircraft transportation coupled with Miami's strategic location.

The study of the distribution of Dade County's population shows that it is over-whelmingly urban (Table 2). Until 1930, the city of Miami grew more rapidly than the county as a whole. At that time, 77.4% of the county's population lived in Miami. Since then, the ratio has steadily declined until today it is 62.8%. Between 1930 and 1945, many large cities in this country have experienced a decline in total population, and although Miami has continued to gain, its rate of growth reflects the national trend. Between 1940 and 1945, the most rapidly growing communities were those north and west of Miami. Three factors are basically responsible for this movement. Industrial development is appearing north and west of Miami; the location of military installations is in the same area; and the tourist traffic, virtually excluded from Miami Beach during the war, moved into communities directly north of Miami.

Between 1935 and 1940, the tourist traffic, in an era of prosperity, was the decisive factor in the distribution of Dade County's population. The mortgage insurance policy of the Federal Housing Agency played a major role in the growth of Miami Shores, Miami Beach, and Miami Springs as well as other rapidly developing communities. There is an interesting contrast in the types of cities which grew more rapidly between 1935 and 1940 on the one hand, and between 1930 and 1935 on the other. In the former period, the communities experiencing the most rapid growth were those catering to the tourist traffic. In the latter period, such cities as Homestead and Florida City, which service agricultural pursuits, took their place among the more rapidly growing communities. This is a natural concomitant of industrial depression.

With the ending of the war, several factors promise to influence population distribution during the next few years. Among these the most im-

portant are: reopening of Miami Beach to tourists; the retention or abandonment of military installations; industrial growth; the development of airports, roads, and so on; the promotion of real estate developments; and the overflow of population from the center of density into adjacent areas on the north and west.

The colored population of Dade County is increasing at the rate of 8,649 every five years (Table 3), but this is proportionately less than the rate of total population growth. In 1920, nearly 30% of the total population was colored, compared with 17.7% in 1945.

There is a slight tendency for colored people to seek outlying communities (Table 4). The proportion of colored in Homestead and South Miami is gradually increasing, while it is declining in Miami and Hialeah. The great decline in colored population in Miami Beach and Coral Gables between 1940 and 1945 (Table 4) reflects the transfer from domestic employment to war activities, and may be expected to reverse itself in the near future.

In comparing the 1930 census data with the 1940 (Table 5), it is evident that throughout the United States as a whole, children under 15 are becoming a smaller percentage of the total population, while the percentage of persons aged 15 through 19 remains fairly constant. In other words, the average age of the nation's population is increasing. In Dade County each age group under 20 is becoming a smaller percentage of the total population, and, in addition, Dade County shows a smaller percentage of its population in each of these age groups than the country as a whole.

In the 20 through 24 age group, Dade and the Country as a whole have the same proportion, approximately; and this proportion did not materially change between 1930 and 1940.

In comparison with the country as a whole, Dade County has an appreciably higher proportion of its population in all age brackets from 25 through 44. This was also true in 1930. Dade's population in the age groups from 45 through 64 is somewhat greater than the country's as a whole, although the discrepancy is small. On the other hand, the proportion of the country's population over 64 is larger than Dade's.

A community which shows a smaller than average percentage of its population in the young and in the old age groups, and which at the same time shows a decidedly greater proportion of individuals in the age groups from 20 to 64, is not a community to which the aged come to retire. Rather, it is a pioneering community—one to which people come with the evident expectation of creating a home and gaining a livelihood.

In what economic activities do these people gain their livelihood? The United States Census reveals that in 1940 there were approximately

111,000 persons gainfully employed in Dade County (Table 6). Of these, 28,500 were employed in trade and another 25,000 in personal services. Thus nearly 50% of the workers were dependent in great measure on the tourist traffic. The construction industry was third on the list, but it employed only 10,500 persons, and was consequently far less important than the other two. Small numbers of people found employment in utilities, manufacturing, and professional services.

This situation is obviously unhealthy. An appreciable measure of economic diversification is urgently needed. Miami is not suitable, because of its location, for heavy industry, but it is hoped that the development of light and medium industry will be forthcoming in the years ahead. The removal of Miami's dependence upon the tourist traffic as virtually a sole means of economic growth should go far to stimulate the increase in Dade County's population. Care must be taken to avoid interference with the tourist traffic, however, for this will remain the major factor in the economic background of Dade County. Development in other economic activities must supplement and not supplant the basis on which Miami and Dade County have grown in the past. The prospects for continued expansion are excellent.

TABLE 1

POPULATION, DADE COUNTY

A. ORIGINAL DATA		B. TREND ORDINATE (Five-year increment, 56,247)
1920	42,753	42,753
1925	111,332	99,000
1930	142,955	155,247
1935	180,998	211,494
1940	267,739	267,741
1945	315,060	323,998
1950		380,235
1955		436,482
1960		492,729

Source: United States and State Censuses

TABLE 3

COLORED POPULATION OF DADE COUNTY

	ORIGINAL DATA	TREND (INC.: 8,649)	% OF TOTAL
1920	12,680	12,680	29.7%
1925	28,869	21,329	25.9%
1930	29,894	29,978	20.9%
1935	35,924	38,627	19.9%
1940	49,518	47,276	18.5%
1945	55,877	55,925	17.7%
1950		64,574	17.0%
1955		73,223	16.8%
1960		81,872	16.6%

Source: United States and State Censuses

TABLE 2  
DISTRIBUTION OF POPULATION IN INCORPORATED PLACES

	1925		1930		1935		1940		1945	
	TOTAL %									
Dade County	42,753	111,332	142,955	100	180,998	100	267,739	100	315,060	100
Miami	29,571	84,258	110,637	77.4	127,600	70.6	172,172	64.5	197,326	62.8
Miami Beach	644	2,342	6,494	4.5	13,330	7.3	28,012	10.6	32,327	10.3
Coral Gables		901	5,697	3.9	6,747	3.7	8,294	3.1	9,332	3.0
Hialeah		1,494	2,600	1.8	3,168	1.75	3,958	1.5	4,904	1.6
South Miami			1,160	0.8	1,690	0.9	2,408	0.9	2,761	0.88
Miami Shores			612	0.43	693	0.39	1,956	0.73	2,918	0.93
Miami Springs			402	0.3	443	0.2	898	0.3	1,860	0.6
North Miami Beach			520	0.4	1,457	0.8	871	0.3	1,965	0.6
Opalocka			339	0.2	522	0.3	497	0.2	1,835	0.6
Golden Beach			36				83		243	
Biscayne Park					450	0.25	500	0.2	1,204	0.4
El Portal							365	0.14	487	0.15
Surfside							295	0.1	1,001	0.3
North Miami					1,354	0.75	1,973	0.74	1,759	0.56
Homestead	1,307	2,114	2,319	1.6	3,034	1.7	3,154	1.2	3,072	1.0
Florida City	355	540	452	0.3	633	0.35	752	0.28	979	0.3

Source: United States and State Censuses

TABLE 4

GEOGRAPHICAL DISTRIBUTION OF COLORED POPULATION: INCORPORATED AREAS OF 1000 AND OVER

	1920		1925		1930		1935		1940		1945	
	TOTAL %											
Dade	12,680	100	28,869	100	29,894	100	35,924	100	49,518	100	55,877	100
Miami	INA*		24,549	85	25,116	84	27,632	77.0	36,857	74.0	40,986	72.0
Homestead	INA*		487	1.7	517	1.7	935	2.6	1,139	2.3	3,072	5.5
South Miami					388	1.3	822	2.3	1,166	2.4	1,447	2.6
Florida City											432	0.8
Hialeah					223	0.7	221	0.6	233	0.5	294	0.5
Opalocka											279	0.5
North Miami Beach							212	0.6			65	0.1
Coral Gables			46	0.2	449	1.5	523	1.5	839	1.7	58	0.1
Miami Springs											32	0.1
Miami Beach							324	0.9	736	1.5	7	
Miami Shores			56	0.2	230	0.8					57	0.1
North Miami							37	0.1				
Elsewhere	INA*	INA*	3,731	12.9	2,971	10.0	5,218	14.4	8,484	17.5	10,091	17.8

\*Information not available Source: United States and State Censuses

TABLE 5  
AGE COMPOSITION: POPULATION DADE COUNTY  
FEDERAL CENSUS: 1930-1940  
A-1940 B-1930

AGE	A-1940			B-1930		
	TOTAL	DADE COUNTY %	U. S. %	TOTAL	DADE COUNTY %	U. S. %
under 5	16,764	6.2	8.0	12,058	8.4	9.3
5-9	16,507	6.2	8.1	12,709	8.9	10.3
10-14	18,945	7.1	8.9	11,255	7.9	9.8
15-19	19,219	7.2	9.4	10,675	7.5	9.4
20-24	23,605	8.8	8.8	12,656	8.8	8.9
25-29	26,572	9.9	8.4	14,537	10.2	8.0
30-34	25,774	9.6	7.8	13,529	9.5	7.4
35-39	25,031	9.3	7.2	(23,261	16.3)	7.5
				(	)	
40-44	21,706	8.1	6.7			6.5
45-49	18,219	6.8	6.3			5.7
				15,955	11.2	
50-54	15,854	5.9	5.5			4.9
55-59	12,130	4.5	4.4			3.8
				9,659	6.7	
60-64	10,102	3.8	3.6			3.1
over 64	17,239	6.5	6.9	6,531	4.6	5.3

TABLE 6  
INDUSTRY GROUPS OF EMPLOYED WORKERS:  
14 YEARS OLD AND OVER, 1940

INDUSTRY GROUP	NO. EMPLOYED WORKERS			% OF COUNTY TOTAL		
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
Persons employed	111,002	75,822	35,180	100.00	100.00	100.00
Agriculture	5,158	4,548	610	4.65	6.00	1.73
Forestry and Fishing	180	175	5	.16	.23	.01
Construction	10,518	10,325	193	9.48	13.62	.55
Manufacturing	7,879	6,990	889	7.10	9.22	2.53
Transportation and other Utilities	8,195	7,358	837	7.38	9.70	2.38
Wholesale and Retail Trade	28,562	20,189	8,373	25.73	26.63	23.80
Finance, Insurance, Real Estate	6,032	4,015	2,017	5.43	5.30	5.73
Business and Repair Service	2,871	2,603	268	2.59	3.43	.76
Personal Service	24,988	8,831	16,157	22.51	11.65	45.93
Amusement, Recreation, Etc.	3,270	2,850	420	2.95	3.76	1.19
Professional Service	7,643	3,471	4,172	6.88	4.58	11.86
Government	3,591	3,075	516	3.24	4.05	1.47
Mining	148	146	2	.13	.19	.01
Ind. not specified	1,967	1,246	721	1.77	1.64	2.05

Source: United States Federal Census

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this first report were used in making up Senate Document 89, with its small map, in 1911, but this is almost worthless compared with the original report. Most of the Buckingham Smith material is in possession of the N. Y. Historical Society.

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## Contributors

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