

Digging the Cape Sable Canal

By LAWRENCE E. WILL

My old friend Captain Scott Holloway, who had thrown his first muck in the Everglades when the drainage work started in 1906, had told me in the summer of 1921 that he had been looking over a prospective dredging contract at Cape Sable.

“Well, did you bid on the job?”

“No, I didn’t bid on that job, and I’ll tell you why. I went down and looked it over good. Part of the digging wouldn’t be too bad. That’s in the swamp. But then you get out into the prairie! That prairie is so soft that a man can’t walk on it! The dredge couldn’t even spud up. It’s just as soft as soup. That’s what them people who live there calls it, “soup-doodle muck”. Then they ain’t no good way to get fresh water for the boiler. Even if we could get the little old dredge to dig there, you couldn’t get no crew to stay. They just couldn’t stand it. I’ve worked in these swamps and glades most all my life, but that’s the worst place for mosquitoes I ever seen. Them, and deer flies, and every other kind of insect you ever heard of. They ain’t nobody crazy enuf to stay down there and work. You couldn’t even keep a gang of convicts there. No sir, I don’t want none of that Cape Sable!”

The next time I heard of Cape Sable, Cap Holloway had taken the contract and had hired me to do the towing. At 4:30 the next morning Cap Holloway’s partner, J. T. Schroeder, picked me up in his new model T for the long trip from Ft. Lauderdale to Homestead. On the way he explained that since no company had wanted to accept the contract, he and Holloway had been offered such favorable terms that they had decided to attempt the job.

Several years before, a canal had been started in the Glades, west of Homestead, and had been dug south-westward nearly to the tip of the peninsula. The new contract called for continuing this canal to the west, or Gulf Coast. The land involved belonged to the Model Land Co. which in turn belonged to the Florida East Coast Railway. The canal was for drainage and to furnish fill for a road bed. The land company intended to try to develop and sell some of this wild land.

We arrived in Homestead. Mr. Schroeder introduced me to his truck driver, Ed Oliver, and after some brief instructions, returned to Miami. This truck driver, and his truck were to be henceforth the only connecting link between the dredge crew and civilization.

Ed's home was also in Ft. Lauderdale, though in his youthful days he herded cattle in Kansas and Colorado. He still affected a wide brimmed felt hat. He was short of stature, but had a self-sufficient manner that let the world know that he was quite capable, under any circumstances, of taking care of Ed.

His truck, a White by name, but yellow in color, was stripped to bare essentials. It had a flat deck, with short stakes instead of sideboards, and no cab, but fortunately, it at least had pneumatic, instead of solid tires.

After loading some groceries and other supplies for the dredge, Ed announced, "Take a good look at the sidewalks, the picture shows and the women, for it may be many a day before you see any of them again."

However, I assured him that after living six or seven years at Okeelanta, the glades and swamps did not dismay me any.

Our course was west and south from Homestead over a fair rock road which led for several miles through a beautiful stand of virgin South Florida slash pine timber. The land in this district is limestone rock, uniformly flat, nearly smooth and almost devoid of any soil. This makes road building simple, but would seem to furnish little encouragement to the growth of plants or trees.

Ten miles from Homestead, the road left the woods and crossed an open prairie. In the distance stretched a chain of long narrow islands, or hammocks, reaching from north to south. Directly ahead lay Paradise Key, the principal hammock of the group. High above the jungle growth reared the graceful tops of the many palms from which this "Royal Palm State Park" received its name.

Even an old glades muck rat could not fail to be impressed by the beauty of the scene. The easterly sun intensified the greens and shadows of the jungle. The feathery fronds of the up-thrust royals dipped to the gentle breeze. The whole picture was set off, as though framed, by the green of the prairie in front, and the white-clouded sky above.

Driving through this hammock, under over-arching trees, we glimpsed the park attendant's lodge, and many winding foot paths which are said to

reveal rare specimens of tropical plant life, as well as gaudily colored tree snails, tropical butterflies, etc.

Beyond this key spread a wide panorama of open prairie, studded with occasional islands of pine, cabbage palm or dense jungle growth. Here the lime rock was, in places, covered with a thin coating of soil. Old fields ridged for tomatoes showed where crops had been planted in past years.

Not a human habitation did we discover, until about half way to our destination. I was surprised to see, in this desert prairie, a large two-story house with wide veranda, surrounded by a small grove of citrus trees, and all bordered and set off by rows of young cocoanut palms. Flower gardens proclaimed the presence of a woman in this dismal place. I was told the grove was owned by W. S. Jennings, ex-governor of Florida.

It was an incongruous sight. This large house and well-tended grove dropped here in what appeared to be, without doubt, the most worthless and inconvenient spot in the whole Everglades.

Still wondering, we continued. Our course was now southward and apparently it was approaching the coast. To our left, the scrubby, spider legged mangrove appeared. It became nearer, higher, and denser, as we advanced. Nearby on the barren ground, shiny, green leaved rosettes indicated the start of new mangroves in the watery prairie.

At length, and almost abruptly, this scrubby growth changed. We were now some 35 miles from Homestead and near the Dade-Monroe county line.

This county line was, incidentally, the end of the rock surfaced portion of the road. From here on it was composed of a grade or fill of light grey, clay-like marl. When dry it made a fairly good road surface, but when wet — Oh boy! — greased glass could not be any slicker.

After bumping over the ratty road a few miles further we arrived at our destination. Parked on the edge of the road grade in the gloomy shadows of the jungle, was a discouraged looking school bus which had been remodeled into a cook shack. Here we stopped and were immediately greeted by our constant companions-to-be — a swarm of hungry mosquitoes.

THE DREDGE

On the far side of the canal was a dilapidated spectacle — a floating dredge, of the type known as “American Steel”, once very popular in the Glades. Now its steel hull, its boom, and A-frame were red and scaly with

old corrosion. Its corrugated roof was moth-eaten by rust. The stack leaned crazily. The dipper rested on the bank, its handle bent and twisted. Evidently it had not seen service for several years, and that service had been rugged. Grouped around the boiler at the after end was a group of sad-looking men, wrenches in hand, with smudged faces and clothing unbelievably black and greasy. They scarcely gave us a glance, although I felt the arrival of the truck should be an event of at least shouting importance.

On our side of the canal was moored a most rickety and ramshackle houseboat, which was to be my home for the next nine months. It was eight feet wide and thirty feet long. A wide screened window extended the length of each side. These windows were covered with shutters of tattered canvas, which when raised, served as awnings. A screened vestibule at one end contained a bench for the water bucket and wash bowl. A toilet overhung the other. Inside, the only furnishings consisted of sixteen bunks, made of one inch boards supported at the ends, so they would have a little "give" in the middle. They were furnished with thin mattresses of cotton which compared unfavorably with the straw filled bed tick with which some of us were acquainted in the army. This houseboat was erected on a steel barge, which, though the top was barely above water when loaded, never sank, and strangely, did not even leak.

As we arrived about noon, it was not long before we heard the cook's welcome hail — "Come and get it!"

Half a dozen greasy men ferried themselves across the canal in the rowboat. After a somewhat desultory scrubbing at the cook house door they filed inside and inserted themselves between the long bench and the white-scrubbed board table. Dishes heaped with porkchops, mashed potatoes, and peas graced the table, plus a large cup of coffee at each place. Apparently this company complied with the dredge boat tradition of feeding plenty. The food was well cooked, but the heat in this tiny bus was stifling, and the mosquitoes only slightly less annoying inside than on the exterior.

After eating, Ed held a short consultation with the captain, and announced that we would have to return to Miami to get some machine parts for the dredge.

The following day was spent in Miami and after a stop in Homestead we arrived again at Royal Palm Park after dark. Here just west of the hammock we stopped at a rough building on the side of the road to spend the night. We were greeted by an acquaintance from Ft. Lauderdale, a boat carpenter

named Music, of the euphoniously named boat building concern "Music and Bird". He explained that he, with half a dozen helpers, was here to build some barges for the use of the dredge.

Here I learned the explanation of something which had puzzled me. I noticed that our dredge down at the Cape was in a canal which had no inlet nor outlet. It was obviously too large to haul overland. How had it gotten there? The explanation was that it had been built there at the end of the road and launched into a pit dug by a dragline. After which it had continued the road bed by excavating rock, and floating in the canal thus produced.

By the dawn's first light we bade good-by to Music and his crew and again headed for the jungle. On arriving at the dredge I was introduced to an open launch with a four cylinder engine, and was told that my job would be to keep the dredge supplied with water and wood. For the first couple of weeks while the dredge was undergoing repairs, there was but little demand for the services of the boat.

This dredge was equipped with an electric generator, which furnished lights for night work, but Capt. Holloway could recall having worked, as a boy, on dredges where iron baskets hung over the bow, and filled with burning "lightered knots" supplied the only illumination for the operation; when dredges used chains instead of wire cable to hoist and back the bucket; and when instead of a tow boat, a deckhand with rope over shoulder stumbled along the canal bank to move up the fuel barge.

My first arrival at the dredge had been on January 2nd, 1922. Now, on the 16th of January the machine was ready to go to work. With side spuds raised, it progressed the two miles to the end of the canal and road grade. This was accomplished by running the dipper out to its full extent, dropping it to the bottom of the canal and then pulling the dredge up to it. This apparently simple procedure was not without a certain amount of risk. The dredge was so narrow and so top heavy, that, with the spuds raised, it constantly threatened to capsizes.

As launchman, it was my job to bring up the houseboat and the cook shack barge, which now replaced our old school bus. During this operation the propeller of the launch slipped off the shaft and was lost. After spending a couple of hours in the rain trying to find it, I gave up, and Ed was dispatched to town to get another. The following day, after attaching the new wheel, I ran the launch back up the full length of the canal to Royal Palm

Hammock, and brought in the new barges built there by my friend Music. There were three, built alike. Each was eight feet wide and thirty feet long, with a long rake or slope on each end for easy towing, and with a small deck forward and aft. One barge was for hauling wood and had a floor in the bottom. The other two, for water, were provided with several transverse bulkheads to prevent the load of water from surging forward when the barge slowed down. With the dredge now digging, my daily routine began.

Dropping the eyes of the towing bridle over the bits of a water barge, I snatched the empty barge up the canal for a distance of six or eight miles or so to where the fresh water from the glades was no longer contaminated by the brackish seepage from Coot Bay. This was determined by tasting the water as I rode along. Having proceeded far enough, I would then stop my engine to fill the barge. This was accomplished very simply. I pulled a wooden plug out of the bottom and allowed the barge to sink. When sufficiently full, the plug was replaced. The tow line would be changed to the other end and the return trip begun.

The launch which did the towing was a sixteen-foot open boat powered with a museum piece of an engine said to have originally been in Ft. Lauderdale's first fire truck. Before that, it had graced one of the town's first automobiles. The engine had plenty of power, but as may be imagined was as temperamental as a prima donna. It would run perfectly for three or four days, then on some dark and rainy night would start to miss. Into the canal bank would head the barge — smack! The precious water would surge forward and over the side. It was immediately replaced by an equal quantity of salt water from the canal, which ran in before the barge swung free. Now, although it was no problem for me to fill the barge, I had no means to empty it. Consequently it would be necessary, after working on the engine by flashlight a longer or shorter time, to tow the tainted water to the dredge where it could be pumped overboard. By the time another trip could be made, of course the boiler would be out of water and the machine shut down. After a few such experiences, Music was again called. He decked over both water barges and caulked the seams. At each end a hole was left, surrounded by a twelve-inch coaming, through which the "sinking plug" could be manipulated, and the boiler's suction hose lowered. The dredge, now, with a full head of steam, was making good progress. A two hundred foot wide right of way had been cleared through the swamp and the bucket dug into the hard grey marl, dumping it in a high regular bank on the left where it was later to be graded smooth to continue the road bed. At first the men worked two

shifts, from 3 a. m. till 9 p. m. This required two barges of water a day, and with the troubles I was having, it was usually a very long day.

During the time that the dredge was being overhauled, the only drinking water available was that obtained by sinking the barge up the canal. It was clear and tasted good, and of course was not contaminated by humans. At Okeelanta the people had all drunk canal water from Lake Okeechobee for years, and without any bad effects. When the dredge got up steam and started to dig, it was the fireman's task to distill a supply of drinking water each day. Now, this distilled water was a fearful beverage. In color it was a Gulf Stream blue. It tasted like degenerated boiler scale. Its odor was penetrating and revolting, and on top floated a film of engine oil. When driven by the pangs of thirst, one would fill the tomato-can drinking cup, wait a few seconds and blow off the oil, hold his nose, shut his eyes and gulp it down. It was about as palatable as that chills and fever remedy known as Three Sixes. Later, when we quit digging at night, the water was distilled while the dredge was shut down and its quality improved somewhat. Until then it was not much better than the bitter water one gets from the base of a giant pigweed when lost in the sawgrass.

THE CREW

On February fourth we started digging three shifts. The previous night, upon returning to the dredge, I had been surprised to find the houseboat filled with an assemblage of new faces, one of which was that of a new captain. He was to relieve our first captain, who had been compelled to quit the job, and go back to town.

Our new captain was no less than Hampton T. Holloway, commonly known simply as Cap Hamp. He was the brother of Capt. Scott Holloway, the contractor. Cap Hamp did not resemble the usual rough looking rugged type of professional dredge man. Both in looks and conversation, his appearance was more that of some successful business man. Although his life had been spent on dredges, he had educated himself by correspondence courses and otherwise, until, while still quite young, he had been given command of a large hydraulic dredge deepening the channel at Pearl Harbor, Hawaii. His last job had been command of the big dipper dredge "Caloosahatchee", which was digging the St. Lucie Canal between Lake Okeechobee and Stuart. For some reason, he had resigned from that job. Quite a number of the crew had quit at the same time. If they had known what they were getting into, they might have remained. To leave that comparatively palatial dredge and

come to a greasy, filthy old "tea kettle" in these mosquito ridden swamps was, indeed, quite a come-down.

Cap's first act upon coming aboard was to fire most of the members of the old crew. Whereupon, his authority having been demonstrated, he immediately hired them back again.

Of the three new diggers, Gus Roberts, fat, quiet, and good natured, had been on the "Caloosahatchee" many years longer than Hamp. Before that, he had operated steam shovels in the phosphate mines at Bartow. He told of unearthing there many bones and skeletons which were complete and in a remarkable state of preservation. When found, they would be uncovered by high pressure streams of water, and would then be examined by scientists.

Gus's craneman and inseparable companion was Hubie Boree, considerably younger and much smaller than big Gus. Good natured Gus had probably never been angry at anyone in his life, yet he continually grumbled and nagged at Hubie, like an old mother bear with a precocious cub. When Hubie had had enough, he would retaliate in kind, or else retort, "Now Gus don't talk so kind to me. You know I ain't sick!"

The second new digger was Lloyd Gilliland, slim, neat and reserved. He was the cleanest of all the dredgemen. In a place where it was so easy to get filthy greasy, and so difficult and inconvenient to get clean, this was an unusual distinction.

The other digger was Dilday, nicknamed "Doctor". He always had advice for every ailment and injury, and could usually produce some kind of first aid treatment out of nowhere.

Then there was a new launchman, "Blondy" Pritchard. Yellow haired, short necked, square faced, he fairly bulged with muscles. He looked like a wrestler or an iron worker out of his element. Just as a red haired person has no use for a first name (he will always be known as Red), so the fact that Blondy had another name remained unknown for months. It developed that he had the same first name and initial as myself — Lawrence E. Thinks I, "That's my new partner, and he looks like a dyed-in-the-wool rough customer. I bet that guy will be hard to get along with." But first appearance can be deceiving. He was so anxious to do his share of the work that I had frequent arguments to keep him from also doing part of mine.

FLAMINGO

Inspired by a quite understandable curiosity, Blondy and I decided one Sunday to inspect the sights of the city of Flamingo. The dredge had pro-

ceeded two miles westward from where we had started digging, then had made a sharp right angle turn to the left toward the settlement on the bay. It was now nearing the edge of the swamp. We had walked but a short distance when we emerged into a beautiful clearing or meadow carpeted with Bermuda grass and dotted with occasional small trees. It extended about a quarter of a mile ahead and the same distance on each hand. It really was a delightful vista after all the miles of mangrove swamp. Beyond this pasture a weed grown prairie with now and then a cabbage palm continued down to the bay shore. The bay itself was cluttered with numerous mangrove keys of which I counted thirteen, several of which were fairly good sized islands.

Although we had been told that this was the location of the settlement, we could see but three habitations. One dismal looking house on pilings stood nearby to the westward. Another was on a small point of land to the east. The third, which we later learned belonged to the Irwins, perched on the island directly ahead. A rutted road indicated that there might be other habitations still further west.

So this was the town of Flamingo! Three houses! There were no other inhabitants between the Atlantic and the Gulf of Mexico, except one at East Cape eleven miles westward and one more beyond that at the Middle Cape coconut grove.

At this time the fortunes of Flamingo were at low ebb. Although people had lived at the Capes for many years previously, the peak of its prosperity had been between the years 1898 and 1905, during which period about fifty families had lived in the Cape Sable area. Flamingo had boasted a school and postoffice, the latter presided over first by Judge Lowe and later by Robert Douthit and Gene Roberts. Even East Cape reportedly had had a postoffice in 1904 in charge of a settler named Walkis.

Some of these settlers had fairly good homes. Uncle Steve, before moving to Flamingo had owned a nice place about three miles further west. The house has now disappeared but the palms which surrounded it and the large concrete cistern still remain. The finest home belonged to Irwin's son, Coleman. The Flamingo Ranger Station, surrounded by his coconut palms, now marks its site. With its five large rooms, it was the largest and likewise the most strongly constructed of any house on the beach. The framing, all of driftwood, was made to withstand any hurricane. The floor was seven feet above the ground. 8" x 8" posts, imbedded deep in the marl, extended clear to the roof. All the sills were 14" x 14". Floor and roof joists were 2" x 12"

planks and each studding was four inches square. But of this house, more will be told later.

Their reasons for coming to this remote spot in those early days were as various as were the settlers themselves. Some came to farm, some to hunt, and some, it was whispered, to evade the law. Once here, few cared to leave the pleasant climate and easy life of hunting and fishing. The bay abounded in fish and game was plentiful. If a man decided after dinner that he would like to have venison for supper he never had far to go. Ordinarily he would shoot nothing but a young buck or a doe. If he should chance to sight a buck with extra large horns, he might kill it, but only to get the antlers.

The predominant families were the Douthits, the Robertses and the Irwins. The head of the Douthit clan, Robert S., was from North Carolina where his father, Edward J., had owned a large plantation. Like so many other planters, he had been nearly ruined by the Civil War, and then the carpetbaggers stole what remained. Robert migrated south as far as a railroad could take him, which at that time was Palm Beach, whence he continued by sailboat to Lemon City, there being, as yet, no settlement at Miami. He farmed at Allapattah in 1892 when there was only pine forest between there and the Miami River. His wife, of pioneer stock, had just arrived from Texas via covered wagon, having crossed the Kissimmee River at Bassinger, thence to Ft. Pierce and by boat to Little River. Here they were married, but in 1902 they moved to Flamingo and homesteaded four miles west of our canal. Later Robert bought the nearby homestead of Jack Matthews which had a small but comfortable five room house.

The prairie extending from the bay to the swamp was from one-half to a mile in width, and was very fertile. Until impregnated with salt from inundation during the 1910 hurricane it would grow almost any kind of vegetable. Tomatoes, beans, peppers, egg plants and even asparagus were grown and shipped by sailboat to Key West. Here they were transferred to refrigerated steamers for the market in New York. If they arrived in good condition, the produce was almost sure to bring top prices. However, since adverse weather might cause the boat to take two or three days to reach Key West, many a shipment was spoiled on the trip.

All farming was on a small one-mule-power scale. Douthit was the largest farmer. At one time he had five acres in sweet potatoes and fifteen in sugar cane. The latter being used (at least in part) for the manufacture of syrup.

The father of the Irwin boys had come from Missouri where he had been engaged in the manufacture of bricks. Upon arriving in Dade County and discovering that coral rock was most unsuitable for the purpose, he had moved on to Cape Sable in 1898 with the intention of making bricks from marl. Instead, however, he had for a time, tended the coconut grove and later did some farming. His daughter, Carrie, to whom I am indebted for much of this information, still lives near Homestead where she operates a nursery and tends her citrus grove. She was only seven years old when she arrived at the Middle Cape grove and played in the trenches of the old fort. In 1905 she married Robert Douthit's brother Johnnie, raised a family of boys and remained in Flamingo until 1921.

Probably the most colorful, and certainly the best known of these old timers, was Uncle Steve Roberts himself. His reason for coming, however, was said to have been connected with the untimely demise of one of his neighbors near Callahan, up Jacksonville way.

Life at the capes must have been both pleasant and healthful, although, of course, there was at times the matter of insects. Mosquitoes, to be sure, were not nearly so troublesome along the beach as they were back in the swamp. Besides, we were told "you get used to them". The houses were screened — with wire mesh when obtainable — otherwise with cheesecloth. And remember, black mangrove makes the world's best smudge smoke. Sandflies were bad only in a few places on the mainland and on a couple of the keys. Probably the most troublesome pests were the fleas which always appeared when a load of empty charcoal bags was brought in from Key West, but fortunately they did not last long. It must have been during one of these periods that the naturalist, Leverett Brownell, stopped here in 1893. He recorded that Flamingo was populated by a rugged group of men who appeared to be refugees from justice; that flea powder was the staff of life, and that he was present when a swarm of mosquitoes extinguished an oil lamp. He also noted that the only seeming reason for Flamingo's existence was the low cost of living, one of the inhabitants having sold his entire winter's crop of tomatoes in Key West for only 87¢.

Kay Irwin, upon being asked what people at the Capes did for a living replied enigmatically "Well — mostly this and that," which left the field open to draw one's own conclusions. However, aside from plume hunting and shining, there were various other industries to which they might resort. Black mangrove was shipped to furniture factories for mirror backs and drawer bottoms. Red mangrove furnished dye wood and tan bark. But the steady

income was from marketing of "coal". Before the day of the kerosene stove, charcoal was the fuel commonly used for cooking and heating. Good button-wood charcoal would bring \$1.50 per sack in Key West and there was always a steady demand.

All of these together, however, were but "grits money" compared to the fantastic prices obtained for the plumes of the snowy egret. These beautiful birds, their spidery feathers in intense demand for the adornment of ladies hats, had almost reached the point of extermination. The last few flocks remaining in the United States had retreated to the almost inaccessible mangrove swamps of Cape Sable. Their plumes were worth more than their weight in gold.

While it lasted, the plume business was a bonanza. But regardless of its plumes, the abundance of its fish or the plentifulness of its deer and game, I am reliably informed that at that time, and even today, there is no place in the state of Florida which can hope to compete with Cape Sable in the abundance and ferocity of its principal product — mosquitoes.

INDIAN MOUND

The land back of the settlement at Flamingo was a high marl prairie supporting a great many cabbage palms as well as a variety of other trees. There was less undergrowth, and the woods were criss-crossed with the ruts made by Ford Model T's. Uncle Steve Roberts said he had tried to do a little farming there, but without notable success. When it was wet, it was too wet, and when it was dry the ground was hard as rock.

Upon reaching the shore at Flamingo, the dredge did not open the canal into the bay. Instead, it left a dam to hold back the water in the canal, thus assuring flotation for the dredge for the remainder of its work. It then kicked back to where it had turned south, and resumed its westward course. It had progressed $\frac{3}{4}$ mile in this direction when the right of way detoured in a wide sweep to the left around the base of an Indian mound. The jungle growth here was unusually dense. Around the base of the mound were a number of tall royal palms. Two or three had died and fallen down. The insides of the trunks had rotted out leaving only the paper-like outer shell. No royals, but many other large trees grew on the mound itself, and the whole was covered with such a dense growth as to be almost impenetrable. This made it difficult to estimate the size of the mound, but it appeared to be about two hundred feet long and seventy-five feet in width.

The top had an elevation of six to eight feet. Shallow excavations had been made in various places around its base, which indicated that desultory attempts had been made to explore its secrets. We did not disturb the mound, but after the dredge had passed it, we discovered numerous bones imbedded in the side of the ditch bank. Most of them had been broken by the bucket. The Irwins gathered several boxes of these bones, with the intention of sending to the Smithsonian Institution in Washington. They had previously forwarded other bones taken from the mound. The receipt of the shipment had been acknowledged, but they had never learned whether they had any archaeological significance. To their knowledge, no pottery, flints, or other artifacts had ever been found here.

The civil engineer of our project, Mr. A. R. Livingston, had told us that a prehistoric canal extended from Mud Lake, just north of this mound, to the Bay of Florida. I decided to explore this ancient engineering feat. It was not hard to locate, since each bank was bordered by an impassible barrier of bushes and scrub growth. The stream itself was practically choked with a thick stand of small mangrove trees. The only way to follow this slough was by scrambling, jumping and swinging monkey-like from one mangrove root to another, ducking under branches, and occasionally slipping into the water. After progressing in this way for only a few hundred yards and finding nothing of interest, I decided the game was not worth the candle. After snapping a picture or two, I scrambled back to the mound.

A short distance beyond the Indian mound was the camp of the right-of-way men. This crew consisted of both the Irwin brothers and several others, backwoodsmen all, of whom Thad Padgett, Lonnie Parker and one or two others later worked on the dredge.

These men had a simple lean-to shack made of poles and thatched with palm leaves, very picturesque, though not very water proof. The only furniture consisted of army cots draped, of course, with the inevitable mosquito bars. Nearby they had contrived a primitive arrangement for distilling drinking water. The raw water was in a gasoline drum under which a fire was burning. The steam was conducted through a pipe running the length of a hollowed out palmetto-log trough filled with cooling water. From the far end of the pipe the distilled water dripped into another drum. The product was a far more palatable drink than what we had to endure on the dredge.

It was the job of this crew to cut down all the trees and smaller growth

in a two hundred foot wide clearing through the forest. They also cut the trees into four foot lengths and racked them in cords on the right hand side of the clearing to be used later for fuel by the dredge. Although these trees towered high in the air, about half of the wood was in the roots and branches. These men were paid by the cord and did not waste anything.

After watching these wood cutters work, we dredge men did not feel so sorry for ourselves. Besides the fact that swinging an ax all day was the most strenuous of labor, these men were in the thick of the forest. Even in the winter it was plenty hot most of the time. The dense growth shut off any cooling breeze, so they were soaked in sweat from dawn till dark. The mosquitoes hovered around them in a constant swarm. To add to their discomfort, some areas were covered with water in which they must work for days on end. We all agreed that we did not see how they could endure it, but they appeared to be quite cheerful and philosophical.

On this high ridge which was apparently dry most of the year, and which extended from the county line to the west side of Bear Lake, mangrove trees grew, not only in profusion but to a remarkable height. Here, its very appearance is radically different from the mangroves on tidal flats. The branching and rebranching roots may extend ten feet above the ground. Above them the straight trunk extends twenty to thirty feet before branching into its crown. In the area described, they stood in dense, almost unbroken stand, interspersed here and there with a buttonwood, a rubber, or black mangrove.

That was at the time of this story. Now there remains only the whitened trunks, prone on the ground, felled by the fury of the 1935 hurricane. Strangely enough, no new growth of mangroves has replaced them, probably because this land is now so high that the life-sustaining tidal waters no longer reach this area.

The black mangrove, though growing among them, bears no resemblance whatever to the red variety. Its trunk, tall and straight, springs directly out of the ground. The bark is rough and black and the wood a dark brown. A peculiarity of the tree is that, no matter how thrifty it may appear to be, there are always some of the crooked branches which are dead. This dead wood, when put into a bucket and ignited, will smoulder like punk, emitting a pungent and not unpleasant odor. It makes an ideal smudge to repel mosquitoes. Such smudge pots we kept constantly burning on the lever stand of the dredge, at the door of the houseboat, and even beside the steering wheel

of the launch. By a wise provision of Providence, the black mangrove tree is found only in those parts of Florida where the mosquitoes are particularly bad.

Strikingly beautiful was the stand of wild royal palms, tall, straight, and symmetrical, grouped on the south side of the mound. A much finer, although smaller group had been passed about one-eighth of a mile east of the mound. One lone tree graced a wood chopper's camp at the end of the original road grade, and several fine specimens, growing in the right of way had been cut down. The prone trunks were forty-five to fifty-five feet long and two to three feet in diameter. The ones left standing made a beautiful picture there in the swamp. The disastrous hurricane of 1935 killed all these fine trees.

BEAR LAKE

Cap's brand new Buick roadster was the pride of his heart and the envy of all the diggers. We had to build a garage for it at the end of the rock road. Imagine my consternation, when, while coming in one dark night, I beheld the rear end of the car above the waters of the canal. Her nose was on the bottom. In maneuvering to park in the shed, the brakes had failed and she had gone overboard. Cap, Ed, and a deck hand, with the aid of a block and fall, and the truck, for power, were trying to extricate it. It was then nine or ten o'clock and I had had no supper. However, after delivering the barge to the dredge, I hurried back and helped to land the big fish. It was long past midnight when we returned to the houseboat.

Although still in the woods, the dredge made some good time in the first part of the month of March. One day we dug nine hundred feet, and the following week moved ahead 4,000 feet, although the best week so far, had been made while crossing the small prairie on the Flamingo spur, when we had hung up a record distance of 4,500 feet in one week. Our rapid progress now was principally due to the fact that we had struck a stretch of muck. This was easier to dig, and consequently faster, and too, we had fewer breakdowns. Heretofore, we had been digging west, but on March 12th the right of way turned northward for two thousand feet before it resumed its westward direction. This detour was made to avoid Bear Lake, a body of water about two miles long and probably three-quarters of a mile wide. The nearer shore, dimly seen through the trees to our left, was, at this time of the year, hardly more than a mud flat, but the water was said to be three or four feet deep on the further side. Its surface was fairly alive with ducks.

One of the woodcutters came out of the swamp. Across his shoulders was draped the carcass of a small deer. This he tossed onto the deck of the cook barge.

"Howdy folks, reckon you could find use for a bit of fresh venison? Just shot it back in the woods a piece. I figured it might go pretty good after all that smoked ham and sow belly you all have been subsisting on all these weeks. Of course this hain't what you would call the legalized hunting season, but don't let that mar your appetites none. Reckon there ain't no game wardens prowling around nowhere.

"There's plenty of game here if you just can get to it. During the hunting season two of the boys from the Cape did a right good business guiding these moneyed fellers from town. They fixed 'em up a little camp back up the rock road at West Lake, got a couple of boats and took 'em out where the ducks really was. Reckon you all noticed them sports cars parked on the road — anywheres from three to six every day enduring the season.

"But, you fellers ought to have been with us three, four weeks ago if'n you wanted ducks. That was before we had even got the right of way cut up here. We carried a boat from the Cape to out there on the lake, and did we shoot ducks! It wasn't even no fun. Just too easy. It wasn't no time afore we had more ducks than the whole camp could eat, and all the people in the settlement besides. I know for a fact that was the first time in eight years that ary gun was ever fired on Bear Lake."

Beyond Bear Lake, and three weeks after passing Royal Palm Mound, we were still in the swamp, and with a mile of woods still ahead before we would arrive in the open prairie. The wood choppers were making slow progress in clearing the right of way. We had almost caught up with them once but a breakdown of the machinery had stopped the dredge from Friday till the following Wednesday and allowed them to get ahead. Now, again, we were practically digging at their heels, and again we had to shut down for repairs.

Keeping the boiler supplied with water had, by this time become a major problem. We were in the dry month of March. There was less fresh water coming down from the Glades to the north. The canal had long ago become too brackish, and we had installed a pump and engine six miles back up the road from the Flamingo stub and pumped glades surface water into the barge.

Our old open launch which when not sinking barges, was itself constantly threatening to go to the bottom, and whose ancient engine reluctantly func-

tioned only by grace of prayers, tears and haywire, had been replaced a month ago.

Cap had trucked in a beautiful, brand new boat only sixteen feet long, but complete with a tiny cabin and a single-cylinder six horse-power Vulcan engine — four-cycle at that, no cranky two-cycle job. The cabin was for the protection of the engine. The steering wheel was outside and the launchman had to take the weather, of which we later had plenty. This boat was slow, but easy to maneuver and proved to be ideal for handling water barges.

When we were opposite Bear Lake we were hauling water eight miles. If everything went well a round trip could be made in seven hours. However, as the glades water became more salty, it became necessary, early in April, to move the pump still farther up the canal, almost to the bend where the road turned north, and shortly after we got out of the woods we were hauling a distance that required twelve steady hours to make the trip. Blondy and I never shut down the engine except while the barge was being filled. When one of us got in with a fresh load he would wake his partner. While the latter was eating a cold snack, the first one would fuel up, tie onto the empty and bring it to the houseboat ready for the outbound trip.

For weeks Cap had been considering whether to cut the crew down to two shifts. To prevent this he decided to try to conserve water by installing a condenser on the dredge. This would cool the exhaust steam and allow it to be used again. Accordingly, he brought in a batch of pipe, fashioned it into a "coil" on the outside of the hull below the water line. One end was connected to the exhaust and the other to the boiler intake. But alas, the stagnant, muddy water would not condense the steam and the idea was abandoned. This was one of the few times when Cap's ingenuity failed. Blondy and I went right on hauling water.

About the last of March Music returned again. He brought a tractor, a road grader, and a stripped down Model T, and two or three young boys from Ft. Lauderdale. His job was to level off the top of our spoil bank and make a road grade. This would extend the road from where the rocked portion ended at the county line between Monroe and Dade Counties, and bring it right into Flamingo. It was also planned to have the road follow the dredge and extend on westward. This part, however, was not accomplished. Before Music got to Flamingo, the rains began. The marl became too slippery to work, and Music and his boys returned to town. The last seen of them at the Cape was the morning they left from their camp. Music was

seated on his flat-bodied Ford. He had it in low gear, yet, notwithstanding, the wheels were spinning at a furious rate, and throwing mud forty feet behind. One boy on each side and one holding on behind, attempted to keep it from sliding sideways into the canal as they ran at top speed. Now and then a boy would skid and roll sprawling in the slick mess. The shouting and laughing, blended with the roar of the exhaust could almost be heard on the dredge boat.

SOUP DOODLE PRAIRIE

With the exception of two or three quick trips to Homestead for supplies at the start of the work, I had not been out of the woods since arriving the first of the year. However, in April I got a few days off to visit my parents in Ft. Lauderdale and get the feel of walking on sidewalks. Upon returning to the dredge and changing into dungarees, I had just time to eat supper before starting on a trip for water. During my absence the pump had been moved to a point farther up the canal. The boys apparently had merely set it up and hurried off without testing it. Upon arriving there it was only after considerable work by the uncertain light of smoky lanterns that the engine was finally persuaded to start. Then the pump refused to operate. After much unscrewing of pipes, dis-assembling of the pump and removal of the snake that had taken refuge therein and then re-assembling it again, knee deep in mud all the while, the barge was eventually filled.

Then, to cap it all, the launch engine ran hot. Finding the cause was much easier than correcting it. The screen for the water intake had been installed in the side, instead of the bottom of the boat. In rubbing along the canal banks, it had gradually filled up with clay. Removing this screen under water and cleaning out the cooling system was another task. I returned to the dredge at three P. M. the day after starting — a 23-hour trip.

After sleeping 15 hours, I was wakened to start the next trip, which lasted a day and a night. When one started up the canal for water, there was no quitting time until he got back to the dredge. If he had engine trouble it was just his hard luck, and with the engines we had those days, trouble was expected as part of the routine. A boatman had to be resourceful and ingenious. If he broke down, there would be no one coming along after a while to help. You had to work out your own salvation, in spite of nothing to work with, darkness, rain, sweat, cussing and mosquitoes.

On April tenth we suddenly burst out of the dense woods into the wide open prairie. Oh! Welcome sight! The offshift men climbed onto

the dredge to view the open plain that extended ahead almost as far as we could see. In the distance a few low mangrove hammocks broke the monotony. One lone sentinel cabbage tree dead ahead at Gator Lake stood like a goal post for our endeavors. Only southward, along the Bay shore line, continued the omnipresent and unbroken ridge of mangrove trees.

This was the day to which for months we had looked forward with pleasant anticipation. At last, we fondly thought, we will work in the open where the breezes blow. No more screened hats! No more cotton gloves! No more breathing smudge pot smoke! No more bathing inside a crowded houseboat! No more mosquitoes — let the launchmen have them! Alas for human hopes. We didn't know nothin' yet!

It was in this prairie that we made the acquaintance of the "soup doodle" muck, which Captain Scott Holloway had said was too soft for a man to walk on or for the dredge to spud up on. It was hardly an exaggeration. In anticipation, while we were still working in solid ground, Cap Hamp had had a pair of large plank mats made. These were bolted onto the feet of the bank spuds, and were considered to be large enough to support the dredge when she swung the boom. In spite of this extra footing, it was necessary for the digger to spud up two or three times for every move, as the feet sank deeper in the slush. Then in pulling them out of the muck when ready to move ahead, she would threaten to capsize, while one spud foot was in the air and the other hopelessly stuck. The old hull was plenty cranky and sank on us a couple of times.

Upon first emerging from the swamp, we had to dig through a sizeable cattail pond. If anything, it was more soup doodly than the prairie. In traversing this pond in the boat, we had perpetual trouble with the tough and slimy roots and rotted stalks of the cattail plants which clogged the canal as the fluid muck oozed back into the channel. Our launch at this time did not have a weedless propeller. The slimy stalks would wrap tightly around the propeller shaft and the chunks of muck to which they were sometimes still attached effectively blocked the "wheel". We made an iron hook, with which, by lying on the deck, it was possible to clear most of the debris, though it was always necessary to go overboard at least once to cut them off with a sharp knife.

The "little ol' dredge" as Cap Hamp always called it, was making good time now in the prairie. She dug two miles during the month of April, operating with only two shifts. Fresh water was again becoming a serious prob-

lem. This was the driest month of the year. The water hole back up the road was becoming contaminated with salt, and the water was a sickly and nauseating green. Furthermore the haul was getting longer every day. In desperation, we dug, and later enlarged, a water hole in the prairie half a mile behind the dredge. Though the haul was now negligible, the quality of water, green and brackish was no better, and the boiler foamed continually. Where before, the dredge had had to shut down for lack of water, now it lost time because the fireman could not keep up steam.

A short distance ahead of the machine and to the north was a group of small lakes—Fox Lake, Middle Fox Lake, and Little West Fox Lake. (Apparently names were getting scarce when the original discoverer christened these mud ponds.) Cap Hamp decreed that since the water in them was fairly fresh, we should dig a ditch from the nearest of these to the edge of the right of way, and when the dredge had passed that point, the pump and engine would move up to the new ditch. This, of course, was satisfactory with everybody, except the ones who would have to do the digging. For this ditch was to be dug by hand, a mere matter of 2,000 feet. The diggers and cranemen, being of the elite, of course could never be expected to engage in such menial work as using a hand shovel. The firemen just could not be spared from their boilers. They worked longest hours, anyway. The morning man had to start the fire and get up steam, while the second shift man had to tend the boiler while it was cooling down for the night. Cap declared it was to be dug by the off shift crews and it had better be finished before the dredge got opposite the lake. With this indefinite ukase, he departed for Ft. Lauderdale. Since Blondy and I now had very little to do except tow a barge daily into the woods and pick up a load of firewood, we each devoted considerable time to the excavation job. It was really not hard work. The ditch was two shovels deep and three shovels wide. The ground was soft peat, in which I had previously dug my share of ditches in Okeelanta. However, 2,000 feet is well over a quarter of a mile. The deck hands and wood crew, as a matter of principle, did no more than they were compelled to do. The others figured they were too good for such a task. Even a very healthy respect for the wrath of Cap Hamp did not suffice to spur the work. As the time drew near for his expected return, a good quarter of the job remained unfinished. It was finally completed mostly by the sweat of myself and Lloyd Gilliland, digger though he was. Fortunately for all hands, when Cap returned, the ditch was finished, the dredge had passed it and the pump had been moved to its new location.

Cap had important news. He announced that the company had gotten a contract for nine additional miles of digging, which he estimated would give us four more months of work. Furthermore, with the better quality of water and shorter haul, he might go back to running three shifts.

SABBATH TOIL

According to dredge-boat custom, Sunday is devoted to making repairs. The old sailing ship sailors used to say, "Six days shall thou work and do all thou art able. On the seventh holy-stone the deck and scrape the cable." On our dredge, we simplified this to "Six days shalt thou work and on the seventh do the same, only more so."

The first couple of months after the dredge had started to dig, we often finished repairs soon after dinner. However, as the job progressed, the old machine, badly worn to start with, gradually began to come apart. The repair work often kept all three shifts busy till supper time. Sometimes it was so bad that only the shift due to start digging at midnight would knock off then, and the others would go back on deck and finish the work in the dark and mosquitoes.

After breakfast Sunday morning, the men would pair off for their allotted jobs. The boom and dipper handle were the particular province of the cranemen.

Working in pairs with long five-eighths inch erecting wrenches, they tightened the myriad bolts that held these parts together. The diggers might tighten or even pour bearings on the drum shafts, set valves on the engines, repair pumps, reeve new cables, do some pipe fitting, or light the forge and make some new shackles or cold-shuts. The firemen cleaned the boiler tubes, usually having to roll or caulk the ends, removed hand plates and washed out the inside of the boiler. The power to run the pump for this operation was furnished by a gasoline engine. Like everything else about the dredge, it was about worn out. The diggers, with the steam-engine man's contempt for gas engines, would have nothing to do with it, so one of the launchman's duties was to keep it running.

One Sunday after we had passed the mound and could see muddy Bear Lake through the trees at the left, it became necessary to remove the hoisting drum in order to have the shaft sent into town for repair. The big gear was unbolted from the side of the drum. An A-frame was made of timbers. The

drum was hoisted with a chain fall and rolled on planks onto the canal bank. The next job was to remove the four inch shaft on which it turned. A crude wheel puller was rigged, using chains and the chain fall. It refused to budge. Gus took a heavy sledge and swung with all his strength against the end of the shaft, while two deck hands tugged on the chain fall. Still no luck. It was then decided that heating the drum might expand it enough to loosen it on the shaft. Accordingly, a huge bon-fire was built around the drum. After letting it heat for half an hour or so, the sledge and chain fall treatment was tried again. Still no results. A dredge man, working way back of nowhere, and with the crudest of tools, must necessarily be resourceful. The diggers had tried every means they could imagine. Even the captain, who could always be relied on to solve any problem, appeared to be stuck. We had worked on this drum nearly all day. We had fought that shaft for hours. Everybody's temper was on edge. All were standing around waiting for some inspiration. At last John Lamb, one of the cranemen, who had been beating the end of the shaft till he was about exhausted, walked to the opposite end of it.

"By golly, if I can't drive the son of a gun out," he said, "I can sure as hell drive it further in!"

With that, he swung the sledge with all his strength on the wrong end of the shaft. To everybody's amazement it jumped nearly an inch. Examination showed that the short end on the shaft was slightly larger than the rest of it. We had been trying for hours to drive the big end through the drum!

One morning immediately after breakfast I went to the back end of the houseboat to ready my launch before making a trip for water. The houseboat and cook shack were ordinarily moored near the bank, and every morning and evening were moved up to the dredge so the men would not have to walk so far when changing shifts. This was Monday and the houseboat was still near the stern of the dredge. The dredge had made very little progress. The water must have been a little salty and the boiler had been foaming. The digger had had to stop several times to let the steam pressure build up while he meanwhile delivered pointed remarks to the firemen on the principles of firing a boiler. The firemen had blown down the boiler while we were eating, and now he opened the blow off valve and blew it off again in a cloud of steam. I was picturing in my mind the digger stomping on his lever stand, mumbling and cussing. Two things will get a digger riled.

Letting the boiler pop off from too much steam, and waiting for pressure to build up after it has been blown down. I was just untying my boat when, with a loud and hollow "WHOOM!" the whole after end of the dredge was enveloped in a cloud of steam. The form of the fireman was dimly seen through the mist as he catapulted off the fantail and onto the bank. Ashes, dust and half burned sticks from the fire box flew in all directions. I rushed to the bank to pick up the remains of the fireman. To my amazement, he was standing on the spoil bank unhurt. I ventured gingerly onto the deck.

From the stories I had heard of boilers blowing up on steamboats, I expected to see the boiler ripped apart and half the crew mangled. When the steam had cleared away, nothing appeared to be disturbed, except that the doors to the firebox and ash pit were standing open and both compartments were clean as the day they were built. Gus came waddling aft and peered into the fire box.

"Huh!" he grunted laconically, "Crown sheet dropped! That sorry so-and-so had ort ter had better sense than to be a-blowing the boiler down when he knowed he didn't have no water in it."

GATOR LAKE

It was shortly after the above episode, that Cap decided to reinforce the boom. To that end, he sent out a truck load of channel beams and angle irons, and brought a welder from a shop in Miami. This mechanic had hardly started to work when he discovered that his cylinder of oxygen, although he had tested it before leaving the shop, had leaked until it was practically empty. This would never do, for not only was the dredge shut down, but we would also have a high priced welder sitting down on the company's time. Cap instructed Ed Oliver to hot foot it to Miami and get two tanks of oxygen, and be damned quick about it. As an added precaution, he told me to go along, just in case we might get into trouble on the trip. What admirable forethought! We left from the houseboat in the open launch. We tied up at the end of the road grade, recently levelled by Music's crew, and boarded the old White truck, for a fast dash into the city. We estimated that barring accidents, we should be able to arrive at the shop before it closed for the day. Ed did not spare the horsepower. With Ed clutching the steering wheel, and me hanging to the seat with both hands, we bumped, jolted, clattered and roared down that rock road into Royal Palm Park. From there the road was comparatively good, and Ed rolled the old chain drive for all it would put forth and did not slow down until we reached Miami.

We pulled in at the shop just as they were closing the doors. The shop men rolled out two fresh cylinders and to make sure they were full, attached a gauge and tested them. We all witnessed that both had full pressure. The valves were tightened, the caps screwed on, and away again for Cape Sable! In Homestead, our last town before embarking on the jungle road, we stopped for supper, and as we did not have to be back before day, we also indulged in the rare treat of viewing a picture show.

When we arrived at the end of the rock road at one-thirty in the morning, we discovered that during our absence there had been a heavy rain, and the marl grade was almost too slippery to navigate. This we were prepared for. After installing chains on the tires, however, one of the tires went flat. We jacked up the truck, dismantled the tire and set to work on the tube with a package of cold patching. The tube was riddled with holes and we had no spare. The patching material gave out, and there were still plenty of holes. Ed found another partly used repair kit, which we used as sparingly as possible, now and then pumping up the tube and sliding down the canal bank to test it in the water. At last every vestige of the patching had been used, and three holes remained. That settled the matter of going farther in the truck. Reluctantly, Ed and I started to trudge the three and a half miles to where we had left the boat. It would have not been too bad a walk. The moon was shining, mosquitoes were no worse than customary, but the rain had made the road so slippery that in spite of taking short mincing steps, we could hardly make any progress. Ed jokingly remarked, "We are facing the wrong way. We take one step forward and slip back two. Let's try heading the other way, we will get to the boat quicker. How far do you suppose we have walked so far?"

"About half a mile," I replied.

"Then I am going to stop right here. The bugs are no worse here than they are at the truck. You can pick me up when you come by in the launch."

That left me to trudge the remaining distance alone, slipping and sliding. Sometimes, in sheer disgust, I would stop and try to figure out a better way of travelling. The swamp growth was too dense to travel at night. Swimming would have been faster, but the prospect of returning in the launch with all that bare skin exposed to the insects was prohibitive. The longest journey finally ends. I cranked up the launch engine, cruised back to pick up Ed, then to the truck, where we transferred the two oxygen cylinders to the boat, and at last arrived at the dredge at 8:00 a. m. But we were not yet through with oxygen trouble. The welder, when connecting his regulator and gauges

to the first cylinder, discovered that in spite of our precautions, it, too, had leaked down. Cap nearly blew a fuse. This time, he declared, he would go himself. It looks like if you want a job done right, you just about have to do it yourself anyway, etc., etc. And for company on the trip, he took Blondy.

On their return to the houseboat that night, Blondy looked as if he had had an encounter with a bull alligator. It was raining, and his store clothes were bedraggled. His eyes were bloodshot and his mouth was a bloated, blood-coated hole in his face. We likewise observed that two of his upper front teeth were only jagged stumps. Cap explained that on the return trip his car engine had stalled. When Blondy had got out to crank it, the engine had backfired, with consequent damage to his already hard bitten features. Although I was just starting on a trip for water, and in spite of the fact that it was still raining, and that he was obviously in pain, he insisted that it was his shift. Neither pleading nor threats could dissuade him from doing what he considered was his duty. Another typical instance of his unselfishness.

The first week in May was devoted to repairing the boom and dipper handle, and of course, the boiler. It always needed some attention. We were now well out in the prairie. Sawgrass had given way to a bushy-topped sage grass. The lone cabbage was much closer, but with the shut-down for repairs it still seemed far away. One afternoon Ed Oliver and I decided to take advantage of our temporary idle period to do a little exploring. Ahead and to the north a short way, lay the group of small lakes previously mentioned. Nearest the right of way, and near the cabbage, lay the largest—'Gator Lake. Its shores were bordered by a thin fringe of scrub mangroves. Ed took his shotgun, in hope of bagging a bit of fresh meat for our chow and also, he whispered we might surprise an egret. Our intention was to make a circuit of the lake, and possibly even visit the Fox Lakes if time permitted. Had the ground been firm enough for decent walking, this would have been only a pleasant stroll. However, from the start, our feet sank into the soft muck over our shoe tops. As we approached the edge of the lake through a dense growth of short sawgrass, it became progressively softer. Maybe by lying down and crawling it would have been possible to arrive at the mangroves, but we back-tracked and circled further in search of a more feasible avenue of approach. After several false tries, we discovered a firmer stretch by which we emerged through a gap in the mangroves, and had a very good view of the placid expanse of black water, which appeared to be nearly circular and probably half a mile in diameter.

'Gator Lake was once reputed to have been one of the greatest egret rookeries in this part of Florida. Many tales have been told of the fabulous number of plumes taken from the birds nesting there. Now, thanks to the millinery trade, it was deserted. No solitary spot of white relieved the desert scene. It was apparently as devoid of life as though visited by a plague, which, indeed had been the case. Finally tiring of our perch in the mangrove roots, we made our way to one of the neighboring lakes, which, though smaller, proved to be somewhat more rewarding.

"Do you think we will find any egrets around these lakes?"

"We might sight one or two. You can't never tell. I killed two over at Cuthbert Lake last month. There used to be a big rookery there once, but they are about all gone now."

"But Ed," I exclaimed, slightly horrified, "Why in the world did you want to shoot them when they are already practically wiped out, and besides it is against the law to even have a plume in your possession. What good would the plumes do you after you got them?"

"Don't worry," he replied enigmatically, "There's still ways to sell a plume if you know who to see!" So evidently a market of a sort still existed. At any rate it must not have been important, for the short whites have made a remarkable come back since that day.

Upon arriving at this second lake, we saw numerous small alligators stretched on its muddy shores, or floating submerged with only nose and eye bumps visible. A variety of wading birds were dispersed in the shallows. As we approached, a slim blob of white launched itself from a sunken stub and flapped gracefully over the distant bushes.

SKEETERS

The month of April had been quite dry. We had had little or no rain. No water stood on the prairie, and as a consequence, we had enjoyed a partial respite from the constant plague of mosquitoes. In fact, so long as we stayed in the canal on dredge, houseboat or launch, they hardly bothered in the daytime. Of course, if one plunged into the dense swamp, that was another story. The summer rains began early in May. They not only began, they started with a vengeance and seemed to have no intention of stopping. For four weeks, until into the month of June, it rained both day and night, hardly missing a day. One week it rained hard every single night. This was con-

trary to the usual experience during the rainy season. Ordinarily the mornings and nights are clear. The precipitation falls in the afternoons. Now it rained most of the nights and mornings, and if there were clear spells, they were likely to be late in the day. Even then it was not clear. The sky remained shrouded in heavy black clouds at all times, continually threatening renewed downpours. Fully half the time we were subjected to anything from a sprinkle to a deluge. The rest of the time it remained cloudy. To the crew of the dredge, with a roof over their heads, this was hardly more than an annoyance. Blondy and I could not escape, though. During our twelve-hour runs we had no shelter from the elements. The little cabin on the boat housed only the engine. The operator could only squint his eyes against the downpour and take what came.

It took but little of this variety of weather to saturate the thirsty ground. Soon the prairie was covered with half a foot of water. This necessitated a slight change in our arrangements. It had been our custom to keep only the full water barge attached to the dredge. The cook shack, houseboat, and wood barge were staked out on the canal bank, and were moved twice a day by the launch when it came in from a run, unless the deck hands had already done so. Now, in soft digging, the dredge was moving farther ahead in each shift, and the men, when shifts changed, complained of having to slosh and bog in shoe-top water and mud from houseboat to dredge, and often in the dark, to get to work. Accordingly the houseboat and cook barge were secured together, an outside gang plank rigged on the former, and both attached to the stern of the dredge. A heavy anchor of old grate bars dragged behind the rig to prevent it from surging under the stern when the machine moved ahead. Now we no longer had to pour the water out of our shoes before we went to bed.

An inevitable result of this rainy weather was, of course, an abnormal increase in the number, and correspondingly, the voracity, of our old friends, the mosquitoes. They were soon as pestiferous in the day as they had been at night. At night they were almost unbearable. All the cracks and holes in the houseboat were tightly closed. Cap brought us a new batch of screened hats. The fireman carefully selected and cut up every piece of black mangrove from his firewood. Pungent smudge cans smouldered continually on the lever stand, in front of the boiler, in the anteroom of the houseboat, and even on the deck of the launch. Everyone resorted to a uniform of overalls and tightly buttoned dungaree jacket. Those who worked at night and were bothered by the glare of lights on the screen of their hats, put a towel over

their heads and wrapped the ends around their necks till they looked like desert Bedouins, or Everglades tractor drivers in the dry season. Even the wood crew while loading the barge back in the swamp, placed smudge pots around the area where they worked, thereby obtaining relief more psychological than actual.

LAKE OF GRIEF

Upon returning from one of his trips to town Ed went to Cap, much perturbed. "You know, you told me to get the transmission in that truck overhauled in Homestead. Well, them hay-wire Joe Magees must have put the works in backwards. Them gears are howling and grinding till I thot I wasn't going to make it back."

"Make them do it over again. Do you think you can drive it back to town?"

"Heck no! I was lucky to make it to the end of the road."

"Then, tomorrow, the first thing, you and Lawrence take that transmission down. See what is wrong, and I will drive to Miami in my car and get what you need."

The following day we discovered that some of the parts had, indeed, been assembled wrong and the gears were chipped and ruined. It took us half a day in the mosquitoes to get the transmission removed, disassembled, and the parts cleaned up, then half of the following day figuring how the new parts were supposed to go, after which we had to make a quick run into Florida City for gasoline for the boats. Upon returning, we learned that by being away, we had missed getting involved in another disagreeable job. It seems that about the time we had left, the dredge had taken it into its crazy head to sink. In spudding up, the spud lock had failed to catch, and she had careened, filled up and settled in the soup doodle. Fortunately the stern had remained high enough that fire under the boiler had not been extinguished; so by dint of plugging up hatches and holes in hip deep water, and blowing out the hold with the steam siphon, she eventually floated again.

Another, and more nasty job we were not to escape. Soon after the rains began, the prairie, always boggy at best, became so soft that even the extra planks bolted onto the spud feet were inadequate to support the dredge while digging. Cap, therefore, got a load of 3x8 planks to be bolted on with U bolts, to make a larger supporting surface. While the rest of the crew worked

on deck and on the spud foot itself, it fell the lot of Blondy and me to float these planks into place, bogging to our knees at every step, then support them, one by one, on our shoulders while they were secured. Waist deep in water, and with mosquitoes hovering on every spot not plastered with stinking mud, we were far from joyous.

After we got squared away in the mucky prairie, the dredge made some remarkably fast time, due in part to the softness of the ground, and mainly to the fact that Gus was now getting paid by the yardage dug. We had not seen an inspector for months, so Gus dug a channel barely large enough for the dredge to pull itself through. In order to avoid digging deeper than necessary to accomplish this, he was continually bawling out the fireman for not keeping the stern weighted down with wood in order to trim up the heavy bow. The whole after end of the hull got to resemble a wood yard. We dug from 600 to 850 feet a day, more in one shift than we had previously done in three. It was whispered that Gus, instead of his regular \$135.00, was drawing \$250.00, even \$300.00 per month, and once the unbelievable total of \$500.00.

While things were thus progressing smoothly, Cap decided that he would take off and get himself married. This pleased Gus not at all, for it meant that Gus was now in charge. He not only must strain himself during all the daylight hours to maintain his phenomenal yardage, but the whole responsibility for keeping the job progressing now rested on his shoulders, and responsibility was one thing Gus did not crave.

Cap had not been gone long before the dredge finished its journey across the prairie and arrived at a long and narrow lake, roughly at right angles to our course. This body of water was marked on the maps "Whitewater Lake" but was known to the natives as Nine Mile Lake. Now, in honor of the former vice president of the Florida East Coast Railway, for whom, also the road to the Cape had been named, it was called Lake Ingraham. However it might be designated, it was to us, the Lake of Grief.

We arrived at this lake about midway of its length. The right of way stakes indicated that we would proceed a hundred yards or so into the lake, then dig in the open water to its southern end. A serious difficulty now arose. So long as we had been in the shallow canal, dragging bottom and sides in the muck, our hull had leaked very little. Occasional use of the small steam pump had kept our bilges comparatively dry. But in the clear waters of the lake the muck was soon shaken out of all the joints, and she

leaked like a market basket. Gus rigged a bigger siphon. This did the work beautifully. There was only one slight objection. When the siphon was used it took so much steam that there was none left for digging. After siphoning half a hull of water everybody would sit down and wait for steam to build up. Then when we dug, the seams gaped open, rivets rattled in their holes, and the lake poured in through innumerable openings. In desperation, Gus installed on the deck the pump rig used for filling the water barges, with a four-inch suction pipe running to the deepest part of the hold. With this running constantly it was still necessary every couple of hours, to shut down and finish with the siphon. During these shut downs the crew members got over the side with hanks of oakum and caulking irons or screwdrivers, wadding oakum into seams and under rivet heads, as far as they could reach above the water and below. Between times, the launchman who was detailed to tend the pump would take a lantern and crawl about in the steamy, stifling and stygian hold, deafened by the magnified roar of gears and drums above his head, and do his best to stop the many leaks from inside. There were even mosquitoes there, which shows that there was no getting away from them.

As if the constant threat of sinking were not sufficient grief, we also began to have increasing difficulty with the boiler. To save the long haul from the Fox Lake ditch we had installed another, smaller, pump and engine at a new water hole near the shore of Whitewater Lake. Water from this new hole was so impure that the boiled tubes soon became caked with scale. Water drizzled and bubbled where tubes joined the head sheets. Every Sunday now, the tubes must be rolled and beaded tight in the heads. To make matters worse the mangrove sticks, none too good a fuel at best, were water sobbed from lying in the knee deep water in the swamp. When the wood barge came in now, its bilge contained a foot of sap and water, red as blood and smelling ten times worse. We had not proceeded two miles down the lake before it became impossible to keep up steam enough to dig. It had taken three dreary, frustrating weeks to advance a mere mile and a quarter. In Flamingo prairie we had made three quarters of a mile in a single week.

Gus was in a dilemma. He did not want to retube the boiler with the job nearing completion and in a rented machine to boot. On the other hand it was obvious that at the rate we were going it might be Christmas before the job could be completed. Then too, his lovely bonus was being shot to pieces. He ordered a complete set of boiler tubes. Meanwhile the old tubes were chiseled out. Gus returned from town with the new tubes piled on the

deck of an empty water barge. As the launch emerged from the canal and swung into the water of the moon-lit lake he uttered a sudden cry "Look at that damned old dredge! How low she is in the water! Do you suppose the old tub is trying to sink again? And not a damn way in the cock-eyed world to get up steam! Oh Cap, why of all times, did you pick a time like this to go and get married?" Cap, on his honeymoon in Georgia, no doubt felt his ears burn at the ensuing heart-felt remarks of his old friend and buddy, Gus, who covered the subject thoroughly before we arrived at the dredge. There we were met by Hubie, fit to tear his hair. The gas engine on the pump, usually quite reliable, had quit. Blondy was off after wood. I had gone for the boiler tubes. Only Hubie and Thad remained on the dredge. They were unable to start the engine, and by the time Blondy had returned, the battered hull was about to go to Davy Jones. Now the pump was gaining on the water, however, but he didn't want Gus to ever, ever, go off and leave him in a spot like that again.

After retubing the boiler during the first part of August, we still had about two miles to dig before reaching the Gulf and the end of the contract. We estimated that should wind us up during the first half of September. The hauls for water were comparatively short now, but we still had to run all the way back into the swamp to the neighborhood of Bear Lake to get firewood. The round trip was some thirty miles and required four trips a week. On these trips, we noticed toward the latter part of the job, a peculiar phenomenon. Back in the "soup doodle prairie" it is true that Gus had dug no more than was necessary to get the dredge through. But since that time we had had plenty of rain. The woods and prairie were afloat. The water in the canal should have been considerably deeper. Yet we began to drag bottom with the shallow launch. The wake of the barge was brown, fibrous, peaty debris. The banks, unable to sustain their own weight were flowing back into the ditch. Years later, Ed, who had returned to work here on a subsequent job, reported that there was only a trace left in this prairie, of the major part of the canal at that time. The untamed prairie had merely reclaimed the gash dug across its surface.

Eventually we were out of Nine Mile Lake, a hoodoo of the first magnitude. A smaller lake ahead was reached, then one after another, a chain of little lakes were connected. None of these lakes were bordered with mangrove, but rather with a variety of light colored bushy shrub which permeated the air with a pleasant pungent odor noticeable at quite a distance from the shore, and not encountered anywhere else in our experience.

MIDDLE CAPE

One Sunday, some of us decided to visit the coconut grove at Middle Cape. After proceeding toward the northern end of Nine Mile Lake we discovered a narrow canal almost hidden by overarching mangrove scrub. Penetrating this, we emerged into a broad, flat prairie carpeted with beautiful shore grass as green and pretty as a pasture. At the end of the canal we proceeded on foot to a large grove of luxuriant coconut palms, growing from the margin of the prairie right down to the sandy beach. Great clusters of nuts graced their tops. Of course, our first efforts were directed to accumulating some samples of the fruit. This we did by selecting a tree whose slope permitted climbing, and beating the husks off against the base of the same tree. After regaling ourselves with the cool and delicious milk, then breaking the shell and consuming the cream inside, we headed for a house partly concealed by shade trees farther up the beach.

Upon arriving here, in answer to our hail, a man emerged. With a look of astonishment, he greeted Gus and Hubie by name. They, equally surprised, rushed up and shook his hand like long lost brothers, asking what in the name of all that was good and bad, he was doing way off here at the tail end of the world. After the excitement had subsided, it developed that he had been chief engineer on the "Caloosahatchee", and when Cap and the others had left, he had taken the job of caretaker for this coconut grove. Then followed endless inquiries as to the other members of the crew, and swapping tales of the good old days back on the "Caloosahatchee".

As to the grove, he informed us that it had been established many years before by a Mr. E. A. Waddell from Miami. The coconuts were gathered and husked by natives brought from Honduras for that purpose. Now, however, he was alone.

Remembering our recent struggle to remove the husks from only a couple of the nuts, we inquired as to the method used by these professionals. He told us that they used a sharp pointed iron stake or spear, imbedded in the ground. The nut was then grasped in both hands, driven down on the spear and partly turned to loosen the husk. It was then rotated slightly and the operation repeated. After the third stroke, the husk could usually be stripped off with the hands. For this they were paid two cents apiece. While this sounded very easy we agreed we had no desire to contract for any husking.

When asked the reason for the canal through which we had arrived at

the grove, he replied that some years before, an attempt had been made to raise cattle here. One of the Raulersons from Kissimmee, with several other cattle men, discovering the wonderful growth of wild grass which we had observed, had decided it would be ideal grazing land. They had engaged Tom Bryan, of Ft. Lauderdale, with whom our boss Scott Holloway, was later connected, to bring a big drag line machine to Middle Cape and dig some ditches for drainage. They had then barged in a herd of cattle. The dragline had got itself bogged down till they almost despaired getting it out, and the cattle were no match for the mosquitoes. Those that did not die were removed to fatten elsewhere. The grove alone remained, as the mosquitoes had not developed beaks long enough to penetrate the nuts.

He also explained that although the name Cape Sable was applied to the whole south tip of the peninsula of Florida, yet there actually were three distinct capes. About three miles north of Middle Cape lies Northwest Cape, an uninhabited sandy-beached peninsula. Southeast of Middle Cape is East Cape, the most southern point on the mainland. These capes were singularly free from mangroves, being covered instead mostly with various weeds and bushes and scattered trees. The beach at Middle Cape was of hard sand, and very narrow. We were told that a boat of five foot draft could run up almost to the shore.

This magnificent coconut grove was practically wiped out and the fifty year old house was washed away in the disastrous Labor Day hurricane of September 2, 1935.

At long last, the Gulf was reached. Cap, who had by then returned from his honeymoon, instructed Gus how to lay up the dredge, then returned back up the canal to his car and home. Next morning early, the hands gathered on the dredge to witness the final ceremony of digging through the ridge and reaching open water. As luck would have it, by the time he was ready to scoop out the last remaining barrier separating fresh water and salt, the tide was about at full ebb. With the removal of this dam, the canal with a two foot head, rushed seaward in a torrent of almost frightening velocity. With caution, Gus continued into the bay and dug until the increasing depth prevented spudding down. Then with spuds raised, and balancing like a tight wire walker, he attempted the delicate task of kicking back, in order to reenter the canal stern first.

The digging was done. The job was finished. Nine months of sweat and toil was ended. Nothing now remained but to cool the boiler and head

for civilization. But wait! Cape Sable was not ready to release us thus gently. She still reserved one parting blow at those who presumed to tame her wilderness.

Still kicking back, the li'l ol' dredge got her stern end again between the banks. The tide, which meanwhile had turned, now flowed inland with almost the speed and volume with which it had previously discharged. Well, that was fine. Gus ceased kicking back, and with all spuds raised, and dipper poised, enjoyed the free ride backward from the beach. But at the Cape, as elsewhere, each pleasure had its price. The stern hooked into the bank, and in a flash the hull was athwart the current. The cranky top heavy craft, her hull half full of bilge water, reeled crazily as the surging tide swept up her greasy deck. Spuds dropped, boom swung. Alas, the steam was down. She had no power to crane against the hungry flood. In minutes it was over. Open hatches gulped the water down and soon the flowing tide stood thigh deep over all the deck. Slogging ashore across the spud arm, Gus slumped upon a fallen log, his head buried in his arms, the picture of dejection and disgust. He was too forlorn to even cuss.

Obviously, nothing could be done until the tide slacked the following day, and preparations were made to rush the raising at that time. Yet still the Cape was not content.

Daybreak caught us all under mosquito bars fast asleep. Some portent of impending doom caused me to awake. The houseboat leaned sideways at an alarming angle.

"Wake up! Turn out, we're sinking!" I screamed. As launchman, it was my duty to tend the houseboats and barges, but more than duty sped my limbs. Clad only in shorts and undershirt, I dashed ashore and loosened the down stream rope. The hull was caught upon the bank, and pushing failed to budge it. In desperation, I grabbed a heavy gangplank, thrust one end under the hull, and pried the front end loose. Meanwhile the tide, rushing like a mill race, was dropping fast. With but six inches of freeboard when level, the far side of the deck was already under water, and tipping more every minute. A hurried glance showed the cook shack in the same predicament, though her deck was somewhat higher. With the upstream rope bowstring tight, it seemed impossible to push that end free.

"Come on, you dopes, do you want us to sink?" I cried, exasperated that they did not help. One by one they catapulted to the bank, but each one fully dressed!

It was short work then to get the barges free and on an even keel, at which the men returned as suddenly as they had appeared. Never were house boats secured and gangplanks replaced so rapidly before, and with good reason. The crewmen safe behind the window screens said my naked back could not have been more black had it been painted. Yes, the skeeters were right thick that morning.

Prepared with kindlings and dry wood, Thad got his fire started as quickly as the grates were out of water. The gasoline engine was drained and dried, hatches closed, pump and siphon started, and in a few hours we were afloat again. The dredge beached herself in a shallow cut. The boiler was cooled, all engines drained and copiously smeared with grease. Houseboats, barges and launches in one ungainly string, were readied for the tedious journey through the shoals and islands of the bay and up the inland waterway to Ft. Lauderdale. With all the crew aboard, we chugged out into the placid waters. Like sailors home bound from a distant voyage we would briefly revel in the delights of civilization — then return once more to the solitudes of the sawgrass.

A last backward glance revealed the A frame peeping above the treetops. The old American Steel, battered and ugly, was left to rust again among the mangroves of Cape Sable.