OFFICIAL REPORT

MARK F. BOYD
615 HIGHLAND AVENUE OF THE
TALLAHASSEE, FLORIDA

BOARD OF TRUSTEES

OF THE

Internal Improvement Fund

TO THE

LEGISLATURE OF FLORIDA,

RELATIVE TO

THE DRAINAGE OPERATIONS

OF THE

Atlantic and Gulf Coast Canal and Okeechobee Land Company, 1893.

TALLAHASSEE, FLA.:
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1893.



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REPORT

OF THE

TRUSTEES OF THE INTERNAL IMPROVEMENT FUND

ON THE

Operations of the Atlantic and Gulf Coast Canal and Okeechobee Land Company.

TALLAHASSEE, FLA., May 24, 1893.

HON. J. B. JOHNSTON,

Speaker of the House of Representatives:

SIR: I am directed by the Board of Trustees of the Internal Improvement Fund to acknowledge the receipt of a

copy of the following resolution:

"Owing to the fact that the swamp and overflowed lands belonging to the Internal Improvement Fund of the State of Florida are attracting much public attention, and are found to be, when drained, of great value, producing sugar and other valuable crops to a most astonishing degree, and the fact that in 1880 or 1881 the Trustees of the Internal Improvement Fund contracted with the Atlantic and Gulf Coast Canal and Okeechobee Land Company to drain and reclaim all that vast area of land which lies south of Township 24 S. and east of Peace Creek, and the fact that the said company has been continuously and vigorously prosecuting such work of drainage, and that comparatively little is known by the citizens of this State of the magnitude and importance of said drainage scheme and of its great value to the State; Therefore, be it

Rosolved by the House of Representatives of the State of Florida, That the Trustees of the Internal Improvement Fund be respectfully requested to furnish the House and Senate with a statement relative to the operations of the Atlantic, Gulf Coast Canal and Okeechobee Land Company; the number of acres of land deeded to said company on account of such drainage work; the amount of lands reserved for said company, and all other matters pertaining to this great drain-

age enterprise of public interest."

In responce to said resolution, the Board directs me to make the subjoined

REPORT.

The drainage of the immense territory embraced in the Kissimmee Valley, Okeechobee Lake and Caloosahatchie Valley, bad for at least a generation, been the theme of discussion by eminent engineers educated in the principles of Hydraulics. There was no effort at a practical solution of the question however, until articles of agreement were entered into on the 31st, day of January, A. D. 1881, between "Hamilton Disston and others" and the Board of Trustees of the Internal Improvement Fund of the State of Florida. As a result of such contract, the Atlantic, and Gulf Coast Canal and Okeechobee Land Company was chartered by a special act of the Legislature of Florida, March 8th, 1881, and on September 1st, 1881, an "agreement was entered into substituting said Atlantic and Gulf Coast Canal and Okeechobee Land Company for Hamilton Disston and others in the contract of drainage." This contract embracing all the swamp and overflowed land, south of township 24 and east of Peace Creek, stipulated that the drainage company should have one half of the lands reclaimed and rendered suitable for cultivation. See report of Secretary of Board in Legislative Journals of 1883.

On August 17th, 1888, the contract between the Trustees and the Atlantic and Gulf Coast Canal and Okeechobee Land Company, was amended, and an agreement between the parties entered into, changing the contract. This contract provided that "the drainage reserve of said company shall be reduced so as to secure to said company a total acreage of two million acres, including lands heretofore conveyed to said company, to be selected by said company in a body, as near as may be of alternate sections within the reserve heretofore held for said company under its contract with said Trustees." It further provided that the Trustees should "convey to said company so much of said lands, to be selected and reserved as aforesaid as shall be earned by said company at the rate of ah acre of land for each twenty-hve cents of expenditure."

There has been conveyed to said company 1,174,943,06 acres of land.

CHARACTER OF LANDS.

The lands within the territory covered by the franchise of the Drainage Company were swamp and overflowed lands and owing to their continuous wet and overflowed condition were unfit for cultivation.

This area included pine, prairie, swamp and marsh.

During the Spring of 1882 the Trustees of the Internal Improvement Fund in order to more particularly define the status of these lands, appointed an agent with instructions to make a thorough investigation of the lands within the drainage district, and to determine whether the State would be

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justified in the expense of a survey having for its object the designation of the high lands from those affected by rain fall or overflow from other causes.

The State Agent, Hon. S. L. Niblack, accompanied by a corps of engineers made a reconnoisance of the district throughout its entire extent and supplemented his observations by statements from reliable settlers and others familiar with the several sections of this district. His report was averse to the expense attending such a survey, and concluded as follows: "I give it as my opinion and views resulting from examination and information received, it is not advisable to have a thorough examination and survey made of the State lands within said limits, and a list prepared designating those not subject to overflow and separating them from the other lands embraced in the district of country contracted to be reclaimed.

"The expense attending the organization, equipping and supplying of a regular surveying party, and the time required to go over the territory embraced in the contract, would be so heavy I am satisfied the quantity of land not now subject to overflow would be so small it would not pay the State the expense of examination and survey. In this opinion I am sustained by all the parties with whom I conversed on the sub-

See report of Secretary of I. I. Fund in Legislative Journals of 1883.

The Trustees of the I. I. Fund recognize the wisdom which dictated the drainage contract and desire to encourage this great public work which has already proved of great benefit to the State, and which is rapidly opening an entirely new field for the cultivation of sugar cane and similar heavy crops, possessing a climate superior for such purposes to any other section of the United States and embracing lands which in their extent, richness of soil, advantageous location, facilities for irrigation, transportation and economy of cultivation, excel those of any other section of the world.

TERRITORY OF THE DRAINAGE COMPANY.

The district covered by the franchise of the drainage company extends about one hundred and fifty miles in a north and south line and spreads from a point near the mouth of the Calocsahatchie river on the Gulf to its eastern boundary, a distance of nearly one hundred miles; it is located in what is known as the semi-tropical portion of the peninsular of Flor-

contract between the Trustes at Canal and Okeechobee Land agreement between the parties tract. This contract provided ed company shall be reduced my a total acreage of two miltoface conveyed to said commyany in a body, as near as his the reserve beretofore held tract with said Trustees." It rances should "course to said to be selected and reserved as said company at the rate of st -bue cents of expenditure."

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ida, its southern limit reaching below lat. 26 deg. 30 min. and embraces a large percentage of land familiarly known as the everglades region, and which has heretofore been regarded as valueless for any purpose whatever; on the contrary however, the soil of the everglades proves to be inexhaustibly rich, and responds in the highest degree to cultivation immediately after it has been reclaimed.

Two large rivers water this domain.

The Kissimmee river heading in the Tohopekaliga lakes from its source to its confluence with lake Okeechobee intercepts in its course a chain of extensive lakes of pure clear water. The largest of these is lake Kissimmee, which covers an area of about ninety square miles.

The Caloosahatchie river empties into the Gulf of Mexico its estuary extending inland a distance of twenty-five miles, is over a mile wide, this river then rapidly narrows to a deep and well defined channel of about seventy yards in width and extends inland to Ft. Thompson; where it connects with lake Flirt; from that point to lake Okeechobee, a distance of sixteen miles, no channel existed until provided by the canals of the Drainage Company. Besides these rivers there are numerous small streams and lakes of greater or less extent reaching in every direction to the crest of the water shed. This region is devoid of any marked undulations in its surface configurations and is usually regarded as a flat and monotonous country; and until investigated with a view to drainage was believed to be located at such a depressed level compared with the Ocean and Gulf as to be practically beyond the possibility of reclamation, without the erection of expensive dikes and introduction of great pumping engines to relieve it of the surplus waters during and subsequent to the rainy period. An extended topographical survey on the part of the Drainage Company indicated to the contrary and notwithstanding the criticisms of engineers of prominence as to the impracticable nature of the undertaking and the adverse conditions under which such a great enterprise was necessarily conducted, the original conclusions of the Drainage Company as to the practicability of the scheme have long since been fully confirmed by actual demonstration.

It was found that while the territory as a whole was divested of marked differences in elevation of one section above another, that on the other hand, excepting the beds of the rivers and low lying lakes which are generally located in the synclinal axis of the region named; that every section of this drainage region and particularly the marginal lands of the

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territory as a whole was dravation of one section alone, and, excepting the beds disich are generally located in a samed; that every section ditagly the marginal lands of lakes and rivers embracing great deposits of rich soil were all susceptible of actual drainage for agricultural purposes when treated in sympathy with the plans projected and adopted in the grand scheme for the reclamation of this entire erea.

Lake Okeechobee situated near the center of this region is upwards of forty miles in length by about thirty miles wide and covers an erea of over one thousand square miles. Previous to the construction of the drainage canals it possessed no well defined outlet but received the drainage of a number of lakes intercepted by the Kissimmee river and the inflow from the country penetrated by Taylors Creek, Fish Eating Creek, and other waters.

Subsequent to the rainy season the waters of this lake obtained such an attitude as to not only overflow its low margin but to cause the waters of the river system to be backed up so that the adjacent country became more or less submerged; and these surplus waters could only reach the Gulf or Atlantic through the tortuous and inefficient channels of widely separated streams. The numerous large lakes throughout this entire district; notably the Tohopekaliga lakes aggregating an area of nearly fifty square miles, Lakes Hart, Myrtle, Preston, Alligator, Joel, Gentry, Cypress, Hatchneha, Crooked Hichpochee and many others covering a much larger water area, were generally found to be great land locked reservoirs without natural outlets, excepting by slow seepage through their marsh borders.

These lakes are located at varying attitudes above tide level: an important group of this system being situated on the very summit of the water shed of this remarkable country. As a consequence the storm water became impounded within their margins until from natural causes the streams and marshes acting as feeders are surcharged much above their normal level and the country adjacent to a greater or less degree was inundated and rendered unfit for settlement or cultivation. This condition was aggrevated by the deposits and accumulations from the perennial growth of land and acquatic plants, which obstructed the tortuous water courses of the country and even the large rivers were affected in a marked degree from like causes.

The flow of the Kissimmee river and its tributaries was checked by numerous rafts of fallen timber, also great accumulations of water lettuce and floating islands of growing vegetation lodged in its channels, and obstructed its current

until the engorged waters found fresh vent and formed new avenues through its marshy borders.

An outcropping rocky ridge at Ft. Thompson on the upper Caloosahatchie river caused a contraction in the natural water course at that point; large rafts of oak and palm trees formed an almost continuous obstruction on the Caloosahatchie river between Ft. Thompson and Ft. Denaud, and the continual falling of the leaning timber bordering its banks aggravated this condition and led to a gorging of its waters annually.

These numerous obstructions of logs and vegetable deposits proved a fruitful source for the formation of sand bars throughout the river system in the district under consideration and of a necessity the only possible condition prevailing during the greater portion of the year was a continuously overflowed and sobby condition of this entire territory.

The foregoing in a general way outlines the condition of the country at the inception of the drainage contract.

ELEVATIONS OF LAKES, ETC.

The comprehensive topographical surveys made by the Drainage Company includes numerous profiles which establish the elevation of the lakes and river system above mean tide. These levels generally represent the most depressed bed of the adjacent water shed.

In order to demonstrate that the entire drainage district is at a sufficient altitude above the Ocean and Gulf to render it entirely susceptible of drainage by gravitation or open canals, attention is called to a few appended notes of elevations above tide level.

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Lake Tohopekaliga, Near Kissimmee	70.80
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DRAINAGE, CANALS, ETC.

It is not the province of this statement to give in detail the yearly reports and operations of the Drainage Company covering the minutia connected with surveys from year to year, the construction of dredges, snag boots, barges, steam tenders, the operations of dredges and incidental features connected with the excavations of cana's, etc. It is deemed sufficient to state that the initial work of drainage commenced in 1881; during that year a general reconnoisance was made of the country on the Atlantic and Gulf Coasts, also of the Kissimmee and Caloosahatchie river country. A line for a drainage canal was located, beginning at Lake Flirt on the upper Caloosahatchie river, via Lake Hichpochee and terminating at Lake Okee-chobee. This work was necessarily attended by many difficulties, the country at that time being uninhabited and devoid of transportation facilities other than provided by the company.

The rich soils adjacent to the lakes was at that time permanently inundated to a depth of eighteen inches to three feet. During the year 1881, Dredge No. 1, was built at Cedar Keys, she was self propelling and steamed unaided to Charlotte Harbor and up the Caloosabatchie river to Lake Flirt where she began the work of excavating January 23, 1882.

The operations of the Drainage Company from that time have been continuous to this date and have resulted in the reclamation of vast areas of rich land and the general improvement of the drainage of the entire country embraced under their franchise.

Over eighty miles of large drainage canals and open water ways ranging from twenty-six to one hundred and six feet wide, and from seven to twelve feet deep have been constructed throughout the territory.

Two large canals connect Lake Okeecoobee with Lake Hichpochee to the west; a large canal extends from Lake Hichpochee to and along the margin of Lake Flirt, to the head of navigation on the upper Caloosahatchie river and provides an open water way from Lake Okeechobee to the Gulf of Mexico.

A drainage canal from the southern border of Lake Okeechobee, fifty feet wide and seven feet deep, penetrates the rich sugar lands for a distance of ten miles south.

Three large canals are discharging more water than is flowing into Lake Okeechobee, as a consequence the water level of this great lake has been lowered about four and one half feet below its normal level as established at the time of the making of this drainage contract. The opening of old water courses in this vicinity gives additional relief against possible high water. The removal of the obstructing ledge of rock at Ft. Thompson improved both the drainage and navigation at that point.

The snagging of the Caloosahatchie river was performed in part by the company and largely through its influence the United States Government was induced to perform the additional work of removing the fallen timber and open the upper river to safe navigation. In this work one of the company's snag boats was utilized.

The improvement of the Kissimmee river south of Lake Kissimmee has been advantageous to both drainage and navigation. The effectiveness of this work is shown by citing a few cases. Cuts not exceeding a hundred yards in length shortened the run of the river from one half to one mile, one cut twelve hundred feet in length shortened the run three miles and avoided five sharp beds, one cut of two thousand feet avoided over four miles of exceeding tortuous river. These improved channels average over fifty feet in width and are about eight feet deep.

This improvement of the Kissimmee river and construction of large canals connecting the chains of lakes in the northern portion of the drainage district has resulted in the absolute drainage of the territory in which are bodies of sugar, rice and fruit lands of the richest possible description.

In addition to the main line of drainage completed southward through the Kissimmee valley. the small water way connecting the chain of lakes including Tiger, Rosalie and Walk-in-Water was improved by snagging and removin: deposits, and deepening the run of Tiger Creek; a canal was also constructed from Lochappopka Lake to Crooked Lake. A canal one hundred and six feet wide extends from Lake Tohopekaliga to Lake Cypress; a canal seventy-five feet wide extends from Lake Cypress to Lake Hatchneha, and large canals and improved river connect Lake Hatchneha with Lake Kissimmee.

The company for several years past, in addition to the initial work instituted in this northern district, has been steadily engaged in constructing canals fifty feet wide and from ten to

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twelve feet deep and at present this entire lake system including the Tohopekaliga lakes, Lake Hart, Lake Myrtle, Lake Preston, Lake Alligator, etc. etc., are under absolute control, and the rich bordering lands are ready for cultivation. These lakes are situated near the summit of the water shed at the head of the Kissimmee Valley; besides a large canal from Lake Hart has been completed to the Enconlochatchie creek a tributary of the St. Johns river. This outlet carries to the ocean a large percentage of the water which heretofore found its way southward to the Gulf. The drainage of this district is accomplished and the cultivation of a portion of the rich sugar, rice, tobacco and vegetable lands is now being successfully and profitably engaged in.

The scheme of drainage does not contemplate the absolute removal of all the water from these great natural reservoirs. It is only necessary to reduce their level sufficiently to drain the marsheds, and bordering and adjacent lands sufficiently for agricultural purposes.

These lakes maintained at a low level become great impounding reservoirs for the reception and storage of the surplus storm waters, and the continuous outflow through the drainage canals rapidly removes these accumulated waters and prevents the inundation of the surrounding country.

Lake Tohopekaliga which covered an area of twenty four square miles of water surface is about eight and one half feet below its normal level. East Lake Tohopekaliga which covered an area of twenty-two square miles is now eleven feet below its original normal level and the other lakes of this vicinity are proportionally reduced. The canals constructed by the drainage company do not fill up by the caving in of their sides, the tendency of these canals is to deepen by the scouring of the water flowing through them and in the majority of instances they are several feet deeper than when first constructed.

The drainage company has opened up three hundred and fifty miles of continuous water way extending from Kissim-mee City to the Gulf of Mexico. It has expended large sums in the construction of powerful steam dredges and other appliances for opening to actual settlement the lands within their territory, and has induced large capital to enter into the cultivation of sugar, rice and other crops; it has encouraged the construction of railroads and erection of sugar and rice mills, and fostered other progressive features which go hand in hand with the healthful development of a new country, and

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has in its dramage operations and the incidental work of developing these lands induced the expenditure of large sums of money, estimated by the company at two million dollars.

It is the current opinion of many citizens that the reduction of the water level of this district is due to natural causes and not entirely to the effectiveness of the drainage canals; many claim that there has been a protracted period of drought and scant rainfall covering a term of years, since the inception of this work, and that the company has profited from the immunity and unjustly claim that lands heretofore inundated and now cultivatable have been reclaimed by their operations; instead of giving credit for this condition to a long series of droughty years.

An inspection of the official records of the United States. Signal Service station completely disposes of this question.

Official statistics are furnished by Mr. E. R. Demain, observer of U. S. station at Jacksonville.

We take for a test a period of nine years preceding and nine years succeeding the beginning of this work.

Commencing from September, 1882, whenthe company were fairly at work we find an average of 54.50 inches of rainfall for each of the nine years preceding; and an average of 55.17 inches of rainfall for each of the nine years succeeding the commencement of operations by the Drainage Company. This indicates that there has been no favoring natural conditions, but that the average rainfall has been greater since the operations began than prior to the beginning of this work, covering the period named. These yearly records begin in September and end in August.

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This indicates that a drought did not precede the commencement of work by the Drainage Company.

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This indicates that a drought did not prevail during the earlier days or at a later period of the work, but shows that the heaviest rainy seasons during the period of eighteen years was long after the company were actually engaged in their work of dramage, and absolutely demonstrates that the effectiveness of this work is solely due to the efficiency of the canals and no other cause.

The United States has established throughout the State of Florida thirty-three stations at which official data of temperature, rainfall, etc. are taken and recorded.

The first official bulletin has been issued and only covers the year 1892. We extract from this the rainfall at two points.

A line drawn from Myers to Hypoluxi passes through the drainage territory and it is fair to assume that the drainage area received an average of this rainfall. Notwithstanding this excessive precipitation the country was not materially af-fected during 1892, and cultivation of the plantations etc., on the reclaimed land proceeded without interruption.

SOIL AND SOIL ANALYSES.

The reclaimed lands offer a new soil for agricultural development, samples taken from numerous points throughout the dramage district have been analyzed by prominent chemists of Europe and America, a comparison of results show a remarkable uniformity in components of these rich soils.

Prof. A. P. Aitken of the Royal Agricultural Society of Scotland, in his analytical report states: "It resembles in texture the finest potting mould. The amount of nitrogenous matter contained in it is what one expects to find in a manure rather than a soil." "I have never seen a sample of a soil so so attractive or containing in it to such a degree those characteristics of a soil that indicate fertility."

Prof. H. W. Wiley, Chief Chemist of the United States Agricultural Department, states that: "These lands are new to agriculture and superior to any other soil in their capabilities for heavy crops." Like expressions are given by Messrs. Voelcker & Sons, Agricultural Chemists of London, Prof. D. Tacke, Director of the Peat Experiment Station. Bremen, and Prof. W.J. Williams of the Keystone Chemical Company, of Philadelphia, Penn.

The following analysis is a fair presentation of the results.

arrived at by the high professional skill of the most scientific chemists:

COMPARATIVE ANALYSIS OF SOILS.

- A. New Estate in Jamaica.
- B. Demerra Plantation worked fifteen years.
- C. D. Sample of Saw Grass soil, (sugar lands). Okeechobee Land Co., Fla.

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Moisture		18.72	15.95		
Organic matter and combined	12.20	10.12	10.00	10.04	
water	15.36	6.03	50.61	75.65	
Silica and insoluble silicates	48.45	68.89	28.56	0.91	
Alumina	13.80	2.50		0.01	
Oxide of iron	6.72	2.60	1.34	1.47	
Lame	0.99	0.08	1.82	3.17	
Magnesia	0.29	0.25	0.09	0.18	
Potash	0.11	0.10	0.06	0.13	
Soda	0.70	0.09	0.19	0.13	
Phosphoric acid	0.10	0.03	0.20		
Sulphuric acid	0.30			0.18	
Chlorine		0.03	0.74	0.51	
Oxide of manganese, carbonic,	0.51	trace	0.21	0.43	
acid and loss in analysis	0.42	0.68	0.23	0.15	

Nitrogen (in organic matter)...0,31 0.05, 1.81 2.17

The planter in Florida can depend upon a much longer season for the maturing and harvesting of his crop of sugar cane than in Louisiana. In Florida the crop can ordinarily remain standing until about March 1st.; whereas in Louisiana it is important, on account of liability to freeze, to finish milling the cane by the first of January.

The Hon. Claus Spreckels, whose great plantation in the Hawaii Islands, and beet sugar fields in Calafornia, and immense sugar refinery at Philadelphia place him in the lead of the world's sugar growers, in the letter accompanying pays a high compliment to the richness and value of the reclaimed Hand for sugar cultivation:

Philadelphia, Penn , March 22, 1890.

Mr. Hamilton Disston:

THE SIE: In masses on us my opinion regarded, I take pleasure in a spect year sugar operating such a country for the unit as any that I have the peld should be a the face of the globe.

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Besides sugar came southern, and kinds Grapes and small for citrus family come heavy flowing one that the rich muck this ipdastry in the followed this specia figs, mango and o jute, sisal bemp, m crops. Oats, barle grasses afford food a classes of garden veg for years. Besides : have been successfull reclamation were men purpose whatsoever.

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DEAR SIR: In answer to yours of the 20th. inst., in whichyou ask my opinion regarding Florida as a sugar producingstate, I take pleasure in saying that during my recent trip to inspect your sugar operations my surprise was great at finding such a country for the growth of sugar cane. The soil is as rich as any that I have ever seen, and with proper cultivation the yield should be equal to that of any other country on the face of the globe.

I congratulate you upon the bright prospect for the futureof the sugar business in the State of Florida.

> Yours truly, CLAUS SPRECKELS.

Besides sugar cane the cultivation of rice, tobacco, corn, sorghum, and kindred crops has been successfully engaged in. Grapes and small fruits mature rapidly. All variety of the citrus family come into early bearing. An experiment in peach growing covering a period of over six years proves that the rich muck soil offers the most promising field for this industry in the country, large and certain profits have followed this species of cultivation. Pine apples, bananas, figs, mango and other tropical fruits are being grown, and jute, sisal hemp, ramie and other fibrous plants yield large crops. Oats, barley, millet and volunteer and improved grasses afford food and stock products of the finest grade. All classes of garden vegetables and products have been cultivated for years. Besides the above many other crops and plants have been successfully matured on these lands, which before reclamation were incapable of being utilized for any possible purpose whatsoever.

One of the notable outgrowths of this drainage enterprise, is the St. Cloud Sugar Plantation, near Kissimmee, Florida. This plantation has erected one of the most complete sugar mills in the United States, having a capacity of about seventyfive thousand pounds of centrifugal sugar per day. It has under cultivation for the season of 1893-94, twelve hundred acres of sugar cane, besides other crops; stores, store-houses, dwellings, cottages, tram roads, and a main line of railroad, etc., are all erected on the reclaimed soil which at one time was permanently inundated.

Several hundred acres of cane are being cultivated in this. vicinity by tenant farmers and others. About six hundred acres are planted in rice and the experienced South Garolina planters conducting this enterprise regard these reclaimed lands as superior to any they have ever cultivated for the production of this crop; other instances of active enterprise could be cited to show the value of these new lands.

HEALTH.

The well attested healthfulness of our all the year around climate, offers great inducements to the immigrant and homeseeker. The great difficulty we have to overcome is the prejudice against our summer climate; and to demonstrate that the summer nights are always cool, and that the mid-day temperature never registers as high as in the northern and western states during corresponding periods. Some fears were expressed that residents of the drainage districts before and after the reclamation of these rich deposits of soil would suffer from fevers and malarial troubles.

In yiew of the comprehensive nature of the work of drainage, and the period over which the operations of the company has extended, it is interesting to note that in the conduct of this work of drainage there has been no intermission during either summer or winter since 1881. The employees of the company are white men exclusively, and of a higher grade of intelligence than is usually found amongst working men, from the fact they all have more or less to do with the mechanical or other operations incidental to the work of dredging. These men were recruited largely from the northern states and entered the service of the company before they were acclimated.

It is gratifying to note that during a period of over eleven years the company has never employed a physician nor lost an employee from death, nor have any of the men left the service of the company from the fact they could not stand the climate or work.

Malaria and chills are unknown amongst the operatives of the company, and the health records show that the entire Kissimmee region is virtually exempt from this form of disease.

The health record of the plantation confirms the above statement and indicates that these lands are desirable for habitation after they are reclaimed.

Note the appended certificate of Doctor W. J. Sears, county physician of Osceola county:

"I have resided at Kissimmee about eleven years, and at no time have I known chills and fever to be prevalent. In my opinion there is no malaria calculated to produce sickness of

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April 20th, 1931

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We regard the Wiley, Chief Ches fitting endorsement attending the consuse."

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Sentary Board of Ind of Florida any kind in Kissimmee or the adjacent lands which have been reclaimed by taking off the water. The land which is very rich and contains vegetable matter, does not by being cultivated throw off effluvia to cause fever. I have never known any of the hands who worked on the different dredge boats to have intermittent fever. I am confident that no one need apprehend any malarial trouble as a cause to prevent them from coming to this section of Florida for health. I do not think this part of Florida can be excelled. This should become a summer as much as a winter resort. The summers are pleasant, thermometer ranging from 65 to 95. The nights are cool and solid sleep can be enjoyed the entire summer.

April 20th, 1893.

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W. J. SEARS.

County Physician."

The comprehensive request embodied in the House resolution required more than a concise answer, and in view of the fact that after reclamation under this "Great Drainage Enter-prise" it is a matter of "public interest" to have the char-acter of these soils defined and to note their availability for cultivation for crops of this latitude, and particularly to ascertain the health conditions existing after a period of years.

We trust that the foreigoing presentation will fully meet the requirements of House Resolution No. 49.

We regard the unprejudiced statement of Prof. II. W. Wiley, Chief Chemist of the Agricultural Department as a flitting endorsement of the conception and satisfactory results attending the consumination of this "Great Drainage Enterpuse."

After a personal visit of inspection throughout the entire drainage region, amongst other strong expressions of Prof. Wiley is the following:

"There is practically no other body of land in the world which p esents such remarkable possibilities of development as these muck lands." "With a depth of soil averaging possibly eight feet and an extent of many miles across, with a surface absolutely level, it affords promises of development which reach beyond the limit of prophecy."

Respectfully submitted, W. M. McIntosh, JR,

Secretary Board of Trustees of the Internal Improvement Fund of Florida,



Not For Circulation

