

JHC M

5

1111

J. L. C. Martens  
Florida Geological  
Survey

Tallahassee  
Fla.

Book 5

Port St Joe -  
Material dredged out of bay  
Wetapfo

Oct 24. Naples

622

Beach sand  
Naples.

=6022

section 8 yds deep in road  
about the quantity of beach material  
here

623

Heavy concretions  
Naples.

=6023

about 10 yds high  
Surface of the road surface  
these large concretions with  
heavy concretions  
to be very prominent  
between the road and Naples  
after getting out of the city  
the road is now paved the road  
crosses several strips of scrub  
vegetation with the light gray  
sandy soil. These could hardly  
be called ridges but for the  
absolutely level ground around  
they rise from one to perhaps  
three or four feet above the  
surrounding country. A deposit  
of this sort has been found  
at some point for local use in  
the city of Naples.

Most of the way between Marina  
and the North Bay of Naples  
Co. the road appears to be  
surfaced principally with shell  
ground material. Marine gastropods  
did not get to be numerous. The  
examine it closely.

Oct 25

picture roll 4

Building at the City market  
of Naples

Lignite specimen from the Sicily

Shells in Proconian paper "the Mountain"  
about deposit of pottery clay near  
Naples.

Baldwin Catholic College two days  
three miles up from Brindisi

3

Oct 25:

Charlie Apopka Creek

Crossed this creek between Gordon and Apopka. Railroad on line a little east of the highway. High banks of fine deposit only. Most the surface is a regular ripple to light gray, but higher up the middle of it is a dark brown. Bars along sides of creek below these banks are also of varying sand with mud or organic material. Only at a few places in the bed of the creek and at the upstream ends of some of the bars is coarse sand. Deposits of very small stones, full of coarse material or phosphate. Some phosphate pebbles up to one inch or so with the coarse sand.

700  
7000  
The sand section is about 2 ft thick in bar along Charlie Apopka Creek. Crossing main highway near Wanchula

Passed through Harder Co. on main N-S road from Arcadia to Wanchula. Some scrub and grassy fields contain fine white to light gray sand. Cuts to depth of 10 ft show two or three feet of organic matter, also some high sand content. Although not so pure as the Arcadia River sand it is somewhat like Charlie Apopka.

Oct 25, 1947.

American Cyanamid Co. Brewster

~~Mr. Currier~~ Curry

Mr. Washington Curry

overburden nearly all sand.  
— about 20 ft

12 to 25 ft phosphate and sand mixed referred to as phosphate matrix.

One place had 35 to 40 ft of phosphate matrix. No other brand here as before.

Mr. Hays good deposit near Fort Meade and Berkeley, Va.

Blowing  
sand

Deep sand overburden better removed by hydraulic methods.

Shallow tough clayey overburden better removed by dragline.

All of pebble matrix mined by hydraulic methods.

Good black pebble used for hyperstretion method roadbed place top clay.

In overburden hardpan sometimes concentrated (iron content of sand). Also some bog iron ore occasionally recovered.

4

Brewster - Oct 25

Hard material more likely to be in depressions.

McMurd <sup>to</sup> 8 to 10 ft average depth of phosphate matrix of mixed sometimes ~~to~~ 12 or 14 feet.

L. Sines Colman

5

Oct 26.

W. Thelacoeches R. at  
crossing of highway no 23,  
about 1/2 mile N. of LaCoches.

Cypress trees are growing in the  
river bed and in sloughs. The water  
is very low, the river bed is exposed  
about 1/2 mile and are mostly  
wooded in some parts and are  
a semi-swamp in others.

702

=7002

sand - from 4 ft. bank where  
small amount of sand has been dug.  
on LaCoches with LaCoches R.  
from N. of LaCoches. Top of  
the bank is covered with  
of the river bed. It is covered with  
brown etc. 6 inch layer of  
dark brown sand enclosed in kumfy  
orange matter.

All of the sand appearing that  
could be seen around here is fine sand  
and is contaminated with organic  
matter that is the only thing  
probably more than the sand  
elsewhere above its bank.

From LaCoches to LaCoches may  
be a surface of sand much of  
way along the river. It is  
the same as the sand in the  
river bed. It is the same as the  
sand in the river bed.

G.C. Oguinn Coleman

Metamorphic rocks

Judge Zetser (pronounced  
Zetser)

4 miles S.W. of Rockville

8 miles E of Lawrenceville

Along 2 streams can be seen  
the rocks with quartz and  
granite. Distinctly metamorphic  
also white quartzite from same  
locality.

Highly garnetiferous rock comes from bottom  
of ridge.

Black shale - Iron Mountain

Mr. W. J. Epperson, person  
associated with iron deposits  
N.E. end of Little ridge

S. Stephens - well some  
time well drilled as test for oil &  
830 feet about two years ago.  
Reported to have strongly magnetized  
the top.

Mr. Oguinn's statements are  
both indefinite and conflicting  
I do not think that he is  
to be trusted and am certain  
that he does not know what  
he is talking about

Lake Weir Oct 26.

Lake Weir Sand Products Co.

Preparing to dredge on Lake  
Weir. Located S. side about  
1/2 mile from East Lake  
and Lake Weir village.

Narrow strip of water sorted  
some sand at bottom

B. Baker Supt.  
Lake Weir

The lake is reported to be  
two or three feet above its  
normal level and to have been  
so for two years. That this  
is true is shown by Palmetto  
and pine trees which are standing  
in the water. This will make  
it all the more probable  
that hard pan will be  
encountered in dredging. Since they  
are going to dredge just right  
along the shore 800 ft or so  
from shore gross a growing out  
of the water so it must be  
shallow and the indications are  
for plenty of organic material.

San Juan Springs

Daytona Highway  
San Juan Creek  
San Juan

# Lake Weir

9

203

=7003

Coarse wave sorted sand.  
N.E. part Lake Weir, along  
the shore. # ~~thin~~ <sup>thin</sup> ~~margin~~ <sup>margin</sup>  
strips of no possible commercial  
amphibolite. Too small even  
for hand loading.

## Mossy Bluff

J.D. Young - Power House

on Oklawaha R.  
Kaolin formation with limonite and  
white quartz pebbles found in excavation  
for dam and power house.

Sand dredged out of river used  
in building power house.  
Dredge left of river from power  
house sometimes dips into kaolin.

H.H. Hart in operation at power  
house.

Big Scrub, 10  
Sample numbered, 703 by mistake  
Oct 26,



704

=7004

4 miles E. Ellettsville Junction  
on road from Ocala E. into Nat. Forest.  
Pit along the roadside where sand has  
been dug for shoulders.  
One foot gray sand soil.  
3 feet coarse yellow sand.  
Bottom of yellow sand not  
exposed.

Small sample Yellow sand.  
3 ft depth below one foot  
of soil.

East of this locality the  
ground rises in a series of  
gentle ridges of increasing  
elevation. To the west the  
ground is a little lower and Lake Bryant  
is nearby.  
At the power house 8 miles east of  
Ellettsville Junction on Ocala - Umatilla  
Road. There is yellow sand much  
finer than at Ellettsville.

Art. Fire tower - on Ocala - Umatilla  
Road.  
J. F. Godwin.  
J. S. Pierson at same locality -  
first range.

Big Scrub Marion Co 11  
25.6 miles from Ocala  
Oct 26

In this stretch of 4 miles or  
so from about 4 miles to 8 miles  
E. of Ellettsville Junction on the  
Ocala - Umatilla road there  
is sand all the way. It is yellow  
and fine but not of the  
white to light gray and at about  
1 foot depth yellow sand.

31 for this  
48 Ellettsville  
55 Oklawaha R.  
and near Umatilla

On this same road went east  
9 miles beyond the observation  
tower or at total of 17 miles  
east of the junction with the  
road to Ellettsville and Lake Weir Village  
or 24 miles east of the crossing  
of the Oklawaha River on the  
road leading east from Ocala.

This point 9 miles east of  
the observation tower marks the  
end of the improved road so that  
calling this the Ocala - Umatilla  
road may not be strictly correct.  
The east side of the scrub was  
not yet reached here. A road  
branches off both to right and left  
and one goes straight ahead -  
but they are rather trails than  
roads and very sandy.

Many shells reported at  
Silver Glen in the vicinity  
somewhere - not known whether  
fresh or recent.



Oct 26, 1927

On eastward continuation of Ocala - Silver Springs road there is a considerable marsh near the Ocklawaha River on the west side. In the ditch made by excavation for highway fill shell marl shows at very shallow depth. Apparently a fresh water marsh of rather recent date. Mussels and several species (at least 3) of snails common in very brief examination. Is only slightly above the river and might be flooded at high water.

### Silver Spring, near Ocala.

On the sand which has been dumped into the spring to improve the bottom are great numbers of small snails. Specimens collected.

W. F. Jordan - Jordan's Landing on Ocklawaha River  
Adrian Orange Springs

In field on hill east of River 1/2 mi. W of Jordan's Landing  
Quartz pebbles.

Fragment of phosphatic material - Also some joints of material abundant loose pieces in soil.

Picture of Ocklawaha River at Jordan's Ferry.

Walked about 1 1/2 mi. East from Jordan's Ferry on "Old Townsend Road" then cut across from it to road further to the north where woods along the north side of the river scrub near the river. This part of the scrub is yellow sand except a few inches of the surface, which is white and light gray.

Pasco Co.

Subsided deposits of fine yellow to gray sand with moderate amount of clay are common, especially in northern part. Not of very good quality as far as seen.

Hernando Co.

Went through the eastern corner on highway no. 23. Rolling sandy country near Withlacoochee R. Fine Homestead yellow sand. Also. No. 1000. Sand dunes over much of the rolling upland of the country.

Sumter Co.

Summit along river. Sandy ground in northern part of county. Ordinary surficial deposits of fine yellow gray sand.

Jan 11, 1928

15

Out on St. Augustine Road.  
speedometer reading 59.0 at  
Tallahassee

The first ten miles rolling  
country with red residual soil  
of Hawthorn - Chipole  
Then for about 5 miles (10 to 15  
mi E of Tallahassee) light  
gray and yellow loose sand  
probably Pleistocene. At El  
Destino station this is well shown  
in borrow pits and R.R. cuts.  
From about 15 to 30 miles E of  
Tallahassee on this (straight) road  
the cuts show mostly the red  
residual soil, but some of the  
valleys and lower slopes are  
covered with the more sandy  
lighter colored deposits.

29.5 mi E of Tallahassee  
on this road a cut about  
9 ft deep shows concretionary masses  
of silica (chalcedony?) occurring  
in a fairly definite looking  
layer in the residual material.  
Mostly dark red above and  
lighter colored below.

885

At 90.0 at Lamont, near  
crossing of Aucilla River,  
is about where flatwoods  
country begins. From here  
on to Sixmans mainly  
flatwoods, but some areas a little  
drier than typical flatwoods.  
Fine gray sand much of way

Narrow  
Brown  
67

by country is so nearly flat  
that there are no cuts of  
any great depth.

From Sixmans (2.8) to  
Perry similar country. Near  
Perry it is a little higher but still  
shows the light gray and yellow  
sand. Mostly pine woods.  
Little or no black jack oak  
indicating that dry sand is  
probably not deep.

~~7005~~  
should be  
5003

yellowish gray sand  
1/2 mi. (Pleistocene)  
E of Perry in R.R. cut  
to depth of 2 ft from natural  
surface, shows no bedding. Grown  
near top from organic matter.  
Core was taken to sample only  
the undisturbed bank. Very fine  
texture

Sand similar to this about all  
the way between Penholloway  
and Perry

At Penholloway

Along the Penholloway R. is  
a rather small alluvial deposit  
of sand. Similar in texture to  
the general country sand

16

(very fine) also badly contaminated  
with organic matter. It is whiter  
on the surface than the usual  
soil around here. but does not  
seem to offer any more promise  
for use as sand.

28.0 - Penholloway

12 miles out of Penholloway on  
road which follows closely along the R.R.  
get out of flatwoods and into dry  
sandy land. Continued along this  
road to where road branches  
going straight ahead to Mayo  
and turning north to Day.  
Took the road to Day. The  
same sandy soil continues on to  
Day (47.7) and from Day to  
the Madison Co. line. 5 miles  
north of Day.

Here at the county line the  
sand is appreciably coarser than  
at Perry and not so well sorted.  
A few grains up to about 1/4 mm.  
These are very scarce and grains are  
mostly much finer. Upper part is  
so gray below that yellow except  
for specks of charcoal.

Sand (yellow) Pleistocene.

5 mi N. of Day on road  
just over county line into Madison  
Co. - small sample of upper  
2 ft of sand immediately below

~~7005~~  
5004

17

18

the top soil of about 10 inches, which was excluded. Shows net bedding.

~~7009~~

5005

Sand (fine silty)

Swanasee R. Alluvium  
at highway crossing W. of Downing Park  
and just S. of other R.R.

taken 40 ft back from top of  
West bank of river. Upper  
2 ft approx. Small woods  
growing on it.

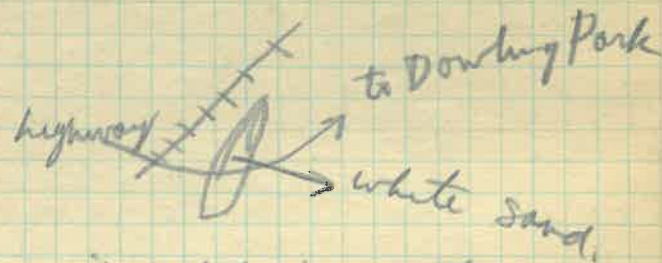
The river here flows between  
steep high banks. Limits of  
alluvial deposits are not clearly  
defined by the topography at least  
not on casual examination.

However the river deposits are much  
more variable in texture than the  
Pleistocene marine sand and  
contain much silty material.

Near here saw two or three  
road material pits in which seems  
to be weathered alluvial  
material. Much of it could be  
described as "sandy and clay silt"  
yellow to reddish in color.  
Some fairly loose sand occurs in  
the same pits.

Mayo Junction

19



On S. side of R.R. within  
a few hundred feet of it, elongated  
area of white sand, apparently  
in a little valley. Small  
evergreen oaks but not typical  
scrub vegetation although  
approaching it. Shows white  
in surface. On the slightly  
higher ground ordinary  
yellow or grayish sand.

In the white sand many  
small pits which are partly  
in back side of the  
highway. Max height of  
bank is 8 ft, generally  
5 or 6 ft. Sand stands  
vertically probably due to  
action of moisture on fine  
sand. Shows no bedding.

Sample from 6 ft bank.  
Sand " "

Mayo Junction  
large and small bag

5006

Jan 12, 1928

20

Sand has been worked at Day  
similar to that at Mayo Junction  
shipped to Lew Ock, Perry  
etc. Used for concrete, mortar  
and plaster.

Mayo. 79.1

Around Mayo it is dry sandy  
country with rather low relief.  
Sand showing in cuts is mostly  
gray. - Light yellow deeper down in  
places where there is little organic  
matter. Texture very fine.  
For 4 miles out on road  
toward Branford the country is  
about the same.

12.6 mi from Mayo on  
road to Branford (old road, not  
the one under construction) in a  
road material pit there is a small  
showing of mottled gray and red  
clay, probably residual.  
Above this there is about  
2 ft of the usual light gray fine  
sand and between the sand  
and the real clay a little  
yellow sandy clay.

Jan 12, 1928  
Branford.

21

Limestone outcrops on E bank of Suwannee R with residual and alluvial material above. On W. bank only alluvial deposits show near the bridge. Alluvial material seen here is fine sand and silt.

Small units of alluvial sand from both sides of the river used locally but appears very poor.

Recently formed bars on W. bank contain much vegetable matter. A little back from the river some deposits not quite so recent have been dug into. Weathering has perhaps improved sand a little by oxidizing impurities but texture is too fine.

5007

Sand (small sample)

W. bank of Suwannee R at Branford. from recently formed bar of alluvial sand. Taken about 4 ft above present stage of river (probably rather low) and cut to depth of 1 ft from surface. This deposit is so recent that nothing at all is growing on it.

Did not see any sand here much coarser than the

24.3  
Branford 15.8

8.5 mi S of Branford on road to Oldtown.

Ocala ls. in pit 300 ft W of road. Exposed by removal of about 14 ft of Pleistocene sand. collected forams.

Ft. Downing Creek,

derrick just S. of it. some parties as drilling Palmetto well.

Has been built since October. They have some houses on land around here.

On road from Branford to Oldtown.

22

27.1  
15.8  
11.3

Ocala ls.

11.3 mi S. of Branford on road to Oldtown.

Pit in soft Ocala ls. Deepest part of pit shows about 3 or 4 ft of sand and 6 ft of lime below it. Collected forams.

For the first 22 miles out of Branford toward Oldtown dry sandy country with much black jack oak - nearly level. Limestone shows in a few other places beside the two where fossils were collected. Mostly fine gray sand, more rarely yellow or cream colored.

37.9 beginning of hammock  
42.9 Oldtown

About 22 mi S of Branford a rather dense hammock begins and continues the rest of the way to Oldtown (5 mi). The cleared land around Oldtown is evidently of this hammock type. Quite a number of cabbage palmettos.

23

Jan 12, 1928 24

Oldtown  
sand on surface, but lime  
seen at small depth in a  
few excavations.

Out of Oldtown on road  
toward Trenton. A small  
path (2 miles or so  
between Oldtown and the  
river of black jack oak  
with scattering pines.

The river is reached about  
3 miles from Oldtown on this  
road.

Here the banks are  
much lower than at Branford.  
(about 15 ft high) and  
as far as seen entirely  
of alluvial material  
very fine sand and silt.

5008

Sand.

3 1/2 mi S.E. of Oldtown  
on W. Bank of

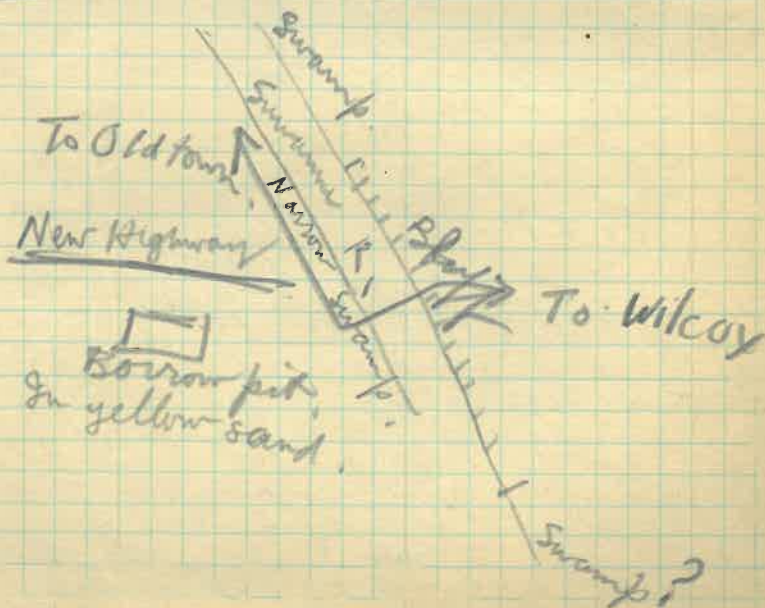
Swanwick R.  
alluvial deposit of  
the river. Represents  
about 18 inches depth  
bank. Bottom of section  
about 6 ft above present

25

stage of river. Part sampled  
seems rather uniform in  
texture but this may be  
simply because differences  
in texture are not so easily  
noticed in such fine sand.

Below there is more clayey  
material and above to the  
top of the bank fine sand  
about like the sample.

This bank of the river is  
4 or 5 ft higher than the  
land a few hundred ft  
back from the river.



26

At the Bridge crossing  
Swanwick R. between Oldtown  
and Wilcox there is a bluff  
about 20 ft high on the  
east bank. It is mostly  
yellow, orange and white sand.

At the base of it Ocala ls.  
is exposed for several hundred ft  
in places showing as much  
as 6 ft above present  
level of water. Collected here from Ocala,  
a few echinoderms.

Recent marshes from River.

Did not see Wilcox at all.  
Either the road does not go through  
it or it is too small to recognize.  
Road takes a little east of  
the River. Went south toward  
Chiefland. Fine sandy soil  
with small oak or myrtle oak  
and pines. Seems to get  
higher toward Chiefland.

There is some doubt as to  
whether the sand in the bluff  
on the Swanwick River is  
part of the general covering of  
Pleistocene sand or whether  
it is a more recent deposit  
of the river itself. It looks  
rather more like a river deposit  
but does not seem to be clearly  
separated from the rest of  
the country to the east which

27

is presumably marine sand.

Jan 13, 1928

Out of Chefland on New Road toward Summer and Cedar Keys. Reading at Chefland 89.5

Deep sandy soil continues only  $\frac{1}{2}$  mi out of Chefland, then a hammock type of vegetation shows up in the uncleared areas and the limestone is near the surface, since it shows up in roadside ditches and shallow pits.

3 mi. out of Chefland toward Cedar Key - quarry in its path road material on east side of road, to about 10 ft depth. Collected a few forams and echinoderms.

For the first 11 miles out of Chefland on road to Cedar Keys there is fine sandy soil with limestone at small depths. Dry and well drained. Nearly flat but not quite so.

11 miles out on road to Cedar Key enter the flatwoods. These are not uniform, being interspersed with open prairies, Cypress swamp, and higher sandy areas with black jack oak.

Jan 13, 1928

28

7005

(Note correction to other 7000 numbers) on this trip.

Yellow sand - Pleistocene

Cong about 10 mi from Cedar Keys 20.5 mi out of Chefland toward Cedar Keys, at junction of two highways. Fine yellow sand showing no bedding and texture, rather uniform. Exposed to total depth of three feet. Sample represents depth of  $1\frac{1}{2}$  ft immediately below six inches of gray top soil which was not included. This is from a patch of dry sand a mile or so inland along this road, which is three or four ft above the general level of the flatwoods.

About the oil well (86.1)

There are more sand hills which are probably dunes, although not too steep to have been formed by wave action only.

7006

White sand section about  $\frac{1}{2}$  to 2 ft depth. Cedar Keys

7007

Ocean colored sand same locality of preceding section about 6 to 8 ft depth.

A hill of sand at least 15 ft in maximum height about the surrounding country. It is covered with typical scrub vegetation. The cut on the new highway, 9 or 10 ft in maximum depth from the bottom of the ditch, it shows in the surface with 2 to 3 ft of white sand with yellow sand below it. The yellow sand grades downward into a cream color.

In the yellow and cream colored sand are masses of white sand with a thin margin of brown (organic matter). Perhaps due to action of tree roots.



## Cedar Keys.

30

In the major part of the town are sand hills, perhaps dunes, rising 20 or 25 ft about the sea.

Shell mound with clams, oysters, pelecypods and many species of gastropods. Has been used for roads.

Well water at the Fowlerwood hotel ~~is~~ entirely fresh, has light yellow color.

Drove out onto island about  $\frac{1}{2}$  or  $\frac{3}{4}$  mi S. of main part of  $\frac{1}{2}$  of town of Cedar Keys. There are still islands in sight beyond this, estimated at about two miles to the south and to  $\frac{1}{2}$  mi to the west and N.W.

Properly speaking there is no real sand beach as far as I could see on these inner islands. Much of the way there is a narrow strip of dirty sand at about high tide line which is bare or bears  $50 \times$ . There is usually a growth of rushes to the shore and below this of *Spartina* clars very common many of them ~~coming~~ well above low tide and occupying both detached from it.

Shell mounds seem very common and wide spread. The cedar trees seem to like the shell mound.

(99)

Black mucy sand large sp.

Dug out of shallow salt water lagoon between Cedar Key and mainland, in construction of new highway. Some parts are far more organic matter than this.

Ocala Limestone.

3 hand specimens and irregular fragments from roadside (at 10 mi out of Cedar Key on road to Oklawaha) did not see any limestone outcrops between this point and Cedar Keys.

31

Jan 13, 1928

32

45.2 - About 3 mi E. Wilcox Ocala

10 ft exposed 6 ft from top

Born (about) E of Wilcox Gilchrist Co. near small church and school house, but on Ocala ls. which has been opened on the side of a natural depression.

A moss. thickness of 10 ft is exposed. Sample taken about 6 ft from top.

Around here (S.W. part of Gilchrist Co.) it is fairly well drained fine sand country with the limestone at no great depth.

From Old town to Cross City as it was getting dark, so could not see very much. Some small ridges of fairly deep & fine sand.

Cross City itself is an dry sand, but mostly swamps and flatwoods around it. One of the natives says there is a road from Cross City to Horseeshoe, rather rough and swampy about all the way.

84.8  
65.7

33

cross city 65.7

Out of Cross City toward Perry on Main Highway 12 miles -  
Practically all swamp so far.  
Very densely wooded. Some areas of flatwoods more open. Also some areas not quite so wet approaching hammock conditions. Road is in pit nearly all the way. Limestone shows almost continuously in roadside ditch and narrow pit. Often at less than one foot depth and seldom more than two or three feet.  
Very many cabbage palm trees.

[ 12 miles from Cross City on road to Perry.  
4 spec. Ocala ls. rather hard with brown forams. here the limestone comes directly to the surface. Much of it is hardened like these specimens x

Jan 14, 1928

34

## Quarry in Ocala ls.

18.3 mi from Cross City on road to Perry.

Quarry probably has area of about 3 acres. Limestone is dug to depth of 6 ft. Sandy overburden up to two or three feet thick.

collected here.

5 hand spec. fine grained soft chalky limestone.

1 bag irregular pieces of fine grained soft chalky limestone.

miscellaneous fossils.

1 bag loose material with large amount of forams.

84.8  
65.7  
19.1

From 12 to 19 miles out of Cross City on road to Perry the same low country continues, with frequent showings of Ocala ls. in ditches. Rather more flatwoods and less swamp than preceding 12 mi.  
At 19.1 mi (speedometer 84.8) from Cross City, turned off on road to Deadman's Bay. This is a new road, still under construction. In the forest 3 or 4 mi still see ls. in ditches.

5 mi on this road from the main highway come up into dry sandy country. Black jack oak. Some distinct ridge rising

35

25 ft or so above the swamps. Also nearly flat to gently rolling country with this type of soil.

This dry sand continues for 5 miles. The area is irregular being indented and perhaps cut through by tongues of swamp and low hammock. Road is somewhat to the left of what is presumably the Stemmatichthys River. At Stephenville the road comes close to the bank of the river. There is still sandy soil. The country rising about 15 ft above the river (or sea level). However there is here only a narrow ridge near the river. This ridge succeeded to the north by flatlands open marsh and then dry land again (probably flatwoods).

At Stephenville saw three or four open sinks in this ridge near the river. In one of them what seems to be limestone, three or four feet below the water.

Deadman's Bay fishing Camp where both the old and the new road end is 1 mi from the mouth of the river.

5009

Yellow sand. Pleistocene.

On road from Cross City - Perry  
highway near Clara to Deadman  
Bay - 7 mi. S. of intersection.

Section from 1 to 5 ft depth.  
The upper 1 ft not included is the  
top soil which is not sharply  
separated from the underlying sand.

The sand in the same formation  
at slightly lower elevation seems  
to be white. This is from a  
barren but in a little hill.  
Total depth exposed about 8 ft  
all similar to the sample.

Ocala ls.

3 pieces in bag.

from 5 mi S. on <sup>new</sup> road to  
Deadman Bay from Cross City -  
Perry road. This is the farthest  
outcrop to the south that was seen  
along this road. It is in the flatwoods,  
just at the road point where the  
road goes out of the flatwoods  
into the dry sand hills. Surface  
of limestone is 3 or 4 ft from  
surface with hardpan and  
white surface sand above it.  
from roadside ditch.

<sup>6.2</sup>  
<sup>2.4</sup> 3.8 mi on Road to Deadman Bay

Ocala ls.

compact, fully crystalline  
showing rounded surfaces, rather smooth,  
crossed gradually to the surface if  
it does not actually outcrop.

5 hand spec.

Continued along highway no. 19  
to Perry - North from  
Stematch R. saw little more of  
Ocala ls. This may be partly  
because road is not so new  
nor ditches so deep. Flatwoods  
with frequent small cypress swamps  
continued to within 8 miles of  
Perry and then dry for sand  
the rest of the way to Perry.

Perry 40.0

Hampton Springs

Tempe ls.

$\frac{1}{4}$  mi N.W. in ditch along  
side of new highway grade.  
Soft limestone is exposed at  
depth of about 4 ft. Loose  
sand and hard pan above  
it. The limestone is

full of casts of molluscs.  
Little or no residual material  
on top of it.

4 mi N. of Perry on main  
highway - residual boulder  
of silicified limestone.

2 large and several small  
specimens. The soil here  
is a gray sand with contains  
some small limonite pebbles  
or concretions & spec of these.

Jan 17, 1928

5010 Sand. - 1 mi E of Hosford  
Liberty Co.

Pleistocene - light yellow sand  
medium texture - No distinct  
bedding but some nearly horizontal  
brown streaks which may  
represent bedding. Section to  
4 ft depth from surface - six  
inches of top soil - is  
somewhat grayish not included  
on cut through light elevation  
on new road

Hosford.

1/4 mi N of station in RR  
cut 6 ft loose sand  
like 5010 with 2 ft compact  
clayey sand below, mottled  
yellow and gray.

5011 Clayey sand.

in village of Telogia - between  
N-S highway and R.R. a short  
distance north of the station.  
about 5 ft from surface -  
selected as appearing the least  
weathered.

Approx section from the surface  
downward is  
2 ft grayish yellow sand  
with very little clay

Jan 17, 1928  
Telogia

1 1/2 ft brownish yellow sand with  
much more clay than that above.

3 ft very clay fine sand - gray  
spotted and mottled with  
yellow and brown from limonite.  
(sample from this part.)

These do not appear as three  
separate, distinct and sharply  
divided layers but grade into  
each other to some extent. It  
looks more as if there were a break  
between the upper grayish yellow  
sand and the more clayey sand  
below. Very probably Pleistocene  
above and alluvial below.

This pit is forked for sand clay  
road material. It is all too  
sandy for brick clay.

72.3 Telogia.

West on road to Bristol

80.0 coming out of flatwoods  
into higher sandy country

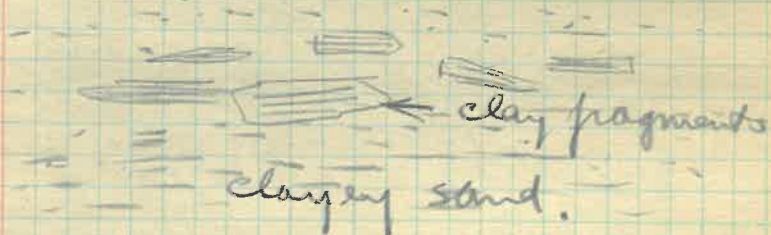
$$\frac{21.2}{9.7}$$

Sand-Clay road material  
pit on N-S of road from  
Telogia to Bristol 19.9 mi  
from Telogia. The sand  
slopes Northward or northward  
from dry sandy black jack oak  
land into a swamp, presumably  
the Telogia River swamp.  
The pit is opened up on this  
hillside

specimens

5012 ① Loose gray sand - 2 ft.  
sharp contact - 2 ft.5013 ② fine dark yellow or yellowish brown  
clayey sand, averaging about - 1 1/2 ft  
grading down into and obviously  
formed by the weathering of5014 ③ Very light gray fine compact  
clayey sand mottled with  
red and yellow - 4 ft

The loose gray sand looks like  
the ordinary surface sand on show  
no bedding. The clayey material  
below shows distinct bedding which  
is manifested by both color and  
texture. The contact between  
the yellow weathered portion and  
that below is not sharp and varies  
in depth. Some flat fragments  
of nearly white clay which  
are as if they had been formed  
by the breaking up of a thin  
layer of clay deposited in  
situ.



This section is probably Citronelle except the top part. Beside the 5 or 6 ft of clayey sand plainly exposed about 2 ft more is indicated as probably present although no gleam bank is exposed.

2 mi from Estiffanulga on  
~~road to~~ road to Bristol

Separating the second bottom or flat woods from the first bottom or cypress swamp is a little bluff which in places shows good sections of the upper part of the alluvial deposits. In general clay above and irregularly bedded sand below variable in color and texture.

Small gullies run back into the bluff. The alluvial sand shown in this bank is considerably weathered and therefore mottled with red and yellow resembling the Citronelle center of just described. However the bedding seems to be more irregular and there is more and larger mica sand (coarse) Apalachicola alluvium from this bluff - 8 ft from top.

5015

### Estiffanulga

Bluff has max. height of about 25 ft at present stage of river. 1/4 mi or more in length.

Upper clay sampled and tested by Bell seems to be continuous although not always 20 ft thick. Below it irregularly bedded sands of variable thickness.

### Estiffanulga

Along road from Estiffanulga to Bristol clay shows many places on the surface and to small depth in ditches gullies etc. No doubt of deposits being plenty large enough to work for brick.

Museum specimens of clay (light gray silty) from 15 ft below top of bluff

9214

first bottom      second bottom  
                         or flatwoods      upland

cypress swamp  
flooded at present stage of river

## Alum Bluff

Dall  
 super ficial sands  $8\frac{1}{2}$  feet  
 red clay  $2\frac{1}{2}$  feet  
 Reddish yellowish streaked sands 66 ft  
 aluminous clay 24 ft  
 Chesapeake gray marly 35 ft  
 Alum blm sands with streaks of clay  $21\frac{1}{2}$  ft  
 Hard chipola marl to water  $3\frac{1}{4}$  ft.

- 8 Pale yellow incoherent sand 30 136-166  
 7 Rich red purple sands and sandy clay  
 heavily covered toward base 90  
 6 Covered  
 5 Dark sandy clay in places aluminous 19 ft.  
 4 Dark fossiliferous marls 14 ft.  
 in conformity  
 3 Laminated and cross bedded sand  
 and clay and blue sand in places about 3 ft.  
 2 Light gray calcareous sand or ss 16 ft  
 1 Sand, slight indurated weathering yellow 10 ft.

Jan 18, 1928  
 Alum Bluff.

near North end

- 5016 Calcareous sand, cream colored,  
 Chipola  
 9 ft below base of  
 Choctawhatchee

## Alum Bluff near Mouth end

5017

Calcareous sand "blue"

Chipola.  
 within about 1 ft of base of  
 Choctawhatchee  
 mottled bluish and light gray.  
 Also some thin streaks of brown  
 where weathered along cracks.

5018

Marl dark green - Choctawhatchee  
 near base - within 1 foot  
 above top of Chipola

5019

Marl dark gray - Choctawhatchee  
 6 ft above base - more  
 sandy and not so tough and  
 compact as at the bottom.

5020

Marl dark gray 11 or 12 ft  
 above base of Choctawhatchee  
 very sandy  
 total thickness of marl about  
 17 feet - shows no distinct  
 beds but does vary considerably  
 in amount of sand and clay

from Bristol to the place where  
 car was parked on the hill  
 between the bluff and the creek  
 is 5.0 miles by road.

## Alum Bluff.

Resting upon coarse yellow  
 sand of Chipola at north end  
 of bluff is 2 foot boulder  
 of hard gray sandstone  
 with coral growing on top of  
 it. It is not in place  
 or at least there is no evidence  
 that it is since it is not imbedded  
 in the sand. May have slide  
 down from above.

5021

Yellow sand - Chipola.  
 3 ft section - base of it at water  
 level - upper part coarser.  
 The contact between this yellow  
 sand and the light colored  
 calcareous sand above it is not  
 well exposed, so the total thickness  
 of the yellow sand above the  
 present stage of the river at  
 this point can not be stated.  
 The base of the Choctawhatchee  
 which is very plainly shown  
 is estimated at 28 feet above  
 the river.

5022

Drum + 2 pebbles  
 from yellow sand at north  
 end part of N end Alum Bluff

5023

Clayey marl Choctawhatchee  
 $\frac{1}{2}$  to 1 ft below contact  
 of marl with unfossiliferous  
 clay above

yellow clayey  
sand  
top of Choctawhatchee  
yellow weathered clay  
(upper Choctawhatchee) and gray clay  
fine sand  
weathered clayey upper  
part of shell bearing bed  
of Choctawhatchee  
many shells.  
green clay  
with some shells

# Alum Bluff 48

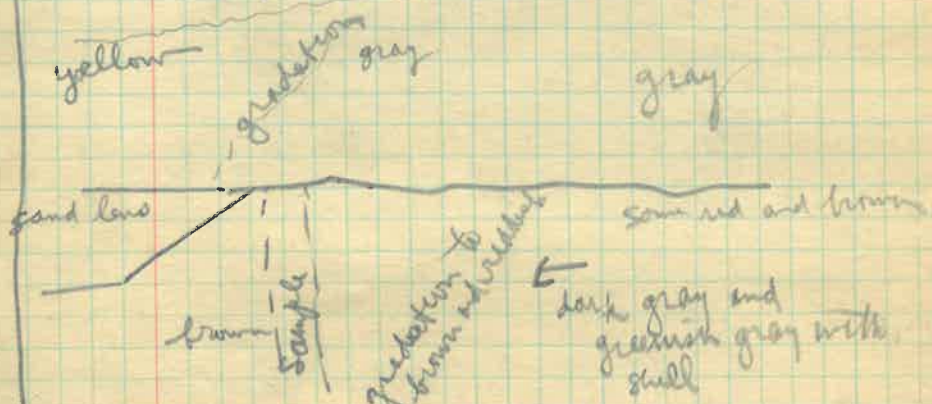
about 100 to 150 ft from extreme N end

Bank on N and W side of  
small indentation formed by landslide

no number on sample.

Weathered upper part  
of "shell marl" bed of Chocomaatchee  
represents cut down 7 ft of bank.  
What appears to be contact between  
this and overlying clay is a thin layer  
of limonite which has a rather wavy  
surface. The clay as sampled  
is somewhat mottled but mainly  
brown (limonite). More gray  
in upper foot of two

clay  
sample  
0-100



approx 1 ft = 1 square

This material sampled cannot  
be traced with a continuous layer  
having contact features, because  
it is due to weathering and  
most of the material which is clearly  
(continued over)

Jan 18, 1928

49

exposed in a vertical bank in  
the bluff is not so much weathered.  
However it is probably characteristic  
of what might be expected elsewhere  
from the formation under similar  
conditions. Noting also that  
the bedding is somewhat lenticular  
so that one may run from clay  
into silt or fine clayey sand.

## Apalachicola River Gravel

1/4 mi (pacing) upstream from  
North End of Alum Bluff on E side  
of river  
J. Howard of Bristol claims  
he owns it and it is what Goldsmith  
was promoting.

Length above water  
830 feet  
maximum width 200 ft  
maximum height - barely 2 ft above  
present stage of river



(over)

Jan 18, 1928 Gravel  
(continuation from preceding 50  
page)

5024 Gravely sand (large sample)  
bar on Apalachicola  
described on preceding page  
Three cuts down to 2 water level,  
about 1 foot each.

As far as I can see this is about  
as coarse material as is likely  
to be there in any quantity.  
Alternating layers of sand with  
and without pebbles - those without  
predominating on the surface  
of the bank it looks as if there  
were much more gravel.

As far as commercial production  
is concerned the maximum  
size is about 1/2 inch.

## Clay

From the north end of Alum Bluff  
H and a little beyond the  
gravel bar just described, followed  
the bank of the river for a  
short distance back from it.  
The first branch entering the  
river north of Sweetwater Creek  
or in other words the  
second one north of the north  
end of the bluff shows a  
good section of alluvial clay,  
about 7 ft thick and a few  
hundred feet back from the  
river. The stream meanders  
so much it would give a good  
chance to examine the

deposit as to extent and uniformity. About the upper 5 ft is brown and rather crumbly, probably high silt content, lower foot or two more grayish and highly plastic and finer textured. Might well be a good brick clay. Perhaps too low a situation for high water.

Sweetwater Creek is believed to enter the river too near to the high ground on the right of it, and far up along both sides for this section of alluvial material along it to be very typical.

All of the way along here the deposit of the flood plain is mainly silt and clay and what sand there is is fine sand.

This creek may not be Sweetwater because on looking at the map it appears that Sweetwater Creek is farther north than this.

Jan 19, 1928

8.17

## Sand and Sand-Clay

0.9 mi N of Bristol on the main road in that direction there is a sand-clay road material pit on the W. side of the road. It is in the sand black jack oak upland, but nearby the land slopes away into the hammock bordering the river. Pit shows.

- ① 2 to 3 ft. loose surface sand medium texture.
- ② 3 ft. orange clay sand, medium to moderately coarse.

A little gully which heads here shows 6 or 8 ft. of orange sand below this, a little less clayey but standing vertically in the bank.

5025

Sand - ordinary surface material of the black jack oak area north of Bristol.

2 mi N. of Bristol, at Sharp turn in road, where road to Ashum Bluff branches off.

Light yellow sand, medium texture shows no bedding. Bank sample 1/2 to 3 ft depth; bottom not exposed.

This dry sandy country is appreciably higher than the pine woods. In sight a short distance to the east.

82

Sample no.  
5026

Jan 19, 1928  
Ashum Bluff  
about 1/2 mi from north end.

53

Sand - 3 ft. - grayish yellow uniform appearance - no bedding. This is the true top of the bluff since level ground extends back from it - this is the weathered portion of the underlying sand.

5027

Sand ~~sub~~ - 6 ft. white to light yellow with wavy horizontal streaks of brown, probably not depositional but of later origin. Bedding indistinct or not shown at all - Sample is made up of three or four small handfuls from different parts of the bank.

5028

Clayey sand - 2 1/2 ft. gray to color reddish. Mottled with gray and yellow. Middle 8 or 10 inches is probably more clay than sand. More gray and sticky - included in the sample with the rest.

Below this clayey layer 30 ft. of sand with little more than traces of clay could be seen in undisturbed bank. The remaining distance down to the top of the Choctawhatchee is about 12 or 15 ft. This is a sloping bank with the undisturbed material not exposed, but is probably similar to the 30 ft. of sand seen above.

↓ Section from  
top downward.

# Alum Bluff.

all same locality about  
1/2 mi from north end.

54

5029

Sand - 2 ft of bank  
immediately below 5028  
The coloring occurs mostly  
as thin wavy approx. horizontal  
brown streaks more abundant in  
upper part

5030

Sand - next 3 ft of bank below  
#5029 slight colored and rather  
uniform.

5031

Sand - next 6 ft of bank below  
#5030 - Very coarse in parts  
texture variable, horizontal streaks  
of brown.

5032

Sand, next 6 ft of bank below  
#5031 and similar to it. Rather  
more variation in texture a white  
with rather straight thin streaks  
of brown which are the result  
of original bedding. In the  
white part are some thin lenses  
showing concentration of dark  
heavy minerals.

5033

Sand, next 5 ft below  
#5032 - mostly very coarse.  
Shows cross bedding. Color white  
brown and purplish.

5034

Sand next 6 ft below  
#5033 mostly white or  
nearly so. Upper half finer  
than lower. Very distinct  
cross bedding on small scale.  
Slight concentrations of claustrite etc.

all same locality about 1/2 mi.  
from north end.

# Alum Bluff

55

5034

somewhat inclined from the horizontal  
in this cross bedded sand.  
Looks like a stream deposit.

5035

Sand next 9 (nine) feet  
below 5034 texture and mostly  
rather coarse, white streaked  
with brown.

This brings us down to the sloping  
bank about the Choctawhatchee  
when there is a gap of 12 ft or so.

The upper part of the Choctaw-  
hatchee (above shell bearing  
bed is here about 20 ft thick.

Unweathered material  
is very dark green and massive  
when slightly weathered it  
is dark green instead of gray  
and shows a finely laminated  
structure. It also has  
a coarser feel and is not  
so plastic.

5036

Clay - green micaceous,  
1 ft above top of shell bearing  
bed of Choctawhatchee.  
This is the unweathered  
material

# Alum Bluff

56

5037

=0-101

Clay - gray silty. (large  
sample)  
Choctawhatchee - section of  
9 (nine) feet of bank  
immediately above  
shell bearing bed. This is  
slightly weathered material.  
Probably some pyrite and green  
mineral removed. This represents  
an actual cut down the height  
of bank making an effort to  
get equal amounts from different  
parts of the bank.

Pictures 5 and 6 of roll already  
in camera - knife edge ridge  
of Choctawhatchee (upper part)  
projecting on side of bluff  
left by erosion.

5038

=0-102

Clay - large sample in two bags.  
(sand #5036)  
unweathered Choctawhatchee,  
dark green - sticky  
first 3 feet above top of  
shell bearing bed.

# Alum Bluff

1/2 mi from N. end.

57

At this same locality 4 1/2 ft. of fossiliferous chipola marl is exposed above the water at the present stage of the river. At the top of it there is evidence of a local uniformity in a limonite stained layer 4 to 6 inches thick which contains pebbles of clay resembling fullers earth up to 2 1/2 inches in diameter in a matrix of coarse sand. Some quartz pebbles up to nearly 1/2 inch in size in this same thin layer. As far as exposed the material between the fossiliferous chipola marl and the base of the Choctawhatchee is sand, much of it in calcareous matrix. This shows up especially well for the first 5 feet or so below the Choctawhatchee. Streaks of greenish blue which here look as if they might correspond to bedding since they are fairly straight and only slightly inclined from the horizontal.

5039 "Marl" - sandy with shells  
Chipola - at top of marl bed  
(actually represents cut down about 6 inches of bank)

5040 Sand and clay pebbles - 6 inch layer immediately above fossiliferous Chipola marl.

# Alum Bluff Jan 19, 1928

1/2 mi from N. end. 58

Sand - large sample from about middle part of sand exposed above Choctawhatchee

All of the notes of this date marked "Alum Bluff" refer to the same locality which is situated at 1/2 mi. by the river bank from the mouth and of the bluff. It is likely to be less rather than more.

Apalach. R. alluvium etc.  
Going down the hill from from the upland to Bristol to the river bottom cuts on road show sand similar to that in Alum Bluff between top of Bluff and Choctawhatchee.

The river is reached at scarcely 1/2 mi. from Bristol. Here there is a turbulent still in the river bank. For at least several hundred feet both up and downstream from this there are bluffs of alluvium material in places nearly if not quite as high as at Estiffanulla. Much of this alluvial deposit is clay but it was too near night to examine it thoroughly.

From this point the road leading to the ferry to Blountstown goes ~~west~~ in downstream direction along the river bank.

Bristol to Blountstown.

Apalach. R. alluvium. 59

It crosses several small branches. Some of these are well entrenched in the floodplain and their banks should give some good sections of the alluvium. It was otherwise at least by a small amount of digging.

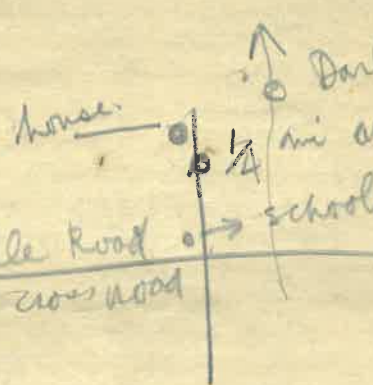
Jan 20, 1928

Apalach R.

Reading of gage at Naaf (Blountstown) = 7.5 ft. at about 9,30 AM.

## Sand Bars

On E side of River beginning a few hundred feet downstream from the ferry landing opposite Neals there is a large sand bar. Going downstream from it there is a small gap where the river comes up against the bank and then another sand bar. The downstream end of the last one about 1/2 mi from the ferry. Both of these bars are at the inside of the same bend. Neals ferry showing clay and fine sand

house. 

Darling Slide

$\frac{1}{4}$  mi across creek of hill

schoolhouse

Clarksville Road

8 mi to cross road

Jan 20, 1928

60

5041 Sand Apalach R. aluvium.

Liberty Co. - bar on E side river  
(at this point actually the N side)  
 $\frac{1}{2}$  mi. downstream from ferry landing  
opposite Neals.

Surface of sand is something like this.

Sample represents six inch  
cut near downstream end of one  
of the "dunes" which themselves  
are about 6 to 10 inches high.

No pebbles were seen here and  
the sand is only moderately  
coarse. Small amount of clay  
and silt.

Neither of these bars is above the  
stage of river. Said to reach  
half way across river when it is  
low. Also said to be some  
gravel in part which is now covered  
by water. (Ferryman.)

He also says there are bars on both  
sides of river at short distance above  
Barshot.

Blountstown.

61

5042 Clay - large sample  
= 0-103 Gifford's brick yard.  
gray and reddish jointed so as to  
break into small irregular pieces.  
Some parts which are pale gray and  
remain in larger lumps seem to have  
been discarded in digging.

Dug to depth of three feet. Occurs  
immediately below surface.  
Brick yard is inactive at present.

(Also Spring Grove Creek Church to right  
second house. turn -  
(Darling Slide - 2nd house)

Darling Slide - Chipola R. 62

- about  $\frac{1}{4}$  mi. S. of Blountstown -  
Clarksville Road,  
site of former operations of Georgia -  
Florida Orchard Co.

5043 Marl - clayey - Choctawhatchee  
5 ft below top of shell bed.

5044 Marl - clayey - Choctawhatchee  
15 ft (estimated) below top of  
shell bed. (3 or 4 ft above the  
river.)

5045 Marl - clayey - Choctawhatchee.  
about 12 ft below top of shell  
bed. (large sample)

5046 Clay - dark green tied together  
= 0-109 Choctawhatchee formation.  
first 4 ft. above top of  
shell bed. Exposed in nearly  
vertical face above the marl  
workings. This is the fresh  
unweathered material. On the  
face of the bluff there is a small  
amount of gray weathered material  
more loosely coherent.

5046 Clay (same) bed small bag  
from upper part of 4 ft bed  
with less than 1 foot of top.  
The clay shows no bedding as seen  
here. It is mostly covered by  
moss and stained by water trickling  
down and only rather prominent

# Darling Slide 63

5046

indications of bedding could be seen would be visible in the small place cleaned off.

On the vertical face of the marl below this and on the mass covering it, there are small crystals of gypsum, probably indicating pyrite in the formation.

5047

50-105

Clay - yellow. (large sample chertantachier in two bags. 4 ft. thickness. This also

is exposed in vertical bank directly above 5046 and <sup>partly</sup> above the excavation for marl.

Shows no bedding. Very sand, but sand is fine, uniform, bright yellow color. Contact with underlying dark clay is horizontal. So if it is derived from it by weathering as one might think probable from comparing the two it can hardly be weathering in the face of this bluff but weathering before the bluff was worn back so far or even before deposition of overlying sand.

5047

Clay - yellow - small sample from lower part of same bed.

The large sample represents cut down the entire thickness of it.

Above this clay there is coarse sand but it is sloping and not apparently known to be in place.

# Darling Slide.

Section from Top of Bluff 64  
Down.

Clay

- ① Loose grayish yellow sand 6 ft
- ② Reddish and mottled coarse clayey sand, with pebbly streaks or lenses 8 ft.
- ③ Sloping <sup>no definite beds exposed</sup> but probably sand about 8 ft
- ④ Yellow sandy micaceous clay 4 ft
- ⑤ Dark green <sup>sandy</sup> clay 4 ft
- ⑥ Shell mark, perhaps 20 ft

5048

Stand - Clayey - Citronelle  
14 ft below top of Bluff.  
(sample taken at this point, not a cut down the whole face)  
Mottled red, yellow and gray

Jan 20, 1928

65

Went W from Blountstown toward Clarksville. Mostly clayey sand and sandy clay showing along the road. Much of it bright orange. Good sand clay road material. Some country more sandy with black yack oak.

At school house a little E of Chipola River turned S. Darling slide is reached by taking the second right hand road beyond the first house beyond the first creek crossed on this road - about 1/2 mi in all from the cross road.

About 9 mi ~~or farther~~ to the south the road comes out of the main highway to Port St John. In this interval orange clay sand alternates with loose grayish yellow dry sand (black yack oak).

Going down the hills toward some of the creek crossings are small outcrops of reddish clay which should perhaps be looked into more carefully.

520

60

63.0

For about 11 mi S of Blountstown on main road to Port St John the soil is mainly clayey sand and sandy clay - yellow to orange.

2 3/4 mi N of Blountstown on road to Selman cut where road goes down a hill side to a branch show 4 ft yellow sandy clay with 2 ft coarse pinkish clayey sand mottled with

66

yellow and light gray and micaceous.  
 Citronelle?  
 These where the clayey sand comes  
 nearer to the surface it is  
 bright red

6.8 mi N of Blountstown on  
 road to Selman cross a small  
 creek. Bounding it on each side  
 a narrow strip of light colored  
 (white, light gray and light yellow)  
 medium textured sand, with  
 black pick oak vegetation.  
 Presumably an alluvial deposit.  
 Although a little above  
 where the stream might be  
 expected to flood and carry sand  
 at present it might well have  
 been deposited before the valley  
 was worn down so far.

## Choctawhatchee

2d Am Rept p 121

67

①

16 mi W of Tallahassee on Dugger Creek  
 Sec 9 T. 5 S R 2 W main house of  
 W. C. Allen

②

Mill Creek one mile S W. Holland  
 P. O. Hugh Black's sawmill  
 30 ft thick.

③

Section at Jackson's Bluff.

|                                         |        |
|-----------------------------------------|--------|
| Superficial sands                       | 5 ft.  |
| Bluish mud with Maxtra                  | 8 ft.  |
| Coarse Choctawhatchee                   | 22 ft. |
| Gray marly bed with oysters and pebbles |        |

⑩

⑨

⑧

⑦

⑥

⑤

④

③

②

Section at Jackson's Bluff P 114  
 Sandy soil thickness not determined.  
 Unexplored in slope to top of bluff pa, about 16 ft.  
 Yellow sand unconsolidated  
 Choctawhatchee 5  
 Choctawhatchee marl 6 1/2  
 Yellow calcareous clay 5 1/2  
 same horizon with Maxtra & fuller's earth 5 1/2  
 stiff bluish clay 6  
 Calcareous sand 6  
 Limestone 2  
 Greenish sand 7

pp 11, p 83

54 ft

9.9  
94.5

68

Creek about 16 mi W of Tallahassee  
 (RR station) on Jackson Bluff road.  
 The first creek after getting outside  
 of town walked up this probably  
 at least a mile. It flows in  
 a trench 4 to 6 ft deep with many  
 sharp bends. Except for  
 two or three small outcrops of  
 unfossiliferous material which is  
 almost certainly the calcareous  
 sand and fuller's earth like material  
 of Chipola, nothing except alluvial  
 material was seen along this  
 creek. It does not look as if  
 any outcrops of Choctawhatchee  
 would have been found by going  
 farther up stream since the  
 creek is getting very small  
 and much choked with  
 brush while the valley in which it  
 flows is getting shallower and  
 flattening out.

## Yankeetown.

Two or three hundred yards up  
 the creek from where the road  
 crosses it there are good outcrops  
 of unweathered Choctawhatchee marl  
 in the beds and banks of the creek.  
 Max. thickness 5 or 6 ft, exposed  
 at any one place. Allowing for fall  
 of creek there may perhaps be  
 greater thickness from highest to  
 lowest part of outcrops. Rather  
 dark, greenish gray. Very many  
 turritellas.

5049

69

Yankeetown -  
A short distance above the upper end of this outcrop are the remains of an old earth dam.

Walked up the stream about  $\frac{1}{2}$  mi. from where the road crosses, looking for outcrop of clay above the shell marl. Vines and bushes become too thick to conveniently go any farther and there seems to be only alluvial material along the stream. The valley is getting flatter and the stream is entrenched so deeply in it.

Above the marl in this creek bank only loose sand could be seen - in one place with some small pebbles. This sand seems to be from alluvial deposition of the creek and creek down the sides of the valley with many roots prevent digging to see if marl or clay extends up in under it.

### Jackson Bluff

12 and in places probably 15 ft of sand above the top of the Choctawhatchee Marl in the bluff itself and in the borrow pit. Some of it is fairly coarse but it is all badly contaminated by organic matter in places so much so

70

as to constitute a typical hardpan. As far as I can see there is no sand of any account in this region except in bed of Ochlocknee R.

### Lost Creek ?

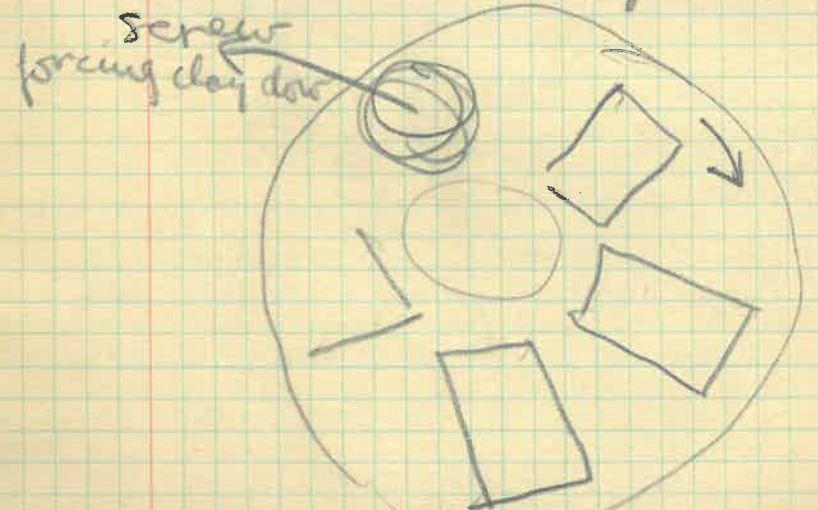
7 miles from Bloxham on road to Ward. The creek is much larger than Harvey's or any of the others on the way to Jackson Bluff. It flows through flatwoods country in a shallow valley with gently sloping sides. The banks of the creek about 5 ft high and composed of alluvial material - dirty fine sand. Some cypress growing in the creek. No indication of an outcrop of Choctawhatchee or Chipola on walking  $\frac{1}{4}$  mile or so upstream from the road.

Feb 2, 1928  
Tallahassee 79.4

71

94.0  
Ocklocknee River Clay,  
Clay - Tallahassee Pressed  
Brick Co. - on S. A. L. Ry.  
just west of Ocklocknee R.  
Gadsden Co.  
S. F. Ad A.

This sample is from an abandoned pit 0.2 mi S. of the brick works which is on the R.R. Sampled to depth of 3 ft only. Total depth of this pit about 5 ft. Clean bank is nowhere exposed for the whole height. Upper 1 ft  $\frac{1}{2}$  ft is rather uniform yellowish brown. Below this the general color is gray mottled with much red sand and yellow.



this type of machine is used.

## Tallahassee Pressed Brick Co 72

Large Drying shed with galvanized iron roofing

Temporary Kiln - straight wall no top to kiln itself. But the whole is covered by a movable roof seems to have been made for some time.

0-115 120 paces W. of Brick yard clay shows along wood's road  
Clay (Ocklockmee)  
120 paces (1200 to 1300 ft) W. of Brick yard of Tallahassee Pressed Brick Co. Gadsden Co. to depth of 2 ft from surface

In dense woods. Very small outcrop along road. Dug deeper to get sample. Upper 6 to 10 inches is looser, more sandy, and of brownish color. Deeper down very tough clay. Gray mottled with yellow to red. General appearance very similar to than

0-115 in the pit of the Tallahassee Pressed Brick Co. nearby and the pits of Ocklockmee Brick Co. a few miles to the south.

At Tallahassee Pressed Brick Co - Pile of nearly white sand from Ocklockmee R. - coarse and almost clean - very little vegetable material.

On the fill crossing the Ocklockmee R. bottom directly opposite the road to the brick yard a faint road turns off to the north. At 0.2 to 0.3 mi. along this road clay shows on the surface. At 0.4 mi the road comes out to the bank of the river. Here on the right hand side of the river a bluff 12 ft above present stage of river, composed of altered material, mostly fine sand. The general appearance of it is very much like the exposure at Jackson Bluff (note book #1). The top part of the bank is here not clay but a fine silty sand. Some layers of clay lower down but nothing of worth sampling. Base of white sand on opposite side of river

73

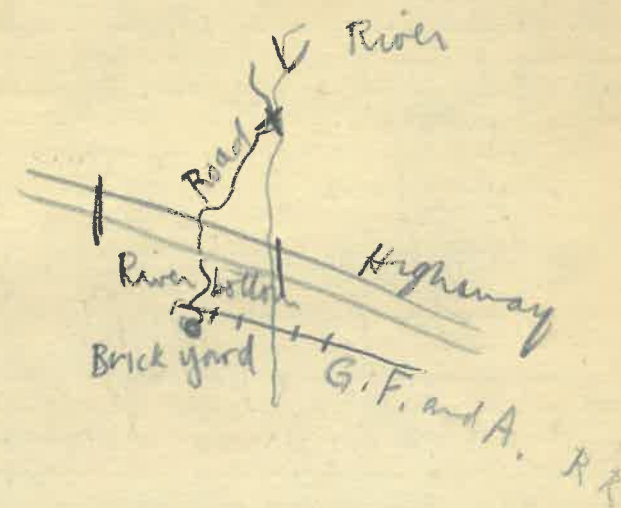
From what I saw near the crossing of highway no. 1, it seems that much of the Ocklockmee clay soil types shown on the map must be either clay or sand rather than true clay but apparently retentive of moisture to be called clay in the soil mapping or the clay is generally covered by fine sand

In excavating this clay the Tallahassee Pressed Brick Co has made a number of small pits without any apparent shape or order. Also some long, narrow pit - Brick yard. Tramways to haul out pits clay (Mule power?)

## Little River

Deep cut on highway No 1. just south of Little River. Good exposures of Chipola formation. Rather deeply weathered. Folding shows very well! Two beds of clay (fullers earth) about 4 ft each. They seem to outcrop in a much weathered condition near the bottom of the hill. Even if these clay

74



75

should be suitable for any  
buried products, which is doubtful  
They run under from to heavy  
overburden to have any  
importance at this locality.

Feb 3, 1928  
Gadsden Co.

76

0-115

0-116

Clay. Chipola formation.  
S. end of cut on N. side  
of Little River - on highway  
No. 1.

The exact locality of the cut  
the bank from which the sample  
was taken is on the W. side of the  
road 20 ft. N. of the end of the  
cut and about 50 ft from the  
end of the guard rail on the fill  
in the deeper parts of the  
cut and in the still deeper cut on the  
other side of the river the stratigraphic  
relations can be seen more clearly  
but the overburden on the clay  
is excessive. Also the weathered  
material may not shrink and crack  
so badly.

Approx. Section, where sample was  
taken.

- |   |                                                                                               |       |
|---|-----------------------------------------------------------------------------------------------|-------|
| ① | Brown sand, rather coarse. May<br>be a later formation than Chipola                           | 1 ft  |
| ② | Clay (fullers earth)                                                                          | 2 ft. |
| ③ | Clayey sand                                                                                   | 2 ft  |
| ④ | Pale greenish clay resembling<br>fullers earth but apparently<br>not so pure - some fine sand | 3 ft  |

Sample of all three. In this  
part of the cut weathering has  
gone so far that these beds are  
seen only very indistinctly.  
It seems likely that the  
section includes the lower

Gadsden Co.  
near Little River.

77

0-116

part of the upper bed of fullers  
earth and the upper part of the  
lower bed since in the deep cut  
across the river there are two  
distinct beds separated by two or  
three feet of clayey sand.

Along the line of outcrop on the  
hill side there is a very small  
width in which there is only a  
foot or less overburden as indicated  
on preceding page. However  
much of the way along hillside  
there is a width of two hundred  
feet or so with overburden  
not more than 5 or 6 ft  
and probably averaging nearer  
4 ft of sandy material.

### Little River Alluvium.

On S. side of Little River where  
highway no. 1 crosses there are  
some small outcrops of gray,  
highly plastic but somewhat  
sandy alluvial clay. At this  
point the only exposures are due  
to work on the bridge and  
ditching along the road. Maximum  
of 3 ft clay with overburden  
2 to 3 ft of fine sand. 300 to  
400 ft upstream on the same  
side there are some small  
natural outcrops of this clay  
on the bank of the creek.

Mill  
Sample 0-116  
Little R.  
Sample 0-117  
GF and A.  
deep cut  
Highway No. 1

2  
2  
3

Feb 3, 1928  
Little River Alluvium

0-117

Clay — alluvial deposit of Little River Bank sample from left side of river 100 ft upstream from where G. F. and A. Ry. crosses it.

sample {

- 1 ft. top soil - silt or fine sand
- 2 1/2 ft. very sandy clay or silt
- 1 1/2 ft. fine sand with little clay
- 2 ft. tough gray clay with rather small amount of sand.

Sample represents 6 ft bank not including top soil. Goes down to within a few inches of water level in the creek.

General color of sediment is light gray with a few spots of yellow similar to that at the highway crossing a mile or so away.

As a whole the material is rather sandy. It would hardly be practicable to mine the lower more clayey part separately.

Variability of deposit is shown by bank of small branch scarcely 100 ft away where 5 or 6 ft section from surface

79  
downward is sand with only a small amount of disseminated clay. While there can be no doubt that the total amount of clay along this creek is large, it is extremely doubtful in my mind where there are sufficient amounts in one place and conveniently situated for excavation.

The entire height of the bank is subject to overflow and most of the clay seems to be in the lower part where it might be under water a large part of the time.

This locality is about 1500 ft (N.W.) from where the highway crosses the R.R.

At this crossing there is a deep cut on the R.R. Some plastic clay toward the bottom but even if it should be in sufficient amount it is deeply covered by the partly indurated caliche or clayey sand of the Chipola and loose surficial sand (Pleistocene or Citronelle?).

Gadsden Co.

Havana 25.1

80

Hinson.

R.R. cut where road to Jameson crosses it shows sandy clay mottled light gray and purplish red.

6 hand specimens collected. Probably too sandy for clay products.

Swamp Creek.

where road crosses it NW of Hinson near Fullers Earth mine.

Flood plain is a scant 1/4 mi wide.

Alluvial material seen along the creek is fine dirty sand. Even if some clay should be found water table is so near surface and woods so thick as to seriously interfere with working.

Feb 3, 1928  
Gadsden Co.

81

Fuller's Earth Mine of Floridian Co.  
at Jamison.

On north side of the pit where overburden is heaviest it is about 17 to 20 ft. Most of this is sand - 12 to 15 ft. crossbedded except near surface where weathered. In places as much as 5 ft. at bottom of overburden may be clay - light green sandy material - looks like fuller's earth type of clay mixed with sand. Some places show what is probably calcareous sand of Chipola in lower part of overburden (about 4 ft. above top of fuller's earth as worked) & can see no indication of any workable clay in overburden. In fact nothing that looks as if it would be any good even if it made up all of the overburden.

At bottom the fuller's earth passes into more sandy material.

35.0

At a pulgus Creek.

where road toward Quincy crosses it a little west of Jamison bottom land is very low with several pools of water in sight. If the rest of it is like this there can be no

Gadsden Co.

82

alluvial clay along it which can be conveniently worked

Iron Concretions.

At many localities in the northern part of Gadsden Co. there are scattered about on the surface and in the red clayey sand near it, small brown concretions of iron cemented sand. They are commonly the size of a pea or slightly larger. Would be good for roads if they made up a larger proportion of the soil. Might easily be mistaken for pebbles but are formed by local concentration of iron in weathering.

Mosquito Creek  
north of Mt. Pleasant.

Steep walled valley - narrow swamp. Sediment in stream bed is poorly sorted. Pools of fuller's earth and iron sandstone concretions up to 2 or 3 inches. Rather scarce quartz pebbles up to  $\frac{1}{2}$  or  $\frac{3}{4}$  inches. No sand clean enough to be good for any thing and if it were the amount is too small.

Gadsden Co.

Feb 3, 1928

83

near top of hill on S. side Mosquito Creek small exposure of coarse red compact sand in roadside cut. Contains a few pebbles. Maximum scarcely a few  $\frac{1}{2}$  inch. Surely not enough to call it gravel. If in great enough abundance it would be better than the usual sand clay road material since a very large proportion of the grains are coarser than 20 mesh and some coarser than 10 mesh. There is no indication that there is much of it.

In places the limonite concretions referred to on the preceding page are abundant enough in the top soil to have a decidedly beneficial effect on the roads. For example about two miles S. of Mt. Pleasant. However they do not make up a large enough proportion of the soil nor occur to great enough depth so that it would pay to haul them for road building. At this locality very many from one to two inch size.

In general the soils of Gadsden Co. are loam rather than sand especially in the northern part but on the uplands are many patches of light colored sand of medium texture which could be used for local sources of supply for work not too exacting.

Feb 4, 1928

84

# Tologia River

Gadsden and Liberty Counties  
crossed this in about four places,  
including the upper part shown  
as "Talogee Creek" on the soil  
map. Everywhere the  
land is gum swamp and the bottom  
is scarcely at all above  
the water table.

Northern part of Liberty Co.  
fairly abundant sandy clay  
road material.

From Tologia south to Vilas  
flatwoods - poorly drained &  
sandy top soil. Subsoil  
seems to be generally black  
hard pan.

From Vilas to Sumatra  
in sight of R R most of the way.  
Excessively bad road, low wet  
flatwoods with many small swamps.  
The basis of the soil is sand  
not clay. In places organic content  
on surface is so high that it  
approaches much. No possibilities  
for either sand or clay.

Around Sumatra gently rolling  
country much drier than that just  
passed through. Sandy surface  
soil. Some black jack oak

85

Small roadside pit shows very sandy  
orange clay, or perhaps rather  
clayey sand. Possibly could make  
brick but certainly far inferior to  
the Apalachicola River clays and  
doubt if it has any considerable  
extent.

## Big Owl Creek

It seems very likely that this dryer  
country around Sumatra may be  
due to nearness to Big Owl Creek  
and Black Creek, but there may actually  
be some higher ground in the form  
of dune or beach.

Feb 5

Lanark

86

Distinct dune ridge just north  
of road & in many places about  
30 ft. high.

## Sand

1 mi W. of Lanark. borrow pit  
in S. side of dune shows surface  
layer of white sand 1 to 2 ft.  
which conforming accurately to  
the topography and undoubtedly  
due to leaching. Below it  
yellow sand extending to  
unknown depth but seen in  
undisturbed bank to depth of  
4 ft.

4000

White sand 1 mi W. of Lanark,  
top 18 inches.

4001

Yellow sand 1 mi W. Lanark  
first two ft of yellow  
sand below 4000

15.2

## Carabelle

About all of the town is  
in sand dunes, max. elevation  
about 40 ft (estimated)

Deep cuts show that  
white surface sand extends to depth  
of 1 to 3 ft. Below that light  
yellow to cream colored. In places  
vertical lines of dark brown.  
Organic matter? in the yellow part

87

typical scrub vegetation in Carrabelle and at many places between there and East Point.

After crossing the ferry from Carrabelle to the west, across the river the road goes through flatwoods with small patches of swamp. This may be because it is farther back from the shore. There is no certainty that the sand ridges may not be in front. At 10 miles or so from the ferry the road comes out near to the shore and between there and East Point many patches of dry scrub land alternating with flatwoods. No sand hills seen as high as those in any near Carrabelle.

At East Point heaps of oyster shells. Many of them have mussels attached. Shells are thick and some of them have small burrows burrowing in them.

## Apalachicola.

88

on main river W. bank  $\frac{1}{2}$  mi. above where R.R. crosses.

Road comes out to river as indicated on soil map. Soil is sandy.

6 feet or so above ordinary high tide in the river. Is said to be rarely flooded by strong gales blowing water in.

Walked about  $\frac{1}{2}$  mi. up stream. Traces of several old saw mills along shore. Cedar trees and cabbage palm trees. These would seem to contradict the statements of Mr. Jordan as to the extremely slow growth of pine of course we don't know just how long the mills have been gone or where runs the trees are growing.

A little upstream from where the road comes out to the river the land gets slightly lower and is only two feet or so above ordinary high tide but still not swampy. Drift wood indicates probable flooding by occasional high water or spring tides, and there is some alluvial material, sandy clay with mica scales. Probably too sandy to do anything with it but here it is too low also.

All of the streets in Apalachicola except one are mostly paved with concrete and oyster shells.

With regard to the country from Apalachicola W. by the road west and S. by the railroad

89

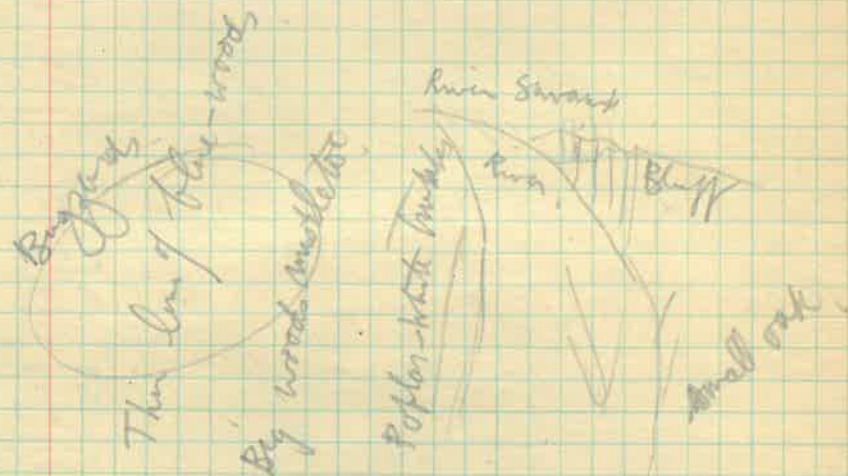
to where it comes out on the river  $\frac{1}{2}$  mi. above the R.R. bridge it is flatwoods with many poorly drained places and large organic content in soil. However it looks more like marine sand of Pleistocene and surely does not belong to the recent delta of the river. While the sand may originate from the river it seems to have been worked over too much to properly call it part of the delta.

4007

Sandy ground from between high and low tide on Apalachicola river  $\frac{1}{2}$  mi. up stream from R.R. crossing, W. side of river.

90

View from top of Alum Bluff <sup>93</sup>



No sign of habitation.

Choctawhatchee

p118 Abes Spring - left bank Chipola  
R. Collier Co. Clay

p120 Darling Slide - a mile or more  
north of Abes Spring

p120  $\frac{3}{4}$  mi N of Clarksville  
S. Bank 4 mi Creek.

Alum Bluff - section at  
p 93

Durlings Slide - Chatanulatchee,

Inquire at Blountstown - Ferdie's

George - John Richard <sup>Blountstown</sup> <sup>Seelye, Factors</sup>

Brack works at Blountstown

Est. Harulga - good clay.

Stopping place at Blountstown  
Bristol, W. W. Whitaker, Post 301

Alum Bluff - two mi from  
Bristol <sup>N. Harold (Bristol)</sup>  
used to be postmaster, interested  
in minerals etc. Lady Thomas  
hotel is his daughter's

Apalachicola - Oyster Shells

Wanted  
summed labels (for bottles)  
8x10 1/2 waterproof paper  
larger pack of gum hot  
scopes for collecting sands,  
larger bags,  
pack sack,

Jan 11,

Tallahassee cleaning out carburetor  
and vacuum tank — \$ 1.00

Waukena - 5 gas — 1.15

Mary's guest 4 gas 96 1 gal. 25 1.21

Dinner 65 off

Jan 12

supper lodging breakfast Mayo 2.25

4 dinner, Blountstown 50

4 gas, Blountstown 1.00

supper .50

~~Jan 12~~

→ Jan 13

Jan 14

5 gas 1.25 Cross City

dinner .75

4 gas 1.00

Room and breakfast, Cross City 1.75

Jan 13

Harper Hotel, Chelfland 2.00

supper lodging, breakfast

Dinner .85

Jan 17. Tallahassee Kodak film (no rain) 1.15

Jan 18

lodging and 3 meals, Bristol 3.25

Bristol 1 gal gas 1.89 1 gal oil 1.25 2.14

Jan 19 room and 3 meals 3.25

Jan 19 ferry Melach R. Blountstown 1.00

Jan 20 room and meals Blountstown 2.25

ferry Apalachicola R. .50

supper, Quincy .75

Jan 20  
60