

 No. 3. *Approximate* 
Profiles

PROPERTY OF
FLA. STATE GEO. SURVEY

Fuller's earth tests.

Indexed June 18, 1910

1.	8:00	Am	no light	16,	1/2 mi.	W. A.
2.	3:00		"	11,	3 mi.	
3.	5:15		"	16,	1/2 mi	W. A.
4.	5:15		"	11	3/4	W. A.
5.	3:45		Cloudy.	22,	25 sec.	W. A.
6.	3:45		" a little more light	16,	13 sec.	"
7.	4:05		Very cloudy,	22	1/2 mi.	"
8.	...		" "	16	20 sec.	"

note on back around Jettakow

Indy
Coffin

1151. 1/2
L ✓

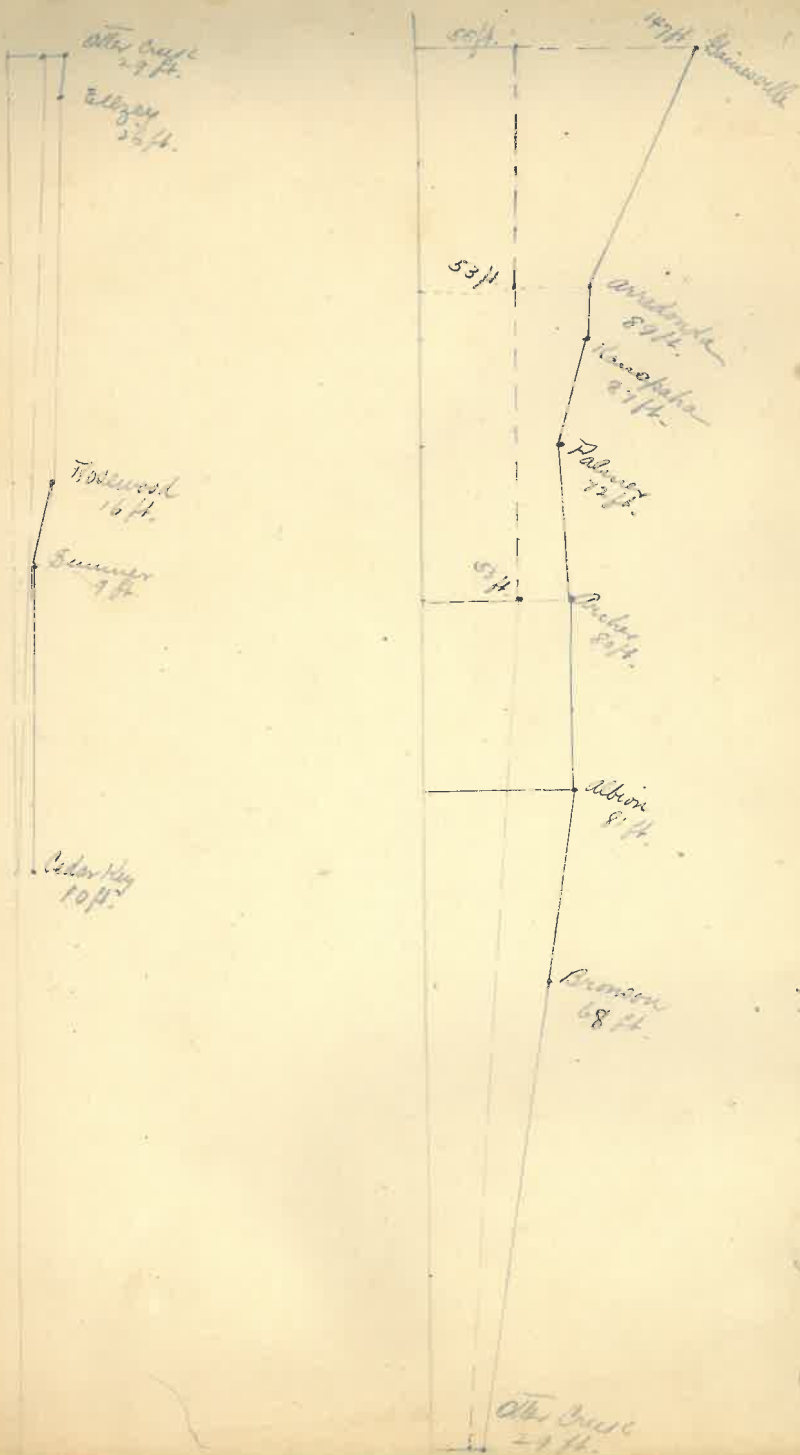
Note - Vertical scale 1" = 100 ft.

Horizontal scale 1" = 5 mi.

1" = 2 mi.

✓ 1/4" = 50 ft.

2

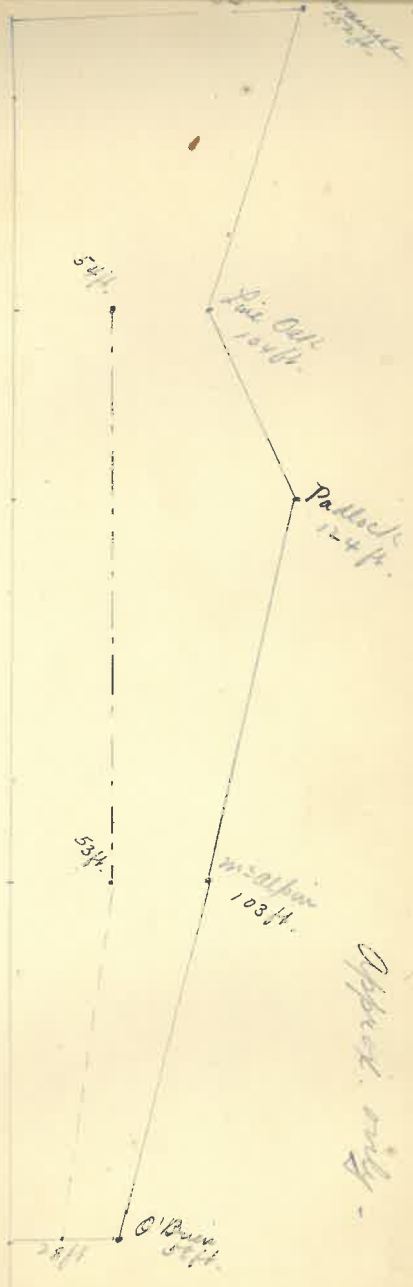


3

From Gainesville to Cedar Key. S. & N. 112°. Long County.

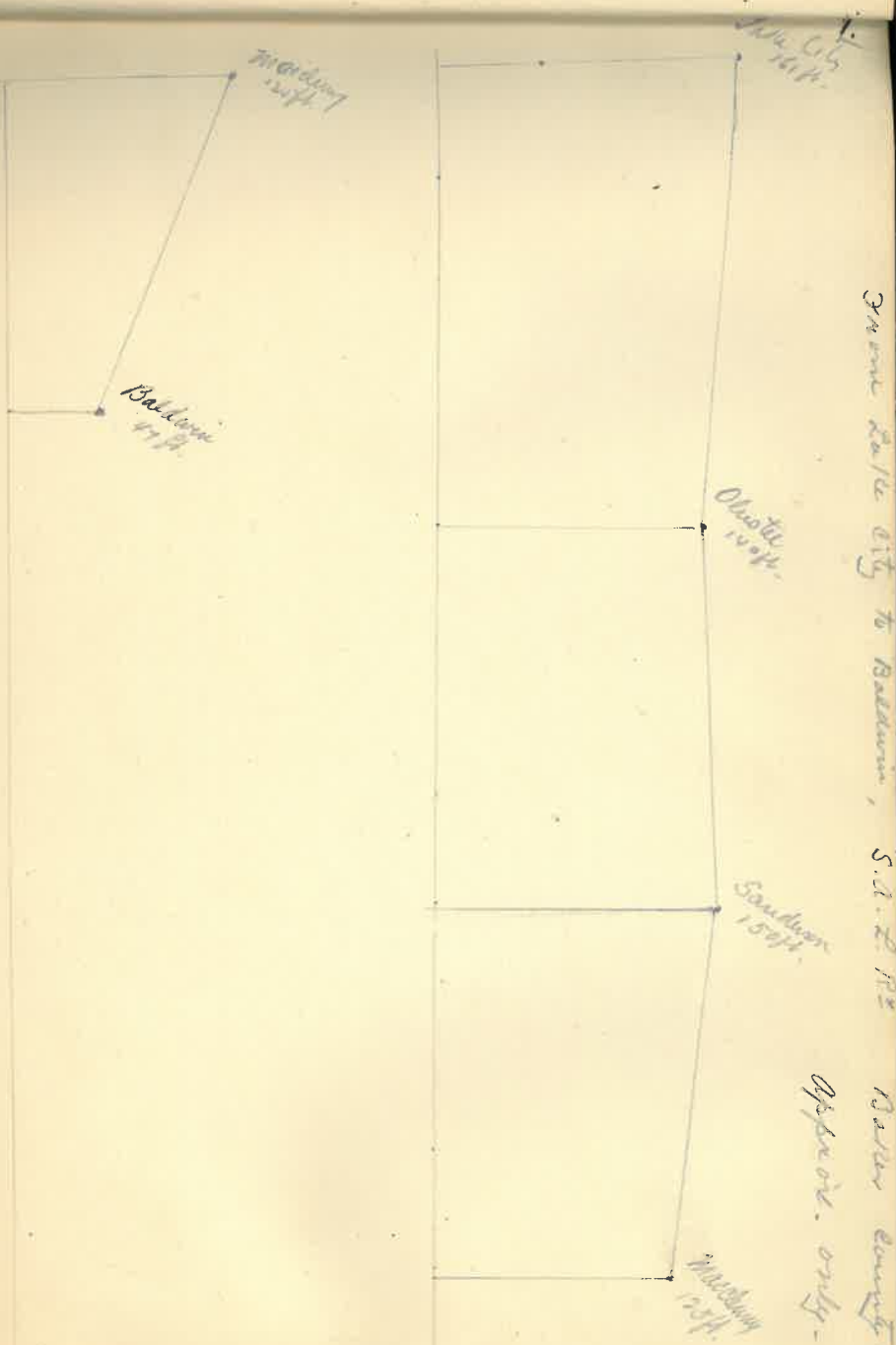
Approximate profile only.

1 in = 100 ft.

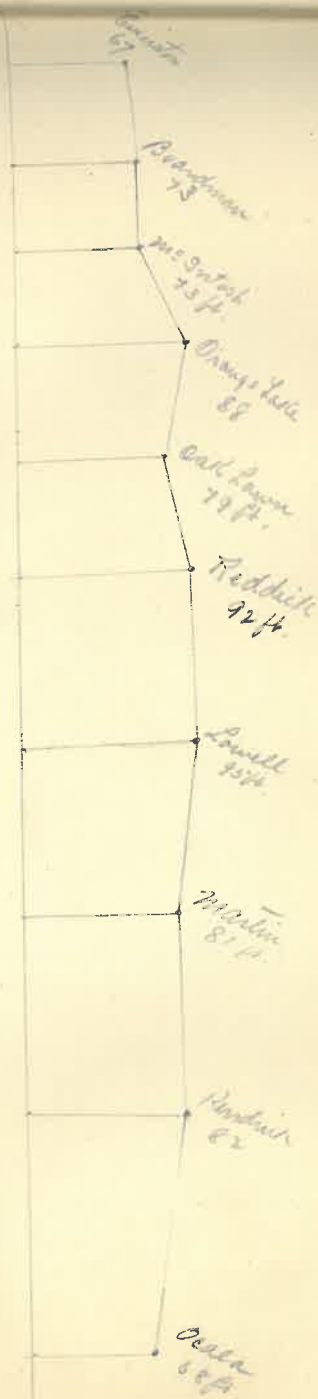


From Survey to Fort 7 ft. A.C. 7 ft. Surveyed County.

Appet. only



From Benetons to Lady Lake. A.C. & N. 12
 Approx. only.



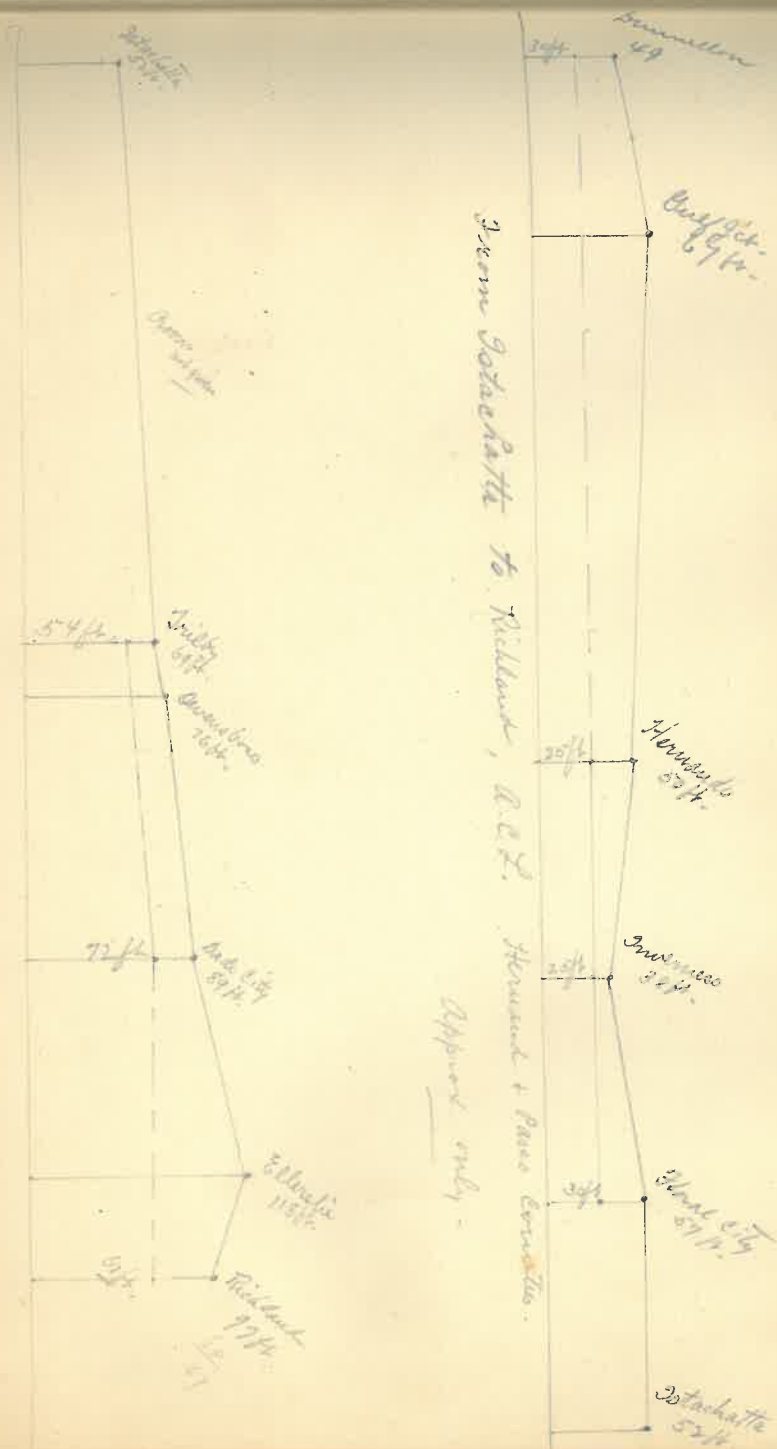
From Brunswick to Satachatta, A.C.P. Rd

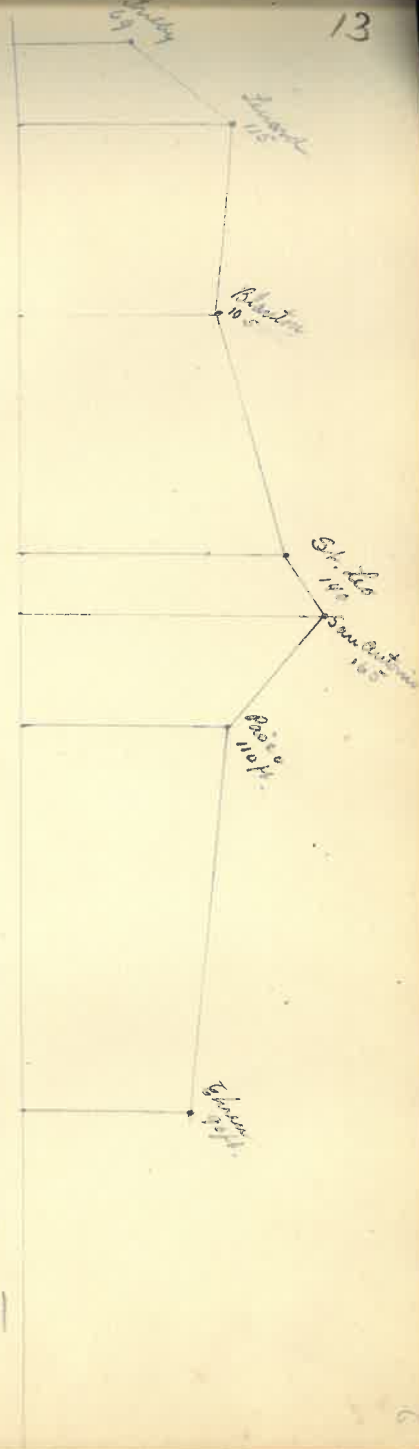
Cities enroute - 5

Approved only -

From Satachatta to Rickland, A.C.P. Highway & Pass Corralito.

Approved only -





From Shale to Jackson Springs. A.C.D. 172. Boone County

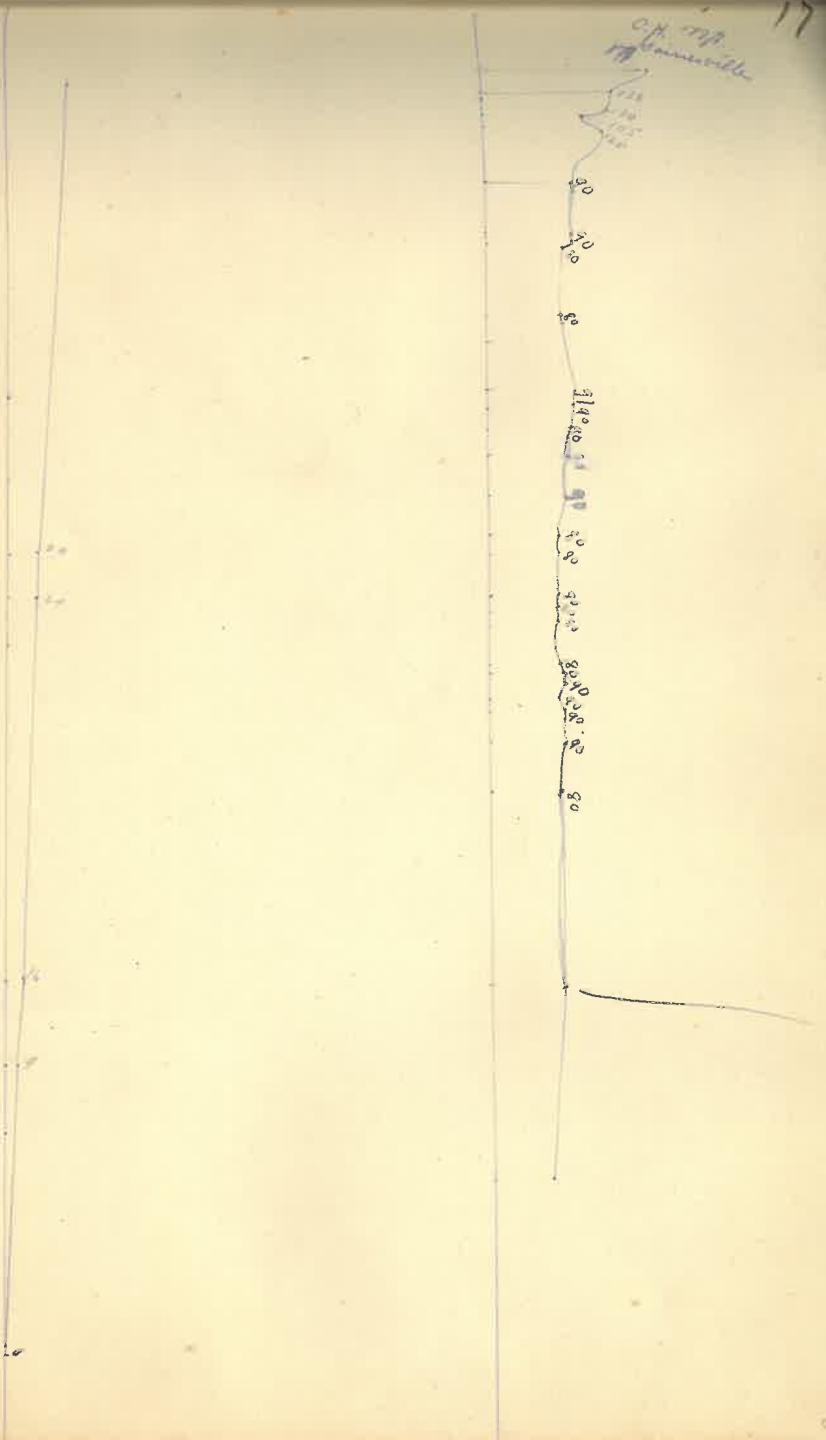
Approt. only.





15
From Bumellon to St. White. A.C.R.

Ch. of
St. Lawrenceville



we found through the use of the aneroid 19
 barometer that the foot of West steps of Capital
 was between 120-130 feet above the rail
 at S. A. L. depot, thus making the hill here
 from 203 to 217 feet above sea. We also found
 that hill just near steps of Carnegie library
 at Negro school was ^{about} 120 feet above depot
 or practically the same level as hill on
 which Capital is situated.

Tests for fuller's earth.

- 1 - Plasticity.
- 2 - Molds when wet, easily or no at all.
- 3 - Sample dried after molding, hardens.
- 4 - Possible flow before rupture, slight or great.
- 5 - Natural clay heated to redness.
- 6 - Molded clay air dried and heated to redness.
- 7 - Amount of water necessary to bring 10 grams natural clay to greatest plasticity.
- 8 - Feel of the clay when wet; soapy, greasy or sticky.
- 9 - Description of dry specimen, color, coherence, etc.
- 10 - Action of natural clay in water.
- 11 - Oil test.

Fuller's earths tests.

#1. Locality: from section on the road south of River Junction.

1. Very plastic.
2. ^(a) Natural clay ~~burned~~ ^{heated} to redness: darkened and turned reddish; (a piece used in plasticity test: turned red.
3. 4 1/2 cc to 10 grams of clay.
4. Sticky and sandy.
5. Brownish color, coherence fairly strong.
6. Falls to pieces when placed in water.
- 7.

#2.

#2. Just above Chattahoochee Limestone, 1 mi. E. Marianna,
Jackson Co., Fla. #508.

1. Very plastic.
2. Easily.
3. Hardens.
4. Slight.
5. Burned reddish.
6. Burned red.
7. Gcc.
8. Soapy.
9. Pale green buff; coherence strong.
10. Disintegrates.
- 11.

#3. Owl Commercial Co, Quincy, Gadsden Co., Fla. #165

1. Very great.
2. Easy.
3. Hardens, and retains shape into which molded.
4. Slight.
5. Burned a little darker than natural clay.
6. Same as 5.
7. 7cc.
8. Soapy.
9. Light grayish white; coherence very great.
10. Does not disintegrate, but falls apart along lamination planes.
- 11.

#4 m. Alpin place, 6 mi S $\frac{1}{2}$ E, River Junction, 7 mi S $\frac{1}{2}$ E, 1897. 27

1. Plasticity (not great.)
2. Easy
3. Yes.
4. medium
5. not much change, a slightly darker color of gray.
6. no change, perhaps a ~~big~~ little darker.
7. 12 $\frac{1}{2}$ cc
8. Soapy.
9. Grayish-white, coherence great.
10. Separates along lamination planes.

#5. Just below red sands at Quincy depot. ²⁹ #174

1. Less plastic
2. Easily
3. Yes.
4. medium to slight.
5. Decidedly red showing presence of iron
6. Very red,
7. 5 cc
8. Sticky and sandy.
9. Variegated, red mostly. coherence not great.
10. Separates along lamination planes.

#6. Columbia Fuller Earth Co., Ellenton, Fla. #488

1. Very plastic.
 2. Easily,
 3. Yes.
 4. Break.
 5. Shows a banded structure, part of clay turning red shows presence of iron, and part remaining unchanged.
 6. Small piece, all turned red,
 7. 12 cc
 8. Soapy.
 9. Rather yellow tinge. coherence great.
 10. Disintegrates
11. In this test I used about 5 in. of earth and the same amount of oil. Later I added more oil. Commenced test about 4 pm Feb. 1st, and about 4:50 oil commenced dripping through. Ande cotton seed oil used, and ^{was} only partly decolorized by the earth. After allowing the oil to percolate through the earth for about 20 hrs the earth commenced coming through with it and the test was discontinued. A glass tube 2 ft. long and 1 in. in diameter was used. The end was ^{closed} stopped with a perforated cork instead of asbestos.

#7 Lister clay Co., Attapulgus, Ga. # 485

1. Very plastic.
2. Easily
3. Yes.
4. Break.
5. Fuses but otherwise not much change, only slightly darker.
6. Burned darker.
7. $10\frac{1}{2}$ cc
8. Soapy.
9. Grayish-white. coherence great.
10. no action.
11. Cude cotton seed oil used. Test begun about 3:30 PM, Feb. 2nd. 5 in earth used in the 1 in glass tube.

This earth decolorized the cotton seed oil more than # 6. The oil was slower in coming through than that of # 6. An asbestos plug was used to close end of tube, the earth nor oil were heated,

#8. Lister clay Co., Attapulgus, Ga.

35
#486.

1. Very plastic.
2. Easily
3. yes.
4. Not so great as #7, but good.
5. Evidently some iron, turned reddish.
6. Reddish tinge.
7. $8 \frac{1}{2}$ cc
8. Soapy.
9. Grayish-white with yellow ~~spots~~ ^{spots}. coherence great
10. no action.

#9. Glen's mill, 8 mi. S. River Jct. 37
498

1. Plasticity not great, (sandy).
2. Easily
3. Yes.
4. Slight.
5. Decidedly red.
6. Very red.
7. $5\frac{1}{2}$ cc
8. ~~Sandy~~. Sandy & sticky
9. Brownish. Coherence not great.
10. Disintegrates, and separates along lamination planes.

1. On St. Augustine road about $\frac{1}{2}$ mi E. Capital.

1. Quite plastic.

2. Easily

3. Yes.

4. Very slight.

5. Very red.

6. Very red,

7. 7 cc

8. Sticky

9. Greenish-gray. coherence fair.

10. Disintegrates.

41
16. On Lake Jackson road about 4 mi N., Capitol.

1. A little sandy but quite plastic
2. Easily
3. Yes.
4. medium
5. Very red.
6. Red.
7. 8 cc
8. Sticky and sandy.
9. Grayish-white and sandy, coherence fair.
10. Disintegrates.

43
 12. On Bellair road about $\frac{3}{4}$ mi. S. Capitol.

1. Very plastic.
2. Easily.
3. Yes.
4. Good.
5. Practically no change.
6. A slightly red color.
7. 7cc
8. Sticky.
9. Greenish-gray, coherence fair to medium.

xx

xx



The Fuller's Earth Company
midway, T. Pa. march 21. 1912.

Began mining about the middle of 1811.
 Claim to have process for treating
 the earth so as to leave no taste in
 the cottonseed and other vegetable oils.
 Test ^{each} oil for acidity.

Test ~~soil~~ ^{coast} for acidity.
Pit shown about 8 feet ~~coast~~
soil and ~~sub-soil~~ ^{sub-soil}. This ~~is~~ ^{is} ~~the~~ ^{the} ~~coast~~ ^{coast}

and sub-soil.
about 5 ft. Blue fullers earth.
" " slightly brown.

out 5 ft. blue fawn
" 1 1/2 " slightly brown.
" 8 " buff best comb.

Beneath the earth a limestone,
6 in to 1 ft. is reported & beneath this
another fuller earth stratum of
undetermined thickness.

John Richard, mag. Ruprecht.
Frank Richard, chemist.

John ~~Richardson~~
Frank ~~Richardson~~, chemist

g. E. Nicholson, Darwin, + ca.) ✓
 Nicholson action Central
 Sandy bluish clay (looking like yellow earth) very plastic
 about 8 ft.

Small stream about 1 1/2 or two miles N. Biffin
or Dr Wolfe.

Leading to the stream from the south nothing
but typical red rich Lafayette to a yellow clay
is seen. After crossing stream (mouth of creek)
we see,

- 1st. A sandy mottled clay. 8 ft.
- 2nd. A mottled clay but more bluish white and
not so mottled (yellow spotted). 10 ft. sandy.
3. ~~Semi-indurated sandstone~~ thin ^{laminated} layers ^{perhaps 2 or 3} fullers earth.
5. Semi-indurated sandstone 6 ft. above.
6. yellowish. blotched sandy clays. 10 to 12 ft.
7. Rich red Lafayette 10 to 15 ft. in connection.

The greenish sticky and very plastic clays are seen
in hill leading down to Little River. yellowish
clays on top. no fullers earth.

69

Hill on Quincy midway road on north
of stream before crossing S. & L.

- 1st. Red Lafayette in connection
- 2nd Blotched or mottled clay. ⁱⁿ
- 3rd A layer bluish sandy clay. somewhat fullers earth.
4. Sandstone
5. Laminated fullers earth at least 6 ft. lying
apparently horizontal.

The clays are very blotched and catlike
like in appearance, and are cross-bedded.

Section on Quincy-Havana near Florence
or Nicholson on G. F. & A. (on Nicholson Estate).
Pleistocene sand 5 ft.

- Blotched "catlike" clays. (very coarse sand on top.) 25 ft.
- Light ^{buff} green plastic clay, massive ~~fine~~ ^{laminated} 5 ft.
- more massive & yellowish clay, 10 ft.
- fine laminated fullers earth. 6 ft.
- A sandy mottled clay, 4 ft.
- Sticky greenish ^(sandy) clay. 5 ft.
- Laminated fullers earth 8 ft.

Ascending hill on south side of Little River
we have:

1st. Pleis. sand, 5 ft.

2nd. yellowish clay

3. bluish to mottled clay.

4. A sandstone, (bluish-grey) Large pebbles in thin
at bottom ranging from size of pea to $\frac{1}{2}$ in.

A thicker mantle of sand covers top of hill.

Still leading down to Monroe creek,

red Lafayette on top, 8 ft.

mottled clays. (greenish) 5 ft.

yellowish clay (sandy)

sand.

The hill leading up from Monroe creek
presents nothing but a kind of disintegration
(greenish) sandy clay. The road leads
around the hill and does not give
a good cut or exposure. On top hill
the mottled clays are seen. No
58

typical Lafayette is seen here.

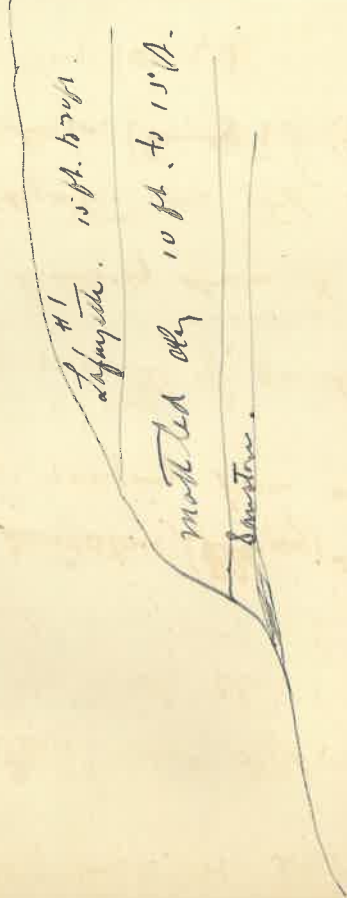
Road from Quincy to midway on north
side of S. A. R.

Hill leading down to creek at Dr. Hoff
or now called Griffin.

1st. yellow to rich red Lafayette, with concretions. 15 to 20 ft.

2nd. mottled clays. (greenish-grey + red blotches) 10 ft.

3rd. Sandstone



shows
hill on other side of stream

up nothing.

iron concretions are present. the valley, crossed
shows no other formation, the stream now.

Still down to Little River,

- 1st. yellowish clay,
- 2, mottled clay.
- 3, yellowish red clay, in places finely stratified
- 4, mottled clays.

The whole formation overlain by this sand.

2nd still down.

- 1st. Pleistocene sand. 4 ft.
- 2nd A yellowish sandy clay, 2 ft.
- 3rd. A bluish (massive) clay plastic, 5 ft. This
(runs horizontal almost) lies unconformably with
upper + lower formations.

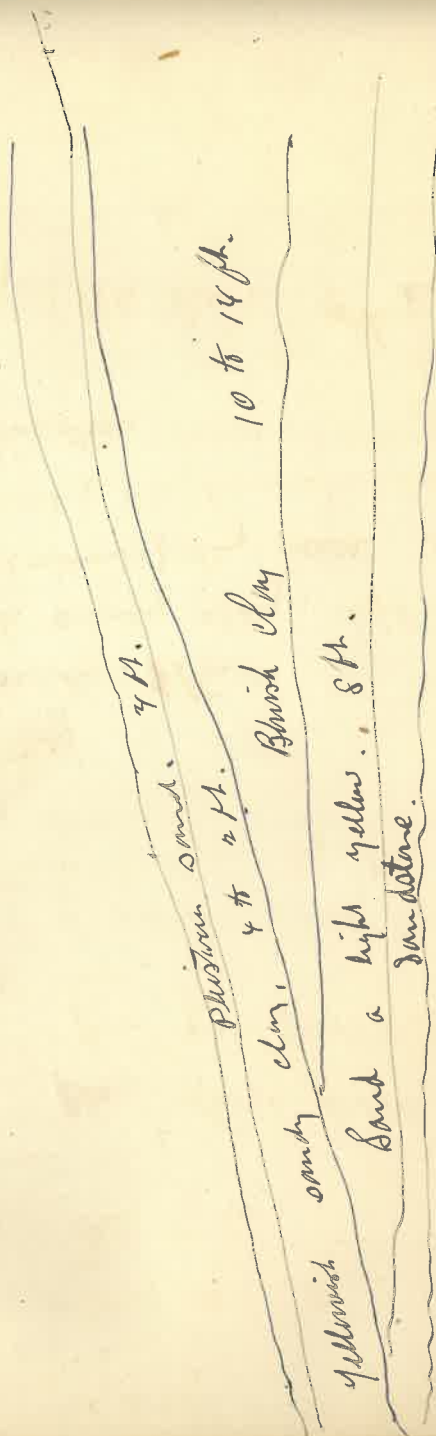
The banks along Little River nothing but
sand.

3

Second hill leading down to Little River from

P. 6

The north.



Sand.

Hill sloping $\frac{1}{2}$ and leading down to Rocky Comfort Creek.

on top of Hill, red Lafayette, this grades to yellow. Near bottom we get a layer of clay fullers earth. ~~unconformable~~ ^{the} yellow sand clay above lies unconformable on the stratum. It is not the large shelly fullers earth. At bottom of hill we get light colored sand with phosphatic concretions. Across Rocky Comfort Creek on north side, hill is typical red Lafayette.

1st. (Pleistocene sand. 4 ft.

2nd. A dark colored (carbonaceous;) and. 2 ft.

3rd. A plastic grayish clay and this grades into a good grade shelly fullers earth. 7 ft. The fullers earth is unconformable with upper formation and dips ~~into the~~ at an angle of 45° to the S/W.

4th mottled clay, 8 ft.

5th. typical red Lafayette, iron concretions.

86

South of S. A. L.

Quincy-midway road, about 1 mi. S.

Quincy we cross a high hill, typical red Lafayette on top with iron concretions. About $\frac{1}{2}$ way down blotched or mottled clay. which grades in to the stratified clays. The stratification seems to be due to layers of clay assembling fullers earth. Apparently does not cut low enough ^{enough} ~~enough~~ these blotched clay, a layer of bluish plastic clay occurs for the time fullers earth to show up. After crossing stream we have a very gentle slope up hill which shows first these mottled clays again which are usually called Brindley. There are outcrops in top of hill by red red Lafayette, and a mantle of Pleistocene sand.

At the crossing of the Seaboard about two miles south of Quincy the cut there presents:

1st. Reddish-yellow clay. 10 ft.

2nd. mottled reddish yellow clay, 15 ft.

3rd. Below this a ~~thin~~ white mottled clay 3 ft.

about 1 mi

All the hills crossed. after crossing the Seaboard appear to me to be Lafayette, some a rich red other a yellowish red, but always +

87

at the second crossing of Bear creek, west of that crossed this morning, the hill there shows a very coarse, ^{loose} sand silicious pebbles ranging from size of a pea to 1 in. in diameter. This coarse sand under a very sticky grayish clay, presumably unconformable. Sand is about some 8 ft thick, clay 10 ft. This clay is mottled very plastic, has a grayish and mottled red and yellow. Below this is the ^{semi-indurated} coarse sand.

Road on north side of creek going up:

- 1st. Lafayette about 5 ft.
- from the bottom
- 2nd. Sandstone " 5 ft.
- 3rd. Shelly fullers earth about 3 ft.
- 4th Sandstone 3 ft.
- 5th yellowish, ^{mottled} sandy clay, full of pebbles at bottom 5 ft.
6. ~~Pleistocene sand~~. A mottled clay, like we think to be Grand Gulf. 20 ft.
7. ~~Lafayette~~ Pleistocene sand, unconformable.

#8 has a vein of white-gray sandy clay running through it making them appearance of being stratified. Grades in 2

Hill leading down to Cane Creek.

1. Pleistocene sand, 2 or 3 ft.
2. Lafayette, iron concretions 6 ft.
3. Mottled clay, unconformable, 7 ft.
4. A pinkish blotched sandy clay, 5 ft. unconformable.
5. yellowish, faintly stratified, looks like lime slams running through it, clay, but shows on closer inspection to be a fullers earth. 20 ft.
6. A sandy or ~~false~~ ^{fullers} earth. yellowish + mottled clay 10 ft.
7. Sandstone 4 ft.

Going up hill across creek, road cut through, 1st. a yellowish sandy clay. 2nd. Red Lafayette to top.

About 1 mi. N $\frac{1}{2}$ E of Cane Creek.

Hill sloping south, from within up.

1. Pleistocene sand. 3.
2. Lafayette, light yellow. 5.
3. Sandstone 2
4. Shelly fullers earth. 5.
5. unconformable, light yellow sandy clay 10 ft faintly stratified

Section of hill just after crossing Rocky Comfort
 creek. The same bluish sticky clay apparently
 at about same level. The fullers earth stratum
 is also higher up the hill cropping out in the
 stream at side. The mottled clays occur which
 differs from section on other side. Mottled clays
 capped by Lafayette and Pleistocene sand. After
 crossing a sandy ridge we descend another hill
 to ^{near creek} which shows no Lafayette but first the mottled
 clays thickness of at least 20 ft. Then is a
 sandy light colored clay. ~~This seems to be a~~
~~kind of a part for grain~~ Below comes in a reddish
 yellow clay grading in to the mottled again.
 Then light gray colored sandy clay or sandstone for
 about 5 ft. Shelly fullers earth about 5 ft. Sand
 at bottom of this.

Hill north side of Ochlawaha creek.

Pleistocene sand 5 ft.

Light yellow or buff colored sandy clay, about 8 ft.

Stratum, unconformable and impure shelly fullers earth.

Coarse white sand, lower part partly indurated, 6 ft.

Fullers ^{thin} earth, unconformable, 5 ft.

~~Hill after crossing creek did not show up a~~
~~good section, mostly sand and no fullers~~
~~earth noticed.~~

Rollout between Ochlawaha creek and Hammock
 creek very sandy uplands, covered with "scrub oaks"
 and a few long leaf pines.

Hill at Hammock creek: Shows first
 Pleistocene sand, red, mottled clay, red, sandstone
 or sandy clay, grayish. Does not cut deep enough
 to expose fullers earth.

Hill on south side of Ochlawaha creek
 shows following: - from bottom to top: -

- 1st. a bluish sticky clay near bottom of hill.
- 2nd. Stratum of shelly fullers earth. 5 ft.
- 3rd. Sandstone about 4 ft.
- 4th. Light colored grayish clay, very plastic. 5 ft.
- 5th. Reddish yellow (Lafayette). clay-sandy. 6 ft.
- 6th. Pleistocene sand.

Sample #2

Bear Creek Road 4 mi from Quincy, pass hill
to show mottled clays. no deep cuts by surface
streams. About 1/4 mi. further south cross hill
which gives yellowish Lafayette with con-
cretions about 5 ft, underlain by mottled
clays 1/4 mi. again we run down a hill
but same formation continues. The road as far
leads mostly on top of the hill and gives nothing
but Lafayette with concretions, and this underlain
by the usual mantle of sand.

J. L. Ulmer, 9 mi. S. Quincy, well bored 56

Bt. 1-8 ft. yellow sand
8-52 yellow clay.
52-56 white sand

Pipe clay. carb resting on pipe clay.

66

Section about 8 mi. from Quincy on Bear Creek road. well
showing dip on north side of creek.

Lafayette. 10 ft.

Phosphatic concretions + sandstone nodules.

Shelly fullers earth. 5 ft.

Lafayette, 20 ft.

Bluish, very sticky clay about 100 ft.

Sample taken.

note:

yellow with thin unconformably on the Lafayette.

Price per m. of River 3 mi. $8\frac{1}{2}$ of river
\$14.00 per m. delivered. Havana \$8.25 per m.
\$10.00 and 11.00 per m at Quincy, and
\$7.00 m. at the yard.

General sketch of Country between Havana,
Whiters Ferry, Cottons Ferry and Concord:-

General type, sandy, rolling uplands covered
with both short and long leaf pines. The
long leaf predominating round Concord and
between Concord and Cottons Ferry. No clay hills
and a very different country from that of
Gadsden County in general. Concord lies in
the yellowish clay hills but these soon drop off ^{to the}
The streams are shallow and cut through
nothing but sand. No exposures of clay
seem in any of them.

A rock bluff was reported about 1 mile
below Cottons Ferry. This ferry is now abandoned.
I visited the place and went at least
2 miles down the river but no exposure
101

of rock was seen. The river is very
crooked but cuts through nothing but
sand so far as I went.

In first creek a little west of Concord
~~is seen~~ a little bluish ^{sandy} clay was seen.
Apparently not low enough for fullers
earth stratum. Second stream shows no
formations. Climbing hill ^{just after crossing stream} sloping $4\frac{1}{2}$, the
same bluish sandy clay is seen as in the
first creek at about same level I judge.
Hill is red clay at top and yellowish on
the slope due to weathering. Mottled clays
exposed in cut about $\frac{1}{2}$ way up hill,
these overlain by typical Lafayette,
with iron concretions from Concord to
Havana several clay hills are crossed but
cuts along side of road do not expose
anything further ~~than~~ than the mottled
clays and the bluish-sandy clay at times.
The road is largely sand as is the
entire section or $8\frac{1}{2}$ corner of Gadsden
Co., as shown by travel in Feb. 9th. 1909.

(97)

M. E. McCorquodale's brick plant 5 mi.
 S/E Havana. In operation about 1 year. Output
 for year of 1908 about ~~fifty~~ hundred thousand.
 Only a very small plant. Have no drying sheds.
 The clay worked is a mottled blue and
 very plastic and seemingly of better ^{brick} clay
 making properties than that at the other
 two plants on the Occidente. Clay is
 worked to about a depth of six feet.
 Clay is hauled to hoppers in wheel barrows,
 where it is fed by hoe into the mold
 and mixed with water. From mold it passes
 out on to roller bed and cut by hand cut
 off into ~~big~~ bricks. Air dried for about
 a week before burned, and burned in kiln
 for about 6 days and nights. The bricks
 burn red. The old method was to build
 kiln as large as needed but a new kiln
 is being made large enough to burn 200,000
 at once. This will be used for about a year.
 Plans for sale and E. D. Hughes contemplates
 buying the same. Bricks are hauled to
 Havana for shipment at a cost of 1.30 per m.
 3.00 per m. also.

Bl. 277 77 77 77

18-2 87

14 54 1 54

(107)

Section on Atapulguis creek 1 mi. n of
Gatzloff.

sandstone exposed at a level possibly
10 ft above road level

sandstone 7 or 8 ft,

shelly fullers earth. 2 ft or so exposed.

on opposite side of road a dark colored
fuller earth which weathers to a green clay
is seen about 10 ft 8 ft being exposed

Sandstone softer than first 2 1/2 ft

shelly fullers earth abt 10 ft 5 ft

Stripy blue clay 1 ft

covered to top of hill

Top of hill at Junction Survey & Bant road 2195

Section from Swamp creek to Havana

Road at first deep cut & south of mile mark 2215
Faintly stratified horizontal con bedded. to 2230
Colored & purple clay probably 20 ft

Orange yellow clay & sh.
Bright red with iron & pebble core (at sta.) 2265

Section in G.T. & A cut at Getzloff. 106

Fuller earth at bottom of cut 2120

This is a sticky earth & is abt 8 or 10 ft. thick.
10 ft. or so of greenish sticky clays lie on top of the fuller earth. The yellowish sand rest unconformably upon this clay.

The road here contains many river pebbles.
Section in deep cut at road, Station Bar. 2160

- (1) Pleistocene sand 2 ft
- (2) Oche yellow " with iron concretions 5 "
- (3) Calico clays with pebbles & phosphatic conglomerate at the bottom 13 "
- (4) yellow faintly stratified 5 ft.

A clay lens appears in no. 3. & sandy mottled clays come in near the south end first at bottom of no. 4.

Section in cut 1/2 mi. N. of Getzloff

- | | |
|-------------------|---------|
| yellow sandy clay | 8 ft |
| clay lens | 3 " |
| yellow sandy clay | 4 1/2 " |

The clay lens runs out entirely at the south end of the cut.

Gaybe & Parker

107

Section in cut at Alshon

- (1) Oche yellow sand iron concretions 7 ft
- (2) Calico mottled & bleached 9 "
- (3) Faintly laminated & very old sand 13 "
- (4) Impervious clays

The faint stratification in no 3 indicates horizontal deposition.

Havana 10 m.	2210
Salem creek	2115
Swamp creek	2100
Stapulgas creek	2095

On the road from Havana to Getzloff.

sloping N.W. to Swamp creek. Three sections are seen here. the present road & three old roads.

The abandoned roads have worked a depth of 85 x 20 ft. a phosphate stratum occurs at a common level in all of these sections lying horizontal. & is a very conspicuous layer 5 or 6 in. thick in the side of the bank.
Phosphate stratum at 2140

Honora to Ochlocknee River 108

The country is not so hilly as it is about Quincy. There are few ~~up~~ down about 3 mi from Quincy the country becomes very flat & sandy & slopes gradually to the river. This slope begins about 20 ft below Honora. Ochlocknee river is about 245 feet below Honora.

Honora 21 Oct 8 A. Ochlocknee 1915
Ochlocknee river 1940. Hill beyond river 1915
Honora 21 55 at noon.

About 1/2 mi above the bridge on the Tallapoosa Honora on the left side of the river a limestone showing the lithologic characters of the Chalchokche is exposed, as much as 8 ft of limestone is seen here the 6 ft or so being above low water. Some oysters are in the rock.

The upper 400 ft is somewhat more compact a bluish green clay stratum common below this. This line of stratification is seen thru a distance of 20 ft and shows a dip of strata (east). The dip here amounts to about 2 in in 50 ft. Barometer 1955 1945, 1940. Several small springs come up thru this rock.

109

on Brantville road at 1 mi west clay unconformable under the 14 ft of yellow red sand. Also at 2 mi east of Quincy on same road. Little locality favorable for fire making.

Quincy creek on Brantville road 1900

The sandstone under the earth is seen in ditch at left of road west of stream & possibly 15 ft above same

Section in Owl pit Jan 27. 09

Sandy soil 1 ft; mottled clay like the brick clay at Ochlocknee about 5 ft. Sandy blue yellow clay with patches of streaks & light

Sand clay bluish.

Fuller's earth

Sand rock. some sandy & lumpy thin bed

Green fuller's earth. obs

4 ft

5 ft

5 ft

6 ft

Section of north side of the road on the hill & sloping east to the willowade. (110)
 the section is about as follows. Sandstone at the bottom. 3 ft. 4 in.; Fuller earth stratum 15 ft. including especially near the top some sandy layers. Sandy material 10 ft. above this for 10 ft. more a layer of fuller earth layers are found interbedded with sand.
 Reading in willowade creek 1905

On the hill across^{east} the willowade sloping S.W. a blue compact fuller earth is at the bottom 1 ft. 4 in. above this is sandstone 3 ft. shelly fuller earth. 5 or 6 ft. This is followed by a blue gray sand which is ridged light yellow. 5 ft of this is seen. light yellow sand which may be the same oxidized even at less dist higher.

well just inside Fla line roaded pipe clay at abt 25 ft. The surface elevation here is about 100 ft. road to Quincy 2 mi. S. Mitchell, Jam. Mitchell, Benson well just across the Fla line on some ridge passes thru the following.
 Orange yellow sand with iron concretions 5 ft.; Calico mottled sandy clay abt 5 ft. pinkish sand 7 ft; Orange red soil 5 ft.

Section on willowade as Mitchell's first yield on Tallahassee & Fairmile road 2 mi from Fla. in Geo. Dec. at 1 P.M. 1890.

From the water level in creek to fuller earth stratum abt 15 ft sand rock.

shelly fuller earth abt 5 ft.
 Green sticky clay at least 10 ft.
 On the east side of the creek the stratum is found & there appears to dip to the east though no mark on 35 to 45 ft

willowade on Branchville road 1965

On Quincy Branchville road, hill sloping N.E. sandstone is exposed possibly 15 to 20 ft. above was 5 ft. shelly fuller earth abt 5 ft. followed by stick clay a few feet to sand.

Hill sloping N.E. on Branchville road 3 1/2 mi E. Quincy
 Section begins abt 5 ft above bank abt 10 ft of laminated sand layers with some fuller earth & especially near the top 1 ft of fuller earth. 10 ft. above this with minor unconformities is abt 6 or 7 ft light colored sand. On this with unconformity is Pleistocene sand.

at Branch on Branchville road abt 2 1/2 mi east of Quincy
 Top of hill 2055; 2 1/2 mi East of Quincy 2070.
 1905

Voght & Son moved some time abt 13 years ago. as death of

on the Bainbridge road north from Juncy.
Baronets in town 2025
" on Juncy cut 1905

112

The hill shows L. forgetta north. about
 $\frac{3}{4}$ of the way down, however, the clay
is seen on the east side of the road lying
unconformably under the L. forgetta. Bar. 1925.

About $\frac{1}{4}$ mi. ^{quartz} ~~seen~~ ^{the} shelly stratum
lying above the sand rock is seen. 3 ft. being
exposed. ^{on west side of road} Bar. road 1925. - 1915.

On road to Lancaster $1\frac{1}{2}$ mi from town hill
sloping west. light colored clay ~~road~~ ^{face}
with little sand seen unconformably under
L. forgetta ^{on south side of road} Bar. 193 of road.

On road to Lancaster on hill
sloping N. E. + leading down to Withlescombe
a clay stratum, sandy mottled clay, $1\frac{1}{2}$ ft thick
lies in the L. forgetta. It is seen through a
dipstone of about 20 ft + lies horizontal. The
L. forgetta ^{below} ^{is yellow} ^{below}
The road from Juncy to Withlescombe follows
a ridge about as high as at Juncy.
Near the bottom of this hill is found the sandy layer.
Above this is about 5 ft. of laminated fuller's earth;
+ a 5 ft. ^{stripy greenish} clay with some calc. ^{interbedded}
and mottled sandy clay. Bar. 1910.

Owl Commercial

113

treatment of fuller's earth.

The fuller's earth taken into the plant
by cars + dumped, is unloaded by shovel
into a trough. It is moved through this
trough by paddles on a revolving chain.
^{and is delivered to}
~~taken by~~ a crusher, and from
there by cup elevator up stairs. The
crusher used in small + large pieces must be
~~first~~ ^{broken by pick}. The material carried up
stairs is divided into two lots by a board.
^{each lot} Going to ~~two~~ ² drying cylinders. To get
to the drying cylinder the material is
moved through a trough by paddles on
a revolving chain. An automatic feeder
is so constructed as to admit the earth
to the dryer at the rate desired.

Two drying cylinders are in use. These
^{and between 2 ft. ~~long~~} ^{diameter} in the inside
are about 5 ft. ^{diameter} half-cups set sloping.
are numerous small half-cups set sloping.
These throw the fuller's earth forward at
each turn. The cylinder revolves

slowly and about 15 min is ^{the} required to pass the earth through. The temperature in the cylinder is not known. The outside is rather too hot to bear the hand.

From the dryer the material falls into a catch basin & is taken by a cup elevator up stairs & piled in dump. From this dump it is lowered to grinding mills as needed. Two kinds of mills are in use, the Griffin and the Abbie mills.

The abbie mill grinds the material and delivers it as mixed grades. From this mill the earth is elevated to the bolters. ^{the corner one first} These bolters are built larger at one end. The earth enters at end of lesser diameter and makes its way to the larger end which is open. That which passes through falls at once to be soaked. That which does not pass this goes to the next bolter. These bolters revolve.

11
115-

The Griffin mill works on a different principle. The material is pounded fine in this mill, a sieve surrounding the mill preventing it getting out until ground fine. From the mill it is elevated to a separator which is made on a jig. That which passes this goes to one chute. That which does not pass this screen goes to another. Only two grades are made by the Griffin mill.

Oil is used as fuel in the dryers. This is obtained by car load lot from the Texas oil fields being shipped by water to Tampa. Wood and coal is used as fuel in the boilers.

The grade of fuller's earth which sell best are 30-50. The fine grades are reported to be used to some extent in as an adulterant in cheap cordier.

This compound makes it own electric light.

✓ Silmore of Lewis brick yard
at Lawrence

been working about 2 years.

The clay used here is a mottled red. & blue & yellow clay worked to a depth of about $2\frac{1}{2}$ to $3\frac{1}{2}$. A mold is used in making the brick. The brick turn red. The bricks from the mold are air dried. The kilns are built so turned.

Section at Rockbrook

- (1) Pleistocene sands, yellow, 6 or 7 ft.
- (2) mottled sandy clay: from top 8 to 10 ft.
- (3) Green clay to bottom of cut 2 to 5 ft.

This section was seen between train stops which prevented making a measure of the strata. The section is of interest chiefly for (a) the apparent absence of *L. fogetti*.
(b) the manner in which clay layers occur in the sandy gravel & clay layers near its bottom.

117
Cut in the public road about

1 mi east of Dunwoody. Blue green fuller earth with manganese stains 3 ft & exposed. Calcareous sand rock with casts of fossils abt. 4 ft.

This is followed by a few feet fulls 8 or 10 of red shale laminated fuller earth. Very above is red & it is tough green clay followed by mottled gravel full & by *L. fogetti* to the top of the hill 10 or 15 ft.

Proximity 1830

The laminated fuller earth is seen in the road directly south on the opposite side also in a field sloping north the laminated clay & the sand-lime stratum is seen on about the same level.

3 F + A
at a cut in the R.R. about $2\frac{1}{2}$ mi
east of Quincy depot. Yellow red 108
Lafayette lies unconformably upon
yellow sandy mottled clays.

Lafayette 1 to 10 ft.

Quartz clay strata

yellow sandy clay

concreted

mottled yellow clays

This sketch is from the east end of cut on
south side. The north side shows an outcrop
& also beveled edges.

Lafayette

sandy mottled brown
concreted greenish
yellow sandy. minor

Sketch on north side

Lafayette on south side

Cut in the G. F. & A. about a little
less than $3\frac{1}{2}$ mi east of Quincy about 5 ft
of a very impure sandy limestone
with some fossils. This is overlaid by
some green clay like that seen $\frac{1}{2}$ mi east.
Cysters were among the fossils observed.
This limestone possibly the Chathamian
Raonite 1900.

as the next cut a little west ($\frac{1}{2}$ mi)
a small anticline brings a clay stratum
(grayish calc-sandy clay)
about 3 ft above the surface. over this is the
calc-sandy limestone & unconformably on the
mottled sandy clays.

From Chatham - Quincy no cuts of
importance. at milepost 30 on Union
R.R. in the clay is seen overlaid by
Lafayette.

at a point just east of milepost
marked for west rd 186) very many phosphatic
concretions are seen in the Lafayette.
The rock seems not to be reached on this road.

cut in E. F. & A. R. R.
3 $\frac{7}{8}$ mi east of Quincy has
about 5 ft of dark brown sand colored
with argonite matter. Some plant fossils
on exfoliated nodules occur from the
size of a pea to 1 in in diameter. This
material resembles in color the sand
above the chert at Alton
2 or 3 ft of Pleistocene sand occurs
above this. & in center of cut about 5 ft. yellow
colored ^{loessite} ~~loessite~~.

The cut $4\frac{1}{8}$ mi east of Quincy
shows about 4 ft of same.
at the west end of the cut $3\frac{7}{8}$ mi
east of Quincy the dark sand changes to
a dark gray coarse bedded sand very full of
siliceous pebbles $\frac{1}{2}$ to $\frac{1}{4}$ inch.

at the side of the R.R. $3\frac{1}{2}$ mi east
of Quincy green & very tough clays
are exposed. This clay clay contains on
drying. This clay a gumbo. lies above this
yellow sand with pebbles lies above this.

Buck plant on E. F. & A. $\frac{1}{2}$ mi
north of crossing of Lehigh River
station Gibson.

The clay upon being taken from
the pit is dumped into a crusher.
It is mixed by revolving paddles & is
conveyed to mold by belt to brick
mold. They are then taken to shed
and air dried, and burned.

The clay used is a mottled sandy
clay. The pit is opened to a depth of
about 4 ft of which the first foot
is sand, roots & soil. The clay in the
abandoned pit is now contains
much less sand than that in the pit
now more recently worked.

Between Sooters St & Lake Deba
no cut showing anything more than
two or three ft of rich loam. country
pred. flat.

with exception of the cut on the
Ochlocknee no cut to Gibsons.
Rather flat country.

Cut at mudrock 2 mi S of Havana
about 28 ft. 1. fossils. with iron
concretion at the top. mottled clays
probably great Gulf below. no
green clay.

Prodrugs. Havana 8 AM.	2045
	1955
at fallers each station	1780
1/2 mi west of Havana	1800
Fallers each at Havana	

Section in cut at Tallahassee

5 mi west of Havana

(1) Plinian Sand 0 to 8 ft.

unconformable upon (2) light colored
thin or faintly stratified sand, 10-12 ft.

This stratum varies from nearly white
to reddish brown sand. It contains coarse sand &
rounded siliceous pebbles. Contains of the
depth of 6 ft a stratum of beds

carbonaceous sand 1 ft thick. This dark
stratum dips to the west 16 in in 10 ft.

This stratum does not contain the phosphatic
rock seen at Tallahassee. No iron concretions seen.
more green toward bottom.

3. The sand of No 2 lies apparently conform-
able up a clay series. These clays are
as follows: (a) finely laminated sandy clay 3 ft.

(b) more massive, less sandy buff clays 4 ft.

(c) sandy laminated clays about 5 ft.

This clay stratum is essentially horizontal for
a distance of 250 feet. The clay has no alum
taste.

Section $\frac{1}{2}$ mi west of Taurine on
S.F. A. south of Teab. & constant Friday
Section at top of a small anticline.
(1) Red sand, sloping 25 ft & incl
to top of hill mostly round as in med. now.

(2) clay with concretion of

(a) fuller earth about 6 ft.

(f) sand carbonaceous sand 1 ft.
phosphatic nodules seen on the hill above
this section.

Section on S.F. + at

Ocklocknee River south side

(1) Pliocene sand 18 or 5 ft.

(2) light colored mottled sandy
clays 12 to 14 ft.

Pockets of coarse sand occur, one phosphatic
nodule & rather sand held by phosphatic cement.

as deposit at Quincy

22 ft above to 20 ft on Fuller with.

Plate No. 10. Owl Plant

after Sanderson 2 min. Ex. P. 175
Sand on to R. W. Sanderson, Quincy, Fla.

