CLAY COUNTY ARCHIVES

HISTORY OF

BRICK USAGE IN N. E. FLORIDA

2011

Contents

1837-1839 Bricks used at Ft. Heileman

(from Kevin:)

Military use of bricks at Ft. Heileman

2nd Quarter 1837 – 2300 used in marking Smith forge

Oct 18, 1837 – Lt. Clark received from Maj. Thomas F. Hunt in Savannah 8,000

4th Quarter 1837 – 5000 used in building chimneys and smith's forges, etc.

Jan 18, 1838 - 200 fire brick from Savannah

1st Quarter 1838 4,000 used in building furnace on board steam boats

July 31, 1838 – 8,000 bricks sent from Savannah by Maj Thomas F. Hunt to Lt. Clark

3rd Quarter 1838 – 4,100 used from making steamboat and smith's furnaces

Nov 15, 1839 – Maj Hunt purchased 8,300 bricks at $10 per 1,000 from George Worthey

Nov 18, 1839 – Maj hunt purchased 12,900 bricks at $8 per 1,000 from Maurice Gandy

2nd Quarter 1839 – 5,000 purchased at $8 per 1,000 from Joseph Shepard

2nd Quarter 1839 – 10,272 purchased from Henry P. Parkes for $123.26

2nd Quarter 1839 – 7,950 used for Chimneys for officer's quarters & various other public purpose at the Depot.

2nd Quarter 1839 – disposed of 3,772 worn out bricks.

4th Quarter 1839 – 14,650 used from laying hearth for hospital kitchen, forge for blacksmith shop and chimneys for public quarters.

4th Quarter 1839 – Lt Penrose 3,250 used Oct 6th for bake house oven.

1865 – Jacksonville has brick warehouses

Jacksonville was now a United States post again: the only post on the mainland in the Department of the South. Before the war, it had three or four thousand inhabitants, and a rapidly growing lumber-trade, for which abundant facilities were evidently provided. The wharves were capacious, and the blocks of brick warehouses along the lower street were utterly unlike anything we had yet seen in that region, as were the neatness and thrift everywhere visible.

http://books.google.com/books?id=YWkAAAAAYAAJ&pg=PA314&dq=brick+jacksonville&lr=&as_drrb_is=b&as_minm_is=0&as_miny_is=&as_maxm_is=0&as_maxy_is=1910&as_brr=0&ei=aW4zS66jK4T-ywSeg4TXAQ&cd=98#v=onepage&q=brick%20&f=false

1871 – Savannah Brick Mfg. Co. incorporated in GA

(No. 204—O. No. 417.)

An act to incorporate the Savannah Brick Manufacturing Company, and for other purposes.

SECTION 1. *The General Assembly do enact*, That E. C. Swain, Henry Roberts, Nathan B. Brown and John White, and their associate stockholders and successors, be, and they are hereby, made a body politic and corporate, under the name and style of the Savannah Brick Manufacturing Company, for the purpose of manufacturing and vending bricks and other building material within this State, on any land or lands that they now own, or may hereafter own or become possessed of, by purchase, lease or otherwise, that they may deem expedient; and, by the name and style aforesaid, to sue and be sued, plead and be impleaded, answer and be answered unto in any court of law or equity in this State having competent jurisdiction; to have and use a common seal, and the same to change and alter at their pleasure; to make and execute contracts, promissory notes, bonds and other obligations, under seal or not under seal, and with or without their corporate seal—all of which shall bind the property and interests of said corporation; to make, ordain and establish by-laws, rules and regulations as may be necessary and expedient to carry into effect the objects of said company: *Provided*, That such by-laws, rules and regulations are not inconsistent with the laws of this State, or of the United States; and to use, have and enjoy all rights, privileges and franchises which are incident or pertaining to corporations.

Corporators

Name.

General powers.

http://books.google.com/books?id=wiE4AAAAIAAJ&pg=PA310&dq="savannah+brick&ei=EGUzS4Zrp9zNBI_OmMAB&cd=6#v=onepage&q=%22due%20said%20company&f=false

1884 – Florida for Tourists, Invalids says Jacksonville has brick sidewalks

JACKSONVILLE, FERNANDINA, AND ST. AUGUSTINE.

JACKSONVILLE, the commercial metropolis and social center of the State, is likely to be the first point at which the visitor to Florida will make anything of a stay—the place where he will get his first impressions of the "Land of Flowers." It is a handsome and prosperous-looking city, covering a good deal of ground, and, particularly during the winter season, when all the hotels are thrown open to the thronging guests, it presents an animated and picturesque appearance that is quite exceptional at the South. The streets are remarkably wide, and are nearly all shaded by long rows of mammoth live-oaks, forming arcades of embowering green in winter as well as in summer. Good sidewalks of brick or planks contribute greatly to the comfort of pedestrians, but the streets themselves are too sandy for rapid or pleasant driving, and are "heavy" for all vehicles.

http://books.google.com/books?lr=&as_drrb_is=b&as_minm_is=0&as_miny_is=&as_maxm_is=0&as_maxy_is=1910&q=brick+jacksonville&as_brr=0&sa=N&start=140

1885 – Oldest Brick House in St. Augustine

The oldest brick residence in town, circa 1885.

"...built by Boston contractor John B. Canfield for John T. Dismukes, a Confederate Veteran from Quincy, FL who came to St Augustine in 1885 and established the First National Bank."
- The Houses of St. Augustine By David Nolan

http://www.flickr.com/photos/blackdoll/2843835305/in/set-72157605195180923/

1886 – 4 Brickyards in Jacksonville

COMMERCIAL INTERESTS OF JACKSONVILLE.

The population of Jacksonville is steadily increasing. The city and suburban population in 1878 was 12,170, in 1880 was 13,470, in 1882 was 15,904, in 1884 was 18,740, in 1886 was 21,589.

The total number of buildings in the city of Jacksonville are 4,281. There are 54 manufacturing establishments, 471 mercantile buildings, 20 hotels, 100 private boarding houses, 11 livery stables, 5 machine-shops, 45 warehouses for storing goods, 2 foundries, 4 boiler works, 6 freight depots, 4 brick-yards, 5 ship-yards, 3 marine railways, 7 large saw-mills and 8 shingle and wood mills, 1 opera-house, 17 public halls, 39 churches, 14 school-houses, 21 cigar factories, 3 ice factories, 3 wagon and carriage establishments. There are 102 grocers and provision merchants, with 342 employés, whose combined business aggregated, during 1885, $3,056,422.10. Eight grain, hay, and flour merchants, with 80 employés, handled merchandise valued at $1,354,000.

Twenty-one produce and commission merchants, with 87 employés, sold goods during last year to the value of $606,000.

The other branches of business are represented as follows:

18 fruit and confectionery stores, 43 employés	$60,800
6 hardware and building-material stores, 125 employés	930,000
18 dry-goods houses, 209 employés	1,845,500
5 boot and shoe stores, 39 employés	240,000
7 furniture stores, 61 employés	214,000
2 musical instruments, 17 employés	60,000
8 lumber mills and naval stores, 750 employés	1,000,000
3 book stores, 19 employés	117,414
16 drug stores, 57 employés	159,448
3 earthenware stores, 20 employés	90,000
9 jewelry and curiosity stores, 66 employés	171,000

Twenty-one cigar factories, 450 employés, consumed, in 1885, 110,400 pounds tobacco; paid the internal-revenue collector $13,152 in stamp taxes, and made 5,060,025 cigars, valued at $200,000.

Four brick-yards, 35 employés, produced 10,500,000 brick, valued at $94,500.

Three wagon and carriage establishments, with 26 employés, $40,000.

This is only a partial record of the business done in Jacksonville. When business of the railroads, the shipping companies, the machine and boiler shops, the ship building and repairing, iron working and castings, harness, ice factories and dealers, stone and terra-cotta works, fertilizers, palmetto goods, brushes, &c., is considered the sum of $20,000,000 will be a small estimate of the actual business done in the city.

http://books.google.com/books?id=f4cdAQAAIAAJ&pg=RA1-PA1133&dq=brick+jacksonville&lr=&as_drrb_is=b&as_minm_is=0&as_miny_is=&as_maxm_is=0&as_maxy_is=1910&as_brr=0&ei=OGszS47-KZGEyQTTt53DAQ&cd=88#v=onepage&q=pine-knots&f=false

1888 – Bricks mfred in GCS (during 1888 Epidemic)

Dr. Merrill, President of the Clay County Board of Health, said they had put on a reasonable quarantine against Jacksonville, prohibiting the landing of any baggage, bedding, etc., which might be liable to carry infection, but, situated as they were, they were compelled to get their goods from Jacksonville, and they allowed the boat to run between Green Cove Springs and Jacksonville, under proper restrictions. Putnam county threatened to quarantine against Clay if they did not stop the boat, but Putnam County Board of Health struck one county that was not subservient to their demand. Clay county refused, and Putnam county has quarantined against her, refusing even to permit four car-loads of brick, manufactured at Green Cove Springs, to pass through their county. Dr. Merrill further said that any person who presented a certificate, signed by the President of any Board of Health, that the person had not been exposed to infection within ten days, would be admitted into Clay county. Referring to the protection afforded from points South, he stated that he had a man from Tampa arrested for attempting to pass without a health certificate, and wanted to know how Putnam county let him through.

http://books.google.com/books?id=JgQTAAAAIAAJ&pg=PA203&dq=florida+brick+"clay+county"&lr=&ei=fhoyS9XcJKXczQSJ8-ymAQ&cd=6#v=onepage&q=%22on%20volusia%20and%20orange&f=false

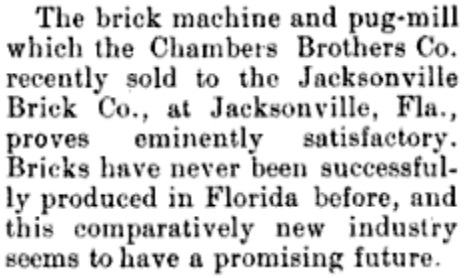
1893 – 1st Paved Street in Jacksonville

BRICK PAVEMENTS IN JACKSONVILLE, FLA.

The subject of brick paving was discussed recently by A. F. Harley, city engineer of Jacksonville, Fla., while in Savannah, Ga. Under Mr. Harley's supervision seven miles of vitrified brick pavement has been laid during the last four years, and practically Jacksonville has no other first-class paving. The brick pavement on Bay street, which has been down four years, was laid when there was no other paved street in the city and has for the greater part of that time borne practically all of the traffic of the city. An expenditure of $10 has not been made in that time for repairs, and it shows very little appreciable wear. This pavement was laid on four-inch concrete foundation at a cost of about 80 cents a square yard, and the cost of the total pavement was $2.40 a square yard. The concrete foundation has been abandoned as unnecessary since then, and it is thought that the streets which have been laid without it have worn as well as the concrete. Sand, in Mr. Harley's opinion, is all the foundation necessary for a brick pavement in this climate. Brick, on a sand foundation, was laid in West Bay street, leading to the depot, about six months ago, but the pavement has shown no effects from the very heavy travel which it has borne. The cost of the pavement was $1.60 a square yard. A contract for 46,000 square yards on Adams street has just been completed by the Tennessee Paving Brick Company at $1.49 a square yard, exclusive of grading and surfacing, which was done by the city. Mr. Harley said: "I have inspected the pavements in a number of cities and I think the pavements of Jacksonville will compare with any I know of. The brick pavement is durable, cost little to repair, and is easily kept clean. We have one street sweeper, operated at a cost of $3 a day, which cleans all the paved streets. The principal streets are swept every day and the residence streets two or three times a week. One of the great advantages of a brick pavement is the small cost of tearing up and replacing it when necessary to make house connections for water, gas and sewerage. The city does this work and charges $1.50 for the service."

http://books.google.com/books?id=g8sSAAAAYAAJ&pg=PR5&dq=brick+jacksonville&lr=&as_drrb_is=b&as_minm_is=0&as_miny_is=&as_maxm_is=0&as_maxy_is=1910&as_brr=0&ei=9GgzS_WoL6nGywTawtXTAQ&cd=21#v=onepage&q=%22outside%20of%20the%20trusses&f=false

1894 – Evidence of one of earliest Brickyards in Jacksonville



The brick machine and pug-mill which the Chambers Brothers Co. recently sold to the Jacksonville Brick Co., at Jacksonville, Fla., proves eminently satisfactory. Bricks have never been successfully produced in Florida before, and this comparatively new industry seems to have a promising future.

http://books.google.com/books?id=avYSAAAAYAAJ&pg=RA8-PA291&dq=brick+jacksonville&lr=&as_drrb_is=b&as_minm_is=0&as_miny_is=&as_maxm_is=0&as_maxy_is=1910&as_brr=0&ei=emYzS6_eB4LmzASK1u26AQ&cd=8#v=onepage&q=%22eureka%20&f=false

Misc – Find Document

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1906 – American Enameled Brick & Tile Co. had operations in Jax (incl. enameling)

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TERRITORY. The business operations of this firm cover the United States, Canada, South America and elsewhere.

STANDARD SIZES, SHAPES AND COLORS ENAMELED BRICK.

Name	Dimensions	Surface Enameled	Brick required per square foot of surface including joints	Note on Stock at Factory in White	
English Size Standard	2⅞ x 8⅞ x 4⅜	2⅞ x 8⅞	5.33 Brick	Large	Stock varies from 500,000 to Three Million. Made to order in any of our colors or shapes. Standard colors and moulded shapes held in stock, in 1,000 to 5,000 lots only.
English Size Flatters	4⅜ x 8⅞ x 2⅞	4⅜ x 8⅞	3.55 Brick	Medium	
Double English	6 x 9 x 2¼	6 x 9	2.66 Brick	Little	
American Size Standard	2¼ x 8¼ x 4 1/16	2¼ x 8¼	7.24 Brick	Large	
American Size Flatters	4 1/16 x 8¼ x 2¼	4 1/16 x 8¼	4.23 Brick	Medium	

DETAILS REQUIRED FOR ARCH BRICK. When ordering arches please furnish details as long as possible in advance of time the arches will be required. We should be allowed from three to six weeks' time to make up Arch Brick. Arch Brick should be made to order to secure satisfactory work. We keep no standard arches in stock. We cannot always guarantee uniformity of shade in arches as in regular deliveries of first-quality plain stock brick.

WORKING DRAWINGS. We make full-size working drawings (shrinkage scale).

We mark drawing so that each different brick has its own designating letter or number in arch, and make typewritten schedules.

We make every brick as per drawing, each brick marked with designating letter or number as per schedule and drawing.

We ship you copy of drawing and schedule with the brick to serve as guide in setting. The mason should lay each brick on its place on drawing before attempting to set the arch.

We pack arches separately in barrels, and mark barrels distinctly to avoid confusion at job.

SPECIAL FEATURES AND ADVANTAGES OF OUR ENAMELED BRICK. Our bricks are not terra cotta with transparent surface glazes, nor enameled terra cotta, nor brick made by the dry process and enameled just before the second firing. They are enameled brick, made by the mud process in one fire, and as such they are free from the underglaze, cracks and crazes which are ever present on bricks made by other methods. Our special shapes are chosen with the idea of reducing to a minimum the danger of cracking and spalling of the irregular surfaces, caused by irregular shrinkage they produce in the body of brick.

http://books.google.com/books?id=nghFAAAAYAAJ&pg=PA45&dq=brick+jacksonville&lr=&as_drrb_is=b&as_minm_is=0&as_miny_is=&as_maxm_is=0&as_maxy_is=1910&as_brr=0&ei=emYzS6_eB4LmzASK1u26AQ&cd=1#v=onepage&q=%22furnish%20by%20express&f=false

1908 – Union Brick Co. (Black Cr.) still operating (& technical analysis of clay)

PLEISTOCENE CLAYS.

The Pleistocene beds of Florida consist largely of sand, but a few local deposits of clay have been discovered. Though most of these clays are sandy, there are a few localities where the beds are exceptionally free from grit. This is the case on Black Creek, in Clay County, where the Union Brick Company is working an extensive deposit of very pure plastic clay, which makes a building brick of good quality. The section given below was roughly measured in the pit of this company. The locality is about one-fourth mile north of Black Creek and 2 miles below Middleburg.

Section in pit of Union Brick Company near Black Creek.

	Ft.	in.
Light-gray sandy loam, Pleistocene		6–8
Very plastic light-blue clay, showing thin lamination, Pleistocene	6–12	
Erosion unconformity.		
Fine white sand with patches of yellow clay at the top	3+	

The light-blue clay shows columnar jointing and is weathered to a bright red along joints near the surface. A few small concretions of lime occur scattered through the deposit.

Congressional Serial Set, Volume 5463

1911 – 1st Brick Rd in FL from Jacksonville to Clay County

Brick highway paving finally came to Florida in 1911–12. The new road ran south from Jacksonville to present-day State Route 211 in Clay County. The roadway was fifteen feet wide and, from evidence remaining, constructed of Graves brick. It began in Jacksonville as New York Avenue, which eventually became the beginning of State Road 3. This was the start of the celebrated Dixie Highway, which would funnel millions of travelers into Florida over the years.[19]

http://books.google.com/books?id=VkYQT_1pO4cC&pg=PA59&dq=florida+brick+"clay+county"&lr=&ei=fhoyS9XcJKXczQSJ8-ymAQ&cd=10#v=onepage&q=two-thirds&f=false

1911 – 1st Brick Rd in FL (Jax – OP) made of brick from other states

Florida's local municipal governments were the first to employ more permanent materials--asphalt, brick, concrete, or macadam--for their streets. In 1893, the City of Jacksonville paved seven miles of its streets with vitrified bricks, one of the earliest examples of brick paved streets in the state. By 1905, many of the state's largest cities had initiated brick paving programs for their municipal streets. Completed in 1912, Florida's first rural highway paved with brick extended from New York Avenue in Jacksonville to the Duval County line, and later was extended to Orange Park. The county turned to the Graves Brick Company of Birmingham, Alabama for its brick pavers. Later, the Graves Company supplied millions of bricks for other highway paving projects elsewhere in Florida. Most of the bricks used to pave Florida's rural highway came from Alabama, Georgia, and Tennessee brick manufacturers, including Augusta Block; Coaldale Block; Copeland & Inglis; Graves; Reynolds Block; Robbins; Rockmart; and Southern Clay Manufacturing Company. Lobbying by automobile associations, road builders, local governments, chambers of commerce, and civic organizations resulted in the Florida Legislature establishing the State Road Department in 1915. Governor Park Trammel signed the legislation and appointed five board members to develop a state highway system. Despite the creation of the Department, the construction of rural highways largely remained the responsibility of counties until the 1920s (USDA, 1912, pp. 16, 52; Davis, 1925 p. 327; Preston 1991, pp. 19-20; Tebeau 1971, pp. 293-308, 327-343; Blackman 1924, p. 44; Marder 2002, pp. 4-5).

http://www.flaglercounty.org/doc/dpt/centprmt/planning/rdsystem.pdf

1915 – Clay County Steam Brick Company already operating in GCS

BRICK AND TILE.

The total number of common brick manufactured in Florida during 1915 was 31,019,000, valued at $182,149. The production for the year 1915 shows a reduction as indicated by these figures over that of the preceding year, the decrease being due to the unfavorable conditions. The quantity and value of tile, and other brick products is not separately given, but is included in making up the total mineral products of the State. The total value of brick and tile products for the year 1915 exceeded $200,000.

The following firms in Florida were engaged in the manufacture of brick or tile during 1915:

Barrineau Brothers, Quintette.
Campville Brick Company, Campville.
Clay County Steam Brick Company, Green Cove Springs.
Florida Brick Company, Brooksville.
Florida Industrial School for Boys, Marianna.
Gamble and Stockton Company, 108 West Bay St., Jacksonville.
Glendale Brick Works, Glendale.
Guilford Brick Company, Blountstown.
Hall and McCormac, Chipley.
Keystone Brick Company, Whitney.
McMillan Brick Company, Molino.
O. O. Mickler Brick Company, Callahan.
Lee Miller, Whitney.
Ocklocknee Brick Company, Ocklocknee.
Platt Brothers, South Jacksonville.
Tallahassee Pressed Brick Company, Havana.

http://books.google.com/books?id=UnkuAAAAIAAJ&pg=PA20&dq=florida+brick&lr=&ei=wBYyS-nYLaCszASPut3MAQ&cd=1#v=onepage&q=fuller's%20earth&f=false

1924 – Brick Roads in Florida

Brick road surfaces.—Brick road surfaces are built with vitrified paving brick which differ materially from building brick. Ordinary brick are not vitrified. They are simply burned until the plastic properties of the clay are destroyed and a hard material results. Paving brick must be made from refractory clays or shales—that is, from material that resists very high temperatures, but still can be partly fused or melted. Vitrification consists in heating the molded bricks until they have begun to melt. On cooling

BRICK-ROAD CONSTRUCTION

FIG. 18.—Properly laid on concrete bases, brick roads are suitable for the heaviest traffic. The brick are laid on a sand cushion, which is spread over the base. The long dimension of the brick is laid across the road and each alternate row is begun with a half brick so as to break the joints

they slowly become very tough and hard and sufficiently resistant to abrasion to be used as the wearing surface of a road.

The brick used in road construction average about 4 by 4 by 8 inches in size. They are placed on the road in closely laid rows with the long dimensions runing across the road, and each alternate row is begun with a half brick so as to break the joints. In Florida, brick surfaces have been found to give fairly satisfactory service under traffic composed largely of automobiles, when laid directly on natural sand subgrades, providing the edges of the surface are retained by a curb. But normally it is necessary to lay the brick on a base of compacted broken stone, slag, or concrete. Concrete bases are always used when the traffic is heavy.

As brick, like mill lumber, are not all of exactly the same thickness, they are not laid directly upon the base but upon a cushion or bedding course of sand, or a mixture of sand and cement, which is spread over the base to a thickness of about 1 inch. On this bed the

brick are laid and rolled with a power roller of medium weight until they are firmly bedded in the cushion and the upper surfaces are brought into line. The joints between them are now generally filled with a special bituminous material, called joint filler, which serves to hold the brick in place and seal the entire surface against weather and water. Formerly a rich grout of sand and cement mixed with water to the consistency of heavy cream was used to fill the joints, but grout filler is now generally being discarded in favor of bituminous filler, which produces a less noisy pavement, easier to repair, and free from certain objectionable features which in grout-filled pavements result from the expansion of the brick caused by high temperatures.

Properly laid on concrete bases, brick roads are suitable for the heaviest traffic. They suffer practically no surface wear from rubber-tired traffic and deteriorate principally by failure of the base resulting from overloading and by unequal settlement of the brick on the bedding course. The latter defect is easily repaired in bituminous-filled pavements by removing the brick in the affected area, adding a sufficient amount of sand to raise the bedding course by the required amount, replacing the brick, and refilling the joints. Base failures are repaired by removing the broken base and reconstructing it, but, as in other types previously mentioned, failures of this kind are generally indicative of the need for a heavier and stronger base.

1939 – Guide to the Southern-most State

1967 – Clay County Steam Brick Co (GCS) already abandoned

Information circular - Florida Geological Survey - Page 22

Florida Geological Survey - Geology - 1967

CLAY COUNTY Green Cove Springs Location: North edge of Green Cove Springs at the abandoned pit of the former **Clay County** Steam **Brick** Company. **...**