SLAUGHTER HOUSES AND TALLOW FACTORIES
POST CIVIL WAR BRAZORIA COUNTY INDUSTRY

Brazosport Archeological Society

Photo Courtesy of Mike Leebron, East Columbia, Texas, December 2010

After the Civil War part of the potential agricultural productivity of Brazoria County was described by M. S. Munson for the *1867 Texas Almanac* as follows; "The prairie has here and there groves of post-oak, live-oak, and cedar, and affords the best kind of stock range, as the grass continues green nearly through the winter, while the contiguous woodlands and bottoms afford excellent shelter for the stock in winter. The herds of cattle are very large, and it is believed that the stock of Brazoria is equal in value to its agricultural products."[1] These immense herds of longhorn cattle spurred an increase in the hides, tallow, and meat packing business all along the coastal plain.

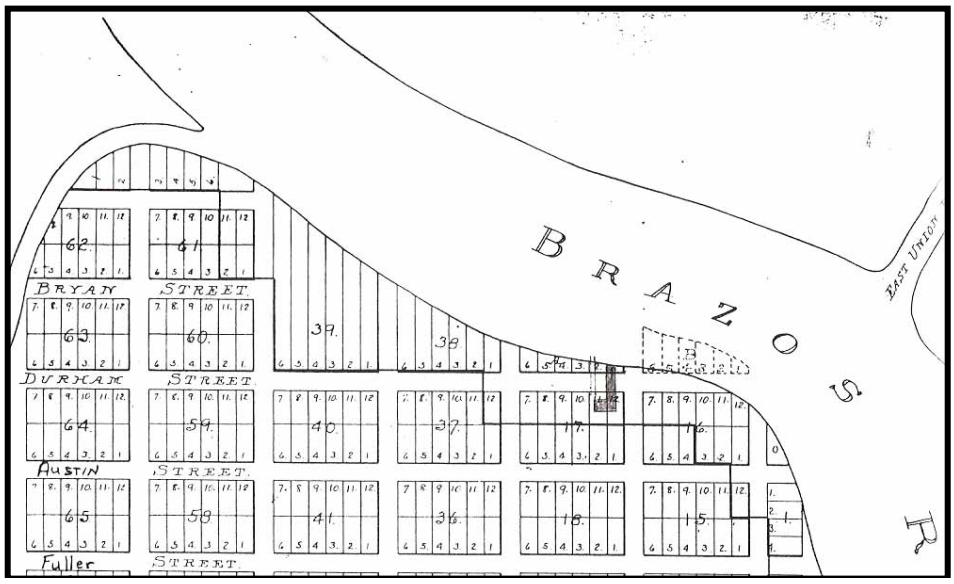
Nearby in Indianola, Texas the Stabler Beef-Packing Company had patented a process for canning beef which produced a product that could be shipped throughout the United States or to Europe. In a description of the process the beef was cut up into steaks, the bone taken out, a small quantity of salt was put on, and allowed to stand three hours, to draw a part of the moisture from the meat. It was then put into cans, weighing from fifteen to fifty pounds, which cans were put into an iron box, which can be made airtight by the quick action of a screw. The air was then exhausted by means of a column of water, and carbonic acid gas introduced in the place of the air, then the cans are soldered up and are ready for shipment to any part of the world, taking six minutes to each one hundred and sixty pounds of meat. This process possessed the decided advantage, that by two hours' soaking in water you could have a good broiled steak of Texas beef anywhere in the world.[2]

jlsmith1946@sbcglobal.net January 2011

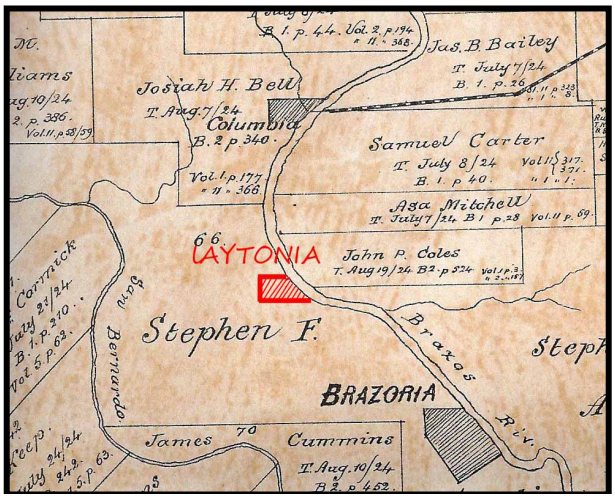
By 1870 there were fourteen beef-packing houses from Brazoria down to Refugio County and one in Robertson County. These fifteen houses accounted for more that two thirds of all factory-packed beef in the United States and grossed over $1,000,000. Salted beef was put in casks, but most of it was canned. Texas-packed beef became so popular in the early 1870's that it threatened to replace salt pork and bacon as the staple meat in planting sections of the South. It also sold well in Northern cities, and such quantities were shipped through Liverpool, England to Europe that tariffs were raised against it.[3]

Late 1849 a beef curing establishment was being erected on Block 17 at the port of Quintana at the mouth of the Brazos River by Laird M. H. Butler of Galveston. This block also contained the old warehouse of Samuel May Williams and Thomas F. McKinney.[4] Robert F. Clement bought lots 4, 5, 6, 7, 8, 9, & 10 in Block 17 at public auction for $300 from the Laird M. H. Butler Estate in April 1856.[5] Robert F. Clement sold Henry Seaburn half interest in these same lots and other property in Quintana for only $200 the next year. [6] Lots 4, 5, 6, & 8 on which the beef curing establishment was erected in 1849 were conveyed to Elizabeth Runyon by Robert F. Clement in June 1867 for $125 indicating that the beef curing establishment must have not been in operation at the time.[7] By the spring of 1870 Barney Waterman & Co. were in the business of slaughtering beef, shipping hides and tallow at Quintana. They were justly indebted for work & labor by J. B. Runyon for $640, Peter Hanson for carrying freight $240, Anthony Metcalf for goods & materials $200, Edward Williams for labor $350, Tim Bolin for labor $160, Albert Lock for labor $200, W. T. Purviance for goods & merchandise $1000, and the firm of Dargan & Tobyn for goods & merchandise $300. Barney Waterman & Co. put up their equipment as part of a deed of trust to their creditors. This consisted of two iron tanks for boiling beef, one steam boiler, one steam pump, and one large iron tallow cooler.[8] By the mid 1870's another business took over the operation of the slaughter house. (In the late 1980's and early 1990's a large bone pile could be seen at the water's edge in old Quintana. It was also reported to the author that only a few feet from shore a brick wall was extending out from the shore. With the widening of the harbor all of this has since been destroyed.)

Quintana



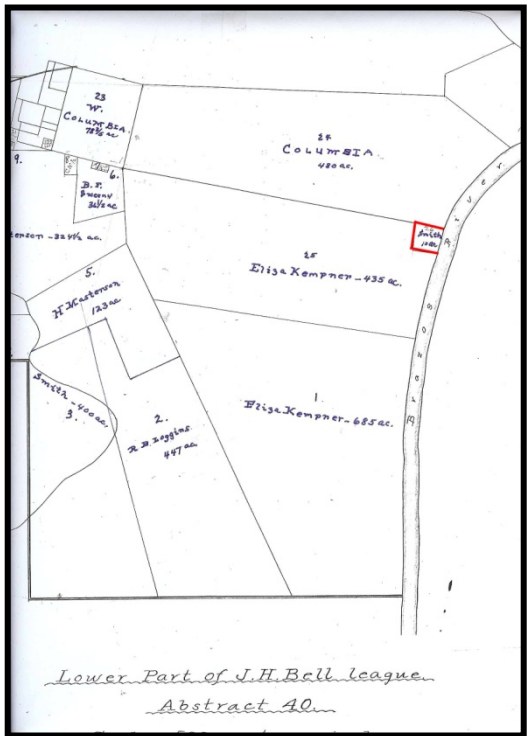
January 24, 1876 the corporation of the Laytonia Land Company was formed with $1,000,000 in stock in 10,000 shares by directors J. H. Shapard, William L. Lay, Cornelius Davis, and Hennell Stevens.[9] For $500 J. H. Shapard sold the Laytonia Land Co. ~2211 acres of land he had previously purchased for $9960 laying about half way between Columbia and Brazoria on the west bank of the Brazos River.[10]



The greater part of the acreage was mortgaged to Harriet E. Brooks for $10,018.12 by William L. Lay President of the Laytonia Land Co. with acreage on the river reserved for the building of Laytonia.[11] The firm of Davis Hoskins & Company contracted to erect "a factory for the preserving or canning of beef and shall commence operations and actually carry on said business of canning and preserving beef within six months from this date" in exchange for 10 acres in the town of Laytonia. This company was comprised of Cornelius Davis, William D. Hoskins, Hennell Stevens and Allan Mason with their contract dated April 24, 1876.[12] In 1878 Christie Veitch of Scotland bought 3 ½ acres adjacent to the canning factory.[13]

The Brazos Beef Packing Company paid Davis Hoskins & Co. $17,000 for the 10 acre tract with the canning factory October 2, 1876.[14] In 1878 the Brazos Beef Packing Co. also for $140 picked up the 3 ½ acres adjacent to their property.[15] According to a ledger book the company "commenced actual business on November 6, 1876. The company had a boarding house and fed the workers @ $12.00 per month. Many other things besides canned beef and hides @ $5.00 each were sold, such as corn @ 50c bbl., butter @ 25c per lb., cord wood, tobacco, and assorted dry goods. By September 30, 1879 the business had to shut down.[16] The Laytonia Land Co. shared a similar fate as their mortgage was foreclosed by Mrs. Harriet E. Brooks in October 1878 with only a little over $3000 having been paid on her note.[17]

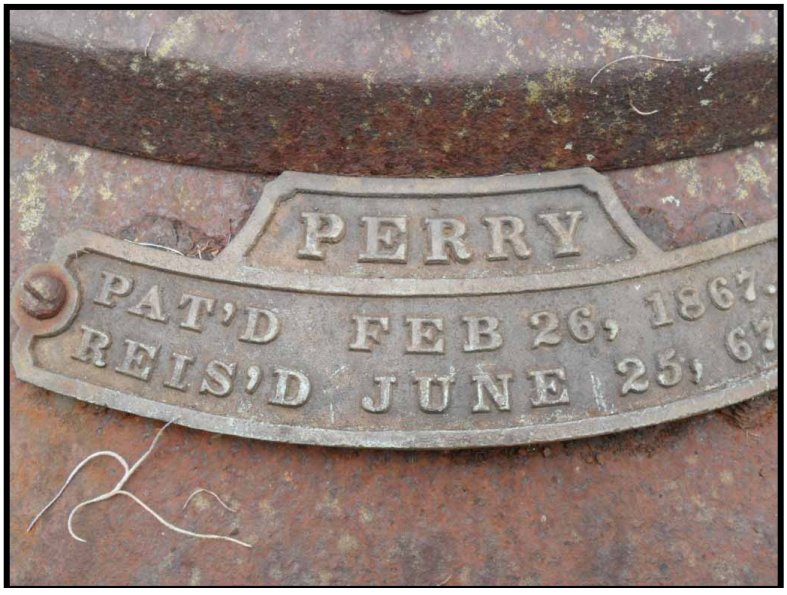
William C. Wagley bought 10 acres just below the Columbia town tract in November 1869.[18] By May of 1870 he had slaughter houses and a tallow factory in operation.[19] He had contracted to buy $20,000 worth of cattle from John W. Harris and was also in control of the factory at Quintana.[20] In December 1870 all their cattle, the tallow, lard, and hides business, and additional acreage down river were sold to B. L. Mann & Company for $31,396.[21] Davis Finnegan & Company assumed all the debts of B. L. Mann & Co. December 1873 and took over the slaughter houses and tallow factory along with the Alsworth Place.[22] Cornelius Davis bought out his partner John Finnegan the next year and continued to operate the business until the end of the 1870's.[23] The 10 acre tract was later bought by Travis L. Smith at an unknown date.



In December 2010 Mike Leebron discovered a large metal vessel ~ 6 feet in diameter while clearing his property in East Columbia on the west bank of the Brazos River. Total length is estimated at 10-12 feet but is not totally exposed. A large residential structure owned by Ed Hagemeier, which reportedly burned, once stood on this same lot.

Photo Courtesy of Mike Leebron, East Columbia, Texas, December 2010

Closer examination of the vessel revealed two patent dates.



Photos Courtesy of Mike Leebron, East Columbia, Texas, December 2010

These patent dates correspond to an "IMPROVED STEAM DIGESTER FOR BONES, FISH, AND OTHER SUBSTANCES" made by William Perry of North Bridgewater, Massachusetts. It was a cylindrical retort, made of boiler iron large enough to contain three or four tons of bones for steam processing. (See Appendix D & E for patents and accompanying drawings) A second vessel only partially exposed but with the lid almost intact is located at the original T. L. Smith home in East Columbia now owned by John V. Landry.

Photos Courtesy of John V. Landry, East Columbia, Texas April 16, 2011

Both vessels are in all probability remnants of the tallow factory operated by William C. Davis during the 1870's and possibly used as cisterns at the two residences.

William C. Davis & His Wife Adeline at Their Home in Columbia
Courtesy of the Brazoria County Historical Museum

Some discussion as to the original use of the vessels brought up the topic of marine boilers or sugar mill boilers. Amy Borgers, State Marine Archeologist, sent a picture of the boilers of the *Arabia,* built in 1853 and sank September 5, 1858 on the Missouri River.

Andrew Hall, Volunteer Marine Steward with the THC, sent along a picture of the boiler from the *Mary Conely* which sank on the Trinity River here in Texas.

Several locations here in Brazoria County have these long boiler shells sunk in the ground as the casing for water wells or cisterns but the length and overall shape is quite different.

Thanks to all for their help in solving the puzzle and especially to Mike Leebron and John V. Landry both of East Columbia for allowing the author to visit their property and view the steam retorts.

Appendix A
Slaughter House & Tallow Factory Block 17 Quintana

GRANTORS	GRANTEES	Kind of Instrument	Book	Page	Month	Day	Year	Description
Samuel M. Williams & Thomas F. McKinney	Captain Jacob Matson	Deed	D	56/57	Jan	10	1846	Lots 1, 2, 11, 12 Block 17 Quintana $1500 all buildings and improvements also a certain building adjoining the warehouse & extending from said warehouse lengthwise to the Brazos River
Samuel M. Williams & Thomas F. McKinney	Jonas Butler Of Galveston	Deed	E	556	Aug	21	1849	Lots 3, 4, 5, 6 7, 8, 9 & 10 Block 17 Quintana $600
Jonas Butler	Laird M. H. Butler of Galveston	Deed	E	327/28	Oct	5	1849	Lots 3, 4, 5, 6 7, 8, 9 & 10 Block 17 Quintana $300
Laird M. H. Butler	Cecelia Ann Butler of NYC	Mortgage	E	417	Dec	1	1849	Lots 3, 4, 5, 6 7, 8, 9 & 10 Block 17 Quintana $1000 note Lots on which the beef curing establishment is now in process of erection
Estate of Laird M. H. Butler	Robert F. Clement	Deed	G	591/92	April	8	1856	$300 Lots 3, 4, 5, 6 7, 8, 9 & 10 Block 17 Quintana
Robert F. Clement	Henry Seaburn	Deed	H	267	Aug	14	1857	½ Lots 3, 4, 5, 6 7, 8, 9 & 10 Block 17 + ½ Lot 7 Block 15 Quintana $200
Jacob Matson	Peter Lawson	Deed	H	429	March	9	1858	Lots 1, 2, 11, 12 Block 17 Quintana $600 all the improvements thereon but does not own the wharf
Robert F. Clement	Elizabeth Runyon	Deed	L	352	June	22	1867	Lots 5, 6, 7, 8 Block 17 Quintana on which the beef curing establishment was erected in 1849 $125
Peter Lawson	Peter L. Bierman	Deed	L	253/54	Aug	8	1868	Lots 1, 2, 11, 12 Block 17 Quintana $1.00
Barney Waterman & Co.	Several	DT	M	122/24	April	13	1870	All equipment-two iron tanks for boiling beef, one steam boiler, one steam pump, & one large iron tallow cooler as collateral for several notes for labor and merchandise used in the business of slaughtering beef & shipping hides & tallow at Quintana
Peter L. Bierman	Albert Bowers	Deed	W	314	April	24	1884	Lots 1, 2, 11, 12 Block 17 Quintana $150
Albert Bowers	John M. Fergeson	Deed	2	355	April	4	1889	Lots 11, 12 Block 17 Quintana $10.00

Appendix B
Slaughter House & Tallow Factory Ten Acre Tract Laytonia

GRANTORS	GRANTEES	Kind of Instrument	Book	Page	Month	Day	Year	Description
Estate Stephen S. Perry	J. H. Shapard	Deed	P	204/06	Sept	15	1875	2211 acres on west side of Brazos halfway between Columbia & Brazoria less acreage previously sold-Shapard to take up $9960 note owed to Harriet E. Brooks
J. H. Shapard William L. Lay Cornelius Davis Hennell Stevens		Act of Corporation	P	446/47	Jan	24	1876	Laytonia Land Co. formed $1,000,000 10,000 shares of stock
J. H. Shapard	Laytonia Land Company	Deed	P	448	March	20	1876	$500 2211 acres on west side of Brazos halfway between Columbia & Brazoria
Laytonia Land Company	Mrs. Harriet E. Brooks	Mortgage	P	449	March	20	1876	$10,018.12 note-April 20, 1876 received $30018.18 on note
Laytonia Land Company	Mrs. Harriet E. Brooks	DT	P	449/50	April	20	1876	2500 acres less 500 acres reserved to the land company
J. H. Shapard	Mrs. Harriet E. Brooks	DT	P	451/52	April	22	1876	His personal property to secure note
Laytonia Land Company	Davis Hoskins & Company	Deed	P	452/53	April	24	1876	10 Acres –erect a factory for the preserving or canning of beef 6 months from date
Davis Hoskins & Company	Brazos Beef Packing Company	Deed	R	341/42	Oct	2	1876	$17,000 10 acres with all buildings and machinery
Laytonia Land Company	Christie Vietch & Company of Scotland	Deed	R	130	July	16	1878	3 ½ acres adjacent to canning factory $144
Christie Vietch & Company of Scotland	Brazos Beef Packing Company	Deed	R	640/41	Aug	15	1878	3 ½ acres adjacent to canning factory $144
Sherriff Wm. W. Sharp	Mrs. Harriet E. Brooks	Deed	S	41/44	Jan	7	1879	$100 foreclosure sale on all lands owned by Laytonia Land Co.

Appendix C
Slaughter House & Tallow Factory Ten Acre Tract Columbia

GRANTORS	GRANTEES	Kind of Instrument	Book	Page	Month	Day	Year	Description
Mexican Government	Josiah H. Bell	Deed	ST	159/62	Aug	7	1824	1 ½ Leagues west of the Brazos River on Varner Creek
A. J. Burke	William C. Wagley	Deed	L	659/60	Nov	11	1869	$1000 10 acres just below Columbia town tract on the Brazos River
Wagley & Co. (William C. Wagley) (R. M. Texis)	Gardner, Bacon & Company of NYC	DT	M	125/26	March	5	1870	$9000 note 3000 head of cattle as collateral
Wagley & Co. Purviance & Co.	Franklin M. Herriman, Trustee	DT	M	145/49	May	6	1870	10 acres + slaughter houses & tallow factory– value $8000 615 acres Alsworth Place - $6000 1000 hogs - $5000 as security for $9000 note to Gardner Bacon & Co. with $14000 if first $9000 paid with Tallow, Lard & Hides to be sold thru Gardner, Bacon & Co. for 1870
William C. Wagley	Thomas Caden of Galveston, Trustee	DT	M	268/70	Aug	20	1870	10 acres + slaughter houses & tallow factory Columbia+ 615 acres Alsworth Place + 1000 hogs as & also tallow factory at Quintana its engines, boilers, tanks, machinery + all cattle in Brazoria Co. $10000 note to B. L. Mann & Co. of New Orleans
William C. Wagley	Thomas G. & Thomas W. Masterson, Trustees	DT	M	285/87	Sept	6	1870	$20000 purchase cattle from John W. Harris 13 Dec 1869 with $2500 PAID 2Sept1870 Same property as collateral
Wagley Moreau & Co.	B. L. Mann & Co. of Galveston	Deed	M	364/65	Dec	12	1870	$31,396 Tallow factory in Columbia + cattle Brazoria & Matagorda Cos. + Alsworth Place + Syrup factory in Columbia of Wagley Moreau & Company
John W. Harris	William C. Wagley	Release	M	362/63	Dec	16	1870	Release of M 285/87
William C. Wagley	B. L. Mann & Co.	Deed	M	359/60	Jan	6	1871	$500 his personal interest 10 acres + slaughter houses & tallow factory + 670 acres Alsworth Place
B. L. Mann & Co.	Davis Finnegan & Co.	Deed	O	35/36	Dec	10	1873	10 acres + slaughter houses & tallow factory + 670 acres Alsworth Place with them taking over all debts
John Finnegan	Cornelius Davis	Deed	O	365/67	Sept	17	1874	$3080.65 on account from firm + $500 + 2 notes $1000 each with Davis assuming all debts transfer his half of business to Davis
Cornelius Davis	T. L. Smith							Ten Acres

Appendix D
Patent Record

United States Patent Office.

WILLIAM PERRY, OF NORTH BRIDGEWATER, MASSACHUSETTS.

Letters Patent No. 62,439, dated February 26, 1867.

IMPROVED STEAM DIGESTER FOR TREATING BONES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, WILLIAM PERRY, of North Bridgewater, in the county of Plymouth, and State of Massachusetts, have invented a new and useful Improvement in a Steam Digester for Treating Bones; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of my improved digester.

Figure 2 is a longitudinal central section taken in the line *x x*, fig. 1

Figure 3 is a horizontal section taken in the line *y y*, fig. 2.

Similar letters of reference indicate like parts.

This invention relates to improvements in constructing a retort or digester for the treatment of animal bones with steam to soften and prepare them for grinding into a fine powder for use as a fertilizer. To effect this object thoroughly it is necessary that the bones shall be constantly exposed to the direct action of steam from the boiler for a period of eight or ten hours, and that no portion of them shall be covered by the water of condensation, which would cover the bones in the bottom of the retort and prevent the access of the steam to them. Provision is made, therefore, by my improvements for constantly draining the contents of the retort and blowing off the water of condensation, together with the fatty and gelatinous matters in the bones which are dissolved by the steam, while the bones themselves remain in the retort to be constantly subjected in every part thereof to the action of a fresh supply of steam. Without this provision that part of the bones which would be covered by the water of condensation could be only partially cooked or softened in a short time so as to grind readily into powder and be made soluble so as to serve the purpose of a quickly acting fertilizing agent or an active pabulum of plants. Convenient and effective steam-tight heads or caps are also required over the openings for charging the digester or retort with the crude bones at the top and discharging them at the bottom.

A is a cylindrical retort, made of boiler iron large enough to contain three or four tons of raw bones, and in the form of truncated cones at the ends. It is suspended centrally by trunnions, *a a*, on a gallows, or any other suitable frame, B. The trunnions, or either of them, may be made hollow to introduce steam into the retort, or it may be conveyed into it by a pipe, *b*, on the side, provided with a steam-tight coupling, *c*, which may be readily disengaged when it is desired to turn the retort upon the trunnions, as will sometimes be necessary, to clear it out thoroughly. For this purpose a chain or rope is attached to a staple, *g*, on the upper end. On each end of the retort are steam-tight heads or caps, *d* being at the upper charging end and *d′* being at the lower discharging end, both of which cap-covers are hung on hinges and secured by tightening bolts and keys, *e e*, upon flanges on the ends of the retort. On the inside of each of the caps *d d′* is an annular ring, *i*, for a rubber, or other suitable packing, to render them steam-tight when closed. The cap *d′* is provided on the inside with a circular stopper, *m*, which projects upward when the cap is closed into the discharge-opening in the retort A, as shown in fig. 2, and also with a perforated diaphragm or strainer, *n*, in the middle, which covers the end of the ejection pipe *p*, which conveys the water of condensation and the matters dissolved and extracted from the bones away from the retort. On the ejection pipe *p* is a steam-tight coupling, *c′*, similar to the coupling *c* on the induction pipe *b*, for the purpose of disengaging when the cap-cover *d′* is opened to discharge the bones into a hopper, C, placed below, and for upsetting the retort, as before stated. The stopper *m* is so constructed as not to fit the discharge-opening tight, but with passage way enough left at the sides for the water of condensation and other liquid matters, while at the same time the stopper supports the mass of the bones in the retort and prevents them from coming through upon the diaphragm *n*, which is also intended to shut off any small particles of bones, while the liquid matter shall escape through the pipe *p*. This separation of the liquid matter is not only necessary for the proper treatment of the bones, as previously stated, to reduce them readily to a fine powder, but the fatty and gelatinous substances are separated in this manner for distinct uses, while the bones are rendered perfectly friable by the steam and are crushed and ground into powder as a fertilizing agent. The general operation is manifest.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

62,439

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1. I claim the combination of the suspended retort or digester A and the hinged steam-tight caps *d d'* on the charging and discharging openings, substantially arranged and employed as and for the purposes herein described.

2. I claim also the stopper *m* and the diaphragm *n*, in combination with the discharging cap *d'* and the ejection pipe *p*, arranged and operating substantially as and for the purposes specified.

3. I claim also the steam-tight couplings *c* and *c'* on the pipes *b* and *p*, respectively, in combination with the suspended retort A, for disconnection therewith, as and for the purposes herein described.

The above specification of my invention signed by me this 1st day of November, 1866.

WM. PERRY.

Witnesses:

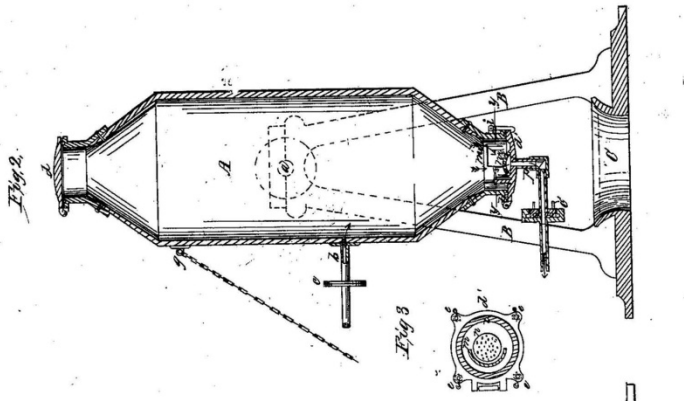
WM. F. MCNAMARA,

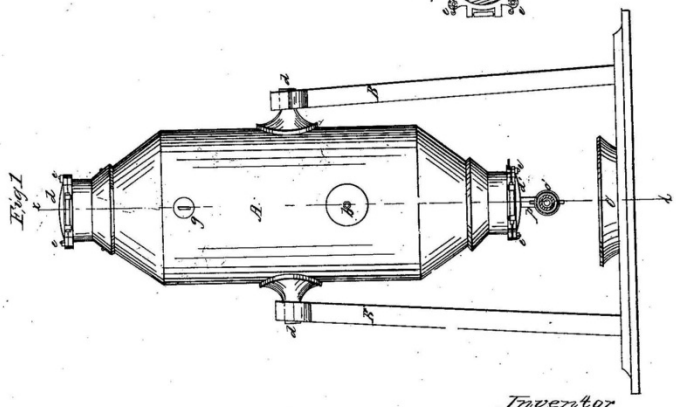
ALEX. F. ROBERTS.

W. PERRY.

STEAM DIGESTER FOR TREATING BONES.

No. 62,439. Patented Feb. 26, 1867.





Witnesses.
Thos Tusch
J Abernethy

Inventor
Wm Perry
Per Munn & Co
Attorneys.

Appendix E
Patent Revised

United States Patent Office.

WILLIAM PERRY, OF NORTH BRIDGEWATER, MASSACHUSETTS.

Letters Patent No. 62,439, *dated February* 26, 1867; *reissue No.* 2,663, *dated June* 25, 1867.

IMPROVED STEAM DIGESTER FOR TREATING BONES, FISH, AND OTHER SUBSTANCES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, WILLIAM PERRY, of North Bridgewater, in the county of Plymouth, and State of Massachusetts, have invented a new and useful improvement in a Steam Digester for Treating Bones, Fish, and other Animal or Vegetable Matter; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings forming a part of this specification, in which—

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Figure 2 is a longitudinal central section, taken in the line *x x*, fig. 1.

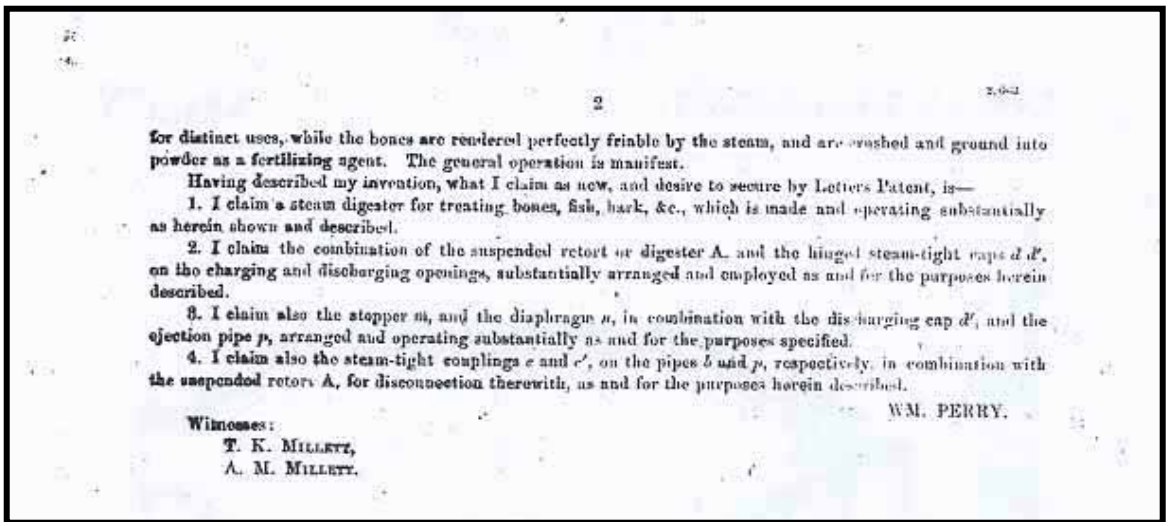
Figure 3 is a horizontal section, taken in the line *y y*, fig. 2.

Similar letters of reference indicate like parts.

This invention relates to improvements in constructing a retort or digester for the treatment of animal bones with steam, to soften and prepare them for grinding into a fine powder for use as a fertilizer. To effect this object thoroughly, it is necessary that the bones shall be constantly exposed to the direct action of steam from the boiler for a period of eight or ten hours, and that no portion of them shall be covered by the water of condensation, which would cover the bones in the bottom of the retort, and prevent the access of the steam to them. Provision is made, therefore, by my improvements, for constantly draining the contents of the retort, and blowing off the water of condensation, together with the fatty and gelatinous matters in the bones, which are dissolved by the steam, while the bones themselves remain in the retort to be constantly subjected in every part thereof to the action of a fresh supply of steam. Without this provision, that part of the bones which would be covered by the water of condensation could be only partially cooked or softened in a short time, so as to grind readily into powder, and be made soluble so as to serve the purpose of a quickly-acting fertilizing agent, or an active pabulum of plants. Convenient and effective steam-tight heads or caps are also required over the openings for charging the digester or retort with the crude bones at the top, and discharging them at the bottom.

The invention may also be employed with advantage for treating fish and for rendering tallow, lard, and other vegetable or animal fats or extracts, and for extracting tannin from bark for tanning purposes.

A is a cylindrical retort, made of boiler iron, large enough to contain three or four tons of raw bones, and in the form of truncated cones at the ends. It is suspended centrally by trunnions *a a* on a gallows, or any other suitable frame, B. The trunnions, or either of them, may be made hollow, to introduce steam into the retort, or it may be conveyed into it by a pipe, *b*, on the side, provided with a steam-tight coupling, *c*, which may be readily disengaged when it is desired to turn the retort upon the trunnions, as will sometimes be necessary to clear it out thoroughly. For this purpose a chain or rope is attached to a staple, *g*, on the upper end. On each end of the retort are steam-tight heads or caps, *d* being at the upper charging end, and *d'* being at the lower discharging end, both of which cap covers are hung on hinges and secured by tightening-bolts and keys *e e* upon flanges on the ends of the retort. On the face of each of the heads of the retort is an annular groove, *f*, for a rubber or other suitable packing, to render the caps steam-tight when closed. The cap *d'* is provided on the inside with a circular stopper, *m*, which projects upward, when the cap is closed, into the discharge opening in the retort A, as shown in fig. 2, and also with a perforated diaphragm or strainer, *n*, in the middle, which covers the end of the ejection pipe *p*, which conveys the water of condensation and the matters dissolved and extracted from the bones away from the retort. On the ejection pipe *p* is a steam-tight coupling, *c'*, similar to the coupling *c*, on the induction pipe *b*, for the purpose of disengaging when the cap cover *d'* is opened to discharge the bones into a hopper, C, placed below, and for upsetting the retort, as before stated. The stopper *m* is so constructed as not to fit the discharge opening tight, but with passage-way enough left at the sides for the water of condensation and other liquid matters, while at the same time the stopper supports the mass of the bones in the retort, and prevents them from coming through upon the diaphragm *n*, which is also intended to shut off any small particles of bones while the liquid matter shall escape through the pipe *p*. This separation of the liquid matter is not only necessary for the proper treatment of the bones, as previously stated, to reduce them readily to a fine powder, but the fatty and gelatinous substances are separated in this manner



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for distinct uses, while the bones are rendered perfectly friable by the steam, and are washed and ground into powder as a fertilizing agent. The general operation is manifest.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. I claim a steam digester for treating bones, fish, bark, &c., which is made and operating substantially as herein shown and described.

2. I claim the combination of the suspended retort or digester A, and the hinged steam-tight caps d d', on the charging and discharging openings, substantially arranged and employed as and for the purposes herein described.

3. I claim also the stopper m, and the diaphragm n, in combination with the discharging cap d', and the ejection pipe p, arranged and operating substantially as and for the purposes specified.

4. I claim also the steam-tight couplings e and e', on the pipes b and p, respectively, in combination with the suspended retort A, for disconnection therewith, as and for the purposes herein described.

WM. PERRY.

Witnesses:
T. K. MILLETT,
A. M. MILLETT.

Footnotes

[1] *Texas Almanac for 1867*, p. 82.
[2] Ibid. p. 220.
[3] Dugas, Vera Lea, "Texas Industry, 1860-1880", The Southwestern Historical Quarterly, Volume 59, No. 2, October 1955, p. 160.
[4] Brazoria County Deed Record: E 417
[5] BCDR: G 591
[6] BCDR: H 267
[7] BCDR: L 352
[8] BCDR: M 122/24
[9] BCDR: P 446/47
[10] BCDR: P 204/06 & P 448/49
[11] BCDR: P 449/50 & P 451/52
[12] BCDR: P452/53
[13] BCDR: R 130/31
[14] BCDR: R341/42
[15] BCDR: R 640/41
[16] Creighton, James A., A Narrative History of Brazoria County, Texian Press, Waco, Texas, 1975, pp. 468-469 & Ledger book for the Brazos Beef Packing Company, Brazoria County Historical Museum, Angleton, Texas
[17] BCDR: P 585/86 & S 41/44
[18] BCDR: L 659/60
[19] BCDR: M 145/49
[20] BCDR: M 268/70, M 285/87 & M 125/26
[21] BCDR: M 364/65
[22] BCDR: O 35/36
[23] BCDR: O 365/67