

RECOVERY OF  
"LOST LANDS" FOR LOST OWNERS  
AS A SPECIALTY

OFFICE OF

218 MCGOWAN AVENUE  
CORNER WALDWIN STREET  
PHONE MADLEY 2577

**RICHARD H. BARROW**  
**SURVEYING AND LAND TITLE CLEARING**

EVERY LETTER RECEIVED ANSWERED PROMPTLY

HOUSTON, TEXAS

- : T H E : -

\* H E N R Y A U S T I N S U R V E Y \*

S T A T E M E N T a n d E X P L A N A T I O N

o f t h e

O r i g i n a l S u r v e y

a n d a n

A d j u s t m e n t a n d C o r r e c t i o n

o f t h e

O r i g i n a l F i e l d n o t e s

o f s a i d s u r v e y

b y

R. H. Barrow, Plane Surveyor.

*Counter 17940*



\* \* - The Henry Austin Survey - \* \*

This is certainly a most remarkably peculiar survey. It is peculiar as to both the way in which it was made upon the ground it covers, and in the way it has been treated by those concerned in it since it was made and titled in 1835.

I have never seen a tract of land surveyed as this tract was, nor have I ever heard a surveyor speak of having known of such a survey in Texas.

No surveyor has ever been able to find the corners of this survey, or to re-trace its lines on the ground, nor has any draftsman ever been able to delineate its boundaries on a map, although the fieldnotes seem plain, and reveal "no ambiguity on their face" or any suggestion of the real puzzle they constitute when applied to the ground they cover.

No deed description yet written follows the original boundaries, or conforms to the facts on the ground; but the owners, in all attempts to describe the land conveyed, by metes and bounds, have added complication to mystery, and made matters worse.

My first knowledge and realization of the puzzle occurred when in compiling a map of Brazoria county some twenty years ago, I undertook to plat the said survey upon it. I found then that it would not lie on the bays called for as they lay, without adjustment, and I could not divine how to adjust said survey to the shore lines of said bays.

In my efforts to unravel the puzzle I elicited the co-operation of Mr. Pressler, the "Chief Draftsman" of the General Land Office, but we both failed entirely to make any progress at a solution at all.

But now, after long and persistent effort, I feel that I have worked out a full and complete solution of the whole matter, and one which I think will prove satisfactory to all persons concerned in the survey in any way.

I will first submit copies of the Original Fieldnotes as made by Green B. Jamison, the surveyor, in the field, and then the fieldnotes made out by T.H. Borden in the office, to be translated into the title.

I will also submit copies of plats and descriptions in deeds, with observations of points suggestive, and then deduce from them all, what I consider the Natural and Irresistable conclusion of the whole matter.



- : The Henry Austin survey : -

Copy of Original English Fieldnotes :

Beginning at a Stake on point where W. side of Bastrop lake joins  
Oyster lake, ran along shore Oyster lake,  
South 60 chains ;  
S.40°W.50 chains ;  
S.70°W.40 chns. ;  
West 40 chns, crossing a Mud Flat that goes through to Bastrop bay ;  
Th. continuing along high tide mark, S.20°W.20 chns. ;  
S.10°W.40 chns. ;  
S.20°E.200 chns. to a clump of trees, one on line marked 3 cuts of an axe ;  
Th. S.10°E.160 chns. on line of tide water mark, ;  
S.10°W.150 chns. to sk. at Mouth of a creek ;  
Th. along creek, N.75°W.120 chs. to a sk. ;  
Th. N.38°E.165 chs. to a Bush mkd. 3 cuts of an Axe ;  
Th. N.20°W.167 1/2 chs. ;  
N.40°W.155 chs. to 2 Wishate bushes (3 cuts) ;  
N.40°E.120 chns to a Wishate tree 3 cuts of an ax, standing on Steep  
Bank of Bastrop bay ;  
Th. with steep bank at the Water line, N.20°E.60 chns ;  
N.65°E.75 chns ;  
N.20°E.65 chs. ;  
East 40 chns. to beginning, containing 3.000.000 sq. vs., or three labors.

Endorsed on back of sheet thus " Green B. Jamison "

" Fieldnotes of lower country "

For above see

Original English Fieldnotes, book 2, page 2, Spanish department, G.L.O.



Observations

- : On Original Field Notes : -

(1) The Initial Point -

The Initial Point is the point where the West side of Bastrop lake joins Oyster lake ;

(2) The Mud Flat -

While following the Shore line of Oyster lake the Surveyor calls to cross a Mud Flat that goes through to Bastrop Bay -

(3) The Mouth of a creek -

The Meanders of Oyster lake shore terminate at the Mouth of a creek that flows into that lake ;

(4) Front on Oyster bay -

The survey fronts on Oyster bay from where said bay joins Bastrop to the Mouth of said creek ;

(5) Follows the creek -

The Course of the said creek gave direction to the first line leaving Oyster bay ;

(6) Creek - Not bayou -

The call for a creek emptying into a lake or bay of Tide-water is a peculiar call. Streams that rise in, and flow through low coast lands and empty into lakes or bays of Tide-water are usually called bayous : but a creek is mostly above tide-water, although it may flow into a body of tide-water at last.

(7) Front on Bastrop Bay -

The Surveyor calls to meander a portion of Bastrop Bay shore - not the bayou of that name ;

(8) The Steep Bank of Bastrop Bay -

The Surveyor calls to reach and meander a Steep Bank of Bastrop Bay from where he reached it to the place where he began the survey ;

(9) Wishate Trees -

The surveyor calls for trees and bushes called Wishate at corners ;

(10) Unit of Measure -

The Unit of Measure used by the surveyor was a chain ;

(11) Quantity of Land -

The surveyor calls for an area of 3.000.000 square vars, or three labors of land.



- The Henry Austin survey -

Copy of the Description in the Title to the survey :

Situated on the Point of land at the S.W. of lake called Bastrop & between this lake & the lake called Oyster, Bordering from the N.W. with waters of that one & from the S.E. with waters of this ; and from where waters of the two unite Surveyor threw a line South 600 vrs.;

Th. S. 40° W. 500 vs.;

S. 70° W. 400 vs.;

West 400 vs.;

S. 20° W. 200 vs.;

S. 10° W. 400 vs.;

S. 20° E. 2000 vs. more to a small tree called Wishate, mkd. with knocks of an ax;

Th. S. 10° E. 1600 vs.;

Th. S. 10° W. 1500 vs. to sk. planted at Mouth of a small cr.;

Th. N. 75° W. with said small creek, 1200 vs. to sk.;

Th. N. 38° E. 1650 vs. to Shrub mkd. with axe ;

Th. N. 20° W. 1675 vs.;

Th. N. 40° W. 1550 vs. to another plant mkd with axe ;

Th. - 40° E. 1200 vs. to a Wishate tree at edge of Lake Bastrop Marked as before ;

Thence N. 20° E. 600 vs.;

Th. N. 65° E. 750 vs.;

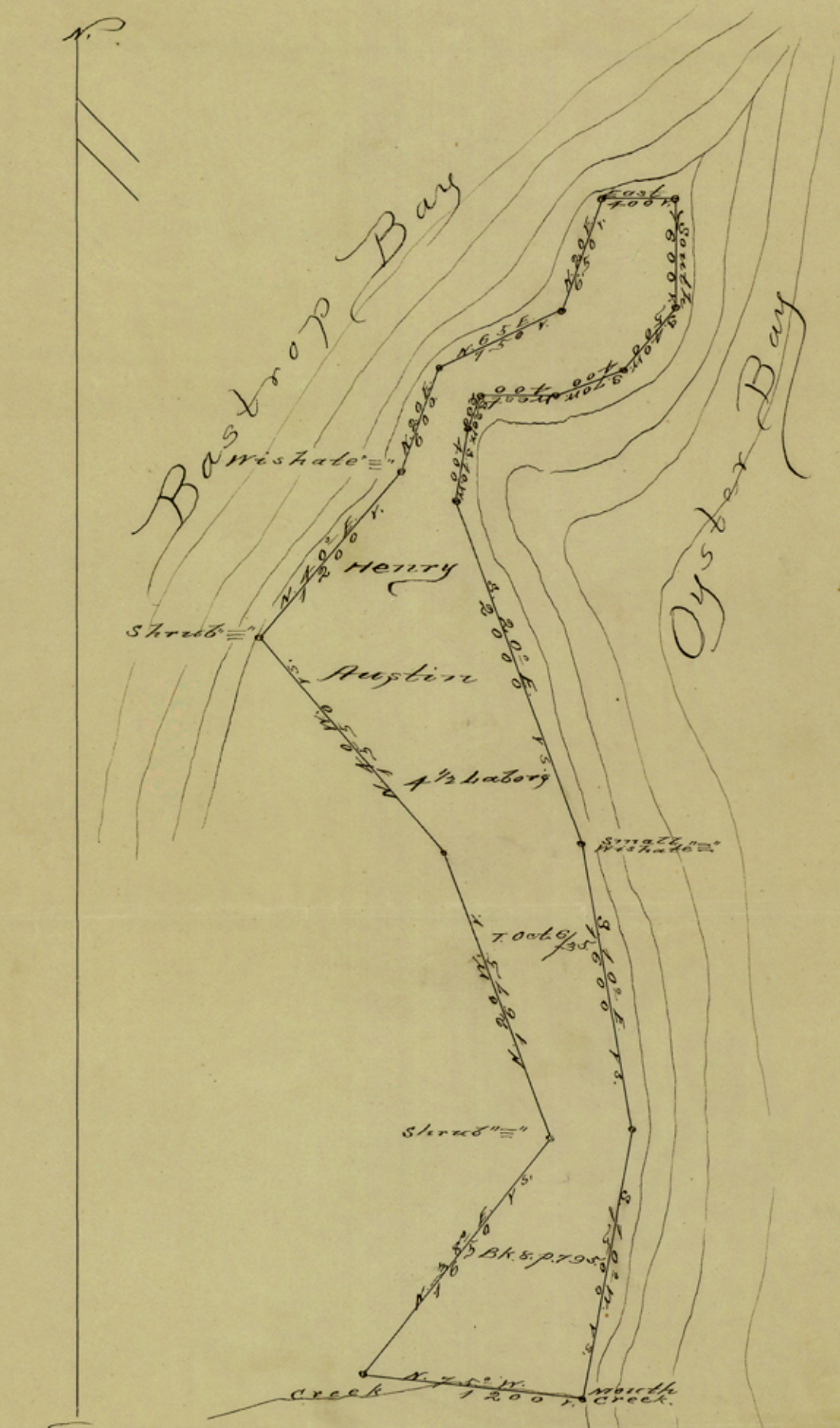
N. 20° E. 650 vs.;

Th. East 400 vs. to beginning.

Containing 4 1/2 labors, & is all the land not covered with water, between the two lakes.

Titled Oct. 6/35, Book 8, page 795.





Map  
of  
Survey as titled

Scale 800 f. = 1 inch



### Observations

On the Title Field Notes -

(1) The Unit of Measure

The Survey was made on the ground by Green B. Jamison ; the lines were measured with a chain, and their lengths were written by him in chains. The fieldnotes were doubtless sent up by Jamison without any Explanation as to how the survey was made, or what length the chain used was, as we find no explanation in the archives. The fieldnotes carried into the title were prepared by Borden in the office, upon an assumption that Jamison's unit of measure - the chain - was just 10 varas long.

(2) Area of the Survey -

The area of the survey depends upon the measure of its boundary, and the Excess of area called for by Borden over that called for by Jamison raises a question as to the unit of measure assumed by Borden in changing chains to varas.

(3) Water Boundary -

From the Title recital it appears that the survey covered all the land between the two lakes that was not covered by water at that time. from the mouth of the creek, along the western boundary, to Bastrop bay-shore. That is to say, Bastrop bay-shore line was then where the western boundary of the survey was.

(4) Field Notes do not close -

The Fieldnotes fail to close exactly, the errors being 149 vs. in Northings, and 33 vs. in Eastings.

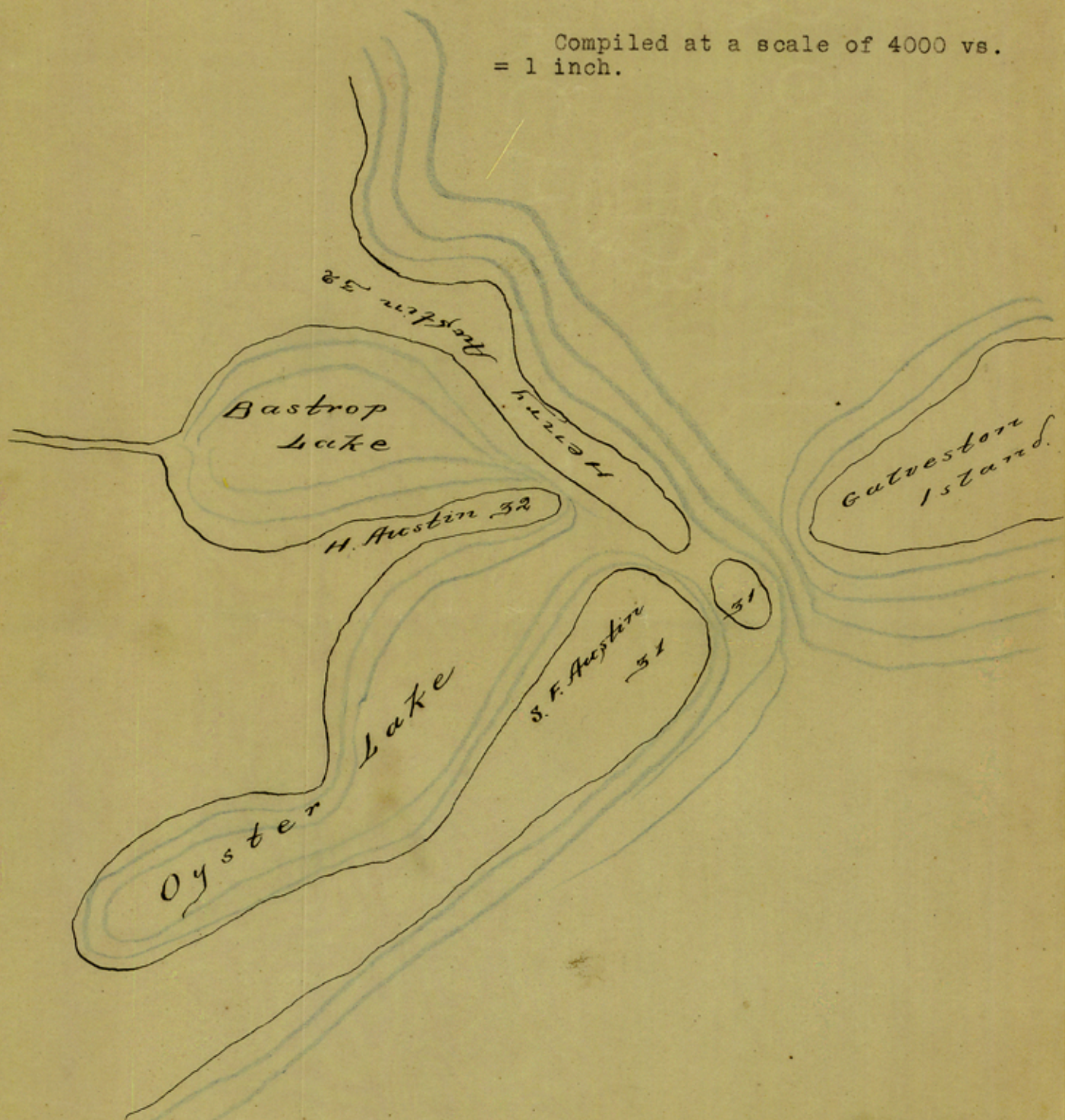
(5) Direction of the Survey -

From the Plat of the survey, made according to Title field Notes, the general direction of the survey is from North to South, the Mouth of the creek being 6634 vs. South and only 533 vs. West of the Initial Point.



- : Copy : -  
Of  
Part of the  
Austin's Colony Map .

Compiled at a scale of 4000 vs.  
= 1 inch.



Observations :

From Austin's Colony Map, which is not at all accurate as to Tide-water lines, it appears that the Mouth of Bastrop bayou into the Bay, or Lake, was a great deal further West from the point where the waters of said bay or lake and those of Oyster bay or lake unite - Christmas Point - that it is now. From said map it appears that the mouth of said bayou was then about where the said bayou suddenly widens out into what is called Cox's Lake just above the Cox preemption survey, and that nearly all the land not covered then by the Austin survey was covered by Bastrop bay. This is clearly apparent further, from the nature of the marsh back of the survey, which shows to have been covered by water as part of said bay.

I show the line of the bay, as I think it was then, on my last map herewith.



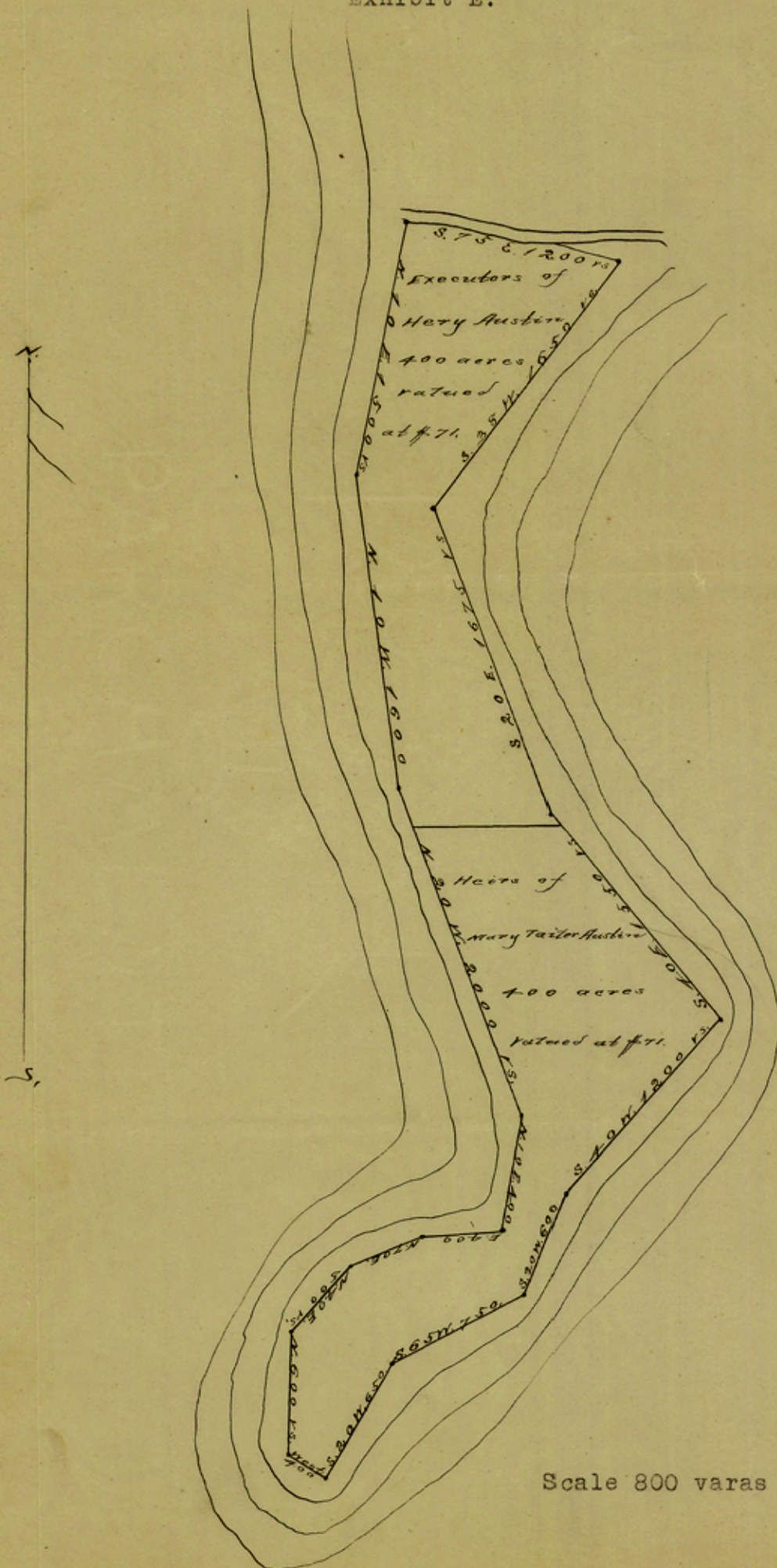
Copy of Partitioners' Report :

No.4, We divide 4 1/2 labors, upon a point Southeast of Bastrop & Oyster bays, by a line running Westward from the Shore of Bastrop Bay to West bay so as to include on Either side the same quantity. We award South half to Heirs of Mary Tailer Austin and North half to Executors of Henry Austin deceased. Dated Oct.29/53. Approved Nov.2/53. Estate Minutes 3 p.402.

No.4. Plat of Christmas Point, Containing 4 1/2 Labors, Mostly prairie, in Brazoria County, granted H. Austin.

Vol.3, page 404, Galveston.

Exhibit E.



Scale 800 varas to the inch.

Counter 14948

W<sup>8</sup>



Copies of Descriptions in Deeds :

Henry Austin deed to C.H.Pix, dated July 1/54, Brazoria, book G, p.48.

Tract of 400 acres Between Bastrop & Oyster bays, Beginning at N.W. corner at a small creek on bank of the bay ;

Thence S.75°E. with creek, 1200 vs. to Bastrop bay ;

Thence S.38°W. 1650 vs.; Thence S.20° - 1675 vs, or more to up corner tract belonging to Hrs. Mary Tailer Austin, on bank Bastrop bay ;

Thence due W. 800 vs. more or less to west bay ;

Thence N.20°W. 400 vs.; Thence N.10°W. 1600 vs.; Thence N.10°E. 1500 vs. to beginning.

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Thos. Corrigan deed to Lawrence Dorick, dated Mar. 23/74, Brazoria, O, p.146.

Tract of 200 acres a portion of the South half of 4 1/2 labors grant owned by me, see book J, p.187.

Beginning at stake on shore of Bastrop Bay ;

Thence S.54°W. 1187 vs. to stake for corner ;

Thence S.36°E. 1758 vs. to stake near shore ;

Thence S.54°W. 664 vs.; Thence N.36°W. 1758 vs.;

Thence N.54°E. 644 vs. to beginning.

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Thos. Corrigan & wife deed to AB. Follet, dated Mar. 18/76, book P. 387.

A tract Beginning at sk. on Oyster Bay ;

Thence North 1857 ft. to sk.; Thence N.34 1/2°W. 3020 ft. to sk.;

Thence S.64 1/2°W. 1060 ft to sk.; Thence S.34 1/4°E. 4700 ft. to beginning, containing 93 acres, and being a part of the land conveyed to me by E.T. Austin.



- : Observations : -

On Partitioners' Map and Deed Descriptions following it :

From the plat of the survey, made for Commissioners, by which to partition the land among the heirs of Austin, it appears that the Draftsman Turned the Survey end for end - the north end south, and the south end north, and Reversed the Bearing of every line accordingly, because he did not know how to follow the shore-lines of the respective bays and the marsh with the courses and distances written in the Title. It is not at all apparent, however, that he could the better follow said lines by such inversion and reversal of bearing letters.

The effect of such error of draftsman was, the Commissioners, after dividing the survey into north and south halves, awarded the North end, when they meant the South, to one party, and the South end, when they meant the North, to the other.

The descriptions in the deeds following in the chains of title, are erroneous according to the said error committed by the draftsman in reversing the bearings of the boundary lines of the survey, and should be corrected according to changes that will hereinafter appear necessary to be read instead of the bearings and distances written in Title description of the Henry Austin survey.

I would observe further that said map of the Partitioners shows Bastrop bay immediately west of the Austin survey, as well as Oyster bay immediately east of it ; indicating that Bastrop bay line was then but a short distance from Oyster bay line, and that the Marsh now considered land, was then under water. If there were no better proof of this fact than that map I would not make this observation, however. I merely observe that said map corroborates other better evidence.



- : Henry Austin Survey : -

- Balanced -

Beginning at the First corner ; Thence, as follows :

Bearings,	Dist.	Lat.	Dep.	Remarks.
South	600	- 600		
S.40°W.	500	- 383	- 321	
		- 983		
S.70°W.	400	- 137	- 376	
		- 1120	- 697	
West	400		- 400	Crossing Mud Flat into Bastrop bay.
			- 1097	
S.20°W.	200	- 188	- 68	
		- 1308	- 1165	
S.10°W.	400	- 394	- 70	
		- 1702	- 1235	
S.20°E.	2000	- 1879	+ 684	To Clump trees mkd 3 cuts of an axe.
		- 3581	- 551	
S.10°E.	1600	- 1576	+ 278	
		- 5157	- 273	
S.10°W.	1500	- 1477	- 260	To Stake at Mouth of Creek.
		- 6634	- 533	
N.75°W.	1200	+ 311	- 1159	Along Creek.
		- 6323	- 1692	
N.38°E.	1650	+ 1300	+ 1016	To Wishate tree 3 cuts of an axe.
		* 5023	- 676	
N.20°W.	1675	+ 1574	- 573	
		- 3449	- 1249	
N.40°W.	1550	+ 1187	- 996	To Wishate tree 3 cuts of an axe.
		- 2262	- 2245	
N.40°E.	1200	+ 919	+ 771	To Wishate at edge Bastrop Lake.
		- 1343	- 1474	
N.20°E.	600	+ 564	+ 205	With Steep Bank Bastrop.
		- 779	- 1269	
N.65°E.	750	+ 317	+ 680	
		- 462	- 589	
N.20°E.	650	+ 611	+ 222	
		+ 149	- 367	
East	400		+ 400	To beginning.
			+ 33	

Error North 149 and East 33 vs.

The above is a Copy of Original fieldnotes, except the unit of measure. I use the Title calls for varas instead of chains because that unit is just ten times the other, and works easy.

W<sup>11</sup>

Counter 14951



- : Henry Austin Survey : -

Bearings Corrected, Distances Discounted 18.4 % and survey balanced.

Beginning at First corner of the survey ; Thence as follows :

<i>Orgl</i> Brgs.	<i>Correct</i> Brgs.	<i>Orgl</i> Dist.	<i>Disct</i> Dlat.	Lat.	Dep.
South	S.49°W.	600	489.6	- 321	- 368
S.40°W.	S.89°W.	500	408.0	-...7	- 408
				- 328	- 776
S.70°W.	N.61°W.	400	326.4	+ 158	- 285
				- 170	- 1061
West	N.41°W.	400	326.4	+ 246	- 214
				+ 76	- 1275
S.20°W.	S.69°W.	200	163.2	- 58	- 152
				+ 18	- 1427
S.10°W.	S.59°W.	400	326.4	- 168	- 280
				- 150	- 1707
S.20°E.	S.29°W.	2000	1632.0	-1427	- 791
				-1577	- 2498
S.10°E.	S.39°W.	1600	1305.6	-1015	- 822
				-2592	- 3320
S.10°W.	S.59°W.	1500	1224.0	- 630	- 1049
				-3222	- 4369
N.75°W.	N.33°15'W.	1200	979.2	+ 819	- 537
				-2403	- 4906
N.38°E.	N.87°E.	1650	1346.4	+ 70	+ 1345
				-2333	- 3561
N.20°W.	N.29°E.	1675	1366.8	+1195	+ 663
				-1138	- 2898
N.40°W.	N.09°E.	1550	1264.8	+1249	+ 198
				+ 111	- 2700
N.40°E.	N.89°E.	1200	979.2	+ 18	+ 979
				+ 129	- 1721
N.20°E.	N.69°E.	600	489.6	+ 175	+ 457
				+ 304	- 1264
N.65°E.	S.66°E.	750	612.0	- 249	+ 559
				+ 55	- 705
N.20°E.	N.69°E.	650	530.4	+ 190	+ 495
				+ 245	- 210
East	S.41°E.	400	326.4	- 246	+ 214
				- 1	+ 4

Error 1 Sesh & 4 East.

- : Note : -

The above shows the Original Bearings, as written by the surveyor, Corrected and turned 49° to the Right,

And the Original Distances, as written by the surveyor in chains, reduced by Borden to varas, and Discounted 18.4 per cent by me.

With such adjustment of bearings and distances the survey conforms to the Natural Objects called for by the surveyor as nearly as any survey of as many calls, as can likely be found, made in that day and time.

W<sup>112</sup>

Counter/4952



- : General Observations : -

- (1) - - - The Original Fieldnotes appear to have been made out by Green B. Jamison, the surveyor who made the survey on the ground, while the Fieldnotes carried into the Title were made out by T.H. Borden by calculation based on the notes sent up by said Jamison :
- (2) - - - The Initial Point of this survey, "where W. side of Bastrop lake joins Oyster lake;" although not sharply defined, is yet easy enough of approach for all practical purposes, and is known now as Christmas Point. The Extreme South Corner, "the Mouth of a small creek;" is also well defined, and is accepted by all concerned as the Original Corner of the survey :
- (3) - - - A "Mud Flat" is also called for by the surveyor in moving along the shore of Oyster lake, or bay ;
- (4) - - - The Courses and Distances given in the fieldnotes close and balance about as nearly as do those of most any survey of that kind made at that day and time, and "disclose no ambiguity upon their face";
- (5) - - - The Surveyor, Green B. Jamison, who made the survey on the ground, says that it contains 3.000.000 square varas, or three labors of land : but the distances given in his fieldnotes being written in chains, we can not verify the calculation of area until we find the length of the chain used by him, nor can we accept the calculation of Borden by which he reduced Jamison's chains to varas. It is evident that the Gunter's chain was not the one that was used by Jamison.
- (6) - - - Thos. H. Borden, who changed the unit of measure from chains to varas, and whose notes were translated and carried into the Title, says that the survey contains 4.500.000 square varas, or four and a half labors, or 1.500.000 square varas more of land than the surveyor Jamison, who made it, says that it contains. This large discrepancy clearly indicates that a mistake as to the length of the chain used by Jamison was made by Borden when he assumed that it was just 10 varas long. The well known difference of opinion among the Colony Surveyors as to the vara, the Spanish unit of measure, will account for such discrepancy ; as that difference of opinion was perhaps as wide as this difference of area.
- (7) - - - The Position of the water boundary of this survey is as certainly defined by the calls in the fieldnotes as the initial point is, and it is along the Shore of Oyster Bay, from the said Initial Point to the Mouth of a certain Creek flowing into said Bay, and also backward from said initial point along the shore of Bastrop Bay.



(8) - - - The Austin Colony Map shows the survey - No.32 - occupying this position, although the courses and distances given in fieldnotes are not delineated on said map. It is apparent that the courses could not be laid along Oyster bay as thereon shown, without material change, correction and adjustment. For by the fieldnotes of the survey it appears to be 6634 vs. South and 533 vs. West from said Initial Point to the Mouth of the Creek ; when by Actual Survey it is now about 3350 vs. South and 4800 vs. West from said Initial Point to said Mouth of the creek. This is a difference of 3284 vs. less in Southings and of 4267 vs. more in Westings. This difference certainly cannot be due to changes in shore-line since the survey was made ; for the Colony Map shows it to have been then about as we find it now to a practical extent. But it was evidently just as much impossible at the time of the survey, to follow the shore-line of Oyster and Bastrop bays with the courses and distances given in the fieldnotes as it is now. And it was then much less worth while to adjust discrepancies.

(9) - - - It is just as evident that the Angles of the survey were well and accurately Measured then as it is evident that the Bearings given do not follow the shore-lines as they were, and as they are. And it is also just as evident that All the Bearings are Erroneous to the same extent as it is evident that any One of them is erroneous at all. So that whatever Change of any one bearing is necessary to make it follow and conform to the shore-line, such change, and to the same extent, will be necessary to every one of the bearings given in the survey, to make them follow and conform to the shore-line, and conform to each other.



- - - : Concluding Argument : - - -

From the foregoing we are brought to the question - Why do Bearings, the angles made by which being Accurately Measured, Fail by so much to follow the shore-line that the surveyor evidently followed when he did the work on the ground ?

And so come we to the sole and single answer : the Angles of the survey were correctly and accurately measured, but the bearings of the lines were written out erroneously in the fieldnotes afterward.

But again, How came the bearings to be written out erroneously when the angles had been measured correctly in the field ?

To this question also there seems to be but one answer, to wit : The angles were measured with a Plane-Table, a Transit without a needle, or with some instrument that did not indicate the Direction of a line from the Magnetic Meridian : so that when the surveyor attempted to apply the meridian to the lines he had run, in order to find and write out their bearings therefrom, he made a mistake of a certain number of degrees between the meridian assumed by him and the correct one, and wrote out every bearing in error to the exact extent of that mistake. This conclusion seems obvious and inevitable from the fact that every bearing given is erroneous in the same direction, and to the same extent.

The next question arising, therefore, is - What was the bearing of the meridian so erroneously determined and used by the surveyor as a base of his calculation of bearings, or what was the difference between the direction of the line so erroneously assumed by the surveyor to lie north and south and a correct north and south line ?

In answering this question I must observe incidentally, that, according to statements of the Colony Surveyors the variation of the needle at the date of this survey was  $10^{\circ}37'E.$ , and according to a statement of the U.S. Coast & Geodetic Surveyor the variation in that locality now is about  $7^{\circ}37'E.$ , or just  $3^{\circ}$  less than it was then.

In order to calculate and write out the bearing of each line of the survey as run out on the ground by the surveyor, and indicate the angle made by each line with the line next preceding it, as measured with the Plane-Table, it was necessary that the surveyor select some one of the lines run by him, as a Base upon which to calculate the bearing of each line, and then determine the relation of every line of the survey to such base line. Then, if any one of the lines of said survey can now be identi-



fied as the line so selected by the surveyor as a base of such calculation, from which he determined and wrote out the several bearings, then from such line we may determine the number of degrees in the error in bearings made by the surveyor by finding the difference in degrees between the bearing of such line and the correct meridian from which such bearings should have been determined. In my effort to identify such line I found the following key to my purpose, to wit :

I find that the side of a square containing 3,000,000 square varas is a little over 1721 varas ; that the side of a square containing 4,500,000 square varas is a little over 2121 varas, and that the difference, 390, is about 18.4 percent of the side of a square containing 4,500,000 square varas.

I further find that by the calls for varas in the Title notes it appears to be 7600 vs. from the Initial Point of the survey, along the shore, to the mouth of the creek ; that by late meanders of that shore-line it is 6140 vs. from said point to point, and that the difference, 1460, is about 19 per cent of the aggregate of the Title calls for that distance. From this it appears that the difference between the distance given in Title calls for varas and the distance by late work is within 00.66 per cent of the difference between the side of a square of 4,500,000 square varas and the side of a square of 3,000,000 square varas. From this it seems that we are bound to conclude that the area of the survey, as given by Borden, was excessive of fact about 18 or 19 per cent, and that the chain used by Jamison was 18 or 19 per cent less than 10 varas long.

- - : Experiment : - -

Now I find that the survey, platted out with the distances discounted 18 or 19 per cent, pivoted at the mouth of the creek and turned around to the Oyster bay shore about  $50^\circ$ , will almost perfectly follow and conform to the shore-line. From that fact I conclude that the error made by the surveyor in calculating bearings was about  $50^\circ$ , and that, therefore, the meridian assumed by him was erroneous to that extent. The next question then is, what line of the survey, changed about  $50^\circ$  to the right, will read north-&-south, or east-&-west ? In answer to this it is easy to see that the line leaving the creek at a bearing written N.  $38^\circ$  E. is such a line, and is evidently the line selected and used by the surveyor as a base of his calculations. For the bearing of that line - N.  $38^\circ$  E. - plus  $52^\circ$  would read N.  $90^\circ$  E. or due East, and a perpendicular, N.  $52^\circ$  W. would read North,

W15  
Counter 14956



and, therefore, be the meridian. Then if a line actually running East & West was assumed by the surveyor to run N.38°E., and a perpendicular, N.52°W., was assumed by him to run North & South then it was an error of 52° in the base line, and the bearing of each line from such meridian would be erroneous to the extent of 52° to the left.

Then the bearing, N.52°W. true, minus the Variation of the needle then, 10°37', would read N.41°23'W. magnetic; then the bearing, N.41°23'W. magnetic, plus the variation now, 7°37', would read N.49°W. The Difference, therefore, between the Correct Meridian and the meridian erroneously assumed by the surveyor Jamison in calculating the bearings of the lines of this survey was just 49°; and every bearing written from such meridian should be corrected to read 49° to the Right of the readings written in the fieldnotes given, in order to follow the lines actually run out on the ground by the surveyor Jamison, as said lines lie now.

With this Solution of the Puzzle in mind I have examined the locality for Evidence and Verification of it, and have found such solution amply and conclusively supported by the Facts on the ground.

- : Experiment : -

I first make the fieldnotes of the survey close by charging the whole error to One Course, and then changing that course. I do this for two reasons: first, because a change of Course Only, is necessary, and second, such change makes that course follow the creek better. The creek is a little crooked, however, and no straight line will follow it exactly. I find that the course that the surveyor says follows the creek, when corrected accordingly to read N.33°15'W. 979 varas, will run on the West side most of the way, and terminate near it on the East side.

The call is for a Straight Line to follow the Creek. Now, as the Creek is not Straight, but bends about as shown on sketch, it is evident that a Straight Line at no bearing will follow it. Then, if no Straight Line will follow it, it must leave it, then if a straight line must leave it, it must leave it on each side an Average Distance as to area of space between the creek and the line. Therefore, if the line leaves the creek on its right side first, it must leave it on its left side second, and the Average of area places it as shown on sketch. This is what I believe to be a Legal and Scientific disposition of the call for a straight line to follow the creek, and it shows how to follow these "Foot-steps of the Original Surveyor!" He hardly meandered the creek with a Plane table, but set the flag where a straight line from the mouth of the creek to it would give and take land on each side. So that I feel confident of the correctness of the sketch and fieldnotes as returned.

next several courses follow the Mud Flat along to the better defined bank of the bay, and then run into the bay where the bank has caved away, and is caving away all the time.

Counter 4958

Counter 4957

W 17

W 16



and, therefore, be the meridian. Then if a line actually running East & West was assumed by the surveyor to run N.  $38^{\circ}$  E., and a perpendicular, N.  $52^{\circ}$  W., was assumed by him to run North & South then it was an error of  $52^{\circ}$  in the base line, and the bearing of each line from such meridian would be erroneous to the extent of  $52^{\circ}$  to the left.

Then the bearing, N.  $52^{\circ}$  W. true, minus the Variation of the needle then,  $10^{\circ}37'$ , would read N.  $41^{\circ}23'$  W. magnetic; then the bearing, N.  $41^{\circ}23'$  W. magnetic, plus the variation now,  $7^{\circ}37'$ , would read N.  $49^{\circ}$  W. The Difference, therefore, between the Correct Meridian and the meridian erroneously assumed by the surveyor Jamison in calculating the bearings of the lines of this survey was just  $49^{\circ}$ ; and every bearing written from such meridian should be corrected to read  $49^{\circ}$  to the Right of the readings written in the fieldnotes given, in order to follow the lines actually run out on the ground by the surveyor Jamison, as said lines lie now.

With this Solution of the Puzzle in mind I have examined the locality for Evidence and Verification of it, and have found such solution amply and conclusively supported by the Facts on the ground.

- : Experiment : -

I first make the fieldnotes of the survey close by charging the whole error to One Course, and then changing that course. I do this for two reasons: first, because a change of Course Only, is necessary, and second, such change makes that course follow the creek better. The creek is a little crooked, however, and no straight line will follow it exactly. I find that the course that the surveyor says follows the creek, when corrected accordingly to read N.  $33^{\circ}15'$  W. 979 varas, will run on the West side most of the way, and terminate near it on the East side.

The call is for a Straight Line to follow the Creek. Now, as the Creek is not Straight, but bends about as shown on sketch, it is evident that a Straight Line at no bearing will follow it. Then, if no Straight Line will follow it, it must leave it; then if a straight line must leave it, it must leave it on each side an Average Distance as to area of space between the creek and the line. Therefore, if the line leaves the creek on its right side first, it must leave it on its left side second, and the Average of area places it as shown on sketch. This is what I believe to be a Legal and Scientific disposition of the call for a straight line to follow the creek, and it shows how to follow the "Foot-steps of the Original Surveyor!" He hardly meandered the creek with a Plane Table, but set the flag where a straight line from the mouth of the creek to it would give and take land on each side. So that I feel confident of the correctness of the sketch and fieldnotes as returned.

and several courses follow the said flat along its bay before reaching the bay, and then run into the bay where they are the usual course, and is caving away all the time.

W 17  
Counter 4958



As to the Trees called for by the Surveyor to be marked at several of the corners of the survey I would say, Wishate bushes are now growing at or near each place at which one is called for, but I have not hoped to identify the particular trees marked by the surveyor, after so many years of prairie fires and storms to destroy them.

- : Conclusion : -

With the Question as to the Original Position of the Henry Austin survey on the ground answered as above, I find that Every Call in the Original Fieldnotes, by which the said survey might, and should be identified, as per my observations of such calls on third page hereof, is Found and Satisfied beyond occasion of doubt. And it is easily apparent that the said calls of the surveyor, being specially peculiar, could be satisfied with the survey in No Other Position at all.

- Consequently -

Feeling entirely satisfied that the lines and corners of the said Henry Austin survey were Originally Made and Established on the ground, by Green B. Jamison, a United States Coast & Geodetic Surveyor, each in the position indicated on the sketch herewith, I have corrected the field notes of the survey in the name of R.A. Shapard to conform to the said Austin survey as thus I have identified it, as such correction will hereinafter appear.

Respectfully submitted :

*R. H. Burrows*  
Plum Surveyor

The State of Texas    )  
County of Brazoria    )    I, E.S. Atkinson Jr. County Surveyor of Brazoria county, Texas, do hereby Certify that I have carefully read and considered the above and foregoing Statement and Argument, and believe the same to be true, correct and conclusive of the question as to the position of the Henry Austin survey on the ground.

Given under my hand this 12<sup>th</sup> day of February, A.D. 1912.

*E. S. Atkinson Jr.*  
County Surveyor, Brazoria county, Texas.



R.A.Shapard's Survey Calculated -

Beginning at S.E. Corner F.M. Harvin's survey ; Thence as follows ::

Bearings.....	Dist.....	Lat.....	Dep.....	D.M.D.....	Areas.....
N.38°30'E.	1650.+	1291...	1027...	1027..+	1.325.857.
N.19°30'W.	1675	+ 1579	- 559	+ 1495	+ 2.360.605
		+ 3870	+ 468		+ 3.686.462
N.39°30'W.	296	+ 228	- 188	+ 748	+ 170.544
		+ 3098	+ 280		+ 3.857.006
N.16°30'E.	120	+ 115	+ 34	+ 594	+ 68.310
		+ 3213	+ 314		+ 3.925.316
N.21°30'W.	120	* 112	- 44	+ 584	+ 65.408
		+ 3325	+ 270		+ 3.990.724
N.49°30'W.	350	+ 227	- 266	+ 274	+ 62.198
		+ 3552	+ 4		+ 4.052.922
N.72°15'W.	360	+ 110	- 343	- 335	- 36.850
		+ 3662	- 339		+ 4.016.072
N.42°30'W.	90	+ 66	- 61	- 739	- 48.774
		+ 3728	- 400		+ 3.967.298
N.01°30'E.	80	+ 80	+ 2	- 798	- 63.840
		+ 3808	- 398		+ 3.903.458
N.44°30'E.	150	+ 107	+ 105	- 691	- 73.937
		+ 3915	- 293		+ 3.829.521
N.81°30'E.	200	+ 30	+ 198	+ 388	- 11.640
		+ 3945	- 95		+ 3.817.881
S.71°00'E.	100	- 32	+ 95	- 95	+ 3.040
		+ 3913	o 00		+ 3.820.921
S.37°00'E.	280	- 224	+ 169	+ 169	- 37.856
		+ 3689	+ 169		+ 3.783.065
S.55°00'E.	140	- 80	+ 115	+ 453	- 36.240
		+ 3609	+ 284		+ 3.746.825
N.79°45'E.	90	+ 16	+ 89	+ 657	+ 10.512
		+ 3625	+ 373		+ 3.757.337
N.66°00'E.	90	+ 37	+ 82	+ 828	+ 30.636
		+ 3662	+ 455		+ 3.787.973
S.85°30'E.	170	- 13	+ 169	+ 1079	- 14.027
		+ 3649	+ 624		+ 3.773.946
N.61°45'E.	370	+ 175	+ 326	+ 1574	+ 275.350
		+ 3824	+ 950		+ 4.049.296
N.00°15'W.	192	+ 192	- 1	+ 1899	+ 364.608
		+ 4016	+ 949		+ 4.413.904
N.23°15'W.	197	+ 181	- 78	+ 1820	+ 329.420
		+ 4197	+ 871		+ 4.743.324
N.14°45'W.	80	+ 77	- 20	+ 1722	+ 132.594
		+ 4274	+ 851		+ 4.875.918
N.42°00'W.	150	+ 111	- 100	+ 1602	+ 177.822
		+ 4385	+ 751		+ 5.053.740
N.21°45'W.	159	+ 148	- 59	+ 1443	+ 213.564
		+ 4533	+ 692		+ 5.267.304
N.07°00'E.	40	+ 40	+ 5	+ 1389	+ 55.560
		+ 4573	+ 697		+ 5.322.864
N.55°30'E.	480	+ 272	+ 396	+ 1790	+ 486.880
		+ 4845	+ 1093		+ 5.809.744
N.70°00'E.	140	+ 48	+ 132	+ 2318	+ 111.264
		+ 4893	+ 1225		+ 5.921.008
N.87°45'E.	130	+ 5	+ 130	+ 2580	+ 12.900
		+ 4898	+ 1355		+ 5.933.908
N.16°30'E.	45	+ 21	+ 40	+ 2750	+ 57.750
		+ 4919	+ 1395		+ 5.991.658
S.39°45'E.	50	- 38	+ 32	+ 2822	- 107.236
		+ 4881	+ 1427		+ 5.884.422
S.82°30'E.	85	- 11	+ 84	+ 2938	- 32.318
		+ 4870	+ 1511		+ 5.852.104
N.80°00'E.	167	+ 29	+ 164	+ 3186	+ 92.394
		+ 4899	+ 1675		+ 5.944.498
N.36°00'E.	80	+ 65	+ 47	+ 3397	+ 220.805
		+ 4964	+ 1722		+ 6.165.303
S.58°00'E.	90	- 48	+ 76	+ 3520	- 168.960
		+ 4916	+ 1798		+ 5.996.343

W19

Counter 14960



Calculation Continued -

		+	4916	+	1798			+	5.996.343
N.73°30'E.....	160	+	45	+	153	+	3749	+	168.705
		+	4961	+	1951			+	6.165.048
N.39°45'E.	180	+	138	+	115	+	4017	+	554.346
		+	5099	+	2066			+	6.719.394
N.28°00'E.	452	+	399	+	212	+	4344	+	1.733.256
		+	5498	+	2278			+	8.452.650
N.74°00'E.	450	+	124	+	433	+	4989	+	618.636
		+	5622	+	2711			+	9.071.286
N.58°00'E.	400	+	212	+	339	+	5761	+	1.221.332
		+	5834	+	3050			+	10.292.618
N.67°45'E.	400	+	151	+	370	+	6470	+	976.970
		+	5985	+	3420			+	11.269.588
S.85°00'E.	220	-	19	+	219	+	7059	-	134.121
		+	5966	+	3639			+	11.135.467
S.31°15'E.	80	-	68	+	42	+	7320	-	497.760
		+	5898	+	3681			+	10.637.707
N.88°00'E.	90	+	3	+	90	+	7452	+	22.356
		+	5901	+	3771			+	10.660.063
S.56°30'E.	81	-	45	+	68	+	7610	-	342.450
		+	5856	+	3839			+	10.317.613
S.15°30'W.	32	-	31	-	9	+	7669	-	237.739
		+	5825	+	3830			+	10.079.874
S.56°00'W.	135	-	75	-	111	+	7549	-	567.175
		+	5750	+	3719			+	9.512.699
S.68°45'W.	250	-	91	-	233	+	7205	-	655.655
		+	5659	+	3486			+	8.857.044
S.81°00'W.	260	-	41	-	257	+	6715	-	275.315
		+	5618	+	3229			+	8.581.729
S.66°30'W.	280	-	112	-	257	+	6201	-	694.512
		+	5506	+	2972			+	7.887.217
S.52°00'W.	280	-	172	-	221	+	5723	-	984.356
		+	5334	+	2751			+	6.902.861
S.32°30'W.	220	-	186	-	118	+	5384	-	1.001.424
		+	5148	+	2633			+	5.901.437
S.04°15'W.	450	-	449	-	33	+	5233	-	2.349.617
		+	4699	+	2600			+	3.551.820
S.42°15'E.	230	-	170	+	155	+	5355	-	910.350
		+	4529	+	2755			+	2.641.470
S.84°15'E.	250	-	25	+	249	+	5759	-	143.975
		+	4504	+	3004			+	2.497.495
S.74°30'E.	200	-	53	+	193	+	6201	-	328.653
		+	4451	+	3197			+	2.168.842
S.06°00'W.	450	-	448	-	47	+	6347	-	2.843.456
		+	4003	+	3150			-	674.614
S.26°30'E.	410	-	367	+	183	+	6483	-	2.379.261
		+	3636	+	3333			-	3.053.875
S.52°00'E.	470	-	289	+	370	+	7036	-	2.033.404
		+	3347	+	3703			-	5.087.279
S.59°45'E.	400	-	202	+	346	+	7752	-	1.565.904
		+	3145	+	4049			-	6.653.183
S.73°15'E.	19	-	5	+	18	+	8116	-	40.580
		+	3140	+	4067			-	6.693.763
S.69°00'W.	279	-	100	-	260	+	7874	-	787.400
		+	3040	+	3807			-	7.481.163
S.89°00'W.	979	-	18	-	979	+	6635	-	119.430
		+	3022	+	2828			-	7.600.593
S.09°00'W.	1265	-	1249	-	198	+	5458	-	6.817.042
		+	1773	+	2630			-	14.417.635
S.29°00'W.	1367	-	1195	-	663	+	4597	-	5.493.415
		+	578	+	1967			-	19.911.050
S.87°00'W.	1346	-	70	-	1345	+	2589	-	181.230
		+	508	+	622			-	20.092.280
S.33°15'E.	979	-	819	+	537	+	1781	-	1.458.639
		+	311	+	1159			-	21.550.919
N.75°00'W.	1200	+	311	-	1159	+	1159	+	360.449
		+	0000	+	0000				
									21.190.470 ÷ 2
									10.595.235 x 177
									= 1875.35 acres.



The State of Texas )  
County of Brazoria ) Corrected Field Notes of a survey of 1875.35 acres  
of Land made for Robert A. Shapard by virtue of his application to purchase  
heretofore returned with Original Fieldnotes.

Beginning at a post set in a marsh lake for a corner of a survey in  
the name of J.C. Bartlet, and the S.E. corner of a Sale-Scip survey in name  
of F.M. Harvin ;

Thence with the East lines of said Harvin survey, N.38°30'E.1650 vs.  
to another corner of same ;

Thence N.19°30'W.1675 vs. to another corner of same ;

Thence N.39°30'W.296 vs. to the lower corner of same, on the bank of  
Bastrop bayou ;

Thence down Bastrop bayou, with its meanders, as follows : N.16°30'E.  
120 vs. ; N.21°30'W.120 vs. ; N.49°30'W.350 vs. ; N.72°15'W.360 vs. ; N.42°  
30'W.90 vs. ; N.01°30'E.80 vs. ; N.44°30'E.150 vs. ; N.81°30'E.200 vs. ; S.  
71°E.100 vs. ; S.37°E.280 vs. ; S.55°E.140 vs. ; N.79°45'E.90 vs. ; N.66°E.  
90 vs. ; S.85°30'E.170 vs. ; N.61°45'E.370 vs. ; N.00°15'W.192 vs. ; N.23°  
15'W.197 vs. ; N.14°45'W.80 vs. ; N.42°W.150 vs. ; N.21°45'W.159 vs. ; N.07°  
E.40 vs. ; N.55°30'E.480 vs. ; N.70°E.140 vs. ; N.87°45'E.130 vs. ; N.16°30'  
E.45 vs. ; S.39°45'E.50 vs. ; S.82°30'E.85 vs. ; N.80°E.167 vs. ; N.36°E. 80  
vs. ; S.58°E.90 vs. ; N.73°30'E.160 vs. ; N.39°45'E.180 vs. ; N.28°E.452 vs. ;  
N.74°E.450 vs. ; N.58°E.400 vs. ; N.67°45'E.400 vs. ; S.85°E.220 vs. ; S.31°  
15'E.80 vs. ; N.88°E.90 vs. ; S.56°30'E.81 vs. ; S.15°30'W.32 vs. to the mouth  
of said bayou into Bastrop bay ;

Thence with the meanders of said bay, as follows : S.56°W.135 vs. ;  
S.68°45'W.250 vs. ; S.81°W.260 vs. ; S.66°30'W.280 vs. ; S.52°W.280 vs. ;  
S.32°30'W.220 vs. ; S.04°15'W.450 vs. ; S.42°15'E.230 vs. ; S.84°15'E.250  
vs. ; S.74°30'E.200 vs. ; S.06°W.450 vs. ; S.26°30'E.410 vs. ; S.52°E.470 vs. ;  
S.59°45'E.400 vs. ; S.73°15'E.19 vs. to the corner of the survey in the  
name of Henry Austin, a stake on said bay-shore ;

Thence with the back lines of said Austin survey, as follows : S.69°  
W.279 vs. to a corner of same ;

Thence S.89°W.979 vs. to another corner of same ;

Thence S.9°W.1265 vs. to another corner of same ;

Thence S.29°W.1367 vs. to another corner of same ;



Thence S.87°W.1346 vs.to another corner of same ;

Thence S.33°15'E.979 vs.to the extreme south corner of said Austin survey at the Mouth of a Creek,which drains a large slough,at the shore line of Oyster Bay,which is a corner of said survey in name of J.C. Bartlet also ;

Thence with a line of said Bartlet survey,W.75°W.1200 vs.to the place of beginning.

I, E.S. Atkinson Jr. County Surveyor of Brazoria county, Texas, do hereby Certify that the above and foregoing Corrected Field Notes are made out first from the Meanders of Bastrop bayou and the shore-line of Bastrop and Oyster bays by J.A. Donaldson, and second, from the field-notes of the Harvin survey, made by J.L. Chambers, at a variation of 30' less than that used by said Donaldson ; And that the said corrected fieldnotes are made to follow and conform to the lines of the Henry Austin survey with the fieldnotes of that survey adjusted to follow the lines of the survey as originally run out on the ground, as per the foregoing Explanation.

Given under my hand this 12<sup>th</sup> day of February, A.D. 1912

*E.S. Atkinson Jr.*

County Surveyor, Brazoria county,  
Texas.



M 23

Sk. File No. 10(a)

Brazoria Sketch.

File No. 10. A.

In Re. S.F. No. 9596.

By

R. A. Barrow.

Filed Mar. 7 1912.

J. T. Robinson, Clerk

By Humicutt

15 Mi. S. 68° E. Angleton

Counter 14964