



MINNESOTA

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SURVEYOR

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Minnesota Surveyor Upcoming Content Deadlines

Issue	Due Date	Publication Date
Fall 2024	October 1, 2024	October 2024
Winter 2024-25	January 1, 2025	January 2025
Spring 2025	April 1, 2025	April 2025
Summer 2025	July 1, 2025	July 2025

INVENTORY OF WISCONSIN AND IOWA SURVEYOR GENERAL'S OFFICE, APRIL 1851

ROD SQUIRES, EMERITUS, UNIVERSITY OF MINNESOTA

Introduction.

I have access to several documents that, although relevant to the public land surveying operations in Minnesota particularly in the territorial period, do not easily fit into a narrative about them. Here is one such document.

The Inventory

On March 26, 1851, James Butterfield, the Commissioner of the General Land Office, informed the Surveyor General of Wisconsin and Iowa, Caleb Booth, that the President had appointed George B. Sargent to succeed him as Surveyor General, writing

You are hereby requested to deliver to Mr. Sargent all the Maps, field notes, diagrams, books, letters, documents, articles & furniture of every description appertaining to the Office of Surveyor General for which you will please prepare without delay duplicate Receipts, one of which you will transmit to this Office.

The receipts should designate particularly all the articles handed over to your successor.¹

On the same day the Commissioner sent Sargent a letter of appointment with a postscript stating that “the late Surveyor General has been informed to deliver to you the books, maps, papers &c appertaining to said Office, for which you will give him duplicate receipts, the date of which your salary will commence.”² Three weeks later, on April 17, 1851, the new Surveyor General acknowledged receiving the material from Booth. The following is a part of the itemized list that appears relevant to the surveying operations in the Minnesota Territory, dated April 17, 1851.³ The text has been reformatted to fit the magazine’s layout.

Page 368.

Inventory of Volumes of original field notes, diagrams, plats, maps, records, descriptive lists, laws, books, documents, reports, evidences, diagrams and field notes of private claims, stationery, furniture and effects in the Office of the Surveyor General of Wisconsin and Iowa located at Dubuque.

Pages 368-369. Items 1-5. In Wisconsin. East of the Fourth Principal Meridian.

Page 369. West of the Fourth Prin. Mer. in Wisconsin & Minnesota.

Item No. 6. Volumes of original field notes of Township lines with diagrams of same upon a scale of an inch & a half to six miles: of the Fourth Principal Meridian from the Base line to Lake Superior; of the Fourth correction parallel from said Meridian to the Mississippi river; all the townships situated south of the third correction parallel and of the following townships situated north of said parallel, [then follows a list of townships]

Item No. 7. Volumes of original field notes of the subdivisions of all the townships situated South

of the Second Correction parallel (except for the following townships) & of the following townships situated north of said parallel [then follows a list of townships]

Item No. 8. Original plats of all the townships above named (upon a scale of two inches to a mile) as subdivided.

Item No. 9. Lists descriptive (partly bound) of all corners in the Townships in Item No.8.

Item No. 10. Bound records of the original field notes of the following townships [then follows a list of townships]

Pages 370- 371. Items 11-14. In Iowa.

Pages 371-376. Miscellaneous.

Item No. 16. Bound Record of the original field notes of the survey into townships and subdivision of the Half Breed Tract, also the original plats upon a scale of two inches to a mile of all the townships and fractional townships embraced in the said tract together with a connected diagram of the same upon a scale of one inch to a mile.

Item No. 17. Two large maps forming a complete view & perfect history of all the surveys both in Wisconsin and Iowa & the actions of this office upon the same.

Item No. 18. Included. "A copy of the map of the proposed military reservation at Fort Snelling."

Item No. 19. Iowa .

Item No. 20. All papers pertaining to the surveys in Wisconsin & Iowa before the establishment of this office.

All letters pertaining to the business of the office since its first organization to the present time in files.

Records of Reports, letters and special instructions to Deputy Surveyors in large Record books from A to D inclusive.

Records of accounts in large Record Books lettered A & B.

80 Vols. Of printed Instructions (Bound)

Description of Western Geological formation with a map by Laurence.

1 Map on rollers of Wisconsin & Iowa by Judson.

1 " " " " " by Lapham.

1 " " " " Iowa by Carleton.

1 " of Michigan by Farmer.

1 Gazetteer of the United States with a large map by Calvin Smith.

1 Small Lexicon.

1 Webster large Dictionary.

2 Vols. [The Treasury Department & various fiscal bureaus](#) by R. Mayo.

1 Flints survey.

1 Callets Logarithms.

[Acts of Congress](#) (bound) from 1834 to 1850.

2 Setts (sic) 5 Vols ea. Am State papers.⁴

7 Vols Land Office reports from 1833 to 1850.⁵

- 4 “ Laws instructions & opinions relative to public lands.
- 8 “ U.S. Statutes at large by Richard Peters.

Pages 373-374. Item No. 21.

4 air tight stoves with (illegible word) iron pipes & zinc covd platforms 2 extra zinc covered platforms. 10 Wood spittoons 9 Arm chairs 2 large blk Walnut tables with drawers 1 small “ “ ditto 1 shifting desk for table 1 Plain compass (formerly a Standard) with tripod & Jacob staff 4 Wafer boxes 5 Sand boxes 15 Ink stands 12 Erasers (sic) 4 letter Clips 2 Vols Mathematical tables 13 perma sticks 1 “Bowditch Navigation”	5 letter stamps – 1 Engraved 12 pr parallel Rules 8 (illegible word) book folders 2 T Squares 4 plain rules 12 window curtains with mountings 9 high desk stools 2 Fire screens 1 pr movable steps 8 doz. Light Wood rollers 1 Wood saw & axe 1 Lightening Rod 6 cords dry Oak wood 1 wood box 4 fire buckets 2 Water ditto 1 Washstand 1 Thermometer
--	--

Pages 374-376. Item No. 22.

- 1 large blk Walnut Secretary in two parts with doors & drawers each part furnished with strong iron handles.
- 1 large blk Walnut Secretary in 3 parts with doors & shelves – each part furnished with strong iron handles.
- 2 pine Secretaries each in 3 parts with iron handle – each division being finished with door.
- 1 Tracing glass with platform & curtain & two extra glasses.
- 5 Blk Walnut desks for writing and drafting each furnished with drawers shelves doors and locks.
- 2 pine do do.
- 2 ditto unpainted & without tops drawers or locks.

2 drafting boards. 2 cutting boards 6 magnifying glasses. 14 Bristol boards 3 Gold pens 4 pounce boxes ¾ box (illegible word) Candles I Hone 5 doz. Cards Gillotts mapping & writing pens 16 Boxes Gillotts writing pens 3 pr colored (illegible word) 2 doz. ps India rubber 3 “ Blk lead drawing pencils 9 doz. Pen holders 1 pr proportional divider and case 21 Dividers	11 Steel drafting pens 7 Brass “ “ 4 paper weights 2 pocket dictionaries 4 small ivory platting scales 2 Fine graduated ivory protractors 1 ft ea 2 “ “ “ “ 6 in long 2 common ditto 2 Graduated ivory scales 1 ft long ea 6 German Silver ditto 6 in ditto 6 marble slabs for mixing colors 50 cakes of colors 2 “ “ India Ink 6 coloring brushed 1 doz. Drafting pins 2 Glass Triangles & rules 4 Congress knives
---	---

1 Rm printed oaths for chainmen 1½ “ “ “ axemen 1½ “ “ “ Flagman 1 “ Envelope paper 5 quires blotting “ 800 Blanks for Commrs full engraved plats (at Detroit) 600 “ “ Registers “ “ “ 166 “ “ Commissioners “ “ 78 “ “ “ “ “ 173 sheets “ “ plats 218 Blanks “ Registers full engraved plats 77 “ “ “ half “ “ 74 Sheets “ “ plats 2 Reams Ruled foolscap 1½ “ Ruled letters 877 Blank descriptive list forms 256 Printed blank Commissions of Deputyship 406 “ “ Contracts & Bonds 300 “ “ Oaths for Deputies 6 qtrs. Flat pressed foolscap 13 Reams of record & Transcript papers
--

1 Iron safe	2 cases drafting instruments
1 Letter press	1 compound magnet
1 Am. Almanac for 1851	1 large blank Account book.
1 Standard chain (2 pole)	2 cherry trimming boards bound with brass
4 boxes of wafer	1 large chest for papers
1 pr pincers & 1 small vice for adjusting chains	2 copper plates (at Detroit)
1 Corkscrew	24 large portfolios for maps
4 boxes Sealing wax	1 small ditto
10 packages of official envelopes	20 Sheets Antique (illegible) drawing paper
1 pr shears	124 Sheets large size fine tissue paper
3 bottles carmine ink	22 “ Smaller “ “ “ “
2 “ Blk ink	200 “ ditto “ “ “ “
1/2 lb. pounce	12 “ ditto “ “ “ “
3 packages red tape	50 “ ditto “ “ “ “

At the end of the inventory is the following statement from George B. Sargent, beginning his appointment to the office of Surveyor General of Wisconsin and Iowa,

I have this day April 17th 1851, received of C. H. Booth Esq. late Surveyor General United States, the volumes of original field notes, diagrams, plats, maps, records, descriptive lists, laws, books, documents, reports, evidences, diagrams and field note of private claims, stationary, furniture and effects named in the foregoing inventory, for all of which I hold myself accountable to the Government of the United States.⁷

Endnotes

¹ [Letters sent by the General Land Office to Surveyors General, 1796-1901](#) National Archives & Records Administration Microfilm [M27 v.14 p.143 frame 96](#). The letter of appointment can be seen on p. 144 frame 96.

² Id. p. 144 frame 96.

³ Iowa State Archives. [Secretary of State Land Records](#). Surveyor General's Office. Correspondence Letter Book D. p. 368-376.

⁴ American state papers: Documents, legislative and executive, of the Congress of the United States. Selected and edited under the authority of Congress. Public lands. [Vol.1](#), [Vol. 2](#), [Vol. 3](#), [Vol. 4](#), and [Vol. 5](#).

⁵ Presumably the Annual Reports of the Commissioner of the General Land Office.

⁶ Pounce - a powder used to prevent ink from spreading and to blot up excess ink.

⁷ Iowa State Archives. [Secretary of State Land Records](#). Surveyor General's Office. Correspondence Letter Book D. p.376.

RESOLVING CONFLICTING EVIDENCE IN A FRACTIONAL SECTION

SAM GIBSON WASHINGTON COUNTY SURVEYOR

Resurveying subdivisions in fractional sections requires considerable diligence to faithfully retrace the original surveys. This is especially true in the fractional townships along the St. Croix River that form part of the state's eastern boundary due to their closure on the state line that was created after the survey was completed.

The established pattern of closing original surveys on state boundaries was not followed in the townships traversed by the St. Croix River north of the 3rd Standard Parallel, in what would become Washington County. These townships were originally surveyed and subdivided as regular townships in Wisconsin Territory, in 1847 and 1848. This created a problem when Wisconsin was admitted as the 30th state to the Union on May 29, 1848 and Minnesota Territory was created on March 3, 1849, described by Surveyor General Caleb Booth in his annual report dated November 30, 1850 under the heading "Separation of the surveys in Wisconsin from those in Minnesota." He wrote,

The act for the discontinuance of the office of the surveyor general, etc., approved June 12, 1840, requires that whenever the surveys and records within any State shall be completed, the surveyor general shall deliver all the records and papers pertaining thereto to the officer appointed by the proper authorities to receive them.

In order to comply with this law, it is incumbent upon the surveyor general to cause separate returns of surveys, numbering from the same base, but lying in different States. Compliance with this requirement is without difficulty or expense, when the boundaries are defined prior to the survey of the contiguous lands; but when the surveys precede such boundaries, much difficulty may be experienced and expense incurred in causing the requisite separation. An instance of the latter case has occurred in this district. During the year 1847-'48, and before the boundary of Wisconsin and Minnesota was fixed upon, the surveys were pushed rapidly forward, the subdivision surveys being extended along the St. Croix river, from its junction with the Mississippi river, vary nearly or quite to the point where the meridian boundary, as defined by act of 6th of August 1846, will intersect it. The field notes and plats of these surveys consequently embraced lands upon either and both sides of the boundary, wherever a township was traversed by the St. Croix. During the quarter closing on the 30th ultimo, I directed a part of the regular force of my office to the separation of the field-notes and plats above named. The field-notes of three large districts of township lines, the subdivision and traverse of thirteen townships, and the original plats of the same thirteen townships, had to be, and now have been, copied, examined and certified.¹

The Surveyor General met this requirement by revising the field notes and township plats affected by the Minnesota-Wisconsin boundary and making separate surveys of fractional townships for Wisconsin and Minnesota.² (Fig. 1 & 2)



Figure 1. A portion of the plat of T.31N R.19W 4th P.M. St Croix County WI

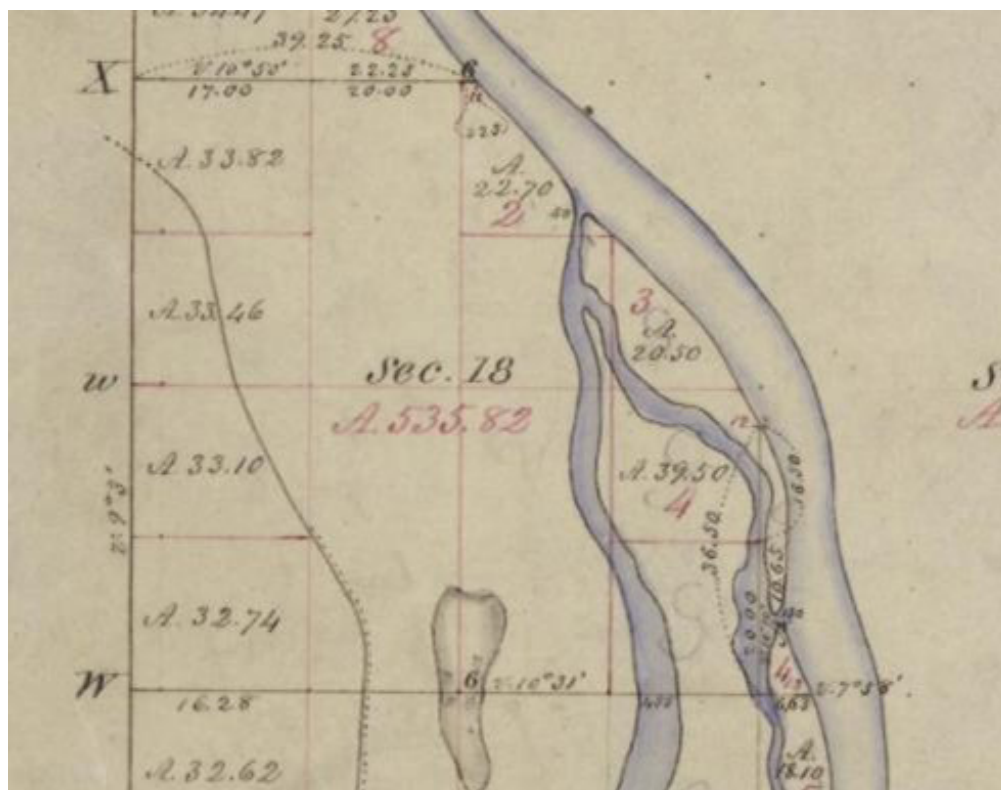


Figure 2. The same portion of the plat of T.31N R.19W 4th P.M. Washington County, MN

Due to this treatment of the original township surveys, retracements by local surveyors of the section subdivision lines have not always been consistent. There are records of surveys that treat individual sections along the boundary as regular rather than fractional by tying in evidence and corners on the Wisconsin side of the river.³ However, records from the Washington County Surveyor's Office confirm that the majority of surveys conducted in these townships — whether for section line retracement, corner restoration, or fractional subdivision — relied exclusively on evidence west of the St. Croix River within Minnesota.⁴

Even with the practice of treating the section as fractional being generally accepted, connecting evidence from past surveys to the corner positions maintained today can be challenging. One such example is Section 18, Township 31 North, Range 19 West of the 4th Principal Meridian, one of the sections made fractional by the state boundary. This section was originally subdivided in 1847 as a regular section. The main channel of the St. Croix River cuts across its northeast quarter, leaving most of the section, and all but one Public Land Survey corner in Minnesota. (Figure 3)

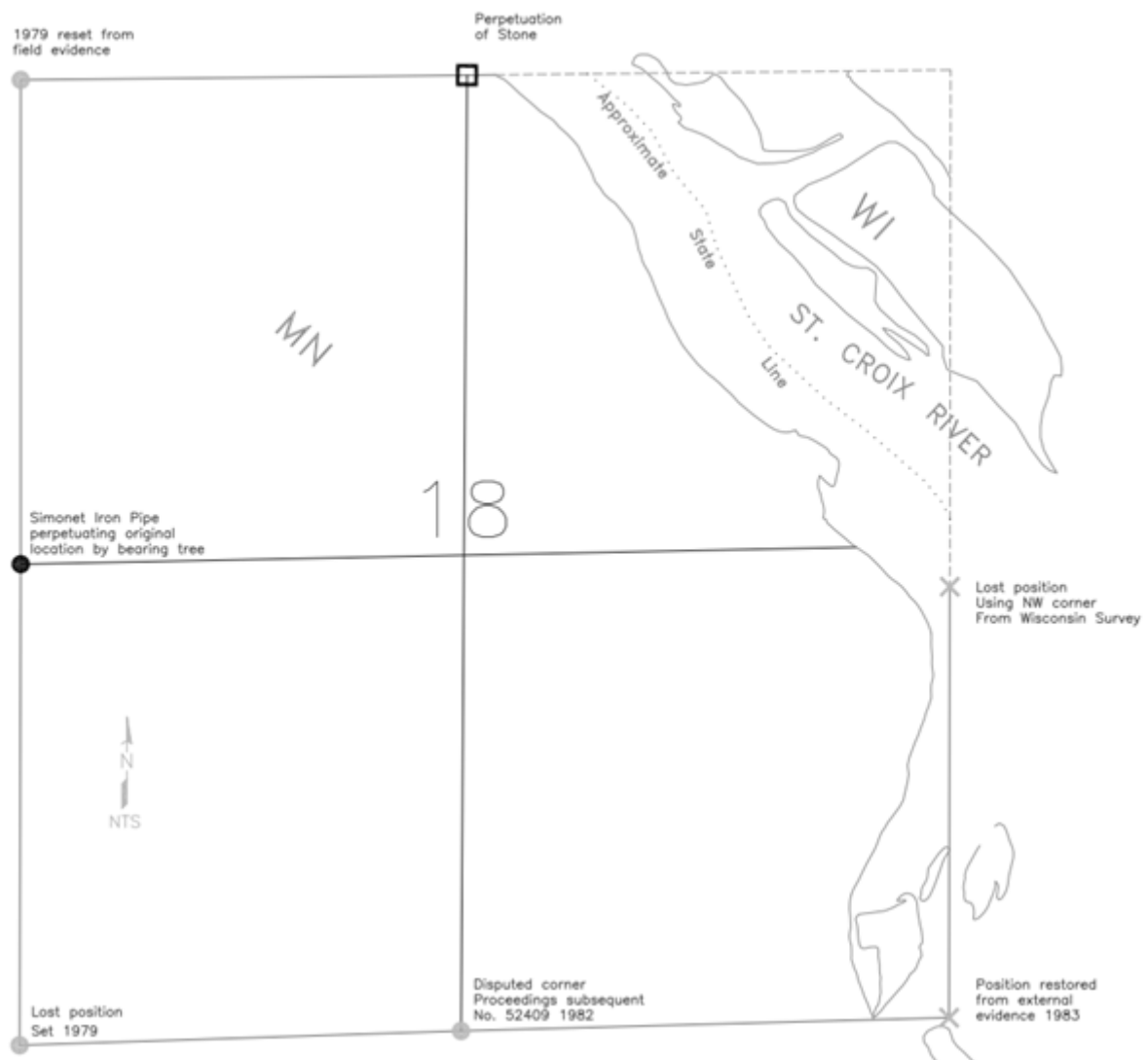


Figure 3 Sketch of current conditions for Section 18 T 31 N, R 19 W, 4th P.M. Gray symbols represent corner positions accepted after the plat of Williamsport.

The section's east line largely coincides with the river. The southeast corner, established in the original survey by a witness corner 0.60 chains south of the true corner in a slough of the St. Croix.⁵ The east quarter corner, similarly fell within the river, and was evidenced by a meander corner 36.50 chains north of the southeast corner.⁶ The northeast corner fell across the main channel into Wisconsin and was thus separated from the rest of the section.

The quarter corners along the east line of the section, falling among the islands and meanders of the river were subjected to significant disruption and obliteration of original evidence. The remaining quarter corners of the section were on the upland portions of the St. Croix Valley, they too were affected by time and changing conditions. All three corners representing the west line of the section have been disputed over the years.⁷ The position now maintained as the southwest corner was reestablished as lost in 1979. By the mid-20th century, and the south quarter corner was the subject of litigation in the 1980s.⁸ Several local surveys reflect these differing interpretations of the section lines and corners.

The plat of Williamsport (Figure 4) was surveyed by James F. Simonet (MN Reg. No. 705) in the northwest quarter of the southeast quarter of Section 18 and recorded on November 19th, 1963. Determining the location of this plat relies on establishing the quarter-quarter line, which itself depends on correctly subdividing this difficult fractional section. Without consistent and stable positions for the section corners, the direction and position of that quarter line are subject to differing interpretations. Ambiguity in section and quarter corner positions becomes even more pronounced when trying to locate property farther from the monumented corners, as is the case with the plat of Williamsport.



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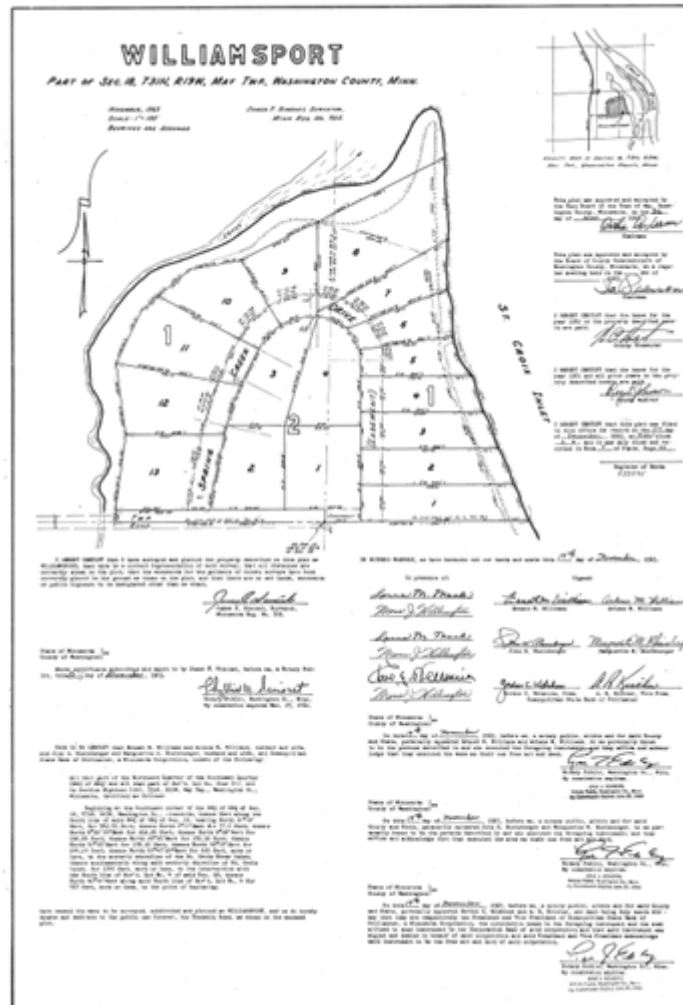


Figure 4 A copy of the plat of Williamsport by James Simonet 1963

A recent survey of the northwest quarter of the southeast quarter of Section 18 revealed that the plat of Williamsport does not match current county mapping and conflicts with other surveys in the area.

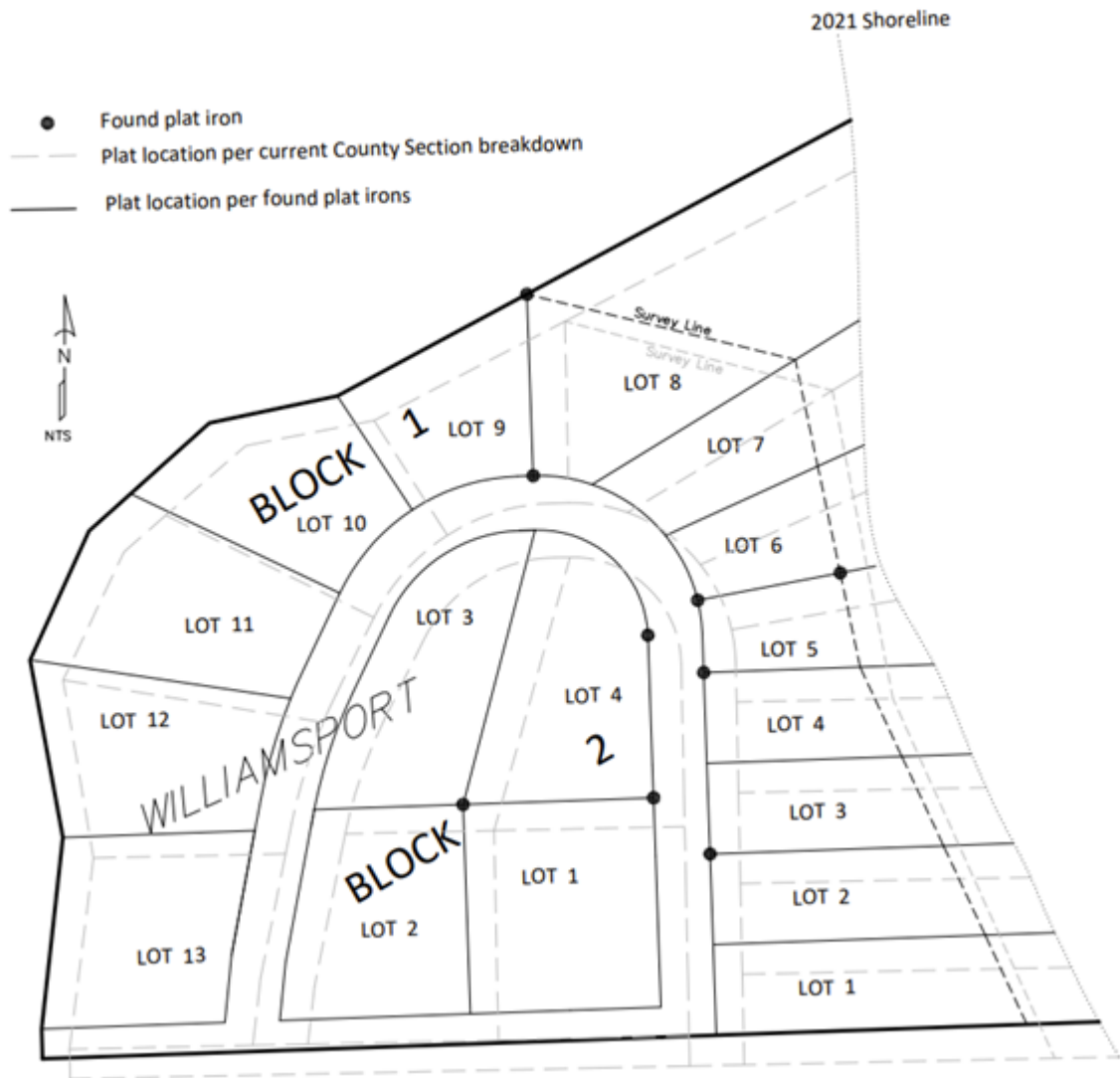


Figure 5 Sketch of recently recovered survey evidence.

This survey indicates that the found monuments, set by Mr. Simonet as part of the plat, are consistent with the dimensions shown on the plat for its internal lots and blocks, but rotated approximately 26 minutes counterclockwise and offset roughly 28 feet north from where the county maps place the centerline of the township road intended to follow the sixteenth line. (Figure 5)

In many cases, a discrepancy between older plat evidence and modern section mapping may justify giving greater weight to the plat, as it may better reflect the original section line locations. This can be particularly true when modern interpretations rely on corners reestablished through lost methods.

In this case, however, other surveys conducted contemporaneously with Mr. Simonet's work depicted the section similarly to today's section breakdown. This suggests that, even at the time of the plat, there were differing interpretations of the section subdivision lines.

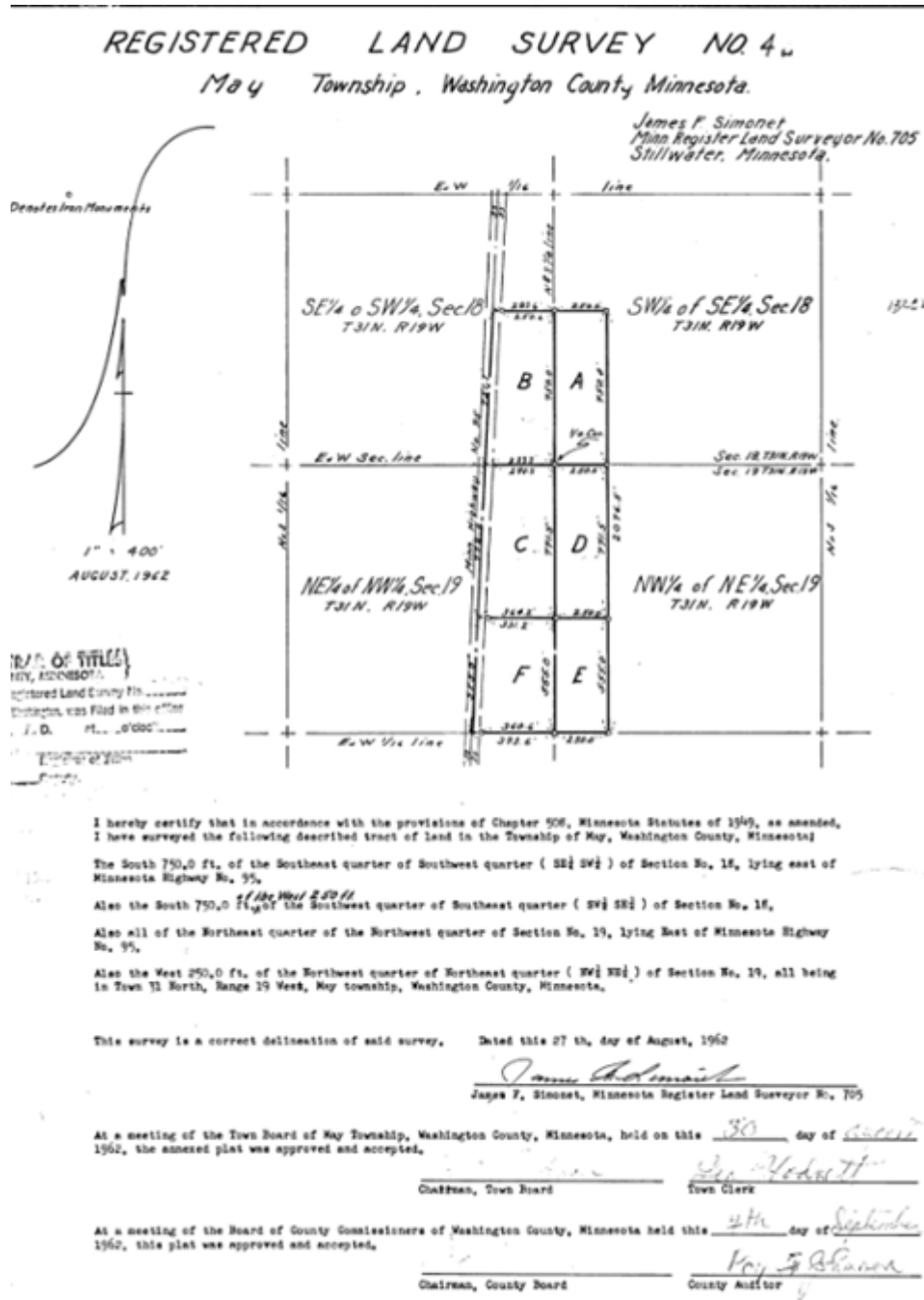


Figure 6 A copy of RLS No. 42 by James Simonet 1962

In 1962, a year before the plat, Mr. Simonet surveyed Registered Land Survey No. 42 in the same section (Figure 6). Evidence of this survey was recently found to align with the monuments from the plat of Williamsport, indicating Mr. Simonet was working from a consistent framework within the section. However, this framework is inconsistent with the county's current section mapping.

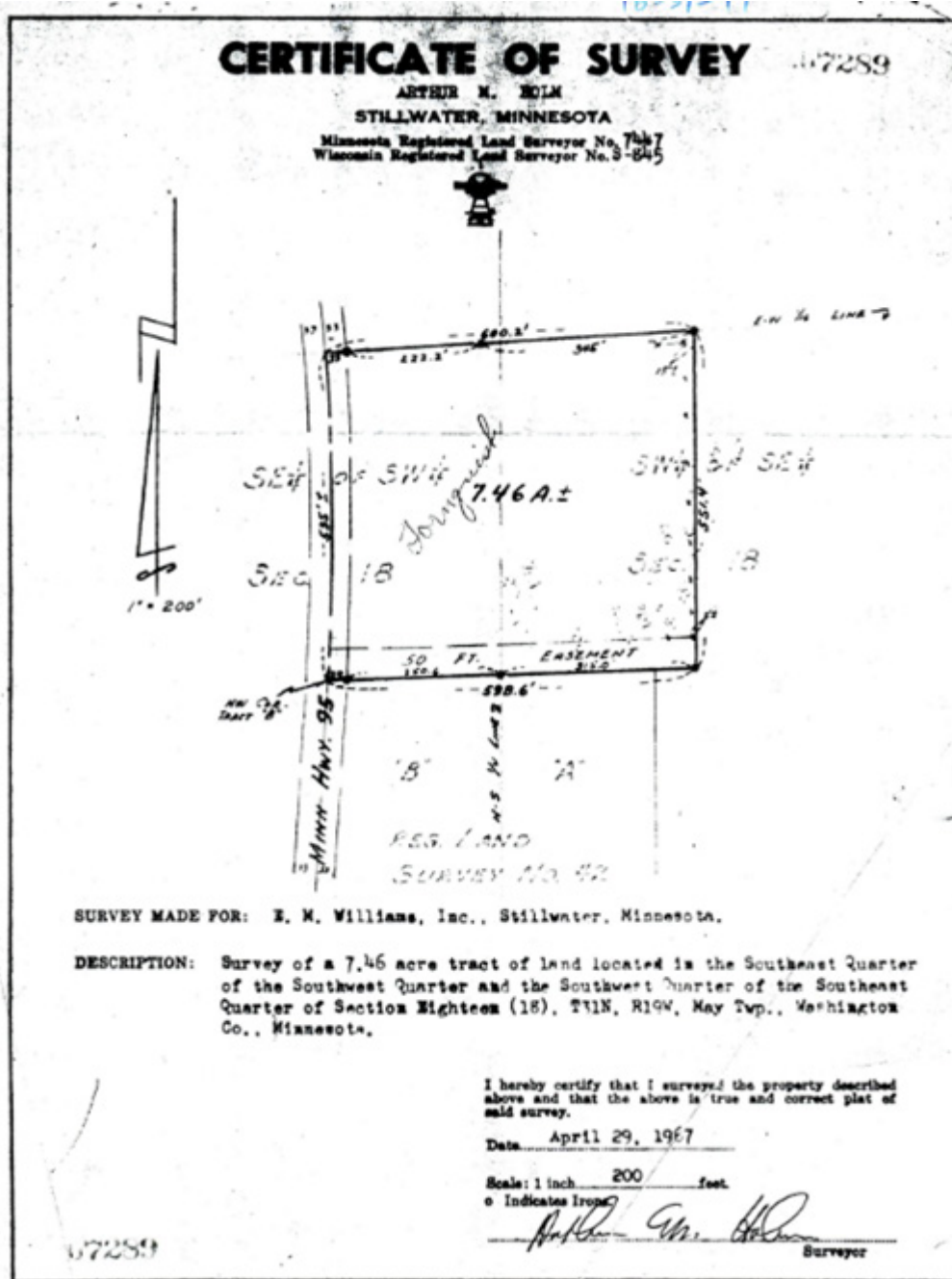


Figure 7 A copy of Certificate of Survey by Art Holms 1967

Shortly thereafter in 1967, Art Holms (MN Reg. No. 7447) surveyed part of the southwest quarter of the southeast quarter of Section 18, adjacent to Simonet's Registered Land Survey No. 42 and the east-west quarter line presumed to coincide with the south boundary of the Williamsport plat (see Figure 7). Although Holms's survey does not depict PLSS corners or provide quantitative directional data, a subjective review shows a significant difference between the orientation of the sixteenth line he represents and the direction of the north line of Tracts A and B of Simonet's RLS. This contrasts with the apparent parallel arrangement suggested by Simonet's RLS. However, because neither survey provides quantitative directional data, this

observation cannot be confirmed solely based on the record surveys.

The only direction shown on the plat of Williamsport is for the south line of the northwest quarter of the southeast quarter, recorded as N 90°00' W, without quantitative ties to other section subdivision lines or PLS corners. The southeast corner of this quarter is marked with a filled circle, suggesting the possibility of an existing monument. Unfortunately, this monument was not recovered in the recent survey nor was it tied quantitatively to any other PLSS point or line on the plat. These deficiencies limit the utility of the plat's dimensions in explaining the disagreement with other surveys.

Several other subdivisional surveys by Holms and Simonet in the south half of Section 18 and the north half of adjacent Section 19 also lack sufficient quantitative data to confirm how they were determined. Taken together, these surveys do demonstrate, however, that differing approaches to subdividing this section were in use at the time.

Fortunately, many monuments from these earlier surveys have been recovered by recent fieldwork, providing valuable evidence of how each surveyor interpreted the section lines. Analyzing these recovered monuments in relation to the current understanding of section corners suggests two possible frameworks. The direction of the east–west quarter line based on found monuments, from adjacent Art Holms surveys, aligns well with a mean bearing of the north and south section lines, which would be typical in a fractional section. In contrast, projecting the quarter line based on the monuments associated with Simonet's surveys fits reasonably with a quarter line extending from the westerly corner to the east corner of the section, as might have been determined by holding the 36.50-chain distance to the meander corner established by the original survey along the east line of the section, similar to a regular section subdivision.

Which of these determinations is correct or whether either is in error is important in interpreting the evidence. In *Beardsley v. Crane*⁹, a case also involving a fractional section, the court held that where a surveyor made an error in laying out lines called for in a deed, the deed language controlled over the location determined by the erroneous survey, cautioning against accepting incorrect surveys. Was Simonet's plat of Williamsport in error?

Simonet's work is not consistent with the county's current mapping which projects the quarter line as a mean bearing originating from the west quarter corner, nor is it consistent with guidance in the 2007 position paper. Meanwhile, BLM guidance¹⁰ presumes that a section line has been “actually run” if its bearing and distance were reported in the official survey record. If Mr. Simonet was retracing the lines actually run as reported in the official record, current interpretations cannot retroactively induce an error in his work.¹¹

Surveyors in the St. Croix Valley have routinely worked in both Minnesota and Wisconsin, so it is reasonable to imagine that Mr. Simonet was aware of Wisconsin's official records and used that information to guide his effort to retrace the footsteps of the original surveyors as they actually ran the lines. Although Holms's surveys are more consistent with modern practice, neither the BLM guidance nor the 2007 position paper were available to Mr. Simonet at the time. Therefore, it is difficult to characterize Simonet's surveys as erroneous rather than as a reasonable professional judgment on what was, then, an open question of how to treat the surveys in these townships.

Being unable to determine an error in the survey we are left with the question of how the found irons for the plat of Williamsport should be treated in determining boundaries between various lots in the plat and adjacent properties. Looking to boundary case law for guidance, *Dittrich v. Ubl*¹² considered the relative

value of monuments set as part of a plat compared to other monuments set later and supposed to control the platted lines. The court reaffirmed the principle that “Monuments are the best evidence of the lines and corners actually made by a survey, and, when ascertained, are satisfactory and conclusive evidence of the location of the lines as originally run.”¹³ This supports holding the found original monuments when locating lots within the plat of Williamsport.

But if the work is not in error, and the found original monuments do not fit with the current understanding of the section subdivision lines, how should those positions be reconciled? This is where it becomes necessary to understand who was creating the plat and what they were including in the plat.

On November 16th 1962 Ernest Williams took title to several parcels in the south half of Section 18 and in the north half of Section 19 Township 31 North Range 19 West of the 4th Principal Meridian.¹⁴ This deed conveyed all of the property platted as Williamsport the following year and notably included the entirety of the northwest quarter of the southeast quarter of Section 18.

At the time he executed the plat Mr. Williams had title to both the property included in the plat of Williamsport and the property immediately adjoining. Because Mr. Williams held ownership of both sides of the lines surveyed by Mr. Simonet on the plat of Williamsport, the boundary between the unplatted portions of the section and the platted lots became that which was evidenced by plat monuments set as part of the survey. As stated in *Dittrich v. Uhl*¹⁵ “Purchasers of town lots generally have the right to locate their lot lines according to the stakes as actually set by the plat of the lots, and no subsequent survey can unsettle such lines.”¹⁶

As described above, the found monuments fit closely with the interior dimensions shown on the plat, demonstrating sound technical precision and supporting the conclusion that these positions represent the intent of Mr. Simonet and the proprietor, Ernest Williams. These monuments are the best evidence of the intended internal boundaries between lots in the plat as well as the external boundary between the plat and the remainder of the quarter section.

That Mr. Ernst subsequently conveyed the property surrounding the plat using descriptions specifically excepting the Simonet plat from the conveyance is indication of both an acknowledgement of the ambiguity in the section and his intent to accept the plat location.

Much of the land within the plat of Williamsport remains undeveloped, with only a few lots along the river converted to residential use. However, the patterns of use and occupation on these lots are consistent with the original plat monuments, further indicating long-standing acceptance of the plat’s boundaries. If a subsequent survey was made and attempted to realign the plat lines to match a modern interpretation of the section subdivision, it could plunge the “whole neighborhood into quarrels and litigation”¹⁶

Lloyd E. Pew L.S. wrote in 1991.¹⁷ , “Resurveying a lot in a plat is a matter of determining the location of the platted lot lines as originally run upon the ground. A surveyor must carefully follow the footsteps of the original surveyor. If a survey was made upon the ground and a plat was based on that survey, then the lines as run on the ground show the intent of the parties to the deed.”

As surveyors, our role is not simply to measure precisely, or to rigidly apply mathematical rules to boundaries that can be chaotic, unclear, or obscured by time. Our responsibility is to protect the real property rights of landowners by perpetuating the true boundaries of their property. As Williamsport demonstrates, doing so can draw on the full range of a surveyor’s expertise, recovering and evaluating physical evidence in the

field, analyzing and resolving conflicts in that evidence by researching historical records, and applying an understanding of statutes and case law.

Endnotes

¹ [Annual report of Commissioner of General Land Office, 1850 \[H. Exec. Doc. 31-9\]](#) U.S. Congressional Serial Set v. 597 (1850) p. 49-50

² C.H. Booth, Surveyor General of Iowa and Wisconsin, Dubuque. Letter to J. Butterfield, July 20, 1849. Surveyor General Letter Book, Iowa Historical Society, Des Moines, IA. See Rod Squires & March Senjem) [The public land survey lines and the St. Croix River in Washington County](#) Minnesota Surveyor v.18 no.1 (Spring, 2010) p. 14-19

³ Lawrence S. Nybeck, [Certificate of Government Corner No. 4-83](#) – Statement of evidence; Washington County Surveyor’s Office November 22nd, 1983.

⁴ Michael J. Welling, Washington County MN Report on the Direction of the East-West Quarter Line Section 30, T. 32 N., R. 19 W. Washington County Surveyor’s Office, November 2007 p.11

⁵ GLO records Bureau of Land Records field notes of the [4th PM - 1831 MN/WI Twp 031.0N-019.0W Subdiv. Lines Volume 42 P 244 Field Note Volume Details - BLM GLO Records](#)

⁶ GLO records Bureau of Land Records field notes of the [4th PM - 1831 MN/WI Twp 031.0N-019.0W Subdiv. Lines Volume 42 P 245](#)

⁷ Lawrence S. Nybeck, [Certificate of Government Corner No. 4-85](#) – Statement of evidence; Washington County Surveyor’s Office May 2nd, 1983.

⁸ Terence G. Obrien v. Richard How; Minnesota Tenth Judicial District File No. 41529

⁹ Beardsley v. Crane [52 Minn. 537](#) (1893)

¹⁰ BLM Manual of Survey instruction 2009 p. 69 Section 3-119

¹¹ Chan v. Brandt [45 Minn. 93](#), 47 N.W. 461

¹² Dittrich v. Ubl. [216 Minn. 396](#) (1944)

¹³ Id. p. 402

¹⁴ Warranty deed document number 231012, Washington County Deeds Book 260, Page 568.

¹⁵ Dittrich v. Ubl. see endnote 8 p. 405

¹⁶ Cooley, Thomas M. “[The judicial functions of land surveyors](#)”

¹⁷ Lloyd E. Pew L.S. “[Resurvey of Lots in a Subdivision plat in Minnesota](#)” Dis-Closures spring 1991 p. 14

INFORMATION ON THE NORTHERN BOUNDARY LINE OF IOWA¹

ROD SQUIRES, *EMERITUS, UNIVERSITY OF MINNESOTA*

Introduction

Another document relevant to the public land surveying operations in the Minnesota Territory that does not easily fit into a narrative.

Senate Executive Document

On December 7, 1853, the United States Senate resolved

That the Secretary of the Interior be requested to furnish to the Senate a copy of the items of expenditure allowed at different times for the survey and marking of the northern boundary line of the State of Iowa, together with any information in the possession of his department touching the accuracy of said boundary line.

Ten days later the Secretary reported back to the President of the Senate with a report from the Commissioner of the General Land Office containing "all the information in possession of the department on the subject."

The Commissioner of the General Land Office sent the following report to the Secretary on December 13, 1853.

I have the honor to submit the subjoined statement, showing the heads and amount of expenditure in that service, and also "a copy of the items," (promiscuously set forth) as shown by the official abstracts filed with the accounts therefor, marked A, B, C, D, and E.

The work was instituted by my predecessor during the period of my temporary transfer to duty in the Pension Bureau, and on inspection of the official report of the work when returned to this office, it was deemed to be perfectly fair, regular, and well executed.

Subsequently, after having instituted the programme (sic) for the linear surveys in Minnesota, which are to start from the aforesaid northern boundary as their practical base, the surveyor general has reported as follows, to wit

"You will perceive that in range seventeen there is an overplus of twenty-three chains. This was occasioned by irregular measurements on a portion of the State boundary and has caused an immense amount of labor and trouble to the deputies employed in the vicinity, and been the occasion of serious loss to all of them."

The excess alluded to is said to exist on the first standard parallel at twenty-four miles distance from the boundary. And in the execution of the surveys of the exterior lines of certain townships in Minnesota, (regulated by the same boundary basis,) the surveyor general has stated that the deputy "found it impossible to make his chaining agree with that on the State boundary, every mile of which (so far as his work extended) he had to remeasure." The remeasurement referred to was of the deputy's own work. The differences alluded to exist on the lines running east and west and are either trivial excesses or deficiencies over or under the exact measurement of six miles, and which excesses or deficiencies in measurements the surveying laws seem, by a wise forecast,

to have contemplated as always likely to exist, to greater or less extent, and therefore have made provision how to treat them. Exactitude in such measurements, even with the best intentions on the part of the surveyor, depends on the nicety observed in levelling the chain and plumbing the pins where the surface is uneven; and experience has not warranted the conclusion, that two sets of chainmen, operating at different times, will always concur in results; and, besides all other chances of variation in results, a great deal depends on the degree of attention paid to maintaining the adjustment, from day to day, of the operating chain with the deputy's standard measure; and in regard to the difference of twenty-three chains in width above alluded to, (and which occurs on the first standard parallel at the distance of twenty-four miles north of the boundary basis,) it is to be observed that even that measurement necessarily depends on the degree of accuracy of the instrument used in running the guide meridian to the north from the boundary, and on which meridian the measurement is said to close at an excess of twenty-three chains over (six miles) the width of a township. Such excess in measurement will occasion a corresponding excess in area to the tier of sections which binds on said boundary on the west and comes within the existing provision of law.

The boundary work was ordered to be measured by two sets of chainmen, checking each other, and every possible means to ensure accuracy was studiously enjoined by this office; and it is difficult to imagine how it can be in error, and such is not inferable (sic) from any evidence before this office.

Without special examination and resurvey, resulting in much expense, we cannot positively determine between the accuracy of the allegation and the boundary work; and it has, therefore, been deemed best to suffer the excess of measurement alluded to be disposed of and treated as the law directs, and as has always been done in analogous cases.

Statement of expenditures incurred under the "act to cause the northern boundary of the State of Iowa to be run and marked," approved March 3, 1849.

For establishing the initial point of said boundary on the parallel of 43° 30' north latitude, and erecting an iron monument thereat, near the Mississippi river	-	\$1,657 69
Provisions, teams, equipments, and transportation for running the line from the Mississippi to the Big Sioux river	-	9,627 28
Compensation to the astronomer and principal surveyor, including the necessary astronomical instruments	-	5,000 00
Compensation to assistant surveyors, clerk hire, and wages to laborers, teamsters, &c.	-	18,612 41
Cost of instrument (dip circle) for determining the variation and intensity of the magnetic needle, afterwards transferred to service on the coast survey	-	450 00
		<u>35,347 38</u>
By sales of public property after disuse	-	\$3,069 65
By appropriations per acts of 30th September, 1850, and 21st July, 1852	-	30,000 00
By transfer ordered from general surveying fund	-	2,277 73
		<u>35,347 38</u>

Figure. 1. Final Table of Expenditures.²

Date of payment.	Voucher.	To whom paid.	For what paid.	Amount.
1849.				
Aug. 25	1	R. Patten	Repairing instruments, &c.	\$68 25
28	2	W. N. C. Riggs.	Chronometer, (Luken's, No. 139).	225 00
29	3	E. & W. Blunt.	Barometer, &c.	52 00
31	4	Wm. Bond & son.	Case for chronometer.	3 00
Sept. 4	5	Wells & Co.	Transportation of instruments to Buffalo.	7 50
10	6	G. Kimball.	Transportation of instruments to Galena.	12 00
22	7	W. S. Faneott.	Transportation of party, &c., from Dubuque to Bad Axe river.	32 50
Oct. 15	8	A. Nerbonne.	Services for three days.	6 00
18	9	A. Denton.	Services for subsistence, &c.	59 62
18	10	J. Robertson.	Services for subsistence, &c.	43 62
18	11	M. Dignaw.	Services for subsistence, &c.	53 62
18	12	A. Dowling.	Cast-iron monument.	57 00
21	13	A. B. Dalton.	Services for subsistence, &c.	96 37
Nov. 20	14	J. F. Mitchell.	Transportation of instruments.	6 00
Dec. 1	15	J. G. Parker.	Sundries.	10 75
1	16	T. J. Lee.	Travelling expenses, at 10 cents per mile.	355 80
1	17	J. G. Parke.	Travelling expenses, at 10 cents per mile.	355 80
1	18	T. J. Lee.	Allowance for personal expenses.	142 00
1	19	J. G. Parke.	Allowance for personal expenses.	71 00
Making an aggregate of.				\$1,657 69

Figure 2. Table A. Payments made by Capt. Thomas J. Lee in establishing the initial point for the northern boundary of Iowa.³

Date of payment.	Voucher.	To whom paid.	For what paid.	Amount.
1852.				
Feb. 16	A	Andrew Talcott.	Amount due on contract.	\$1,000 00
March 15	1	John Wilson.	Cable chain.	21 42
15	2	Wm. L. Lee.	Wagon, axes, &c.	89 70
17	3	Samuel Jackson.	One pair horses.	185 00
17	4	H. & D. B. Pitts.	Wagon, pair horses, harness, &c.	319 00
19	5	Wm. McGarvey.	One yoke oxen.	90 00
19	6	D. R. Shaw.	One wagon.	75 00
22	7	J. C. Wilson.	One yoke oxen.	70 00
26	8	John Lanplot.	Sundries.	14 60
29	9	Van Tuyl & Cook.	Groceries, equipments, &c.	931 53
29	10	Burrows & Prettyman.	Provisions.	77 75
29	11	C. Mason.	Cooking utensils.	45 00
29	12	John Brooks.	Steamer Nominee, for transportation of stores from St. Louis to Lansing, Iowa.	166 25
30	13	Wm. Todd.	Horses and ox yokes.	36 30
30	14	Wm. D. Squires.	Tent poles and camp equipments.	70 00
30	15	Wm. Shook.	One ox wagon.	60 00
30	16	L. B. Hodges.	One mule.	16 00
30	17	Treding & Rouse.	Cast-iron bands.	13 30
30	18	A. Gillespie.	Sundries.	15 00
30	19	Daniel Higbee.	One boat.	75 50
30	20	G. W. Benton & Co.	283 bushels oats.	76 50
31	21	Jacob Sailer.	Harness and appurtenances.	111 88
31	22	A. B. Pitts.	1 milch cow, tools, &c.	111 40
31	23	Peter Waples.	Blankets, kitchen utensils, &c.	261 00
31	24	Gibbons & Brothers.	2 ox wagons, cart, &c.	133 40
31	25	Lee & Danforth.	1 horse, cow, sundries, &c.	
1852.				
March 31	26	Fergus, Buford, & Co.	Tools.	\$11 00
31	27	J. M. Moore.	Tools.	52 00
31	28	J. W. Smith.	Transportation of instruments.	88 31
31	29	A. C. Fulton.	5 yoke oxen, yokes, bows, &c.	380 00
31	30	Farley & Christman.	Tools.	7 85
April 1	31	John Cook.	4 tents and appurtenances.	224 00
1	32	James M. Parker.	5 yoke oxen.	385 00
1	33	Robert Cashow.	Hay, corn, yokes, and bows.	58 50
1	34	John Ferris.	Feeding horses and oxen.	15 00
1	35	R. J. Cleveland.	Surveying chains, &c.	12 50
1	36	Wm. Todd.	Services, purchasing cattle.	22 50
1	37	Wm. Van Tuyl.	Sundries.	31 97
1	38	Burrows & Prettyman.	Corn, &c., for cattle.	118 94
1	39	Wm. P. Campbell.	Services, taking charge of freight to Lansing, Iowa.	16 00
1	40	Isaac W. Smith.	Selecting and superintending repairs of instruments.	75 00
1	41	Robert Cashow.	Services, purchasing cattle.	52 00
1	42	R. Plaster.	Blacksmith's work for tents.	10 00
1	43	D. B. Sears.	Services as master of transportation.	144 35
1	44	Mahoney & Fortune.	Manilla rope.	80 27
1	45	Samuel R. Harlow.	Steamer Lamartine, for freight.	430 75
Making an aggregate of.				\$6,998 47

Figure 3. Table B. Payments made by Surveyor General George B. Sargent in running and marking the northern boundary of Iowa.⁴

Date of payment.	Voucher.	To whom paid.	For what paid.	Amount.
1852.				
May	28	1 Wm. Wardeman	Surveying instruments, repairs, &c	\$119 40
April	12	2 Timothy Mason	Sperm oil and cans	15 20
	26	3 Steamer Nominee	Passage and freight on 10 barrels flour	6 00
May	1	4 E. & G. W. Blunt	1 riding level	10 00
	1	5 Wm. L. Lee	1 set harness, horse covers, and ox yokes, &c	66 00
	12	6 G. R. West	Lard and soap	50 95
	14	7 James O. Sargent	Travelling expenses from Dubuque to New York and back	106 62
	25	8 G. S. Branham	1 pair mules	250 00
	15	9 Wm. Gordon	1 horse	75 00
	17	10 Iva Brown	1 horse	90 00
	17	11 F. O. Goodrich	Dried apples, peaches, and biscuit	81 12
	18	12 Steamer Nominee	Passage of 9 persons from Dubuque to Lansing	35 80
	19	13 A. L. Bush	Board and horse feed	8 60
	20	14 Charles H. Mix	1 mare, saddle, and bridle	105 00
	20	15 John Simplot	4 dozen glass lanterns	8 10
	21	16 Horace Carpenter	Stage fare, &c., purchasing mules and horses	26 25
	12	17 Steamer Dr. Franklin	Freight on 2 mules and 2 horses, and passage	37 50
	27	18 American Express Company ..	Transportation of 9 boxes instruments from Chicago to Dubuque, and charges on same to Chicago	58 70
June	4	19 Ezekiel E. Mader	Provisions and services	27 95
	10	20 L. D. Randall & Co.	Saddle, bridle, &c.	11 00
	30	21 Peter Waples & Co.	Blankets, provisions, &c.	215 00
July	1	22 Andrew Talcott	Services as deputy surveyor, under contract	1,000 00
	1	33 Isaac W. Smith	Services as 1st assistant surveyor and astronomer	455 00
	1	24 John S. Sheller	Services as 2d assistant surveyor and astronomer	318 50
	1	25 Sidney Coolidge	do. do. do. do. do. do.	318 50
1852.				
July	1	26 Harry Taylor	Services as 2d assistant surveyor and astronomer	\$175 00
	1	27 James O. Sargent	do. do. do. do. do. do.	175 00
June	8	28 George R. Stantz	Services as 2d assistant surveyor	224 00
July	1	29 James M. Marsh	do. do. do. do. do. do.	250 00
	1	30 Edwin Kinkuse	Services as assistant recorder and physician	273 00
	1	31 David B. Leano	Services as master of transportation	218 50
	1	32 Eugene M. Crittenden	Services as head chairman and tally man	273 00
	1	33 J. Thos. McDuffie	Services as assistant on the survey	182 00
	1	34 Horace Carpenter	do. do. do. do. do. do.	182 00
	1	35 Wm. P. Campbell	do. do. do. do. do. do.	182 00
	1	36 Spencer Fellows	do. do. do. do. do. do.	182 00
	1	37 W. A. B. Jones	do. do. do. do. do. do.	182 00
	1	38 N. Henry Hutton	do. do. do. do. do. do.	182 00
	1	39 Richard J. Cleveland	do. do. do. do. do. do.	182 00
	1	40 Robert Cashon	do. do. do. do. do. do.	182 00
	1	41 Samuel P. Bonsall	Services as flagman on the survey	182 00
	1	42 Peter Moriarty	Services as assistant flagman on the survey	182 00
	1	43 Ignatius E. Wooton	do. do. do. do. do. do.	88 00
	1	44 Jacob Myer	do. do. do. do. do. do.	182 00
	1	45 Wm. C. Alexander	do. do. do. do. do. do.	182 00
	1	46 Wm. Stratton	do. do. do. do. do. do.	182 00
	1	47 Charles Lewis	do. do. do. do. do. do.	90 00
June	26	48 John Rousseau	do. do. do. do. do. do.	168 00
July	1	49 John Quigley	do. do. do. do. do. do.	136 50
May	12	50 Wm. H. Mobley	Services as teamster on the survey	52 50
	27	51 Stephen Cardiff	do. do. do. do. do. do.	20 00
July	1	52 Wm. Davis	Services as assistant teamster on the survey	136 50
	1	53 Samuel Jackson	do. do. do. do. do. do.	136 50
	1	54 Chs. Maitland Christie	do. do. do. do. do. do.	136 50
	1	55 Edgar Seare	do. do. do. do. do. do.	90 00
	1	56 Willard C. Whitmore	do. do. do. do. do. do.	136 50
	1	57 Wm. Todd	do. do. do. do. do. do.	182 00
	1	58 Bart. Sheridan	do. do. do. do. do. do.	136 50
	1	59 John Whitmore	do. do. do. do. do. do.	136 50
	1	60 Donohoe Williams	do. do. do. do. do. do.	136 50
	1	61 Daniel Gordon	do. do. do. do. do. do.	136 50
	1	62 James S. Fisher	do. do. do. do. do. do.	136 50
Making an aggregate of				9,602 19

Figure 4. Table C. Payments made by Surveyor General George B. Sargent in running and marking the northern boundary of Iowa.⁵

Date of payment.	Voucher.	To whom paid.	For what paid.	Amount.
1852.				
Sept. 30	65	W. Stratton	Services as assistant on survey, extra. at \$0 50 per day, 159 days..	\$79 50
27	66	John Quizby	do. do. do. do. do. at 50. do. 160. do.	80 00
27	67	W. Davis	do. do. do. do. do. at 50. do. 159. do.	79 50
30	68	S. Jackson	do. do. do. do. do. at 50. do. 168. do.	84 00
30	69	C. M. Christie	do. do. do. do. do. at 50. do. 113. do.	56 50
30	70	Edgar Sears	do. do. do. do. do. at 50. do. 113. do.	56 50
27	71	W. C. Whitmore	do. do. do. do. do. at 50. do. 162. do.	79 50
30	72	W. Todd	do. do. do. do. do. at 50. do. 178. do.	89 00
27	73	B. Sheridan	do. do. do. do. do. at 50. do. 162. do.	81 00
30	74	L. Whitmore	do. do. do. do. do. at 50. do. 168. do.	84 00
30	75	D. Williams	do. do. do. do. do. at 50. do. 159. do.	79 50
30	76	D. Gordon	do. do. do. do. do. at 50. do. 164. do.	82 00
30	77	L. S. Fisher	do. do. do. do. do. at 50. do. 159. do.	79 50
30	78	D. Sears	do. do. do. do. do. at 1 00. do. 114. do.	114 00
Aug. 20	79	Andrew Talcott	Expenses of transportation and subsistence of self and five assistants, from Spirit lake to Dubuque, Iowa	95 85
21	80	J. Quigley	Use of horse for express from Dubuque to Big Sioux river	25 00
Sept. 6	81	R. Sheridan	Expenses of self and Quigley from Dubuque to Camp Washington and back. .	15 95
Aug. 9	82	John Quigley	One bay mare with saddle and bridle	110 00
Sept. 7	83	James Huff	Transportation and subsistence of four of surveying party from Sergeant's Bluffs, on Missouri river, to Dubuque, Iowa	140 00
April 16	84	J. L. Bosh	Board of four of surveying party while at Lansing, Iowa	11 75
May 3	85	J. D. Cowles	Mess chest, horse blankets, camp utensils, and provisions, &c.	64 41
11	86	T. E. Williams	Mess boxes and cones for target and other utensils	24 76
July 5	87	D. Wheeler	Drawing 60 bushels oats from Decotah to Camp Washington, and 43 days' services of wagon and four yoke oxen, at \$3 per day	140 00
April 23	88	P. Bellows	One yoke oxen and one lead chain	61 25
30	89	R. T. Archer	One beef cow and four tons hay, &c.	34 25
May 2	90	G. Minor	Two yoke oxen, at \$65.	130 00
22	91	W. Washburn	Two yoke oxen and two chains	172 50
June 8	92	E. P. Bircher	Services of self and buggy in transporting instruments—7 days, at \$5 per day..	35 00
14	93	P. Bellows	One wagon	65 00
1	94	G. R. Stuntz	Surveying chains, tally pins, &c.	8 25
May 29	95	G. R. Stuntz	Powder and shot, one calf skin, &c.	7 60
27	96	A. Nichols	Storage on 130 boxes, sacks, provisions, and board of 10 of company	21 50
27	97	D. D. Frazier	Two yoke oxen and chain	150 00
26	98	E. E. Meader	Two tons hay, board of Capt. Smith and men, &c.	12 50
25	99	F. D. Cowles	Freight, blankets, checkered goods, box lemons, &c.	45 98
22	100	G. Woolford	One ox	26 00
19	101	Patterson & Hall	Drayage and storage of 106 barrels and boxes, &c.	17 76
18	102	E. P. Bircher	Storage of 160 barrels, 100 sacks, provisions, transportation, &c.	30 81
July 5	103	J. M. Marsh	Expenses for self and party from Lansing to Camp Washington, &c.	16 26
Sept. 1	104	Derriek & Newell	Storage of provisions, for oats, &c.	30 71
Aug. 31	105	A. Nichols	30 bushels oats, removing and storing provisions, &c.	26 00
9	106	W. Williams	Provisions	36 82
31	107	E. E. Meader	Services of self and team, board of party, &c.	29 20
Sept. 2	108	F. D. Cowles	Provisions	21 87
8	109	D. B. Sears	Master of transportation, various expenses incident thereto	67 42
July 8	110	L. D. Randall & Co.	Marking irons, &c.	7 35
Sept. 30	111	M. G. Kanick	Feeding and herding 40 head of cattle 18 days	90 00
30	112	Lyman & Sheno	Keeping horses and mules, including medicine, preparatory to public sale. .	117 00
July 20	113	J. W. Marsh	Travelling expenses of self and four others from Spirit lake to Dubuque. .	25 00
Sept. 27	114	J. W. Smith	Transportation of instruments and provisions, steamboat fare from Lansing to Dubuque, board, &c.	126 49
27	115	N. H. Hutton	Services and expenses in assisting to take charge of instruments from Washington to Dubuque	30 00
Dec. 31	1	J. O. Sargent	Making an aggregate of.	12,536 24
31	2	H. W. Taylor	Services as assistant in arranging and calculating astronomical observations. .	316 00
			Services as assistant in constructing maps, &c.	362 00
			Making a final aggregate of credits of	13,204 24

Figure 6. Table D (cont.) Payments made by Surveyor General George B. Sargent in running and marking the northern boundary of Iowa.⁷

Date.	To whom and for what paid.	Amount.
May 19, 1852	Amount paid to E. & G. W. Blunt, for instrument, (dip circle).....	
July 16, 1852	Amount paid to Wm. Wurdeman, for repairs of instruments.....	\$450 00
16, 1852	Amount paid to E. & G. W. Blunt, for repairs of instruments.....	\$55 50
16, 1852	Amount paid to W. H. C. Riggs, for cleaning and repairing chronometer.....	6 43
16, 1852	Amount paid to Fenton & Co., for surveyors' tents, &c., per report No. 2,501.....	25 00
		238 00
March 19, 1853	Amount paid to Thomas S. Naira, for travelling and personal expenses from Dubuque to Washington, per report No. 2,941.....	324 93
June 27, 1853	Amount paid to Captain Andrew Talcott, for balance due him under his contract as principal surveyor and astronomer.....	131 00
27, 1853	Amount paid to Captain Andrew Talcott, for rent of room for his assistants, stationery, &c.....	\$2,000 00
		553 08
27, 1853	Amount paid to Harry Taylor, assistant surveyor, amount due him on his final settlement as per his final account..	2,553 08
		425 75
	Total.....	\$3,884 79

Figure 7. Table E. Abstract of Payments made directly from the United States Treasury for running and marking the northern boundary of Iowa.⁸

Endnotes

¹ "Information on northern boundary line of Iowa." S. Exec. Doc. 10. 33rd Cong. 1st sess. Serial 694. <https://hdl.handle.net/2027/uc1.b3984518?urlappend=%3Bseq=595%3Bownerid=9007199276160585-633>

² <https://hdl.handle.net/2027/uc1.b3984518?urlappend=%3Bseq=597%3Bownerid=9007199276160585-635>

³ <https://hdl.handle.net/2027/uc1.b3984518?urlappend=%3Bseq=598%3Bownerid=9007199276160585-636>

⁴ <https://hdl.handle.net/2027/uc1.b3984518?urlappend=%3Bseq=599%3Bownerid=9007199276160585-637>

⁵ <https://hdl.handle.net/2027/uc1.b3984518?urlappend=%3Bseq=601%3Bownerid=9007199276160585-639>

⁶ <https://hdl.handle.net/2027/uc1.b3984518?urlappend=%3Bseq=604%3Bownerid=9007199276160585-642>

⁷ <https://hdl.handle.net/2027/uc1.b3984518?urlappend=%3Bseq=606%3Bownerid=9007199276160585-644>

⁸ <https://hdl.handle.net/2027/uc1.b3984518?urlappend=%3Bseq=608%3Bownerid=9007199276160585-646>

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