GENERAL INSTRUCTIONS
to
U.S. Deputy Surveyors

Ellen Bryan Moore
Register

State Land Office
Baton Rouge, Louisiana
This booklet contains exact copies of the various instructions to surveyors, the originals of which are on file in the State Land Office.

The material has been compiled because of the many requests received for copies of the individual documents exhibited during the recent Louisiana Land Surveyors Association Conference in Baton Rouge.

I sincerely hope this information will be helpful to you.

[Signature]

Ellen Bryan Moore
Register
The typewritten pages are copied verbatim from the original records.
In ascertaining the Meridian, the following methods are well adapted to the different lines of this Grand Theodolite.

Method I.

By an observation of the star whose greatest azimuth is to the east or west.

Begin the observation a little before the time expected and frequently noting the star, or as soon as it has reached that point, when the star appears to have risen or set, the observation is complete.

<table>
<thead>
<tr>
<th>EAST AZIMUTH</th>
<th>WEST AZIMUTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 21 3/4 A.M.</td>
<td>January 2d 12 2 P.M.</td>
</tr>
<tr>
<td>May 3.4</td>
<td>Jan. 16 11</td>
</tr>
<tr>
<td>May 23 5 50</td>
<td>Jan. 2d 10 31</td>
</tr>
<tr>
<td>June 2 2</td>
<td>Feb. 15 9</td>
</tr>
<tr>
<td>June 21 10 11</td>
<td>Mar. 19 1</td>
</tr>
</tbody>
</table>

Note: The table as to have been corrected for declination of the star.

The time in which the star is visible to the observer is proportionate to the time in which the star is visible to the observer.

Dec. 2

Dec. 19 1
<table>
<thead>
<tr>
<th>LAT. 30°</th>
<th>LAT. 31°</th>
<th>LAT. 32°</th>
<th>LAT. 33°</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Polar distance</strong></td>
<td><strong>Greatest Azimuth</strong></td>
<td><strong>P.D.</strong></td>
<td><strong>G.Az.</strong></td>
</tr>
<tr>
<td>0° 0' 0&quot;</td>
<td>0° 0' 0&quot;</td>
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<tr>
<td>1° 30' 30&quot;</td>
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<tr>
<td>2° 30' 0&quot;</td>
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<td>2° 30' 0&quot;</td>
<td>2° 30' 0&quot;</td>
</tr>
</tbody>
</table>

Table of the apparent polar distance of the pole star:

<table>
<thead>
<tr>
<th>Month</th>
<th>Polar Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. 1</td>
<td>42° 15'</td>
</tr>
<tr>
<td>Feb. 1</td>
<td>42° 15'</td>
</tr>
<tr>
<td>Mar. 1</td>
<td>42° 15'</td>
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<tr>
<td>Apr. 1</td>
<td>42° 15'</td>
</tr>
<tr>
<td>May 1</td>
<td>42° 15'</td>
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<td>Jun. 1</td>
<td>42° 15'</td>
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<tr>
<td>Jul. 1</td>
<td>42° 15'</td>
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<tr>
<td>Aug. 1</td>
<td>42° 15'</td>
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<tr>
<td>Sep. 1</td>
<td>42° 15'</td>
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<tr>
<td>Oct. 1</td>
<td>42° 15'</td>
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<tr>
<td>Nov. 1</td>
<td>42° 15'</td>
</tr>
<tr>
<td>Dec. 1</td>
<td>42° 15'</td>
</tr>
</tbody>
</table>
This method is grounded on the principle that when two stars (whose Right Ascension and Declination are known) are on the same vertical, their Azimuth (which is the same in both) may be determined by calculation if the Declination of the place is also known.

This method does not require the aid of a timekeeper, and the observation may be made with great precision. Though the principle is applicable to the stars generally, yet, in practice, judgment must be used in selecting the stars to be made use of in the observation.

If on both left hand 6 or 40 the correction is to be added, but when one is more and the other less, it is to be subtracted.

The results are expressed in chains and links.

\[
\begin{align*}
A + C &= 160 \\
B + D &= 144.00 \\
C + D &= 156.00 \\
\end{align*}
\]

The difference of 100 may be found by subtracting 160 from 140 and 150, and the difference is added to the sum of the two differences, the result being the correction which is to be added or subtracted in the first case (by dividing 160 instead of 140).

To Geo. Stutz Esq.

Lith Pears
ACT OF CONGRESS
of
March 3, 1811

No. 710

March 3, 1811. No. 710.—An ACT providing for the final adjustment of claims to lands, and for the sale of the public lands in the Territories of Orleans and Louisiana, and to repeal the act passed for the same purpose, and approved February sixteenth, one thousand eight hundred and eleven.

Be it enacted, &c., That the following allowances and compensations shall be made to the several officers appointed for the purpose of ascertaining the rights of persons claiming lands in the Territories of Orleans and Louisiana; which allowances and compensations shall be in full for all their services, including those rendered since their salaries respectively ceased; that is to say: To each of the commissioners, and to each of the clerks of the boards, fifty cents for each claim, duly filed according to law, which remained undecided on the first day of July, one thousand eight hundred and nine, and on which a decision has been made subsequent to that day, or shall hereafter be made, whether such decision be in favour of, or against the claim; which allowance of fifty
cents shall be paid at the Treasury of the United States, from time to
time, and on receipt of the transcripts of the decisions and of the reports
of claims not finally confirmed, as the same may be transmitted by the
boards respectively to the Secretary of the Treasury according to law.
To each of the said commissioners and clerks, a further allowance of five
hundred dollars, to be paid after the completion of the business of each
of the boards respectively to the officers then in office. And to each of
the translators, at the rate of six hundred dollars a year, and not to
exceed in the whole for each the term of eighteen months: Provided
always, That the above-mentioned allowance of fifty cents for each claim
decided upon, shall not be made to any of the commissioners who may
be absent at the time of such decision; the attendance of each to be
certified by the clerk, or by a majority of the board: And provided also,
That no allowance shall be made to any agent heretofore employed by
the Secretary of the Treasury for any period of time, subsequent to the
time when such agent ceased to act, or when the board ceased to receive
evidence. (a)

SEC. 2. And be it further enacted, That the two principal deputy sur-
veyors of the Territory of Orleans shall, and they are hereby authorized,
in surveying and dividing such of the public lands in the said Territory,
which are or may be authorized to be surveyed and divided, as are ad-
joying to the river, lake, creek, bayon, or water-course, to vary the
mode herebefore prescribed by law, so far as relates to the contents
of the tracts, and to the angles and boundary lines, and to lay out the same
into tracts as far as practicable, of fifty-eight poles in front and four
hundred and sixty-five poles in depth, of such shape, and bounded by
such lines as the nature of the country will render practicable, and
most convenient: Provided however, That such deviations from the ordi-

nary mode of surveying shall be made with the approbation of, and in

conformity with the general instructions which may be given to that
effect, by the surveyor of the public lands south of the State of Tennes-
see. (b)

SEC. 3. And be it further enacted, That for the disposal of the lands of
the United States, lying in the eastern land district of the Territory of
Orleans, a land office shall be established at New Orleans; and that for
the disposal of the lands of the United States, lying south of Red River,
in the western land district of the Territory of Orleans, a land office shall
be established at Opelousas; and that for the disposal of the lands of the
United States, lying north of Red River, in the western land district of
the Territory of Orleans, a land office shall be established, which shall
be kept at such place as the President of the United States may direct.
The register of the western land district of the Territory of Orleans shall
act as register of the land office of Opelousas, and as one of the commis-
sioners for ascertaining the rights of persons claiming lands in any part
of the said western land district. And for the land office north of the
Red River, a register, and for each of the said three offices a receiver
of public monies shall be appointed, who shall give security in the same
manner, in the same sums, and whose compensations, emoluments, duties
and authority, shall be in every respect the same, in relation to the lands
which shall be disposed of at their offices, as are or may be provided by
law, in relation to the registers and receivers of public monies in the
everal offices established for the disposal of the lands of the United
States, in the Territory of Mississippi. (c)

SEC. 4. And be it further enacted, That the powers vested in the Presi-
dent of the United States by the eleventh section of the act, entitled
"An act supplementary to an act, entitled An act for ascertaining
and adjusting the titles and claims to land within the Territory of Or-
leans, and the District of Louisiana," passed on the twenty-first day of
April, one thousand eight hundred and six, in relation to the public
lands, lying in the western district of the Territory of Orleans, and all
the other provisions made by the same section, for the sale of said lands,
and for obtaining patents for the same, shall be, and the same are here-
by, in every respect, extended to the public lands, lying in the eastern
district of the Territory of Orleans. (d)

SEC. 5. And be it further enacted, That every person who, either by virtue
of a French or Spanish grant recognized by the laws of the United States,
or under a claim confirmed by the commissioners appointed for the purpose
of ascertaining the rights of persons claiming lands in the Territory
of Orleans, owns a tract of land bordering on any river, creek, bayon,
or water-course, in the said Territory, and not exceeding in depth forty

Duties of the
deputy surveyors
and mode of sur-
vey.

Land offices to
be established at
New Orleans and
Opelousas, &c.

Certain powers
with respect to
public lands in
eastern district
of Orleans Terri-
ty extended to
the President.

Persons enti-
...
arpens, French measure, shall be entitled to a preference in becoming
the purchaser of any vacant tract of land adjacent to, and back of his
own tract, not exceeding forty arpens, French measure, in depth, nor in
quantity of land that which is contained in his own tract; at the same
price, and on the same terms and conditions, as are, or may be, provided
by law for the public lands in the said Territory. And the principal
deputy surveyor of each district respectively, shall be and is hereby
authorized, under the superintendence of the surveyor of the public
lands south of the State of Tennessee, to cause to be surveyed
the tracts claimed by virtue of this section; and in all cases where by
reason of lands in the river, lake, creek, bayou, or water-course, bordering
on the tract, and of adjacent claims of a similar nature, each claimant
cannot obtain a tract equal in quantity to the adjacent tract already
owned by him, to divide the vacant land applicable to that object be-
tween the several claimants, in such manner as to him may appear most
equitable: Provided however, That the right of pre-emption granted by
this section shall not extend so far in depth, as to include lands fit for
cultivation, bordering on another river, creek, bayou, or water course.
And every person entitled to the benefit of this section shall, within
three years after the date of this act, deliver to the register of the proper
land office, a notice in writing, stating the situation and extent of the
tract of land he wishes to purchase, and shall also make the payment
and payments for the same, at the time and times, which are, or may be,
prescribed by law for the disposal of the other public lands in the said
Territory; the time of delivering the notice, being returned being com-
counted from the date of the purchase. And if any such person shall fail to
deliver such notice within the said period of three years, or to make
such payment or payments at the time above mentioned, his right of
pre-emption shall cease and become void; and the land may thereafter
be purchased by any other person in the same manner, and on the same
terms, as are or may be provided by law for the sale of public
lands in the said Territory.

SEC. 6. And be it further enacted, That the land offices established by
virtue of the third section of this act, shall be opened on the first day
of January, one thousand eight hundred and twelve, for the sale of all
the public lands, with the exception of section No. sixteen, (r) of the
salt springs, and land contiguous thereto, (f) and of the tracts reserved
for the support of seminaries of learning as herein after provided, (g)
which shall have been previously surveyed, and the surveys thereof
returned according to law to the registers of the land offices respect-
ively; provided on the first day of February, one thousand eight hundred
and twelve, for the sale of such of the public lands, which from the
nature of the country cannot be surveyed in the ordinary way, and are
embraced by the provisions of the second section of this act, as shall
have, at least six weeks previous to the said first day of February, one
thousand eight hundred and twelve, been advertised for sale by the
surveyor of the public lands south of the State of Tennessee, with the
approval of the President of the United States. The public sales for
the land subdivided into quarter-sections in the ordinary way, shall be
held for one calendar month, under the superintendence of the register
and receiver of each land office respectively, and of either the surveyor
of public lands south of Tennessee, or of his principal deputy surveyor
in the district, who shall each receive six dollars for each day's attend-
ance on the same; and no tract of land shall be sold at said public sales
for a lower price, than that which is or may be prescribed by law, for the
sale of public lands in the Mississippi Territory. And from and after
the first day of February, one thousand eight hundred and twelve, any
tract which has been thus offered for sale at public sale, and remains
unsold, as well as any tract of land embraced by the provisions of the
second section of this act, the sale of which is authorized by this section,
may be disposed of at private sale by the register of the land office, for
the same price which is or may be prescribed by law, for the sale of
public lands in the Mississippi Territory. All the lands sold by virtue
of this section, shall in every other respect be sold on the same terms
of payment, and conditions, in the same manner, and under the same
regulations as are, or may be, prescribed by law, for the sale of public
lands in the Mississippi Territory: Provided however, Than [that] in case
of an application being made at the same time, for the purchase at private
sale of the same tract of land by two or more persons, one of whom
did actually inhabit and cultivate such tract of land at the time of
passing this act, and still continues to inhabit and cultivate the same at the time of such application, the preference shall be given to the person thus inhabiting and cultivating such tract of land. And provided also, That till after the final decision of Congress thereon, no tract of land shall be offered for sale, the claim to which has been in due time, and according to law, presented to the register of the land office, and filed in his office, for the purpose of being investigated by the commissioners appointed for the purpose of ascertaining the rights of persons claiming lands in the Territory of Orleans; or which shall have been located by or for Major-General La Fayette, according to law. (d)

Sec. 7. And be it further enacted, That in addition to the township already reserved for that purpose by law in the western district of the Territory of Orleans, and which shall be located south of Red River, another entire township shall be located by the Secretary of the Treasury north of Red River, for the use of a seminary of learning, and also an entire township in the Territory of Louisiana, for the support of a seminary of learning within the said Territory. (g)

Sec. 8. And be it further enacted, That the surveyor-general shall cause such of the public lands in the Territory of Louisiana, as the President of the United States shall direct, to be surveyed and divided in the same manner and under the same regulations and limitation as to expenses, as is provided by law in relation to the lands of the United States, northwest of the river Ohio and above the mouth of Kentucky River. (b)

Sec. 9. And be it further enacted, That for the disposal of the lands of the United States lying in the Territory of Louisiana, a land office shall be established, which shall be kept at such place as the President of the United States may direct; and a register and receiver of public monies shall be appointed for said office, who shall give security in the same manner, in the same sums, and whose compensations, emoluments, duties and authority, shall in every respect be the same, in relation to the lands which shall be disposed of at their office, as are or may be provided for by law in relation to the register and receiver of public monies in the several offices established for the disposal of the lands of the United States, northwest of the river Ohio, and above the mouth of Kentucky River. (c)

Sec. 10. And be it further enacted, That the President of the United States be, and he is hereby authorized, whenever he shall think proper, to direct so much of the public lands lying in the Territory of Louisiana as shall have been surveyed in conformity with the eighth section of this act, to be offered for sale. All such lands shall, with the exception of the section "number sixteen," which shall be reserved in each township for the support of schools within the same, (c) with the exception also of a tract reserved for the support of a seminary of learning, (g) as provided for by the seventh section of this act, and with the exception also of the salt springs and lead mines, and lands contiguous thereto; which, by the direction of the President of the United States, may be reserved for the future disposal of the said States, (f) shall be offered for sale to the highest bidder, under the direction of the register of the land office and the receiver of public monies and of the principal deputy surveyor, and on such day or days as shall, by public proclamation of the President of the United States, be designated for that purpose. The sales shall remain open for three weeks and no longer. The lands shall be sold for a price not less than that which has been at any time fixed by law for the public lands, northwest of the river Ohio, and above the mouth of Kentucky River. And (c) in every respect be sold in tracts of the same size, on the same terms and conditions, as have been or may be by law provided for the lands sold in the State of Ohio. The superintendents of the said public sales shall each receive six dollars for each day's attendance on the said sales. All the lands which have been thus offered for sale, at public sale, remaining unsold at the closing of the public sales, may be disposed of at private sale by the register of the land office, for the same price which is or may be prescribed by law for the sale of public lands in the State of Ohio: Provided however, That till after the decision of Congress thereon, no tract of land shall be offered for sale, the claim to which has been in due time and according to law presented to the recorder of land titles in the District of Louisiana and filed in his office, for the purpose of being investigated by the commissioners appointed for ascertaining the

Provided.
rights of persons claiming lands in the Territory of Louisiana. And
patents shall be obtained for all lands sold in the Territory of Louisiana,
in the same manner and on the same terms as is or may be provided by
law for land sold in the State of Ohio. (d)

SEC. 11. And be it further enacted, That the claim of the corporation
of the city of New Orleans, to the common adjournments thereto, and
within six hundred yards from the fortifications of the same, as
confirmed by the act, entitled "An act respecting claims to lands in the Territo-
ries of Orleans and Louisiana," shall be deemed valid, although the
relinquishment of the said corporation to any claim beyond the said
distance of six hundred yards was not made till after the expiration of
the period of six months prescribed by the act last mentioned. (h)

SEC. 12. And be it further enacted, That all the navigable rivers and
waters in the Territories of Orleans and Louisiana shall be and for ever
remain public highways.

Appropriation.

SEC. 13. And be it further enacted, That a sum not exceeding forty
thousand dollars be, and the same is hereby appropriated, for the pur-
pose of carrying this act into effect, which sum shall be paid out of
unappropriated moneys in the Treasury.

SEC. 14. And be it further enacted, That the act, entitled "An act pro-
viding for the final adjustment of claims to lands, and for the sale of
the public lands in the Territorial of Orleans and Louisiana," approved
February the sixteenth, [fifteenth] eighteen hundred and eleven, be,
and the same is hereby repealed. (i)

(a) See N. 628, 701, 704, 705, 708, 712, 744, 716, 721, 724, 733, 736, 731, 734, 737, 738, 739, 740, 745, 746, 749, 752, 753, 777, 790, 787, 819, 836, 842, 863, 864, 873, 889, 899, 904, 914, 936, 937, 961, 967.

(b) See N. 701, 704, 708, 718, 722, 724, 737, 730, 731, 777, 803. 809.

(c) See N. 701, 704, 708, 711, 714, 730, 731, 734. 740, 831, 829, 965.

(d) See N. 701, 704, 708, 714, 720, 724, 729, 730, 731, 732, 741, 746, 753, 775, 613, 819, 849, 858, 860, 867, 899, 919, 920, 928, 983.

(e) See N. 415, 701, 708, 832, 834, 835, 837, 841, 843, 853, 859, 863, 864, 891, 894, 895, 903.

(f) See N. 701, 708.

(g) See N. 701, 708, 760.

(h) See N. 701, 706, 714, 734, 739.

(i) See No. 708.

Dec. 12, 1811. No. 711.—AN ACT extending the time for opening the several land offices estab-
lished in the Territory of Orleans.

Be it enacted, &c., That so much of the sixth section of an act, enti-
tled "An act providing for the final adjustment of claims to lands and
for the sale of the public lands in the Territories of Orleans and Louisi-
a, and to repeal the act passed for the same purpose and approved
February sixteenth, [fifteenth] one thousand eight hundred and eleven," as
directs that the several land offices established in the Territory of Orleans
shall be opened on the first day of January and on the first day of Feb-
uary, one thousand eight hundred and twelve, be, and the same is
hereby repealed.

Sec. 2. And be it further enacted, That the said land offices shall, re-
spectively, be opened on such day or days as the President of the
United States shall, by proclamation, designate for that purpose: and
the public land shall, in every other respect, be offered for sale at the
said offices in the same manner as is directed by the aforesaid act. (a)

(a) See N. 701, 704, 708, 710, 718, 731, 737, 749, 831, 870, 965.

March 10, 1812. No. 712.—AN ACT giving further time for registering claims to land in the western
district of the Territory of Orleans.

Be it enacted, &c., That every person or persons claiming lands in the
western district of the Territory of Orleans, who are actual settlers on
the land which they claim, whose claims have not been heretofore
filed with the register of the land office, for the said district, shall be
allowed until the first day of November next, to deliver notices in writing,
and the written evidences of their claims to the register of the
land office at Opelousas; and the notices, and evidences so delivered
within the time limited by this act, shall be recorded in the same man-
ner, and on payment of the same fees, as if the same had been delivered
before the first day of July, one thousand eight hundred and eight;
but the rights of such persons as shall neglect so doing within the time
Instructions to Deputy Surveyors for surveying the public lands adjoining navigable streams, Lakes, Bayous, etc., in the Orleans Territory under the 2d Sect of the Act of the 3d of March, 1811.

The Surveyor should first take an accurate survey of the margin of the water course so far as surveys of tracts are to be extended thereon. Then lay down his survey on the large scale; and draw thereon right lines in the direction of the general course of the water course, and on these lines lay off the lengths of fronts of tracts 58 Rods or 14.50 (Ch. Lks.) chains and through these points draw right lines at right angles to the line first drawn which shall extend back from the margin of the water course 465 Rods or 116.25 (Ch. Lks.) chains and close his tract by drawing a back line at right angles to his side lines, or parallel to his first line, when the water course happens to be straight or nearly so, the back line of one tract may be extended so as to become the back line to several adjoining tracts.

The side lines of the same tract, will frequently be of different lengths, and insect the dimensions & contents of these tracts will frequently differ from each other, but that cannot be avoided. The law in this case can very rarely be accurately complied with in consequence of the very great irregularities of the water courses. Any unavailable and unimportant deviations from the Law, should be in favor of the neatness and convienence of the survey. On large curves or bends of the water course the side lines of tracts should be drawn converging, or diverging, as the case may require. Converging on the concave side to prevent the tracts from interfering with each other and diverging, on the convex side to avoid the inconveniency of small angular vacancies which would remain between the tracts if the side lines were drawn parallel to each other; In these instances the back lines may be drawn at right angles to one of the side lines and at 465 Rods from the margin of the water course, or front, which will necessarily make all the tracts having diverging side lines something larger than required. The tracts having converging sides would contain less, but the fronts of these should be extended so that the lines may include the quantity required or nearly so. It appears to be the object of Government to attach the fronts on the
water courses all the lands from thence within the distance prescribed 465 Rods.

In short we may suppose any lake, bayou, water course, etc. to be circumscribed by lines drawn at 465 rods from the general course of its margin, and that the space included between these lines and the water course is to be divided into tracts of 58 Rods front and 465 Rods in depth. It should be the first object of the artist whose duty it becomes to designate those tracts to take an accurate survey of the water course, to lay that survey down on a large scale, and to divide the space as above into tracts as nearly conformable to the law as possible; To draw his lines on his Map both side and back lines noting their respective courses and distances; Thus prepared the surveyor can with great ease and accuracy transfer these lines of tracts from his plan to the ground and complete his survey agreeably to the intention of the Law and wish of the Government.

The first and principal object of the surveyor should to have his lines accurately run, distinctly marked, and the contents of his survey correctly ascertained. It is much more desirable both to the Government, and purchaser, that the lines of a tract of land should be plainly designated and its contents correctly determined, than that its dimensions should be precisely a given number of chains and links. Should one tract occupy a larger or better front on a water course than another, it will be more valuable, and consequently sell for more than the other.

The surveys contemplated by the 5th section of the Act above mentioned will be so very few in number if any for 2 years to come, that it appears almost unnecessary to say anything on that subject at this time, should application be made by any of the owners of front tracts, to have a back tract surveyed adjoining him, and only on application of proprietors of front tracts are these surveys to be made. The law is very plain on that subject. The front tract should not exceed 40 arpents in depth to Entitle its owner to an adjoining back tract: The back tract is not to Exceed 40 arpents in depth, nor to contain a quantity greater than the front tract, neither shall the back tract in any instance extend so far in depth as to include lands fit for cultivation on another water course, etc.

The only difficulty that can arise in marking these surveys is when, by reasons of bends in the River, lake, etc. bordering on and in rear of front and adjoining tracts; each claimant cannot obtain a tract equal in quantity to his front front tract; in that case the vacant land, in the rear is to be divided between the claimants in the direct ratio of the quantity
contained in their respective front tracts.

Should the parties not consent to abide by the decision you may deem proper to make, you will send me a correct statement of the case, and I will make a division of these lands which shall be carried into Effect.

REMARKS

The Law does not point out any mode of marking or numbering the tracts to be surveyed under the 2d Sect. of the Act, so that they may be distinctly known from each other, this appears to be a defect which if not remedied will be productive of great trouble and inconvenience both to the Register & purchaser.

The following manner of marking those tracts is recommended. Let the tracts be numerically numbered from some well known point or land mark, such as a Bluff, the junction of some Bayou or water course, or the intersection of some of the meridians or parallels already run. Thus lot N. 1.2.3. etc. as it may be above or below the land mark (naming it) and on the right or left of the water course as it may be situated. The surveyor should set a strong squared picket in the side of each track near the margin of the water course noting its distance therefrom. These pickets should be set firmly in the ground and numbered on each side with a marking Iron the number of the adjacent tract; the course and distance from this picket should be taken to a tree if convenient on each tract, which tree is to be numbered with No. of the tract on which it stands; a picket should in like manner be set in the ground at the termination of the side lines and the bearing and distance taken to two trees which shall be marked and No. as above. The whole is to be carefully noted in his field Book.

When the Surveyor shall find it impracticable from the interposition of lakes or impenetrable swamps etc. to extend his side lines their full extent required and to complete his tract by running the back lines he should set a picket at the termination of his side line which picket is to be marked with the No. of the adjoining lots and courses and distances taken from it to two trees which shall also be marked and numbered as in the first instance.

Should the depth required (465 Rods) extend so near another water course as to interfer with, or include lands fit
for cultivation on it. Fronts of tracts should be laid off on both water courses, and the lands between these water courses should be equally divided between the fronts on each. Provided the distance between the fronts or water courses be two miles or nearly so.

These surveys will frequently lie between private claims or tracts already surveyed, in that case the front or tracts may be numbered from one of those former surveys to the other; and should a fraction remain it should be annexed to the adjoining tract without running the side line between them.

I must here repeat a request I made when I first wrote to you on this subject. To report to the office as early as possible the number of tracts that can and ought to be surveyed either under the 2d Section of the Act above mentioned or in the usual way into Townships and Sections and what No. of the latter description are already prepared for sale. Taking it as a positive order that no new surveys of either description shall be made this year but such as are immediately saleable, or will be certain to be sold in a reasonable time.

The enclosed diagram exhibits the mode recommended for laying off tracts on water courses etc. under the 2d Sect. of the Act above mentioned. The Red lines represent the general course of the River etc. on which the fronts of the tracts are laid down. The courses and distances of the side and back lines can very readily be ascertained on the Map; and from thence with care and accuracy be transferred to the ground.

Any difficulty that may arise to you in the execution of this or any other part of your duty as connected with this office you will from time to time communicate to me and I shall with pleasure give you my advice and assistance thereon.

I am respectfully

Your Obt. Servant

Gideon Fritz Esqn.
PD Surveyors

Thos. Freeman
Mr. Edward R. Downing
Deputy Surveyor.

Sir:

Along with the printed instructions accompanying and attached to this for your Governance in surveying your District, you are to attend to and be governed by the following additional ones. (to-wit)

For surveying the exterior and section lines of a Township you are never to run towards, but always from an established point or corner within your own District, which can always be done therein except when you intersect the boundary another surveying District on the opposite side from you the basis or standard lines from which your lines were started, in that case you may establish your corner where you intersect it if you have committed no error in running the line towards it but as your line must have perfect continuity throughout your own District without offsets, therefore when they are commenced on any of the basis or standard or standard lines they must be continued on in the same direction as far as they may be extended by you, Should however by some mismanagement have unavoidably to run a line towards an established point or corner within your District you may make a small inclination of the line to enable you to close at the point already established.

In the law directing the manner in which the public lands shall be surveyed into sections it is required that the section meridians shall each be exactly one mile and the parallels of latitude to be run so as to close thereto, except the closing lines, on the North or South boundaries of the Township. (According as your District may be situated North or South of the 31st Latitude) North on the Northside thereof and south on the southside, Therefore beginning at the post one mile from the corner of the Township nearest the basis on Standard lines you are to run the meridian one mile North or South then run a Tandom or guide line on the parallel to the Township boundary and if you do not intersect at the true point, connect the line in direction back again so as to close at the point established on the Meridian (Should you however intersect with your Tandom
line with five or six links of the true point on the Township line you need not connect the direction of the line, but merely mark it properly back again) proceed in the same manner with the next mile of the Meridian and with the parallel to close therewith and so on until you arrive at the opposite boundary of the Township; then travel back to the boundary thereof at which you commenced and begin another Range of Sections and proceed in the same manner with it and so with every range of sections, until the township is completed.

You will mark a tree in each Section at every established corner with the number of the Section in which it stands with letter S. annexed thereto; and on one of these trees at least the number of the Township and Range in which it stands, with Appropriate letters T and R before as above the figures for which purpose you ought to be provided with good marking irons similar to those used for marking Casks by Coopers and others. You will insert all these marks in your Field Book correctly; you will also take the bearing and distance in links from the corner to at least two of these trees, (one of which should always be the one marked with the number of the Township and Range) which bearings and distances you will note correctly in your Field Book Stating also whether the bearing is taken from the true or magnetic meridian; should any of your corners fall in prairie you may either erect a mound of the dimensions, stated in your contract or else plant a good substantial post at least four inches diameter, of light wood, or some other durable timber, squared and set up so as to front the four sections, with the appropriate numbers marked thereon, and on one side the number of the Township and Range as directed above.

As you are confined chiefly to subdividing Townships in which claims favourably reported on by the Register and Receiver in their report dated the 1st of October, 1825 and confirmed by an Act of Congress approved the 16th of May 1826 and as these claims are not to be surveyed you are in conformity with instructions received from the Commissioner of the General Land Office, to ascertain as well as may be in your power the situation shape and extent of the improvements under which the claimant is entitled to and confirmed in his claim in what section it may be situated and whether it extends into one or more sections besides, and the numbers of such sections, and how much of it is in each section as nearly as you can judge without a survey, and insert all in your field notes, to be laid down in the Township Map to enable the Register and Receiver to point out the different half quarter sections to which the claimant may be entitled - You are not authorized to survey any of these
claims but you may do so at the request and expense of the claimant, and in that case must include only half quarter or quarter sections as laid off by the public lines and as nearly in a square as may be.

Your Chain carriers must be sworn faithfully and honestly to carry the chain to the best of their skill and judgment, and agreeable to your instructions from time to time given them and to make true return of all measurements which they shall execute for you as required by you from time - You will pay particular attention to ascertaining the true and correct variation of your compass from the true Meridian, and insert it your field notes and returns to this office.

Wishing you all success in your expedition and that you may do credit to yourself as a man of science and to the department, I am

Respectfully your friend etc

John Dinsmore Sr.

Principal Dep. Surveyor
(CIRCULAR.)

General Land Office
23rd September 1831:

Sir:

I herewith communicate for your guidance & direction in the discharge of your Official duties, the requirements of the Department in reference to the township surveys and the mode of making returns thereof, in order that you may model and adapt your contracts with your deputies, and instructions and forms of field books precisely to suit those requirements.

In the preparation of the township plats it is requisite that they exhibit a perfect delineation of the country as represented in the field notes of the survey . . .

1st. The plats are to be so constructed as to indicate both by protraction and by figures the courses and distances of all lines. Viz. - the exact distance between the posts planted at the corners of each Section or fractional Section, and the courses of the lines where, from any cause, they vary from the cardinal points, also the precise delineation by courses and distances of private claims, reservations, and other tracts of land not-conforming to sectional lines.

2nd. Whenever the continuation of a surveyed line is interrupted by an impassable swamp; or from any other cause, the distance of the line actually run, between the starting and finishing posts, is to be truly represented by the platting and also by figures.

3rd. The distance on a surveyed line at the points where streams cross the same, is to be indicated by figures, and the general course of such streams, where they are not navigable, between such different points of intersection, is to be delineated on the plat as nearly as the same can be conjectured. The courses and distances of the meanders of navigable streams are to be truly delineated and also represented by figures on the plat opposite the delineation, wherever it is practicable to do so, and where the same are too numerous to
admit of their exhibition by figures on the plat, in that mode, the same are required to be exhibited in a detached tabular form either on the face of the plat, or connected therewith as may be found most expedient. The width of all water courses, rivers, creeks, etc., is to be represented on the plat in figures.

4th. The plat is to exhibit the received names of all rivers, creeks, lakes, swamps, prairies, hills, mountains, and other natural objects, and the surveyors should be instructed never to give original names to such objects, where names have heretofore been given. All lakes or ponds of sufficient magnitude to justify such expense are to be meandered and platted agreeably to courses and distances, which are also to be exhibited by figures. In passing such ponds or lakes as are not to be meandered, offsets are to be taken, which offsets are to be carefully noted on the plat to show that the distance across has been correctly ascertained. Such ponds or lakes are to be exhibited on the plat as accurately as practicable, from careful occular observation to be made by the Deputy and noted in his field book.

5th. Swamps are to be represented in the ordinary method by slightly shaded black lines and dots, and the outlines of the same should be distinctly exhibited.

6th. Prairies are to be represented by slightly shaded green lines and dots, and the outlines of the same to be distinctly exhibited.

7th. The plats should also exhibit as far as practicable all mines, salt springs, salt-licks, & mill seats, also towns, villages and settlements, and the names of the same, also forges, factories, cotton gins, and all other such items of information also the general course of travelled roads, and tracks, denoting the place to which they may lead.

8th. The exterior lines of the township plat should be double the thickness of the sectional lines, and both of them should be in black ink. The lines denoting the quarter sections and the
subdivision of fractional sections should be in red.

9th. The quantities of the subdivision of fractional sections are to be indicated by red figures within the respective subdivisions. The numbers and quantities of the Sections and fractional sections are to be exhibited in black figures at the centre of each as nearly as practicable, and in cases where the marks and figures on the plat are too numerous to admit of the convenient exhibitions of the quantities in that way, the quantity of each sections and fractional section is to be exhibited in a neat tabular statement on the right side of the plat, and where there are private claims in the township, the quantities of such claims are to be exhibited under a separate head in the tabular statement, which is to exhibit separate totals of public lands and private claims. Where any private claims, Indian or other reservation etc is exhibited, the name of the confirmee or reservee must be given; also such other references as will clearly identify the tract with the Report by which it was confirmed, or the Treaty, etc. under which the individuals claims the title.

In cases where the quantities are exhibited in the center of the Section or fractional Section, and it is not necessary to resort to a tabular statement, the sum total of the public lands in the township is to be exhibited as one item near the foot of the plat.

10th. At the foot of each plat the Surveyor General must give an official certificate of the following purport. Viz.

The above map of Township No., of Range No. , is strictly conformable to the field notes of the survey thereof on file in this office which have been examined and approved (or if any exceptions are taken to the field notes by reason of their not standing the test of correct platting, such exceptions are to be stated in the margin of the plat as before mentioned, and exhibited on the face of the plat by red dotted lines, and alluded to in the Certificate thus — "with the exception
stated in the margin hereof.") The Certificate is then to be closed by indicating the name of the Deputy or Deputies by whom the exterior boundary lines and the subdivisional lines were respectively surveyed, showing the sum total of miles run by each Deputy Surveyor, also the date of the Contract, the quarter of the year in which the survey was made, and the quarter in which the same was paid for and charged in the accounts of the Surveyor General.

11th. All lines in a township survey which have not been actually run; must be represented on your plat of survey by red dotted lines, and any portion of a survey found or suspected to be erroneous must also be represented by red dotted lines, and payment for the same is to be suspended until the error is corrected or the cause of suspicion done away to the full satisfaction of the Surveyor General; and in every case when the survey of a Township is incomplete from any cause, such cause must be fully set forth by a marginal note on the face of the plat, and certified thereon in the mode designated in the 10th Article of this letter.

12th. Navigable Streams are declared by law to be public highways - Except in cases where navigable streams constitute the boundary line between two Land Districts, and where the Ranges & Townships in each district are numbered from different meridians and base lines. They are not to interrupt the regular survey of the township lines, which are to be continued across such stream for the exact distance. Each border of such stream is however, to be meandered by course and distance and a fractional portion of the same township will be constituted on each side thereof to be denominated, as the case may be, the fraction of township North or South, or East or West of such stream, having special regard in such designation to the general course thereof from its source to its mouth.

A Deputy Surveyor continuing surveys on the opposite banks of streams must invariably be made to show the connections of such survey, with certain established posts or points in the opposite survey, which connections as well as the mode by which the same was ascertained, are to be shown in the field
book and exhibited in the plat of survey, and in passing up or down rivers, frequent connections with the surveys across should be made and exhibited both in the field book and plat.

The width of navigable streams and bayous binding on the surveys, should frequently be ascertained by trigonometrical process. Where the width of the same does not sensibly vary in the township the measurement thereof is to be made at the two extreme points of intersection of such objects with the township line, but where there is a sensible variation in the width, measurement thereof must be made as often as may be justly deemed necessary for the accuracy of the Survey in connection with the adjoining lands and the correct exhibition thereof in the Township plats.

13th. Where it is necessary to make a return to this Office of township boundaries merely, prior to the subdividing of such townships into Sections and the rendition of the regular plats of survey, such boundaries are to be platted in connection on a scale of from two to three inches to six miles.

14th. The paper to be used in your plats of surveys must be of the best quality and of uniform size.

The descriptive notes are to be written on paper of the folio post-size, best quality. The records of the plats and field notes to be kept in your office, must be made out on paper of the best quality. Great care and neatness are to be observed in the execution of the work and in the particular examination thereof after the same is completed.

SURVEYS & CONTRACTS

15th. You are to require bond and approved security for the due execution of all surveying contracts in the penalty of double the value of the contract - and in case of failure to comply with the terms of a contract, unless such failure arise from causes satisfactorily proved to be beyond the control of the contractor, immediate measures are to be taken to recover the penalty of the bond,
agreeably to law, and no Deputy Surveyor who has improperly failed to fulfil his engagements is afterwards to be employed by you, and of every such failure you are required to give immediate notice to the Department.

The Surveys must be executed under the personal and immediate superintendence of the contractor — Sub-contracts are illegal. The contract and bond of the Deputy are expressly to provide against sub-contracts.

16th. The Act of 18th May 1796 (Land laws, New Edition, page 420) provides, that the public lands "shall be divided by North & South lines, run according to the true meridian and by others crossing them at right angles so as to form townships of six miles square."

"The corners of the townships shall be marked with progressive numbers from the beginning; each distance of a mile between the said corners shall be also distinctly marked with marks different from those of the corners."

The same law requires that "townships shall be subdivided into Sections, containing as nearly as may be, six hundred & forty acres each, by running through the same, each way, parallel lines at the end of every two miles, and by marking a corner, on each of the said lines at the end of every mile; the Sections shall be numbered respectively, beginning with the number one in the North East Section and proceeding West and East alternately, through the township with progressive numbers, 'till the thirty six be completed."

"And it shall be the duty of the Deputy Surveyors to cause to be marked on a tree near each corner made, as aforesaid, and within the Section, the number of such Section, and over it the number of the township within which such Section may be, and the said Deputies shall carefully note, in their respective field books, the names of the corner trees marked and the numbers so made."

The Act of 10th May 1800 (Land laws New edition, page 456.) "prescribes the mode of
subdivision Sections into half Sections into half Sections of three hundred and twenty acres each as nearly as may be, "by running parallel lines through the same from East to West, and from South to North, at the distance of one mile from each other, and marking corners at the distance of each half mile on the lines running from East to West, and at the distance of each mile on those running from South to North," and making the marks, notes and descriptions, prescribed to Surveyors by the Act of 18th of May 1796 - The same Act also provides, that "in all cases where the exterior lines of the townships thus to be subdivided into Sections or half Sections, shall exceed, or shall not extend six miles, the excess or deficiency shall be specially noted, and added to or deducted from, the Western & Northern ranges of Sections or half Sections in such townships, according as the error may be in running the lines from East to West, or from South to North: the Sections and half Sections bounded on the Northern and Western lines of such townships shall be sold as containing only the quantity expressed in the returns and plats respectfully, and all others as containing the complete legal quantity." By a vigilant and faithful attention to duty on the part of the Deputy Surveyor, the excesses and deficiencies alluded to by the law, except to a trifling extent will be of rare occurrence.

The Act of 11th Feby. 1805, entitled "An Act concerning the mode of surveying the public lands of the U. States" (Land laws New edition page 575) prescribes general regulations for dividing townships into Sections, and subdividing such Sections into half Sections and quarter Sections. The following is a summary of those regulations.

The lands are to be laid off in townships of precisely, six miles square by lines running due North and South & East and West. On each of those lines precisely at the distance of one mile apart, corners are to be established for sectional lines. Parallel lines are to be run through the township each way, from each sectional corner to the corresponding sectional corner, on the opposite side of the township on each of which lines sectional corners are to be established at the distance of one mile apart, which process will divide the township into thirty six sections. In running the exterior
township lines, and also the interior sectional lines, intermediate, half-mile, posts or corners (precisely equidistant between the corners of the sections) are to be established as the boundaries of quarter Sections.

17th. Each Deputy Surveyor is to provide himself with two, two-pole chains containing each thirty-three feet and subdivided into fifty links which are to be regulated by the Standard Chain in the Surveyor's Office. One of which chains is to be specially reserved by the Deputy as a standard for his field work, and by which he will adjust the one in active use, at least every other day, if not oftener. Each Deputy will also provide himself with a good compass with a nonius or a theodolite (which latter in some respects, is preferable by reason of its peculiar adaptation to the taking of long sights) which will be compared with the Standard in the Surveyor's Office.

18th. The Surveys are required by law to be made agreeably to the true meridian, and at right angles therewith. The variation of the magnetic meridian is to be observed and ascertained from time to time, as often as the Surveyor General may deem expedient, and is always to be indicated on the township plat.

19th. The greatest care is to be taken in levelling the chain and plumbing the pins, so as to obtain the true horizontal distance where the surface of the country is irregular and hilly.

The oath to be taken by the chain men must specially provide for such levelling and plumbing. The Deputy Surveyor must ever be vigilant over the conduct of his sub-agents (chain-men, marker and flagbearers) whose oaths with that of the Deputies are to be filed in your office.

You are to enjoin on your Deputies a strict regard to the moral integrity of their sub-agents. None must be employed in whom implicit confidence cannot be reposed, as the interest of the public service is at stake.
AS TO MARKING

20th. The greatest possible caution is to be observed in marking the corners of townships etc., in a plain, distinct and permanent manner.

Where a tree is not found immediately at the corner, a corner is to be established by planting a post on which is to be marked the number of the township, over which is to be marked the number of the Range, and underneath the number of the Section.

The bearing and distance, also the names and respective diameter of the nearest trees from such corner are to be carefully taken and noted in the field book. The nearest of such trees (where there are more than one) is to be marked to correspond with the marked corner. The mark should be in a regular chop, Squared off, to be made into such tree, so as to be always distinguishable from a mere blaze. The letters B. T. to denote the fact of its being a "bearing tree" should be distinctly cut into the wood some distance below the other marks. All these particulars are to be most intelligibly and minutely noted in the field book. The posts used in forming the corners of townships must always be larger (for the sake of distinction) than those which denote the Sectional and quarter Sectional corners, and should be neatly squared off at the top to correspond with the cardinal points.

The marks on the posts and bearing trees should be deeply burnt into the wood with marking irons. The posts must always be made of the most durable wood that can be had, and should be set in the earth to the depth of two feet & very securely rammed in with earth and stone. It is highly important in reference to their durability that the portion of each post below the surface should be charred and the whole of it rubbed over with tar, except the portion which bears the Surveyor's marks. The Sectional posts are to indicate by a number of notches on each of the four corners directed to the cardinal points, the number of miles that it stands from the outlines of the township -
the side of the post will be numbered to correspond with the number of the Section it faces - Each half mile post on a Section line, and quarter section post on a township line should be marked to indicate that it is a quarter sectional "(1.4.S)" post, and the nearest adjoining tree on each side of such post, must be similarly marked - The Surveyor to note in his field book the kind of tree, its diameter, bearing & distance from the true corner.

Posts denoting the same kind or character of boundary, should be of uniform construction, and there should always be a striking difference between posts denoting different kinds of boundary.

To create additional and increased facility in the discovery of boundary lines by the purchasers of public lands and to prevent errors of entry, you are to require your Deputies to fasten to the Sectional and quarter Sectional posts, near the ground, but so as to be plainly seen, a finger board on which is to be distinctly marked with black oil paint, the appropriate number of the tract. This board to point diagonally across the tract and to be marked similarly to this: NW½ S. 1 T. 1 N. R. 1 E.

In prairie countries where bearing trees cannot be had, mounds, to be covered with sod, are agreeably to contract, to be erected. Such mounds should be of uniform size and conform precisely to instructions to be given by you. As mounds are subject to be worn away by the action of the weather and other causes, I would recommend that a stone be planted in the centre of the mound and that a few handfuls of charcoal be enclosed therein. I would further recommend that at each corner of a square which will enclose the mound and conform to the cardinal point, there be planted a chestnut, hickory nut, walnut or acorn.

A stake to be set up in the centre of the mound to which is to be fastened a finger board on which is to be designated in black oil paint, the appropriate numbers.

All the Particulars relative to the con-
struction of a mound are to be minutely indicated in the field book.

The perpetuation of the corners of the public surveys is a subject of primary importance. Every possible care and precaution to secure correct and durable corners must be observed by your Agents whose fidelity you should test by every means in your power.

**AS TO FIELD BOOKS**

21st. You are to furnish your Deputy Surveyors with a printed specimen form of field book, which is to be so constructed as to exhibit every particular required either by law or instruction, so as to admit of a perfect topographical exhibition of the country and accompany such form with special instructions on every point in relation to which it can be presumed that instructions are necessary.

In the field book the number of miles, chains and links run on a line are to be exhibited in a column, which is to be added up at the foot of each page and carried forward from page to page, so as to form at the conclusion of the book the aggregate of miles, chains & links run in the township or fractional township.

The Act of Congress approved 18th May, 1796 (Land Laws, New edition, page 420) requires, that "every Surveyor shall note in his field book the true situation of all mines, Salt-licks, Salt-springs, & mill seats which shall come to his knowledge, all water courses over which the line he runs shall pass, also the quality of the lands. These field books shall be returned to the Surveyor General, who shall thereupon cause a description of the whole lands surveyed to be made out and transmitted to the Officers who may superintend the sales. He shall also cause a fair plat to be made of the townships and fractional parts of townships contained in the said lands, describing the subdivision thereof and the marks of the corners. This plat shall be recorded in books to be kept for that purpose, a copy thereof shall be kept open at the
Surveyor General's office, for public information, and other copies sent to the places of sale, and to the Secretary of the Treasury."

As the protraction of the surveys, at the Office of the Surveyor General, from the field books furnished by his Deputies, is the test of the accuracy or incorrectness of the survey, the greatest caution is to be observed in making such pro- tractions.

The field books are to indicate the examination and approval thereof (or disapproval as the case may be) by the Surveyor General, with the date of such examination and approval under his own proper signature, also the date of the contract, the quarter of the year in which the land was surveyed and payment made therefor.

The field books are to be signed by the Deputy Surveyor and also by the Chainmen, marker and flag bearers employed in the survey.

**SUBDIVISIONS OF SECTIONS & FRACTIONAL SECTIONS**

22nd. The Act of 24th April 1820 entitled "an Act making further provision for the sale of the public lands ("Land laws, New Edition, page 770) requires that the public lands be offered for sale in half quarter sections, and requires that the lines, supposed to divide the quarter sections into half quarter Sections are to run North & South. This law also requires that the corners and contents of half quarter sections shall be ascertained in the manner and on the principles prescribed by the Act of 11th Feby 1805 (Land Laws, New Edition, page 515.)

The same Act requires that fractional Sections containing One hundred and Sixty acres and upwards, shall in like manner, as nearly as practicable, be subdivided into half quarter Sections, under such rules and regulations as may be prescribed by the Secretary of the Treasury; but fractional Sections containing less than One hundred & Sixty acres, shall not be divided, but shall be sold entire."
The instruction of the Secretary of the Treasury under the aforesaid Act, is, that the lines of the subdivisions of fractional sections containing One hundred & sixty acres or upwards, may run either North & South, or East & West so as to preserve to the respective Subdivisions the most compact and convenient forms.

The lines of the Subdivisions of quarter Sections and fractional Sections are to be merely indicated on the maps. It is not contemplated by the existing laws that they should be actually surveyed at the expense of the United States.

In the subdivision of fractional Sections you are requested to observe as a general rule, points equi-distant between the half mile posts, as the supposed boundaries whether North & South or East and West, between the subdivisions.

I am, very respectfully,

Your Obt. Servt.

ELIJAH HAYWORD

P. S. It is invariably required that you furnish to this office and to the Register of the proper Land Office, copies of the same Township plats and descriptive notes, at the same time. A failure to observe this rule will necessarily embarrass the operations of the Government in the sale of public lands.

Hon. Browse Trist Esq.
Sur. Gen of Louisiana.
For

Honorable Thomas N. Blake
Com. Gen Land Office
Washington
D. C.

Sir:

I have the honor to enclose herewith a printed copy of the revised instructions which I have found it necessary to prepare for the information and guidance of my Deputies in the field, for your sanction.

The only material alteration I have required in marking and establishing corners in the field occurs in the directions for prairie surveys, which I have made for the following reasons, viz.

1. That mounds in prairie country are destroyed entirely in a few weeks, owing to the herds of cattle seeking them to protect themselves from the fly and other insects - with their horns and hoofs they soon obliterate all the marks placed at a township corner in connection with a mound - and in two or three years it cannot be distinguished from the surrounding plain or prairie.

2. In the method proposed by me of sinking a pit - the following advantages are attained - If sought by cattle at all, the stake prevents the use of their horns - if the stake is loosened so that they can be free to act upon it, the result is greater depth obtained for the pit, making it more recognized as a land mark - the water which collects in the bottom of the pit, causes the growth of a strong reed grass, which attains from eight to ten feet heights over the grass of the surrounding country, with a much deeper green color - so that a corner can be discovered on foot at two or three miles
distance making at all seasons of the year a permanent and easily ascertained land mark.

To this change of the establishment of mounds, I think your approval is necessary, and if you deem it proper, I would be glad to have it at as early a day as practicable - in order that I may circulate the instructions - Should it not be approved of, I can restore the old plan, by a marginal note.

I have the honor to be with much respect

Your obedient servant

F. D. Newcomb
Surveyor General, Louisiana
GENERAL INSTRUCTIONS TO DEPUTY SURVEYORS.

You will provide yourself with a good compass or theodolite, with a monochromatic and two two-pole chains, each of which should be divided into fifty equal links, one to be used in the field, and the other to be kept for a standard.

Before commencing your surveys, you will adjust your compass to the variation, and all courses should be returned according to the true meridian. The townships and ranges must be divided into six miles and numbered numerically, beginning at the south line. The boundaries of townships must be run to the cardinal points, and closed at the intersection; and at the distance of each mile from the place of beginning, a post must be set, and four trees marked with the appropriate numbers of section, township and range, in such direction from the post, that each may be within its appropriate section, &c.

Equidistant between the mile posts, a half-mile post will be set, and a tree marked in each township, in such manner that all trees shall fall upon the last mile, which may either exceed or fall short of the required distance, but the half mile post should be set equidistant between the corners.

Each township must be subdivided into sections, as far as practicable one mile square, and each section have its appropriate number, beginning at the north east corner, and progressing alternately westward and eastward; and if the township be fractional the sections should still retain the numbers they would have had if the township were entire.

The survey of sections should be commenced at the mile posts on the parallel nearest to the range line, and the meridians should be in even miles and half miles, except the last which may be either longer or shorter, and should be closed by a corrected course to the mile post previously established on the parallel, and the half mile post must be set on the corrected line equidistant between the corners. In like manner the parallel should be run according to a corrected course, from one mile post to the other, and the half mile post set equidistant from the mile post on the true and established line between them.

Where the land is of sufficient value to justify the expense, all navigable water courses within a township should be traversed on both sides, and posts established and bearing trees noted and marked within each section, upon both sides of the stream, where the lines intersect it, whether they are township or sectional lines, and the distance across the water should be computed and the measurement and corners established, as if the whole were land. In your notes of the traverse, you will be careful to note your place of beginning, and the side of the stream to which your notes refer, distinguishing them by the terms right and left bank, which should always be applied as if you were descending.

The lines must be marked in the most distinct and durable manner upon the adjacent timber, so that they may be traced in either direction, and all trees immediately upon the line must be marked with a blaze and two chops on the part of the trunk where the line strikes and where it leaves it, and where the timber is worn the distance to at least two trees (if there be any on each mile of the meridians) should be reported in your notes, and the description and diameter given.

Posts of sufficient size to be marked with the numbers of section, township, and range, and squared at the top, should be set at each section corner; and the course, distance, diameter, and description of one tree within each section must be reported and marked in the most legible and durable manner, with the appropriate numbers of the section, township, and range, with the initials S. T. R. to distinguish each respective number. In like manner a tree in each section adjacent to the half mile post must be marked thus, 1-4, 5, and reported in your notes.

The distance to the intersection of all water courses, marshes, swamps, prairies, or other changes in the face of the country over which the lines pass, and the course and width thereof must be carefully reported in your notes, by the accepted names of each, if their names are known; and it is expected that you will give no new names to any such objects.

You will also keep a diagram of the township connected with your notes, upon which you will make an eye draft, to represent as near as practicable the course and connection of all such objects.

In prairie countries, where bearing trees cannot be had at a convenient distance, mounds of earth covered with sod are to be erected. Before erecting the mound, about a pint of charcoal is to be deposited beneath the natural surface of the soil.

The mound for a township corner is to be four feet high, and four feet diameter at the base. The mound for a section or quarter section corner, is to be three feet high and three feet diameter at the base. In the centre of each mound a post is to be set, constructed and marked to suit the corner which the mound denotes.

The greatest care is to be taken in levelling the chain and plumbing the pins where the face of the country is irregular and billy, in order to obtain the horizontal distance. The oath to be taken by the chain men must especially provide for such levelling and plumbing.

The maximum of error allowed in closing the lines of a township is three chains; in closing the lines of a section eighty links, and fifty links per mile for the traverse of streams.

You will exercise strict vigilance over the conduct of your sub-agents; an oath is to be administered to them for the faithful performance of their duties, which is to be reduced to writing at the head of the field note book.
You will provide yourself with a good compendium of the rules, and two two-pole chains, each of which should be divided into fifty equal links, one to be used in the field, and the other to be kept for a standard. Before proceeding, you must adjust your compass to the variation, and all courses should be returned according to the true bearing. The townships and ranges are to be six miles square, numbered consecutively, beginning at the baseline. The boundaries of townships must be run to the cardinal points, and closed at the intersection; and at the distance of each mile from the place of beginning, a post must be set. The lines marked with the appropriate numbers of section, township, and range, in such direction from the post, that each may be within its appropriate section, &c. Equal distance between the mile posts, a half-mile post will be set, and a tree marked in each township, thus, 1, 2, &c. It is intended that all errors should fall upon the last mile, which may either exceed or fall short of the required distance, but the half-mile post should be set equidistant between the corners. Each township must be subdivided into sections, as near as practicable one mile square, and each section have its appropriate number, beginning at the north east corner, and progressing alternately westward and eastward, and if the township is fractional, the sections should still retain the number they would have had if the township were whole. The survey of sections should be commenced at the mile posts on the parallel nearest to the baseline. The meridians should be in even miles, and half miles except the last which may be either larger or shorter, and should be closed by a corrected course to the mile post previously established on the parallel, and the half-mile post must be set on the correct line equi-distant between the corners. In like manner the parallel should be run according to a corrected course, from one mile post to the other, and the half-mile post set equi-distant from the mile post on the true and established line between them. When the land is of sufficient value to justify the expense, all navigable water courses within a township should be traversed on both sides, and posts established and bearing trees noted and marked within each section, upon both sides of the stream, where the lines intersect it, whether they are townships or sectional lines, and the distance across the water should be computed, and the measurement and corners established, as if the whole were land. In your notes of the traverse, you will be careful to note your place of beginning, and the side of the stream to which your notes refer, distinguishing them by the terms right and left bank, which should always be applied as if you were descending.

The lines must be marked in the most distinct and durable manner upon the adjacent timber, so that they may be traced in either direction, and all trees immediately upon the line must be marked with a blank and two cheves on the part of the trunk where the line strikes and where it leaves it; and where the timber is scarce the distance to at least two trees (if there be any on each mile of the meridian) should be reported in your notes, and the description and diameter given. Points of sufficient size to be marked with the numbers of section, township, and range, and squared at the top, should be set at each section corner; and the course, distance, diameter, and description of one tree within each section must be reported and marked in the most legible and durable manner upon the appropriate numbers of the section, township, and range, with the initials S. T. R. to distinguish each respective number. In like manner a tree in each section adjacent to the half mile post, must be marked thus, 1, 4, 8, and recorded in your notes.

The distance to the intervention of all water courses, marshes, swamps, prairies, or other changes in the face of the country over which the lines pass, and the course and width thereof must be carefully reported in your notes, by the accepted names of each, if their names are known; and it is expected that you will give no new names to any such objects.

You will also keep a diagram of the township connected with your notes, upon which you will make an eye draft, to represent as near as practicable the course and connection of all such objects. Instead of erecting mounds in a prairie country as has been the usage and custom hitherto, you will dig a pit from 20 to 24 inches in depth, with three feet diameter, and plant a charred post in the middle, having the earth from the pit thrown within the townships you are surveying; into one place, and both the bearing and distance from the stake will be given in your note, in every instance; the top of the stake to be attached to the surrounding surface.

Duplicates plats of all private claims surveyed, will be required of Contractors with returns of work to the office. A book of field notes for each township, say about 6 1/2 by 7 3/4 inches in size.

Each Contractor to sign his own notes. On presentation in future of returns to this office, Contractors will be required to make oath that they have actually surveyed, measured and marked all the lines as set forth in their field notes.

To whatever previous surveys you may find necessary in the pursuance of your duties, to make connections, you will be careful to note any and all discrepancies and faithfully make returns of the same to this office. You are also required to note in your field books all tracts of land, on which live Oak or other valuable timber for naval purposes, may be found within twenty miles of any navigable water.

All surveys to be executed by the Contractor in person, no work performed by Sub-Contractors will be received or acknowledged by the office, unless special instructions therefor are given by the Surveyor General.

The greatest care to be taken in levelling the chain and plumbing the pins where the face of the country is irregular and hilly, in order to obtain the horizontal distance. The oath to be taken by the chairman must specially provide for such levelling and plumbing.

The maximum of error allowed in closing the lines of a township is three chains, in closing the lines of a section eighty links, and fifty links per mile for the traverse of streams. You will exercise strict vigilance over the conduct of your sub-agents; an oath is to be administered to them for the faithful performance of their duties, which will be reduced to writing at the head of the field note book.
GENERAL INSTRUCTIONS

TO

U. S. DEPUTY SURVEYORS.

FOR THE DISTRICT OF LOUISIANA.

You will provide yourself with a good Compass or Theodolite, with a
nominus, and two two-pole chains, each of which should be divided into fifty equal
links, one to be used in the field, and the other to be kept as a Standard.

Before commencing your surveys, you will adjust your compass to the variation,
and all courses, should be returned according to the true meridian. The townships
and ranges ought to be six miles and a number progressively, beginning at the
basis lines.

The boundaries of townships must be run to the cardinal points, and closed
at the intersection; and at the distance of each mile from the beginning, a post
must be set, and four trees marked with the appropriate numbers of section, townships
and range, in such direction from the post, that each may be within its appro-
riate section, &c. Equi-distant between the mile posts, a half-mile post will be set,
and a tree marked in each township, thus, (1, 4 S.) It is intended that all errors
should fall upon the last mile, which may be either exceed or fall short of the requi-
red distance, but the half mile post should be set equi-distant between the corners.

Each township must be subdivided into sections, as nearly as practicable one
mile square, and each section have its appropriate number, beginning at the North
East corner, and progressing alternately westward and eastward; and if the town-
ship be fractional the sections should still retain the numbers they would have had
if the township were entire.

The survey of sections should be commenced at the mile posts on the parallel
nearest to the basis line, and the meridians should be in even miles, and half miles
except the last which may be either longer or shorter, and should be closed by a
corner. A course to the mile post previously established on the parallel, and
the half-mile post must be set on the corrected line equi-distant between the corners.
In like manner the parallels should be run according to a corrected course, from one
mile post to the other, and the half-mile post be set equi-distant from the mile posts
on the true and established line between them.

Where the land is of sufficient value to justify the expense, all navigable
water courses within a township should be traversed on both sides, and posts esta-
blished and bearing trees noted and marked with each section, upon both sides of
the stream, where the township or sectional lines intersect it, and the distance across
the stream should be computed; and the measurement and corners be established as if
the whole were land. In your notes of the traverses, you will be careful to note
your place of beginning, and the side of the stream to which your notes refer dis-
tinguishing them by the terms right and left bank, which should always be
applied as if you were descending.

The township lines will be first ran; and in resurveys whenever the old lines
and corners can be found, they will invariably be adopted and remarked,
making the necessary corrections in the field notes, and remarking the mile and
half mile posts and trees, where they can be found, and establishing new ones
when the old ones cannot be found.

After the township lines are correctly established, the confirmed Private
claims will be surveyed, and connected to the lines and corners of the township and
section.

After the Private Claims are surveyed the section lines must be ran, and
in resurvey, be retraced and remarked wherever they can be found; and the old
section and quarter section corners will be re-established and remarked upon the
ground with the numbers properly applicable to them, according to their legal
position in a regular Township, making the necessary corrections in the field notes.
Where the old lines and corners cannot be found, new ones will be established.
These section lines will be surveyed until their intersection with the lines of private
claims and connections will then be taken to the nearest corners of the claims. No
section line will be extended through the private claims.

In surveying claims founded and confirmed upon British and Spanish com-
plete titles, or those confirmed by the United States as complete titles, the old lines
and corners marked and established on the ground by the British or Spanish Sur-
veyors, shall be re-established. If no lines exist, the claims will be surveyed in
conformity with the courses and distances laid down on the British or Spanish plats:
and if no plats exist, the quantity in the grant will be surveyed, but in those two
last cases a known point of beginning must be ascertained.

In surveying claims, founded and confirmed upon incomplete titles, the same
rule will apply, as for complete titles, unless the confirmatory act reduces the quan-
tity claimed, or unless the Register and Receiver of the District have decided, or
shall decide otherwise.
All confirmed claims not heretofore surveyed, will be located in strict conformity with the confirmation; and if any confictions are found to exist between claims thus surveyed, these must be clearly defined so that they may be referred to the proper officers, for their decision, in pursuance of the 4th Section of the Act of Congress, approved May 8th 1822, and of the 6th Section of the Act of Congress approved March 3d 1831.

Each claim and the conflicting portions of claims, will be marked upon the ground and represented in your returns, by a sectional number, above that of the number thirty six, and claims already designated upon the maps by higher sectional numbers than thirty six, will retain them, and this number will be adopted and marked upon the ground accordingly.

At the corners of all sections of public land, at the corners of private claims, at the intersection of township and section lines with claim lines, at the intersection of claim lines with other claim lines; each section, public or private, will be marked upon the ground with its legal or adopted sectional number, in the manner indicated below.

The general rules for the Survey of confirmed claims founded upon complete titles, derived from the former Governments in Louisiana, are the following:

1st. Whenever the old lines and corners established in the original survey can be found, they will be adopted.

2nd. When no old lines, nor corners exist, then the courses and distances on the original plat of survey will be adopted, provided a known point of beginning can be ascertained.

3rd. When no lines, nor corners, nor plat of the original survey exist, then the area in the grant or other title paper will be surveyed, provided a known point can be ascertained.

4th. Claims confirmed under incomplete title, will be surveyed in accordance with the laws of the confirmation, and if any original plats have been filed as the basis of the claim, it will be followed at least so far, as to show the place of location, and if no injury be caused to others, it will be strictly followed, provided it be not contrary to the confirmation.

In cases where claims vary considerably from the original calls, in position course and distance, or in area, they had better be referred to this office, for special examination and instructions.

The lines must be marked in the most distinct and durable manner, upon the adjacent timber, with a blaze and two chops on the side next the line, so that they may be traced in either direction, and all trees immediately upon the line must be marked with a blaze and three chops on the part of the trunk where the line strikes and where it leaves it.

Posts of sufficient size to be marked with the numbers of Section, Township and Range, and squared at the top, should be set at each Section Corner, whether of public lands or private claims, and the course, distance, diameter and description of each tree, within each section, must be reported and marked in the most legible and durable manner, with the appropriate number of the section, township and range, with the initials S. T. R. to distinguish each respective number. In like manner a tree, in each section adjacent to the half mile post, must be marked thus, 1-4. 8., and reported in your notes. In addition all bearing trees must be marked with the letters B. T.

The distance to the intersection of all water courses, marshes, swamps, prairies, or other changes in the face of the country over which the lines pass, and the course and width thereof must be carefully reported in your notes, by the accepted names of each, if their names are known; and it is expected that you will give no new names to any such objects.

You will also keep a diagram of the township connected with your notes, upon which you will make an eye draft to represent as near as practicable the course and connection of all such objects.

You will dig a pit of about 18 inches in depth and 36 inches in diameter, and in the center you will plant a charred post, the top of which must be on a level with the surrounding surface, or you may plant a post of proper dimensions and undercath or close to it, you will deposit about a quart of charcoal, so that in case the post should decay, the charcoal would designate the corner point. The post in both these cases should be marked with the number of the township and range as in ordinary manner.

Around the post and pit, you will dig a quadrangular trench, the angles of which, at corners common to four townships, or to four sections, must be directed towards the cardinal points; but at corners common only to two townships or to two sections, the sides of the quadrangular trench will face the cardinal points. The length of the sides of the trench at township corners must be six feet, and at section, quarter section, and traverse corners five feet.

The trench is to be formed by spading out wedges of earth by single operations of the spade, along the sides of the quadrangle, walls facing the same, and the earth should be thrown upon the outer edge of the trench, so as to form an elevated border.

The sides of the trench should be neatly and smoothly cut, so that the adjacent earth would not tumble into it and fill it up.

The construction of the trench above mentioned will not be required at the corners of claims, or at connections, or intersection corners.

To whatever previous surveys you may find necessary in the pursuance of your duties, to make connections, you will be careful to notice any and all discrepancies and faithfully make returns of the same to this office.

You will note in your Field Books, all tracts of land on which Live Oak,
Red Cedar, and Long Leaf. Yellow Pine fit for naval purposes, may be found within
the reach of navigation.

Surveyors will note the situation and extent of all swamp, wet and overflowed
lands, unfit for cultivation, which have been granted to the State of Louisiana, by

Surveyors will also note all ancient mounds, earth works, &c., in their
returns.

All surveys to be executed by the contractor in person. No work performed
by sub-contractors will be received or acknowledged by the office, unless special
instructions therefor are given by the Surveyor General.

The greatest care to be taken in levelling the chain and plumbing the pins,
where the face of the country is irregular and hilly in order to obtain the horizontal
distance. The oath to be taken by the chainmen must specially provide for such
levelling and plumbing.

The maximum of error allowed in closing the lines of a township is three
chains; in closing the lines of a section eighty links, and fifty links per mile for the
traverse of streams.

You will exercise strict vigilance over the conduct of your sub-agent: an
oath is to be administered to them for the faithful performance of their duties, which
is to be reduced to writing at the head of the Field Note Book, and must be taken
before a magistrate or other person authorized to administer oaths.

The field notes returned by you must be written in a neat legible manner;
no erasures or interlineations must appear in them and abbreviations must be avoided
as much as possible. Upon each line of a survey mention must be made, whether or
not the old lines have been retraced, and remarked, and the old corners reestablished,
and when the old lines and corners have not been adopted, the reason for the
change must be entirely satisfactory and must be given: in your field notes.

The Township Boundaries will be written first in your Field Book of Surveys,
then the private claims, following these the section lines, and lastly the traverse
of streams in front of the public lands. Immediately following the field notes of each
township line, of each private claim, and of the section lines and traverse, must be
stated the exact date, when each of said lines was surveyed. The field notes will be
signed by you in your official capacity, and you must give the names of the as-
sistants who have been employed by you upon the surveys.

Your attention is called to the second Section of an Act of Congress approved
8th August 1846, entitled: An Act to equalize the compensation of the Surveyors
General of the public lands of the United States and for other purposes,
which is as follows:

Sec. 2. And be it further enacted, That the Surveyors General of the
public lands of the United States, in addition to the oath authorized by law
to be administered to Deputies on their appointment to office, shall require each
of their deputies, on the return of his surveys, to take and subscribe an oath or
affirmation that such surveys have been faithfully and correctly executed, according
to law and the instructions of the Surveyor General; and on satisfactory evidence
being presented to any Court of competent jurisdiction that such surveys, or any
part thereof, had not been thus executed, the deputy making such false oath or
affirmation shall be deemed guilty of perjury, and shall suffer all the pains and
penalties attached to that crime; and the District Attorney of the United States for
the time being, in whose District any such false, erroneous or fraudulent surveys
shall have been executed, shall upon the application of the proper Surveyor
General, immediately institute suit upon the bond of such deputy; and the institu-
tion of such suit shall act as a lien upon any property owned or held by such deputy,
or his sureties, at the time such suit was instituted. Approved August 8th 1846.

The following form of oath under the above enactment has been adopted by
this office, and will be required in every instance of survey either of private claims
or work under a contract. In returns of work under contract, the oath will be
placed in the book of field notes, and in cases of private claims, or separate surveys,
of whatever nature, on the back of the plat.

Form of Oath.

I, Deputy surveyor, do solemnly swear (or affirm) that in pursuance of a contract with (instructions or order of survey from)
(late) Surveyor General of Public Lands for the State of Louisiana
dated the day of , in strict conformity with the laws
of the United States, and instructions of the Surveyor General, I have faithfully
and correctly executed the surveys of all the lines, herein noted, of public lands and
private claims in Township (or Fractional Township) N° , of Range N°
in the State of Louisiana, (in case of an order of survey, or instructions
for any separate survey, insert the description, as name of commune, N° of Report
etc.) I do further swear, (or affirm) that the foregoing (or within) are the true
field notes of said survey, executed as observed.
Office of Surveyor General,
District of Louisiana,
New Orleans, August 30, 1873.

Hon. Willis Drummond,
Commissioner of Land and Survey Office,
Washington, D.C.

Sir:

I have the honor to submit, in duplicate, my annual report of the surveying service in this district for the fiscal year ending June 30, 1873, accompanied by the following enumeration of tabular statements to wit:

A. Surveying contracts entered into by the Surveyor General of Louisiana on account of appropriations for the fiscal year ending June 30, 1873, and June 30, 1872, not reported as completed in the statements of previous years.

B. Surveying contracts entered into by the Surveyor General of Louisiana on account of appropriations for the fiscal year ending June 30, 1873.

C. Surveys and resurveys, proposed to be made during the fiscal year ending June 30, 1873, in the State of Louisiana, at rates not to exceed twelve dollars ($12.00) for township boundaries, and ten dollars ($10.00) for all other lines per mile.

D. Estimate of funds to be appropriated for the fiscal year ending June 30, 1873, for surveying in Louisiana, for compensation of Surveyor General, and his clerks, and for contingent expenses in his office.

E. Account of Appropriations for the Salary of Surveyor General of Louisiana, and for clerks in his office, for the fiscal year ending June 30, 1873.

F. Account of Appropriations for incidental expenses of the Office of Surveyor General of Louisiana for the fiscal year ending June 30, 1873.

G. Tabular statement of the reports made by the officers upon Congressional appointments, for the final adjustment of Private Land Claims in the State of Louisiana.

H. Statement showing the appropriations for salary, clerk hire, incidental expenses, and for surveys of public lands in Louisiana, from the year 1869 to 1873.

These tables exhibit the progress of the public surveys during the period embraced by this report, etc.
The condition of all surveying contracts in force at the close of the last fiscal year, the present attitude of subsequent contracts, and account, fully, for all the disbursements of appropriations granted this office for the prosecution of field
work, and for clerical service, exhibiting also, in settlement of this survey proposed to be made during the next fiscal year
and the usual estimates therefore

Field Work

During the first, second, and third quarters of the last fiscal
year, the plans for field operations were favorable, and the
execution of contracts progressed satisfactorily, but since the
first of April last, extraordinary rains have seriously injured
field work, compelling the adoption of measures to suspend their labors; on
expiration of time has been granted most of them. The hope
that during the coming fall, all surveying contracts, now
in force, will be completed.

Office Work

The regular, and miscellaneous, work of this office has been
utterly large for the limited force employed; and, to
prevent immediate disengagement which would have unadvisedly
occurred, an extension of the usual business house established
by custom, or prescribed by law, has been required of the
clerks of this office; extra clerks, also, have been employed;
and, with government money, paid from the appropriation
for carrying on services, furthermore, I have been compelled to have irregular office work performed at my own personal
expense.

The "Exhibit of Private Land Claims" in this State,
has been found to be labor of greater magnitude than was
at first reported, still, good progress has been made in this
most-demanding and important work; and that part of it
relating to the Greensburg District, has advanced nearly
to completion.

Thirty have been issued during this fiscal year;
and, in the act of June 6, 1874, sixty-three (63) certificates of
locations, but, since the receipt of your instructions of
August 26, 1872, requiring additional evidence of con-
stitutional, and a more thorough investigation into the main
of the claims themselves, and every other, to the enclosure
of other, and more pressing duties, this work
has been suspended, and, as yet, has not been resumed.

In order that you may fully comprehend the
present condition of the public surveys in this State, and
also the necessity, existing, for the estimates herein submitted,
it is thought proper to take a brief retrospective view of
some of the early surveys,

Respectfully,

The Territory of Louisiana was ceded by France to the United
States under the Treaty of April 30, 1803, and, with the exception
of the West Florida, finished occupied a few years later, from
provisions, under the provisions of the Act of Congress approved October 26, 1783, was taken by the American Government on the 25th of December of the same year.

**Division of the Territory.**

By the Act of Congress approved March 30, 1794, the territory thus acquired, was divided as follows:

- That portion of the cession lying south of the Mississippi Territory, and of an east and west line commencing on the Mississippi river at the 33rd degree of north latitude, and extending west to the boundary of the said cession, was to constitute one division under the name of the Territory of Orleans, now known as the State of Louisiana. The remaining portion of the cession, lying to the north, and north-west of the first division, was designated as the District of Louisiana.

**Surveying District.**

By several Congressional enactments, following closely upon the Act of Cession of 1783, the Territory of Orleans became attached to the Surveying District of the Surveyor of public lands south of the Tennessee, who was instructed to cause such public lands, therein situated, as the President should direct, to be surveyed and described as correctly as the nature of the country would admit, in the same manner, and under the same legal requirements, as was applicable to the other public domain of the Country.

**Land Districts.**

By the same Act the Territory of Orleans was divided into two Land Districts: That portion of the territory lying east of the river Atchafalaya, and Grand Lake, including the Island of New Orleans, was designated as the "Eastern," now known as the "South Eastern District," with Land Office at New Orleans. The remainder was designated as the "Western District," with the Land Office at Orleans as its capital; this latter has since been subdivided into the South Western, North of Red River, and North Western Districts.

The old Eastern and Western Districts were each provided with a board of Commissioners empowered to examine, and decide, upon all claims to land, the titles to which emanated from Congress, to previously holding Sovereignty over the territory, and with a principal deputy Surveyor, to have charge of the Survey in his district, with directions to report to the Surveyor south of the Tennessee.

**Instructions.**

Liberal appropriations were placed at the disposal of the said surveyor of public lands, accompanied by instructions to cause, on the first plans, the surveys of the 33rd degree of north latitude, the meanders of certain rivers, to locate the eleven thousand five hundred and twenty acres of land granted by Congress to General
Further Instructions.

The following extract from a letter dated May 8, 1834, written by the Rev. Albert Gallatin, then Secretary of the Treasury, to Isaac Briggs, Surveyor of public lands and of Indian affairs, explains the reasons which actuated the Government at that date in hastening the survey and sale of public lands in the Territory:

Extract:

"You will use every possible endeavor to have as much of the public lands in the Western District of the Territory of Orleans surveyed during this year as is practicable; it is the wish of the legislature that the public lands in that quarter should be offered for sale, and I will add, that that object is intimately connected with the welfare and security of that newly acquired territory; for it is hereby proposed where any great increase of American population can take place and I need not repeat the importance of the object; it may, indeed, in this instance, be found necessary to sacrifice the scientific correctness which would otherwise be desirable, to the dispatch which is indispensably necessary."

Plan of Survey:

The plan of survey adopted, was to extend the 36th latitude, as it was called, "the line of demarcation," which was established by treaty between the United States and Spain of the 25th of October 1795, as the bounds between the Western territory and Spanish possessions across the Mississippi river, and hence due West to the 120th meridian, as a base line from which surveys should be made; at the same time a Meridian line was to be established, extending from the 120th meridian to the 87th running sufficiently to the West of the Mississippi to avoid its incursions; and, at first, Hatchetches or the Rapid river suggested as the initial point; finally, however, it was decided to run the base line from the eastern boundaries of the Mississippi river due West, on the line 36th parallel for eight miles, or eight ranges of townships, and the 120th meridian, an initial point from which the Base Line should be extended due North to the 36th of latitude, and due South to the Gulf; and then, as speedily as possible to cause the public domain to be surveyed.

Contraction:

The survey of the base lines was interrupted, to allow a deputy surveyor, who commenced his labors towards
The close of the year 1844, and completed, early in 1845, 88 miles of this contract, 2 point 56 miles west of the inter-
section of the meridian to a stream supposed by him to be the Shasta river, but which was afterwards con-
tained to be the Rio Verde, or Calcasah-

For the survey of the Basis Meridian, a con-
tract was made with Thomas Living, another deputy
surveyor, and for the survey and sub-
division of all the townships West of that line, to the meridian of Butte-
stockton, 5 ranges of townships, and east of it to the river
Shasta, there were employed 18 delinuates who, during
the year 1845, completed the survey of more than one-
thousand townships in the Western District, alone.

Previous Survey.

The extensive survey had not proceeded far, before
it became apparent that errors, and reprehensible, errors
had been committed by both Brooks and Living, in running
their respective lines. In the unintentional latitudes registered,
in the last clause of H. Gallatin letter, had been most un-
ceremoniously perverted, and not only "scientific corrected," but
the most ordinary rules of compass surveying had
been sacrificed to accomplish a field survey. Hence, in
rural and city, that an accurate representation of the
County of Township Maps was delayed for many years,
and, in fact, had not been fully accomplished to this day;
indeed, so glaring were those discrepancies, that, before
the townships might be sold, with any degree of certainty,
be projected from the survey's notes, it was deemed nec-
necessary to resurvey its several fundamental lines,
in doing which, Brooks' true line from the initial point
east to the Mississippi river, was discarded, and a new
line was, and adopted, as the Basis Parallel.

This line commenced at Brooks' initial point and extended,
estward, to the Mississippi river terminating at a point 27
miles, and a few chains from the initial point, and more
than 1200 yards to the north of Brooks place of beginning
on the 32° of latitude.

The line west of the initial point, which was re-
planted, and reestablished, was found to be a y. y. y. y.
congruous line, which, in 36 miles, had gained to the
north over 600 yards.

Now was the original survey of the Basis Meridian
by Living, worthy of much more confidence; on the
contrary, it betrayed nearly the same want of accuracy
and precision, as had marked the labors of Brooks.

In the 56 miles resurveyed the following year, there
was found to be an excess of 50 chains over the proper
distance; fortunately, however, without considerable
existence from the true meridian.
The Results.

The consequences of these erroneous surveys, as will be fully felt in the future surveying service today, at the time for which we were found, for although the objectionable character of this principal line was so early known, yet, as extensive and important surveys had been based upon them, it is great expense to the Government, it was deemed necessary, when it was reasonably practicable, to re-establish these erroneous lines, and, with the omission of accurate connections, with all possible velocity to draft separate township maps from surveys already made so that no delay should occur in bringing such lands into market, hence further corrections were attempted, but, the notes which had been returned were to some extent so amended as to confuse, partially, to the conditions made on the principal lines, and by this method, a continuation of the public surveys was made.

Later...

This plan was carried into effect, and the surveys of public lands were, the Western district, including what was afterwards the South Western, and South Western District, and the District North of the Red River, especially such lands, these, as were regarded as the most valuable, were rapidly extended.

Eastern District.

In this district considerations of a different nature affected the early surveys. The country was, mostly, low alluvial to the inundation of the Mississippi, and, with the exception of the narrow ridge along the streams where settlements existed, covered with accumulations of vegetation, and covered in patches underneath, interspersed too, with oak and holly greenery, or cut up with deep and narrow fissures, where waters were alive, and swimming, with reptile histories to the sight, and venomous in their nature. As was this all, it was claimed by conflicting, interfering, concessions, held, frequently, by parties animo most hostile, to the government, recently in possession; and as the maximum interfered with, established by law, for the operation of surveying was the same as the absolute possession of the State, where surveys could be executed with less expense, and for less exposure, it was found exceedingly difficult to induce competent surveyors to contract, and, with the exception of extending a few township boundaries on the west side of the Mississippi river, and the line of some private claim, but the surveying was done in the district until the adoption of the system authorized by Act of May 4th, 1828, of surveying irregular sections, or lots of eight acres each, having a front equal to two acres on a stream of water, for a uniform depth of forty feet. While the provisions of this Act, nearly all the public...
clands locating upon any water course, including some
that had already been surveyed under the rectangular
system, and lands that were held and owned as private
claims, were subdivided into lots. These surveys, however,
later time to which we have previously referred, were
conducted in a manner authorized, and that by
surveyors omitted, in almost every instance, to connect
their line with the township boundaries.

Land Claims

Following the cessation of France to the United States, Con-
grress, in a liberal spirit, and anxious to preserve the national
faith, adopted various provisions for the confirmation of
titles to land, and not only titles perfect in themselves, but
that class of incomplete titles known by the names of Rights
Ordin of Survey, Permission to settle, Surveyor's Plats or Certifi-
cates, as well as other written evidences derived from foreign
powers previously holding sovereignty, were when properly
authenticated, confirmed, and, beyond the persons who
had, at the time of the cessation, occupied or cultivated
tracts of land, or those who had purchased settlement
rights, were confirmed in their possessions in the same
manner as would have been the case under the laws and
usages of former governments.

These legislative provisions for the final adjustment of
private and land claims in Louisiana continued to be extended, and reenacted from time to time, and,
under the Act of June 10, 1878, are still in force.

By virtue of these enactments, for several years
subsequent to the time when the Land Commissioners
commenced their investigations, the attention and labors
of the officers of this surveying district were directed
principaliy to the location of those private claims, under-
rolled from the Land Commissioners, and their successors,
the Register and Receiver of the Land Office.

Survey of Claims

Private claims were generally surveyed as distinct, separate
estates; and, as the claimants, at least for several years, were
required to pay for such service, they felt an obligation to
have their lots connected with those established by
public or other surveys.

In the meantime, as the investigations of the Com-
misssioners continued, they found that large
portions of the territory were held by individuals who was
originally imagined, since much of the land, that had
previously been surveyed as public, was found to be
covered by private claims, and that these claims frequently
not only conflicted and interfered with each other, but
also with public lands which the government, in good
faith, had surveyed and sold, producing inevitably,
Extract. "The condition of the old surveys in the South-Eastern
and Southwestern Districts is a subject which demands the
most serious consideration. Although the surveys were made on
the maps of the surveys, not one in ten of the Townships,
containing private claims, will stand the test of the most
careful official examination at the present time, as full
of errors and discrepancies are they, that it is scarcely possible
for a single separate plat of survey which will bear
that kind of examination which, under present regulations
would entitle it to the official sanction of the surveys
general."

These errors and discrepancies have been caused by
the carelessness, negligence, and unskilled manner in which
the surveys were made; the number of surveyors permitted
to operate in the same Townships, and the inadequate
information of the officers appointed to examine
the surveys, which, depending as it did, almost entirely
upon the surveyor and his field notes, often without
the services of two or more men, it is necessary to
honor the approval of the officers of the government.

Greenbush or St. Helena District

Soon after the occupation of the United States of the
province of West Florida, which embraced the lands east of
the Mississippi river, and the island of New Orleans, to the
Vermilion river, and northward to the 31st of North latitude, and
in which, until the treaty of February 25th, 1819, was claimed by
the government of Spain as a part of its domains, that
portion lying west of the Mississippi, to the 49th of North latitude
and 28th of April 1810, attached to the State of Louisiana,
and a court District was organized with the office of
at St. Martin's Court House, subsequently removed to

A commissioner, also, was authorized and by
words of power, who was required to secure claims;
and report to Congress all claims to land in an annual
similar to what adopted in the other districts of Louisiana,
and, furthermore, to report a list of actual settlers occupying
land without written evidence of title.

Report

In consequence of the war and other causes, delay
occurred before the Commissioner commenced his
ligation, and a complete report was not made until
June 1795, which was submitted to Congress on the 8th of June.

1876

It embraced one hundred and twenty-four claims
served from the French, Spanish, and British authorities,
and a list of twelve hundred and thirty-four actual settlers.

This report was not acted upon by Congress until the
3rd of March 1877, when an Act was passed confirming the
claims derived from the previous governments, under
 certain limitations, and conferring on the actual settlers
a donation of one hundred and forty acres of land each,
provided the settlements were made before April 15, 1877,
granting also preemption rights to those
who had made their settlements at a later date.

By the same Act, the time for filing claims to land
was extended, and, by subsequent Acts, extended, and the
Register and Receiver of the Land Office were invested
with the power, and required to perform the duties,
formerly invested in the Commissioners.

These officers made several reports of their duties,
and the number of claims reported, the Act of Congress con-
firming the same, and relative information, reference
is made to tabular statement "G", submitted herewith.

Register and Receiver

The Act of May 8, 1878, required these officers to direct
the manner in which all confirmed claims should be
located and surveyed, specifying that they should be
located by the laws, usages, and customs, of the Spanish gov-
ernment.

It appears that at the time, and for several years
subsequently, much difficulty was experienced in secur-
ing for three places, competent officers who would, for
the limited remuneration allowed by law, perform the
required duties, and the inevitable confusion resulting
from frequent change of officers, and the disorderly
conditions of business, occasioned embarrassment and
delay, in obtaining the evidence requisite for the proper
location of these claims.

By the said Act of 1878, the powers vested in the
Surveyor of public lands, south of Tennessee, were
extended for this section of country, and a principal
deputy surveyor, residing therein, was appointed,
with instructions to extend the lines of public survey
ever this district.

Principal Lins

The line of Demarcation was taking for the base
This line was originally surveyed, several years prior to
this time, by Andrew Clark Esq., wherein this line east
from the Mississippi, and erected his post at the point at the end of every mile; the first 31 miles were run with a "back" instrument, but the remainder of the line, from the 31st mile post to the Mobile river, was run with a compass, and the guide line, only, was marked; at the latter, from Elliott's station, by astronomical observations, that he had used, northward, about 90 yards, and continuing to the Mobile river, by a second observation, he discovered that he had gained to the West 884 yards; re-arming he removed the mile post to the Mobile line.

In the meantime, before Congress acted on the Commissioners' reports, the government, unfortuned by the new settlers, urged the surveyor south of Tennessee to prosecute with expedition the public survey; therefore, with the survey as stated, an independent meridian running south from the 31st mile post was extended, and about the year 1809 the survey of the district into townships, sections, and sub-divisions of sections, was commenced, conformable to the general provisions of law respecting the survey of public land.

Complications

Several surveys were sent to the field, some commenced from Elliott's line, and others from the guide line, and thus, in a short time, confusion and vexatious differences were discovered; complications followed of a serious character, a want of harmony developed between the operations of the surveyors and those of the officers of the land district; for, while the former were subduing the land into public sections, or, from their mere survey of the district and correct location of the boundary of private districts, were distributing private claims on land actually public, and constructing and distributing maps, intrinsically erroneous, the latter, acting under general instructions, and pursuant to reason of the want of an unimpeded immigration, were showing these lands, without issues, upon the market, and, at the same time, acting under their special instructions as Commissioners for adjusting Land Claims, were treating the land, and directions its district, to locate the private land claims, according to the laws, usage, and customs of the Spanish Government. Some intelligible idea of the inherent defects of these usage and laws cannot, perhaps, be given than is to be found in the language of one of our most experienced surveyors he states:

It was the general custom of the surveyors employed by the French or Spanish Governments, in locating tracts of the province of Louisiana, having regard to depth of the water, much survey the points of each tract, and to indicate the courses of said lines by planting stones or posts, at equal intervals from each other, and at short distances from the river; without actually running and measuring the full step of said sides, but and without closing the survey by sum...
The seat of the surveying claims was adopted by the deputies acting under explicit instructions of the Register and Receiver. There was no connection with township boundaries, as they had already been established, but it was

**The Neutral District**

Until the treaty of 1819, no definite line had been agreed upon as the boundary between the United States and the Spanish province of Mexico. But by this treaty, the strip of country known at that time as "neutral territory," lying between the Sabine River and Red River, nearly as far west as Vivian's, and the two lands of Colasouier and the Gulf was admitted to be a part of Louisiana.

In the year 1820, the survey of this latter neutral territory was commenced. The first parallel was extended to the Sabine river, but whether or not an accurate connection was made with the surveys south of that line cannot now be determined from the field notes. The presumption, however, is that the surveys were commenced at the 36th parallel as established in the survey of Coker's line.

From the 36th parallel, to the said baseline, a guide meridian was extended, due north, to the line of six marsh andfrom the places, the townships were laid off and subdivided, westward, to the Sabine, and, eastward, one range of townships, to the supposed northern border of the surveys of 1819. before mentioned.

During the war and confusion of the first surveys, and the failure of these later surveys with some exceptions, to identify the old boundaries, it is known that these later surveys, in some instances, overlapped the earlier ones, causing interferences and

**Survey on the Coast.**

It will be seen that the surveys herebefore mentioned were mainly confined to the upland portion of the state, and the

strip, tracts, fronts, and watersheds. At a later period, it was found necessary to connect these together by extending township lines, and tracing the Gulf of the coast.

The great difficulty in securing competent surveyors to extend township lines was not such an amount of financial gui
but contracts were made for surveying the coast line, and the subdivisions of the townships bordering thereon.

Interspersed for the South Western district, instead of extending the principal meridian south from the point where the first surveys ceased, their work at the line of the

seamark, to the mouth of the Gulf, and then continuing their surveys, east and west of the meridian, they began at the mouth of the Pahagaayau river, in range west, and gradually

establishing townships, towns at six miles, and made

subdivisions accordingly.

The first surveys in working south, had taken into consid-eration, the divergence of the lines of the principal meridian,

and between the 31° to the latitude, had increased the count-erpart of each township over its corresponding north town-

ship, and by their links, dividing the excess on each subdivision.

Therefore the south limit of township No. 25, about the

pace at which they discontinued their surveys, was at least

five chains in excess of six full miles, resulting as is now as-
tained, in an excess of seventy eight chains from the prin-
cipal meridian to the Pahagaayau river, and as a conse-
quently the townships bounding on the coast are at variance with

those in the interior.

The extensive belt between these surveys, which is a

region of marshy places, intersected with islands of one

branching fertility, has not, with related exceptions, as

yet been surveyed.

Act of March 3rd, 1821.

Upon these surveys, the public surveys of this State were per-

formed by the immediate direction of a principal deputy surveyor

on each land district, who was paid an annual salary of five

hundred dollars, with small additional fees for examining,

and recording, if we stop for one moment, to consider the

inestimable value of such enumerations, to secure the service of

officers qualified to perform duties so responsible, and to

reflect upon the intrinsic difficulties arising from the

enforcing provisions of the law, the facilities entailed by

the nature of offices of the late Government, who appropri-

ated valuable public lands for private use, referring to

division to their successors, and if we reflect upon the

capacity of the old inhabitants, and their reluctance to fur-

nish information of which they were the natural custo-

mers, we shall find in these considerations, and in the fact that

the surveys in each land district were made independant

of one another, extending townships, in other lines, across the

dividing streams, only of the courses that produced them

forthwith, and insurmountable condition in which the sum-

of the State existed at the time of the passage of this act.

Per the provisions of the law of March 3rd, 1821, the surveying

district of northern was organized, the office of principal

depot surveys was abolished, and that of Surveyor General
but, by reason of a limited clerical assistance, several years elapsed before the office was put in working order, and not until after the reorganization of the General Land Office, and Act of July 8, 1866, was any progress made in solving the
complex problem of surveying the survey of Louisiana.
Through the influence of the latter Act, a more liberal
appropriation of funds was made for clerical work, and,
at the same time, the maximum mileage for surveying
was increased, and a system of corrective surveying was adop-

**Resurvey, Imsilma District**

After several years of futile effort to get the surveys in this
district, a resurvey was found imperative, and this was authorized
by Act of Congress of August 30, 1870.

To accomplish this intricate and tedious enterprise, liberal
appropriations were made which were applied, not only to
the payment for such surveys, but also for the salary of an
assistant surveyor to superintend the field work, for clerks,
draftsmen, and other incidental expenses.

The work commenced in the year 1870 and was completed
by the year 1875, and, although owing to the great lapse of
time, the loss of records, the removal from the country of
untouched tracts, and because of vague and indefinite
descriptions, a large number of confirmed private claims
were not located, yet there is no doubt that the United
States has added to the survey that is laid off, with more
precision, or in which the field work is more thoroughly
performed, and the maps representing the same, contain
more useful and exhaustive information than is the case
in this district.

For the accomplishment of this arduous work, the
Government is indebted, in a great measure, to the long
experience and conscientious devotion of R.W. Boyd, Esq.,
The Surveyor General.

**Other Resurvey**

During the advancement of the surveys of the St. Helena
district, a system of corrective survey was inaugurated in
the four other districts.

These corrections consisted, mainly, in an extension of
township boundaries, locating claims, and connecting
them with the lines of the original surveys, and it was
generally found that in understanding the correction of
townships, where it was supposed only a few miles of
surveying would be required, many errors and con-
flicts existed that not only a complete survey of a
township, was necessary, but often, extensive work
were developed in the surrounding townships.

To exemplify this fact I submit, herewith, two diagrams
of townships of south of range 11 east, south action district,
west of Louisiana, the first is a portion taken from the original
In consequence of these inaccuracies and conflicts, it soon became apparent that surveys of many portions of the Southwestern and Southeastern districts, and the district North of Red River were necessary, which, with some isolated exceptions, have been made, and, but for the suspension of this office in consequence of the late war, it is probable that the public surveys of the State would have been brought to a final conclusion several years ago, and it is but justice for me to add, that these results are largely owing to the supervision of the Surveyor General, Mr. J. V. Bell, Esq., whose general arrangements, and intimate acquaintance with the laws, customs, and usage of the previous government, equally adapted him for the labor which he has with acuteness, and capturing ability performed.

Unfinished field work.

After a careful examination of the old surveys in the Southwestern district, and that South of Red River, which remained uncorrected at the time of the suspension of this office, I have become satisfied that, with the exception of a few connections of township lines across Red River, and one detached job, such as the survey of Lake bid Bc, and the correction of a few uncorrectible errors, no further work is required to be performed in these districts.

In the Southwestern district, it is proposed to continue the system of correcting old surveys, and preparing new ones of those new eligible, situated at the borders of the surveys of 1870, from about two ranges west from the Basin Meadines, which the laws of the year 1860 and 1861 especially directed to continue the retention of township lines across that belt of country between the borders of the sea and the Gulf of Mexico, to mean the lakes, rivers, canals, and islands therein, and to divide such tracts as may be found suitable, adapted for inhabitation and cultivation.

In the Southeastern district, the unfinished work consists in detached jobs, isolated townships, locating confusions on the coast with the interior surveys, and surveying same during the approval of warrants and private surveys.

The inherent difficulties incident to the prosecution of these surveys, necessitates an increase of the maximum rate allowed for mile for surveying, and the estimate for the following year has been based accordingly.

The extraordinary nature of some of these detached jobs under the expectation impracticable under ordinary
Unfinished Office Work.

Your attention has been called in previous reports to the large amount of unfinished work which must be performed before the closing of this office, and the transfer of its records to the State authorities. My report for 1871 shows that the transcript of field notes for more than one hundred townships, and plats for the patenting of sixty or seventy private claims, remained to be prepared and transmitted to the proper offices.

Since that time no provisions having been made for this work, it remains as before.

The exhibit of private land claims, before mentioned for censuses and according to the plans prepared, requires the services of at least two able and competent clerks for the ensuing year.

The statements herewith submitted, statement D1, have been reduced to the most figures, commensurate with the amount of proposed work, and with the labor that will be necessarily required in finally closing this office which it is hoped can be accomplished by the 31st of June 1872.

I have the honor to be,
Very respectfully,
Your obedient servant,

C. W. Foster
Surveyor General.