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Office U. S. Surveyor General

Portland, Oregon, Sept 20 1878

George S. Pershin

U. S. Deputy Surveyor.

1. SIR:—In prosecuting the surveys embraced in your contract No. 305 dated Sept 20, 1878, which must be executed by you in person or under your direct personal supervision, you are required strictly to adhere to the system of public surveys, and comply with the Manual of Printed Instructions, with the exceptions hereinafter mentioned:

2. In addition to the manner of establishing corners of public surveys by mounds of earth with deposits at the point of the corner, you are required to drive in the center of one of the pits at each Section and Township corner, sawed or hewed stakes, not less than two inches square and two feet in length; said stakes to be marked in the manner prescribed in the Manual for marking corner posts, and to be driven one foot in the ground. At corners common to four Townships or Sections, the stakes are to be driven in the pit southeast of the mound, and at corners common to two Townships or Sections, they are to be driven in the pit east of the corner. This requirement does not apply to quarter-section corners.

3. In all cases where stones are used for corners, you will dig pits in the same manner as for corners, marked by posts and mounds.

4. In surveying lands bounded by waters affected by the ebb and flow of tides, you will extend the lines of surveys to high water mark only.

5. Where it becomes necessary to meander a stream, you will meander both banks of the same, instead of one bank as required by the Printed Manual of Instructions.

6. In the execution of your work you will be particularly careful not to extend Township lines from north to south, but to commence in every instance from a proper standard-line, and work from south to north as required by the Manual.

7. No lands shall be surveyed except—

- I. Those adapted to agriculture without artificial irrigation.
- II. Irrigable lands, or such as can be redeemed, and for which there is sufficient accessible water for reclamation and cultivation of the same not otherwise utilized or claimed.
- III. Timber lands, bearing timber of commercial value, foreign or domestic.
- IV. Coal lands, containing coal of commercial value.
- V. Exterior boundary of town sites.
- VI. Private land claims.
- VII. You will survey no lands which subserve merely pastoral or grazing interests.

8. This office is instructed in letting contracts for the subdivision of the public lands, to stipulate the condition that the survey must include all the lands in the Township contracted for subdivision which are by law classed as surveyable, and not to contract for fractional townships simply to cover the full amount of any liability.

9. Except in case of triangulation, you will be required to start from the proper base or standard parallels. If these last shall not have been established that must first be done, and then, if there are no exterior lines of the Township surveyed, you must first survey them, and finally subdivide the Township into Sections, running, measuring and marking the line from south to north, except where by reason of impassable objects the south boundary of a Township cannot be established an east and west line should be run through the Township, first random and then corrected, from one range line to the other, and as far south as possible, and from such line extend the Section lines north in the usual manner, except over any fraction south of said line which may be surveyed in the opposite direction from the Section corners on the auxiliary base thus established.

10. In cases where Townships have formerly been partly surveyed, and you are required to complete the same, you will, in your field notes, fully describe the old corners identified by you, and from which you start in the completion of your surveys, giving the kind of corner, bearing trees, and other witnesses to the same, so that there need be no doubt as to the corner from which additional surveys are initiated.

11. In cases where only exterior lines have been run, and you are required to subdivide a Township, you will either describe particularly all the corners on the south Township line from which you start, and the

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corners on the east, north and west Township lines upon which you close; or, if you find such corner corresponding to the description furnished you by this office, then you must state that fact in your field notes; and if a corner on a Township line should be re-established by you your field notes must show in what manner you have done the work. No mountains, swampy lands, or lands not classed as surveyable by law, are to be meandered. All lines approaching such lands must be discontinued at either the Section or Quarter Section corners.

12. In all lines, including *meander lines*, you will be particular to state in your field notes whether the land is mountainous or heavily timbered, between the corners and at the line.

13. When you meet with insuperable objects on line, and are obliged to make offsets by right angles, or traverse, or trigonometrical operations, you will make the notes full and explicit in the proper place, in the field book, stating the distance over such obstacle.

14. If you find it necessary or proper to change or modify your contract after arriving in the field, such as the substitution of an arable for an unarable Township named in the contracts, you must immediately report the same to this office and obtain the consent of your sureties to such change.

15. Instead of squaring the posts on the top and making a cross line, you will chamfer off the sides of the posts that are squared or flattened, to a point, at an angle, with the sides of 45° . The angles that were formed by the chamfering will occupy the same position on line as the lines would on the squared top of the stakes.

16. You will be required to use "Burt's Improved Solar Compass," or some other instrument equivalent to it, in surveying Township lines, and also in subdividing, where the variation of the needle is irregular.

17. The variation of the needle must be noted at each Section corner preceding the notes of measurements, and intermediate between Section corners if there is found any material change of variation; state the variations at the proper place on the map you return to this office.

18. Any excess or deficiency in the length of any Township boundary line, or excess of error in the falling off from the corner to which any section line shall be run that may exceed four chains, or any excess or deficiency exceeding one hundred links in the length of any section line, or excess of error in the falling off from the corner to which any section line shall be run, that shall exceed one hundred links, in closing the lines of a whole Section, and at the same rate for the Section lines, and at the rate of one chain and twenty-five links per mile of the meanders of a navigable river or other water course, with the line or lines of a fractional Section, must be corrected by you and reduced within those limits before leaving the ground, by remeasuring the line or lines which may have occasioned the excess or deficiency in the length of such Township or Section lines, or excess of error in closing the lines of a Township or of a whole or fractional Section, and state at length all of your proceedings in making such correction in the proper place in your field book.

19. In all cases the courses of closing lines, that is, corrected random lines, should be given in the field notes and placed on the maps returned to this office, and the **full field notes** are to appear on the true or corrected lines.

20. Whenever a distant and distinctly prominent mountain spur, peak, ridge, or any other interesting object attracts attention on either side of your line of surveys, you will aim to select some peculiar and distinguished point or part of it for a sighting object, providing the same can be viewed from any other station on the line of your surveys so as to admit also of taking an angle or bearing of such object from three or more points, carefully noting the same in your field book, in the proper place, noting all the particulars and description of the object. (Pay careful attention to requirements under this head on pages 18 and 19 of the Manual.)

21. The diagrams mentioned on the 16th page of the printed instructions will be on scale of two inches to the mile for the lines of each Township subdivided. You will also return a connected map on the scale of three miles to the inch, showing the Exterior lines of Townships surveyed by you.

22. You will be required to make return of your field notes in person; and if there are any blots, blurs, or interlineations in your original field notes, or if they are not plainly or legibly written, you will be required to make a full and correct copy of the same in a neat and distinct manner returning the original notes with the copy, accompanied with your affidavit that the copy is correct and true of the original.

23. In prosecuting your surveys under your contract before named, you are instructed to ascertain from the best information you can obtain, and your own observation, the extent of country lying contiguous to, and in the vicinity of your work, which is or may become settled, and report the same to this office from time to time during the progress of your work *At the close of each day's work you will note the date in your field notes.*

24. Any field notes returned to this office unaccompanied by the proper plats will be returned to the Deputy for correction, the same as in any other error.

James C. Tolman
U. S. Surveyor General, Oregon.

FIELD NOTES

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Of the survey of the *Subdivisional*

Lines of Township *3 North Range*

36 E. Willamette Meridian, Oregon.

Executed by *George J. Pershin*

U. S. Deputy Surveyor, under his Contract

No. *305* dated *Sept 20* 1878

List of the names of the persons employed to assist in running, measuring and marking the lines of the foregoing survey.

Herman J. Gradow Chainman.

Marion O'Harra Chainman.

..... Chainman.

Sanford Shaw Axeman.

..... Axeman.

..... Compassman.

..... Flagman.

PRELIMINARY OATHS OF ASSISTANTS.

We, Hermon D. Gradon and Corrington S. Newell & Marion O'Barra

do solemnly swear that we will faithfully execute the duties of Chain Carriers, that we will level the chain upon uneven ground, and plumb the tally pins, whether by sticking or dropping the same; that we will report the true distance to all notable objects, and the true length of all lines, that we assist in measuring, to the best of our skill and ability.

Hermon D. Gradon Chainman.
Corrington S. Newell Chainman.
Marion O'Barra Chainman.

Subscribed and sworn to before me, this 26th

day of September 1878

J. J. Linnallen
a Justice of the Peace

at Sanford Shaw and

do solemnly swear that ~~we~~ ^I will well and truly perform the duties for which ~~we~~ ^I have been ~~severally~~ ^{employed} according to instructions and to the best of ~~our~~ ^{my} skill and ability.

Sanford Shaw

Subscribed and sworn to before me, this 26th

day of September 1878

J. J. Linnallen
a Justice of Peace for the
County of Marquette State of Wisconsin

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Referring the lines to the pages of the field notes.

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Subdivisions of Township No. ^{North} 3 South Range 36
East Willamette Meridian, Oregon.

of 5.27 lks in the 5 miles
land but a small difference
in coursing. Thence

West on a blank line along
the South Boundary of
Section 36

Pa. 21° East

79.48 To a point 14 lks North
of Stone corner to sections
35 and 36 on the South
Boundary of the Township
Stone was very poorly
marked. It should
have had a Stone mound
built around it. Stone
mounds make the most
permanent monuments in
this part of the country.

X
Having sufficiently tested the
Exteriors and found the

After diligent and careful search I can find no trace of corner to sections 34 and 35. I therefore return to the corner of sections 35 and 36 and I run West along the south Boundary of Sec. 35
 Va. $18^{\circ} 45' E$

- 37.56 Spring branch course S. W. - 450
 - 58.00 " " " " S. W. - 100
 - 71.00 Brook 20 lks wide course
 N. W. also enter timber - 100
 - 80.00 Set 8 Stone $14 \times 10 \times 7$ on North + 80
 hillside for corner to sec
 34.35.2 and 3, from which
 - A Fir 12 in. diam. brs. N. $82^{\circ} E$ 164 lks dist
 - " Pine 14 " " " S. $80^{\circ} E$ 167 " "
 - " " 4 " " " S $72^{\circ} N$. 21 " "
- No tree in sec. 34

Subdivisions of Township No. 3 ^{North} ~~South~~ Range 36 483
East Willamette Meridian, Oregon.

From the corner of sections 34 and 35 on the South Boundary of the Township I run west and carefully measure along the South Boundary of Sec 34 and at 72.50 to a point 22 lbs South of corner to Sec. 33. and 34 showing an error in measurement of 7.50 chains.

The post is standing and all the Walnut trees as described in the field notes.

I can see no way of remedy for this error. I therefore conclude to extend it to all the crop lines on this tier of sections to the North Boundary of the Township

FINAL AFFIDAVIT OF ASSISTANTS.

We hereby certify that we assisted George S
Perrin Deputy Surveyor, in surveying
 the Subdivision lines of Township
3 N. Range 36 East Willamette Meridian, Oregon,
 and that said lines have been in all respects, to the best of our knowledge and
 belief, well and faithfully surveyed, and the boundary monuments planted ac-
 cording to the instructions furnished by the Surveyor General; and we do
 further swear that we each of us performed the work assigned us, faithfully to
 the best of our ability, in the capacity hereby indicated by our signatures.

Heruan D. Gradow Chainman.

Marion O'Hara Chainman.

Chainman.

Sanford Sharr Axeman.

Axeman.

Compassman.

STATE OF OREGON,
 County of Umatilla }

Subscribed and sworn to before me, this 23rd
 day of October 1878

J. J. Linnell
 Justice of the Peace

I George S. Pershin

Deputy Surveyor, do solemnly swear that in pursuance of a contract with James C. Tolman U. S. Surveyor General of the State of Oregon, bearing date the 20 day of September 1878, and in strict conformity with the Printed Manual of Instructions, and the instructions given me by the Surveyor General, I have faithfully surveyed the Subdivision lines of Township 3 North Range 36 East aforesaid, and do further solemnly swear that the foregoing are the true and original field notes of such survey.

George S. Pershin
Deputy Surveyor.

STATE OF OREGON,
County of Multnomah

Subscribed and sworn to before me, a Notary
Public in and for the said County and
State, this 7th day of December 1878

E. W. Cornell
Notary Public in and for
said County & State

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Office U. S. Surveyor General,

Portland, Oregon, Jan 20 1879,

The foregoing Field Notes of the survey of

The Subdivisional of T. 3 N. R. 36 E
executed by Geo. S. Peashin,

under his contract No. 305

Dated Sept 20 1878, having been critically examined, the necessary corrections and explanations made, the said field notes and the survey they describe, are hereby approved.

James C. Tolman
Surveyor General.