

INSTRUCTIONS TO DEPUTY U. S. SURVEYORS.

OFFICE U. S. SURVEYOR GENERAL,

Portland, Oregon, *Sept. 26,* 1879

George S. Pershin,

Deputy U. S. Surveyor.

1. SIR:—In prosecuting the surveys embraced in your contract No. *340* dated *Sept. 26* 18 , 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, in regions remote from timber and destitute of stone, 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. No lands shall be surveyed excepting—

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.

7. YOU WILL SURVEY NO LANDS WHICH SUBSERVE MERELY PASTORAL OR GRAZING INTERESTS.

8. 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 the east and west lines ; however, 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 Sections corners on the auxiliary base thus established.

9. 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.

10. 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 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, and your particular attention is called to the paragraphs entitled SWAMP LANDS, found on pages 19 and 20 of the printed "Manual of Instructions," and pages 6 and 7 of the "Supplemental Instructions" of 1871.

11. In all lines, including *meander lines*, you will be particular to state in your field notes whether the land is mountainous, or heavily timbered, or densely covered with undergrowth, between the corners and at the line, and your field notes of survey should be FULL and COMPLETE in topographical description.

12. 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.

13. 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 contract, you must immediately report the same to this office and obtain the written consent of your sureties to such change, and forward the same to this office with your application for change or substitution, giving your reasons therefor. The same rule is required in additions to contracts.

14. 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.

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

16. The variation of the needle must be noted at each Section corner preceeding 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.

17. 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, and note any errors you may discover in former surveys, from which you may start or have to close upon.

18. 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.

19. Whenever a distant and distinctly prominent mountain spur, peak, ridge, or any other interesting object attracts attention on either line or side of your 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.)

20. You will be required to make return of your field notes in person, unless excused for valid reason; 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.

21. 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 note.*

22. While executing your survey you will be required to report to this office all unlawful depredations, with the names of the depredators, upon valuable timber on the public lands, which may come to your knowledge by personal observation, or of which you may receive information from a reliable source. You are required to make such report in writing at any time you may receive information justifying it.

23. The diagram 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.

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, and you will be particular to plainly form all the figures and letters in your field notes, and carefully avoid interlineations and omissions.

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

FIELD NOTES

402c

Of the survey of the *Subdivisional*

Lines of Township *3 North Range 37 East*

Willamette Meridian, Oregon,

Executed by *George S. Pershin*

U. S. Deputy Surveyor, under his contract No. *340*

dated *Sept 26*, 18*79*

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

Horner C. Pershin Chainman.

Eugene C. Johnson Chainman.

Isaac J. Hatcher Chainman.

Corrington S. Newell Axeman.

----- Axeman.

----- Flagman.

PRELIMINARY OATHS OF ASSISTANTS:

We, Homer C. Pershin Eugene C. Johnson and
Isaac J. Hatcher

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.

Homer C. Pershin Chainman.

Eugene C. Johnson Chainman.

Isaac J. Hatcher Chainman.

Subscribed and sworn to before me, this thirteenth
day of October 1879

George S. Pershin

U. S. Deputy Surveyor

Corrington S. Newell and

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

Corrington S. Newell Axeman.

----- Axeman.

Subscribed and sworn to before me, this thirteenth
day of October 1879

George S. Pershin

U. S. Deputy Surveyor

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Referring the Lines to the pages of the Field Notes.

Town. *3 North* Range *37 East* Will. Mer.

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|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 6 | <i>34</i> | 5 | <i>28</i> | 4 | <i>23</i> | 3 | <i>18</i> | 2 | <i>13</i> | 1 |
| <i>33</i> | | <i>32</i> | | <i>27</i> | | <i>22</i> | | <i>17</i> | | <i>12</i> |
| 7 | <i>31</i> | 8 | <i>26</i> | 9 | <i>21</i> | 10 | <i>16</i> | 11 | <i>11</i> | 12 |
| | | <i>30</i> | | <i>25</i> | | <i>20</i> | | <i>15</i> | | <i>10</i> |
| 18 | <i>2</i> | 17 | <i>24</i> | 16 | <i>19</i> | 15 | <i>14</i> | 14 | <i>9</i> | 13 |
| <i>1</i> | | <i>8</i> | | <i>7</i> | | <i>6</i> | | <i>5</i> | | <i>4</i> |
| 19 | | 20 | | 21 | | 22 | | 23 | | 24 |
| | | | | | | | | | | |
| 30 | | 29 | | 28 | | 27 | | 26 | | 25 |
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| 31 | | 32 | | 33 | | 34 | | 35 | | 36 |

Subdivisions of Township No. 3 North Range 37 East -
 Willamette Meridian, Oregon.

I begin at the post in Mound of Stone the corner of Sections 18 and 19 on the west Boundary of the Township and with Burt's Improved Solar Compass I run and measure East retracing the line between Sections 18 and 19

to

40.00 Cannot find any trace of $\frac{1}{4}$ Sec. Cor

80.00 To a point 105 lbs. nearly South of Witness tree which was blazed and marked on the South Side showing plainly that this tree is north instead of East from the corner as stated in the field notes of Original Survey. No trace of any corner except witness tree. drove stake at point of old corner. thence

FINAL AFFIDAVIT OF ASSISTANTS.

We hereby certify that we assisted George A. Pershke
Deputy Surveyor, in surveying

the Subdivision lines of Township 3
North Range 37 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 according 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.

Wm. C. Pugh Chainman.

George C. Johnson Chainman.

Isaac J. Hatcher Chainman.

Covington S. Newell Axeman.

----- Axeman.

STATE OF OREGON,
County of Madras

Subscribed and sworn to before me, this 31
day of Oct 18 79

G. W. Bailey
Notary Public

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 26th day of September 1879, and in strict conformity with the Printed Manual of Instructions, and the instructions given me by the Surveyor General, I have faithfully surveyed the Subdivisional ^{frac.} lines of Township 3 North Range 37 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 Justice of the Peace in and for the said County and State, this 4 day of November 1879

A. W. Davis

Justice of the Peace

Office U. S. Surveyor General,

Portland, Oregon, *Jan* ³ 18~~80~~

The foregoing Field Notes of the survey of-----

*Subs. of tract 3 R R 37 E*executed by *George S. Purshin*under his contract No. *340*dated *Sept. 26* 18~~79~~, having been

critically examined, the necessary corrections and ex-

planations made, the said field notes and the survey

they describe, are hereby approved.

James C. Tolman
Surveyor General.