

# Department of the Interior,

TOPOGRAPHICAL SURVEYS BRANCH,

6th April, 1908

File

Ottawa,

Sir,-

Amendments to a few clauses of the Manual of Survey are enclosed herewith. Three important changes are the substitution of iron for wooden posts at quarter section corners, the marking of a section number on witness posts and the list of the instruments which every surveyor is required to have.

It is provided by Order in Council of April, 1908, that no surveyor shall be eligible for employment by the Department unless he owns the following instruments, viz.:-

nc. One transit theodolite with a telescope of not less than inch and half aperture.

One sidereal watch of approved pattern.

One clinometer of approved pattern.

One aneroid barometer of approved pattern.

One sixty-six foot steel band chain.

Please let me know whether you have these instruments.

Authority has also been granted for the sale of surveying instruments at reduced rates to surveyors employed by the Department. Such sales are made subject to the condition that the instruments are for the personal use of the surveyor; if sold by him or otherwise disposed of to other parties, he agrees to pay to the Department the balance of the market price of the instruments in Canada. The prices are as follows:-

	Sale Price	Market Price.
Four inch transit theodolite	\$100.	\$160.
Clinometer	5.	13.50
Sidereal watch	25.	40.
Aneroid barometer (surveying)	25.	36.
Aneroid barometer (pocket)	10.	20
Stadia rod	12.	16.

Steel tapes of four, five and eight chains are sold at cost less duty and express charges. The prices are as follows:-

	Sale Price	Market Price
Four chains tape	\$10.50	\$13.50
Five chains tape	12.75	16.25
Eight chains tape	16.00	20.50
Reel	2.50	3.30

Brass sleeves for tape repairs are furnished at one dollar per dozen.

All these instruments are in stock with the exception of the sidereal watches and pocket aneroids which are expected in about ten weeks.

The sidereal watches are a special model, made expressly for the purpose, and will be found a great improvement on the ordinary Waltham movements previously supplied. These new watches and the 23 jewels Vanguard movements obtained through the Department will be cleaned and rated free of charge, but not the cheaper movements. A watch must be cleaned and oiled every second year.

The pocket aneroid is good enough for Dominion Land Surveys and is recommended.

The sleeves for chain repairs are prepared with everything necessary for soldering. In order to effect a repair, it is merely necessary to clean the broken ends of the band, and insert them into the sleeve, then hold a lighted match under it until the soldering material is melted, when the repair is completed.

The central hole in the sleeve is to enable the user to see when the broken ends are in contact, and the other two are to indicate when the soldering material is melted, which takes place when it either bubbles up in or runs away from these holes.

A spare transit although not obligatory is strongly recommended.

I have the honour to be, Sir,

## AMENDMENTS

to the

### MANUAL OF INSTRUCTIONS FOR THE SURVEY OF DOMINION LANDS.

151. A township, section or quarter section corner is indicated by a pointed iron tube marked as hereinafter described and driven perpendicularly to within ten inches of the top. The iron tube is five feet long and one and three-eighths of an inch in diameter for township corners, and three feet long and three-quarters of an inch in diameter for section and quarter section corners. The upper end is squared and a crown is stamped on one of the faces.

152. A quarter section corner falling in a lake or marsh not over three feet deep is marked by a wooden post flattened on two sides and marked on one side with the fraction " $\frac{1}{4}$ " (fraction-wise) to identify it as a quarter section post. The post must not be less than five inches in diameter and long enough to be driven three feet into the ground and to show six inches above the water.

181. A witness post is marked on the side facing the corner with the distance in chains and the bearing thereto and on the opposite side with the number of the section, which number is to be the same as would have been marked on the post had it been placed at the true corner.

The distance to be marked on the post is the distance to that section corner where the corner monument would have been erected had the spot been suitable.

When a road intervenes between a witness monument and the true corner the distance marked on the post includes the width of the road allowance.

205. (n) The ascent or descent in feet, measured by aneroid barometer, in the case of important elevations or depressions.

(o) The date of the survey.

(p) In contract surveys, the rating on every page of the field notes for the lines shown upon the page.

207. The surveyor who is making the original survey of a township is to obtain from every bona fide settler a statutory declaration on the form supplied, and to see that all the questions on the form are answered, and the answers entered.

A bona fide settler is a person already residing on the quarter section or lot at the time of its survey, or who has made substantial improvements on the said piece of land, proving his prior occupation. A declaration should not be accepted from other than such persons, nor in a case where the answers are clearly untrue or in opposition to the facts.

The object of the declaration is to show the persons who squatted on the land before the survey. A declaration taken from a person locating after the survey would mislead the Department as it would be inferred from the declaration being made before the surveyor that the person was found on the ground or that improvements were in existence.

All declarations from squatters who reside on the land or have made improvements are to be accepted, no matter how many there may be on a quarter section or lot.

Declaration does not give any right or legal

Surveyors are strictly forbidden to make any charge to squatters for receiving their declarations, and it is no part of their duty to explain the law or to give directions to intending or actual settlers for securing land. Surveyors in the employment of the Department are requested to abstain from giving such advice.

Every declaration must be mailed to the Department at the first opportunity after it has been taken.

No statutory declarations are to be taken on resurveys, retracements or restoration surveys.

289. To be eligible for employment, a surveyor must own, in addition to the standard measure required by section 35 of the Dominion Lands Surveys Act, a transit theodolite with a telescope of not less than one inch and a half aperture, a sidereal watch, a surveying aneroid barometer, a clinometer and a sixty-six foot steel band chain.

These instruments must be of approved patterns and in good order.

A spare transit theodolite is recommended.

The aneroid barometer must be compared with a standard barometer at every convenient opportunity.

331. To be eligible for employment as a survey contractor, a surveyor must own, in addition to the standard measure required by section 35 of the Dominion Lands Surveys Act, a transit theodolite with a telescope of not less than one inch and a half aperture, a sidereal watch, a surveying aneroid barometer, a clinometer and a sixty-six foot steel band chain.

These instruments must be of approved patterns and in good order.

A spare transit theodolite is recommended.

~~The aneroid barometer must be compared with a standard barometer at every convenient opportunity.~~

The instruments of a contractor are subject to inspection by the examiner of Surveys at any time.

338. No draft on the Department is accepted. Powers of attorney must be made on the official forms, supplied on application, and must conform to the regulations of the Treasury Board. No money is placed to the credit of third parties without such power of attorney.

Credits may be telegraphed through banks having agencies in Ottawa except the Bank of British North America, but only after receipt of the sketches. These banks are:-

- The Bank of Montreal,
- The Bank of Ottawa,
- Imperial Bank of Canada,
- Canadian Bank of Commerce,
- Merchants Bank of Canada,
- La Banque Nationale,
- Quebec Bank,
- Molsons Bank,
- Union Bank of Canada,
- Royal Bank,
- Bank of Nova Scotia,
- Crown Bank,
- Standard Bank,
- Dominion Bank,
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Union Bank of Canada,  
Royal Bank,  
Bank of Nova Scotia,  
Crown Bank,  
Standard Bank,  
Dominion Bank,  
Bank of British North America.