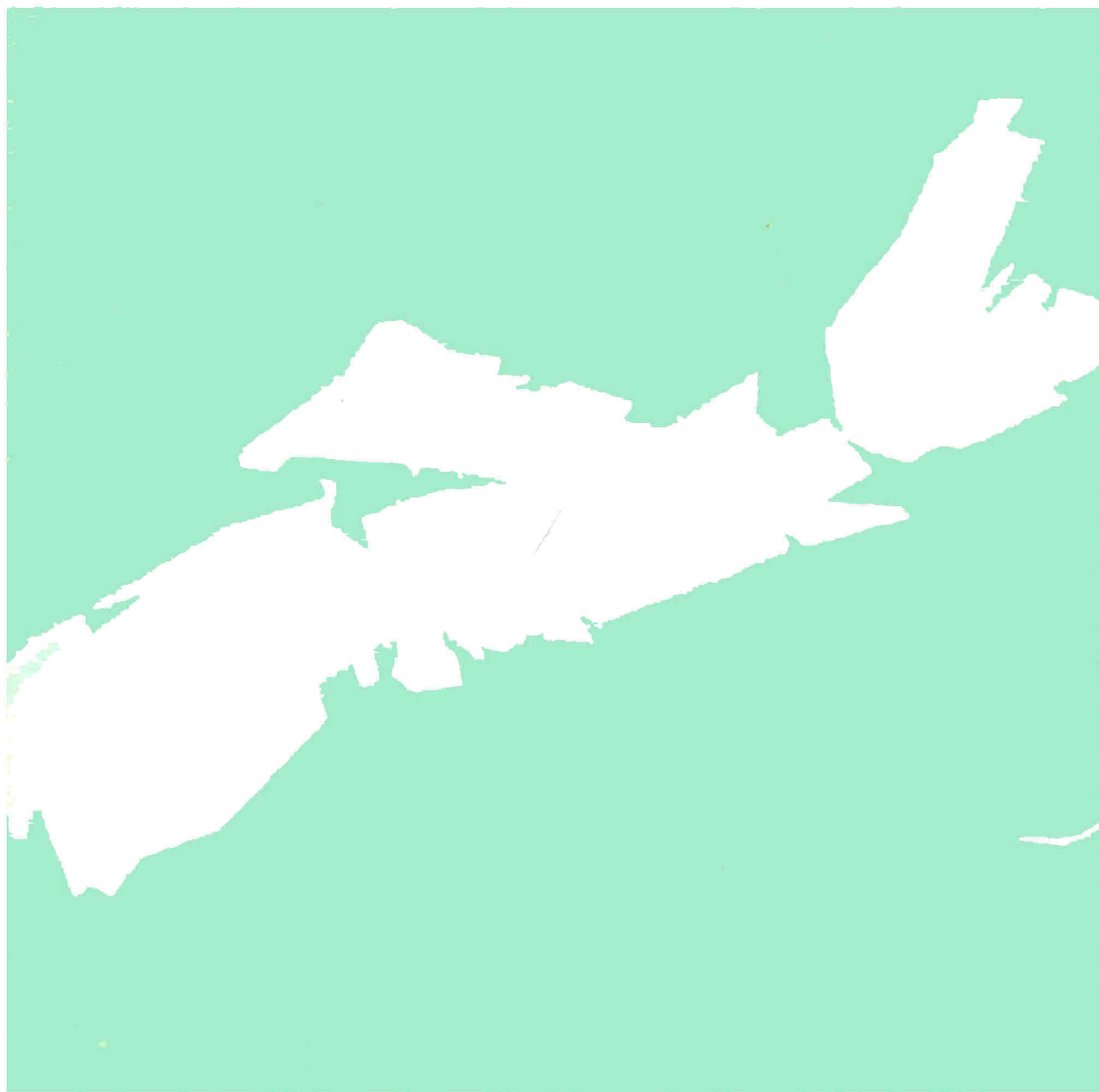
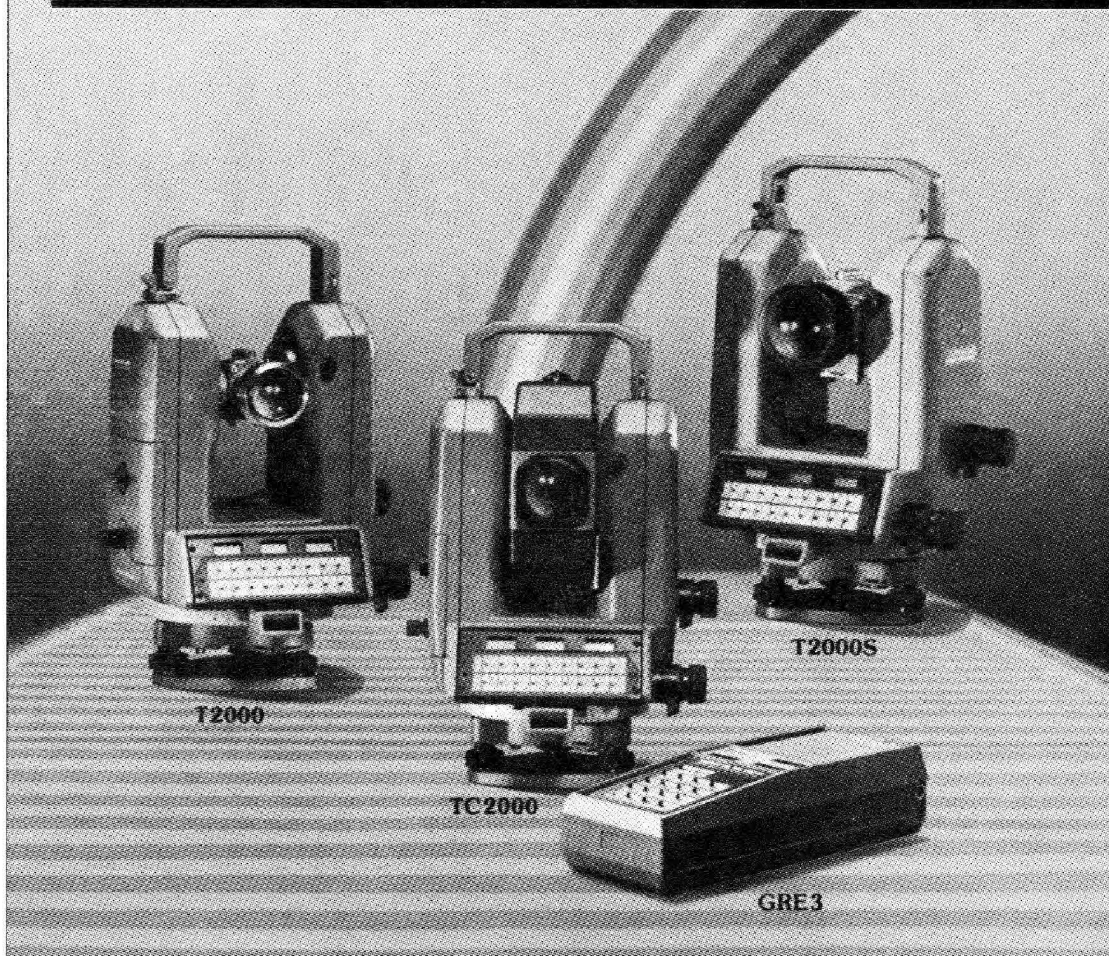


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SUMMER
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The NOVA SCOTIAN SURVEYOR

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**** C O N T E N T S ****

Views, expressed in articles appearing in this publication, are those of the authors and not necessarily those of the Association.

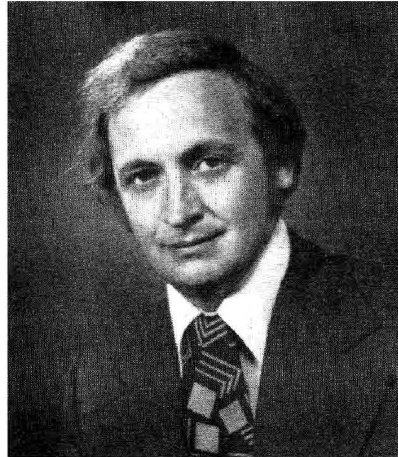
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**** PRESIDENT'S PAGE ****

Fellow Member:

I would like to extend a warm welcome to the forty-three new members who have joined the Association in the past year. I look forward to meeting with you and urge you to take an active part in Association affairs. Our Vice President, James Gunn, will be looking for members for committees in the near future. If anyone has a particular field of interest please feel free to contact James at 539-2011 for appointment in the committee of your choice.



Our Board of Examiners are to be commended for their work in processing article time and technical papers from our new members. Examinations were held in December, May and June. Numerous technical reports were read and many extra meetings were held to evaluate the results. Many thanks for your diligent efforts in completing the processing required under the "old system" which ended June 30 of this year.

A committee chaired by Russell MacKinnon has been set up to prepare a By-Law on mandatory liability insurance for consideration by the membership at the annual meeting. This is a most important topic with many views to be considered. I would urge discussion at your zone meetings to ensure all points are evaluated. A loss prevention seminar sponsored by the Canadian Council of Land Surveyors is scheduled for November 14, 1985, another matter for zone discussion.

Plans are proceeding well under the chairmanship of Ed Hingley in preparation for the annual meeting to be held at the Glengary Motel in Truro on November 15, and 16. Plan now to attend what is shaping up to be an excellent meeting.

Considerable effort is going into making the Ladies' Program the best ever. Don't forget to show your wives the program as outlined in Gloria's report. We look forward to seeing you and your wives at the Glengary in November.

**** LADIES' PROGRAM ****

by Gloria Parker

Three well known Truro area residents have agreed to be included in our ladies' program in November.

Michael Stewart, owner of the "Posie Peddler" and "Petals and Glass" will be sharing tips on flower arrangements on Friday morning.

Gina Coupar, local artist, has invited us to her studio at 321 Pictou Road, Friday afternoon. It will be the final day of her two week art show. She will give us an art presentation after we have toured her studio.

Heather Macumber will do a program on needlework and will bring some Christmas crafts. She will fill us in on the history of needlework and will spend some time on technique as well.

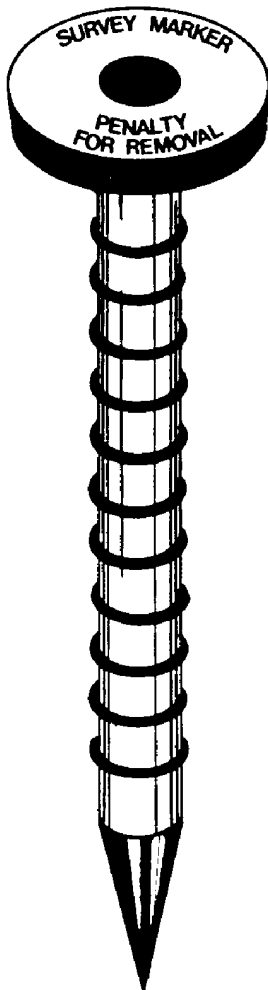
There will be a Ladies' Luncheon on Friday, and a tour on Saturday morning. Details of these are not yet available.

Members of the program committee are Deanne Clark, Darlene Hingley, Patti Grant, Jill Greene and myself.

Make plans now to attend.



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** HIGHLIGHTS OF COUNCIL MEETING **

by H. Kirk Hicks

May 11, 1985

1. This meeting was held in the Board Room, Dartmouth Chamber of Commerce, 12 Portland Street, Dartmouth, Nova Scotia.
2. Nine members were present with five members absent.
3. The matter of processing complaints was discussed along with a proposed form letter and a motion was passed that when the Secretary advises a surveyor of a complaint he will include a photocopy of such complaint unless the contrary is advised by the Association Solicitor.
4. President Don reported that Precision Microfilming have copied all active membership files at a cost of approximately \$1,100.00 and a microfilm reader and jacket loader were purchased at a total cost of \$55.00.
5. Mandatory liability insurance was discussed and a motion passed that the C.C.L.S. Director provide the By-Laws Committee with copies of the wording re mandatory insurance in other provinces.
6. The representation of our Association on the N.S.L.S.I. Advisory Board was discussed and a motion passed that Doug MacDonald be recommended as a replacement for R.A. Daniels who recently resigned.
7. Doug MacDonald gave a report on the cost of different systems for a travelling display. Further inquiries will be made regarding this proposed public relations programme.
8. The purchase of a word processor for the Association Office was discussed.
9. The possibility of designating a week in the year as "Surveyor's Week" was discussed. It was decided that this matter should be referred to the Public Relations Committee.
10. A motion was passed that expense claims should be submitted to the Association Office no later than 60 days after the date of their occurrence.
11. The next Council meeting will be held at the Wandlyn Inn, Kings Road, Sydney, N.S. on September 27, and 28.
12. The Annual Convention will be held at the Glengary Motel in Truro on November 14, 15, and 16.

NOTICE

Proposed lapel pin available at a price of \$25.00 in quantities of 100 or more.
Please phone or write Association Office if you wish to order.



Stirling - Gold Gilt \$25.00

**** NOTES FROM THE ASSOCIATION OFFICE ****

by H.K. Wedlock

Office work was increased substantially in the past few months by the influx of Technical Papers, additional Board of Examiners Meetings and preparation of two additional exam sittings, all completed before the June 30 deadline for the acceptance of candidates into the association under the "old system".

New members since our last publication are named in Marcellin's report. We now have sworn in 43 candidates this year, for a grand total of 341 members. I wish to thank John MacInnis, Keith AuCoin and Dave Cushing for taking time from their busy schedules to swear in our new members; John administering the oath to about 95% of the candidates. Other membership statistics are as follows: Honorary - 7, Life - 17, Retired - 3, Associate - 5, Non-Practising - 15. Presently we have 21 students registered under the New System.

All material in our members files were separated, staples, clips, etc. were removed and made ready for microfilming. We now have duplicate rolls of microfilm and are loading jackets from one set of records, the second roll will be stored in our safety deposit box at the Bank of Montreal, Portland Street.

Requests re group health/Life insurance were received and accordingly a proposal was made by one company - outlined in this issue.

Presentation of Association prizes and the annual scholarship cheque were made to qualifying students at the N.S.L.S.I. on May 17, 1985.

We are making up additional copies of the N.S.L.S. Manual. They will be available early next month at the regular price of \$18.00

In answer to several inquiries re group insurance, we have made inquiries and have two companies interested in providing the following coverage.

Please fill in the form if you are interested. Individuals not with companies will be handled through this office. Interested parties will be interviewed by insurance representatives when questionnaires are received.

Please note, this is not an endorsement of either Company by the Association.

NAME:

COMPANY ADDRESS:

TELEPHONE:

NUMBER OF EMPLOYEES:

BENEFITS INTERESTED: A. Life Insurance
B. Dependent Life
C. Weekly Indemnity
D. Long Term Disability
E. Extended Health Care
F. Dental

Please forward or telephone office.

**** NOTICE ****

The Contour Connection, a co-produced NFB-EMR film on surveying and mapping, will be screened for the first time in Atlantic Canada on September 10th and 11th at the National Film Board theatre here in Halifax. The 8:00 p.m. screenings will also contain two recent films on offshore related activities (one of remote sensing, I believe).

Admission free.

**** LETTER FROM THE EDITOR ****

by Dennis A. Jones

An excerpt from "The Massachusetts Surveyor" goes something like this:

- In these days of increase activity at home and at work we sometimes lose touch with our Association.

Are you aware of what your Association is doing? Your answers to the following questions should give you a clue.

1. Do you promptly read Association literature as soon as it arrives?
2. Can you name your President, Vice President and Councillors?
3. Have you attended the last zone meeting, seminar or annual meeting?
4. Do you regard dues as an investment, not just a tax deduction?
5. Can you recall your last correspondence with the Association?
6. Do you regularly send news items or other material to the Association's "Surveyor"?
7. If you serve as a director or committee member, do you attend meetings and do your share of the work? -

Summer is upon us and the field season is at its peak, let us not forget that our membership in the Association of Nova Scotia Land Surveyors helps us to pursue our careers.

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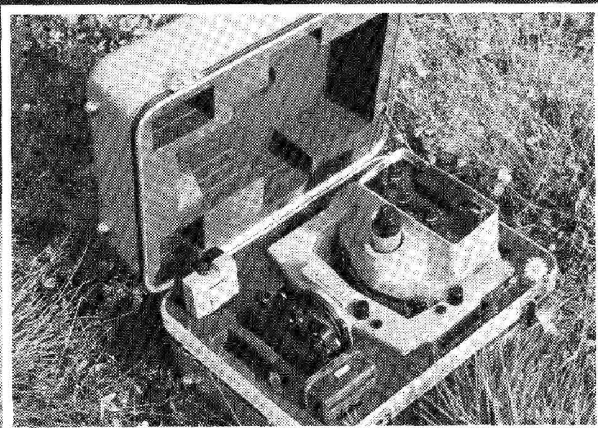
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The distance measuring part of Geodimeter® 140 is based on the well proven Geodimeter® 120 series of instruments with excellent range, broad beam for easy target location, horizontal distance in 0.4 sec, Unicom speech transmission for communication with the reflector carrier and automatic mean value for high accuracy.

AUTOMATIC LEVEL COMPENSATOR

The system also includes a two axis Automatic Level Compensator centrally located in the instrument to take care of deviations from the plumb line. The orientation of the instrument axis is accurately detected and each measured angle value is automatically compensated for the plumb line deviation.

RELIABILITY AND HIGH PERFORMANCE

Thanks to a powerful computer, Geodimeter® 140 will work unaffected by the type of instrument errors that can occur in conventional theodolites. The computer immediately detects and fully compensates such errors, thus eliminating the need for transiting of the instrument. (Naturally, Geodimeter® 140 can also be used for angle measurements in the conventional way).

PRODUCTIVITY

Geodimeter® 140 has a built in microphone for speech transmission over the infrared measuring beam which greatly facilitates the communication between the instrument operator and reflector carrier.

Measurement data can be recorded automatically by using Geodat® pocket-sized data memory. The processing of data in the office will be faster and easier and thanks to automatic data transfer from Geodat® to a computer, transcription errors will be eliminated.

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by J.F. Doig

Introduction

Those brought up in the common law system have difficulty in imagining any other system of law. Our arrangements are so logical and natural (until sometimes we begin enquiring into them in detail) we may be pardoned for thinking that no other approach would or could match the sublime majesty of ours. We realize, of course, when we think about things seriously that the same beliefs may be held in the mind of one not familiar with English common law, living in another system. We usually tend to become overly comfortable and confident in the framework within which we have grown up -- especially if it is the only system we have studied or thought about.

It is good for all of us, from time to time, to look at other methods and ideas. We may see that others, indeed, have something to offer. The results may often surprise us and make us ask why we, ourselves, have not thought of new approaches which thus become known to us.

Nova Scotia is a common law jurisdiction wherein no mechanism exists to compel the delimitation and demarcation of a lost or uncertain boundary. It is not unknown for a proprietor to have to bear the entire burden of the resolution of such a problem. We might do well to consider a procedure, developed within early Roman law, which is alive, well and functioning within the Province of Quebec.

General

The civil code of the Province of Quebec makes provision for the resolution of boundary uncertainties through a process rather different from those in other provinces. Bornage (literally "monumenting") developed from early times as a logical, practical means of keeping up boundaries or of settling disputes about them. The enabling article of today's civil code is essentially the same as that in the Napoleonic code. This, in its turn, formalized an earlier doctrine or custom brought forward from Roman law.

Until a dozen years ago bornage could be pursued in one of two ways: strictly between neighbours, or through a judicial process. Now both approaches begin in the same fashion. The judicial route is available at a later stage if agreement between contiguous owners cannot be obtained earlier, or if the initial agreement between them breaks down.

Definition

The civil code stipulates:

Art. 504 Every proprietor may oblige his neighbour to settle the boundaries between their contiguous lands. Boundaries may be determined by mutual consent between neighbours, and by their mere act, or with the intervention of judicial authority.

The civil code thus establishes a fundamental principle which is left to be more fully detailed through certain articles found within le code de procedure civile -- the equivalent of regulations under an Act in other provinces.

But neither the code nor its regulations define bornage directly. Bornage is:

the process which aims to provide by means of visible and durable markers, called monuments, the common boundary line between two contiguous properties, such as had been determined through the earlier process of delimitation.

Bornage therefore may be viewed as both a right and a servitude. Every proprietor has the right to bring his adjoiner to bornage; equally, every proprietor has the obligation so to respond to his adjoiner.

Bornage is made up of two distinct and separate stages:

- a. the delimitation of the dividing line between two properties.
- b. the demarcation of that line by visible and lasting monuments.

Necessary Conditions

In order that bornage be exercised, the following conditions must be satisfied:

- a. the properties be adjoining
- b. they belong to different owners
- c. the work be capable of being done in a useful and profitable way.

The requirement about usefulness or profitability calls for some explanation. For the most part this provision serves to except from the process of bornage the middle thread of waterways, party walls, and boundaries of lands in the public domain. Other procedures apply when the limits of public lands come into question.

The surveyor is an essential part of bornage. The adjacent owners must agree upon a surveyor. He then proceeds to investigate the locus. He then produces a written report in which are addressed all matters taken into consideration. Should the report be accepted by both proprietors, the joint undertaking is at an end except for marking the line. Should the surveyor's report be unacceptable to one of the parties, the judicial portion of the process comes into play and carries on to a conclusion.

Circumstances Appropriate

Bornage is open to a proprietor under the following circumstances:

- a. when two adjoining properties have never been subjected to the process before.
- b. when the monuments marking the line have disappeared.
- c. when fences or other line markings have been wrongly placed.
- d. when prescription has carried ownership beyond a formerly monumented line.

Two Stages

Bornage is carried out in two stages: the first is the investigative work leading up to the delimitation of the boundary; the second is the demarcation of the common line.

But before he proceeds with his investigation, the surveyor must determine that he himself is not subject to challenge. The same reasons for challenging judges apply to surveyors when bornage is involved. The regulations under the civil code stipulate several bases for challenge. One such involves a family relationship to either party; another concerns any previous connection to the matter at issue. Should the surveyor find himself liable to challenge, he must apprise both proprietors of the circumstances. They, in turn, may challenge or they may set any objection aside. Similarly, if a surveyor finds himself nominated by a court to proceed with a bornage, he must notify the court of any grounds for challenge.

The question of whether the owners themselves are entitled to bornage must also be addressed by the surveyor. Clearly the owner in fee simple of lands is so entitled. But so, for example, under Quebec jurisdiction, is one who has the right to cut wood on a parcel, or one who has the right of passage over an easement or right-of-way.

Delimitation

The investigative work of the surveyor calls for a survey of the locus and an examination of title documents.

The survey commitment requires the surveyor to search out the essential circumstances and the incidental details that support or relate to the primary evidence. There are no clear dividing lines between the two. In the first category one will recognize such things as existing monumentation, hedges, and fences. The second category might well be concerned with the monumentation of other parcels in the neighbourhood. Each bornage is different and varies according to circumstances.

The examination of title involves the study of deed descriptions, the inspection of plans, the questioning of witnesses (on oath or by solemn declaration), and the receipt of admissions or avowals of either proprietor against their own interests, if such be offered. The acquisition of title by adverse possession is also a matter to be dealt with. It might be noted that possession may ripen into title in a ten year period in Quebec, given certain conditions, or after thirty years, with no conditions. The written records of earlier bornage in the vicinity of the locus may be revelant and may be referred to.

Report of Survey

Following his consideration of all the evidence, and upon deciding the location of the boundary in question, the surveyor is required to give the parties a report of his work. He must indicate the division line which he believes to be correct.

The report is the key document at this first stage of bornage; the surveyor reports to the parties the task given him; he identifies the problem, he sifts out from the examination of title and of possession, the factors which will serve as premises for the establishment of property rights; he highlights facts of singular importance; he must marshal logically the reasons underlying his choice of the place where the line must be monumented. In essence the report must present the complete results of true expertise, that is: its terms must present the justification and the facts so as to enable the parties to appreciate the opinion expressed by the surveyor, indicating the position of the division line.

Demarcation

The surveyor's report having been received, neither party may wish to proceed. If so, they can leave things as they are. But the originator of the bornage has the capacity to carry the matter into court and there obtain a decision. When both parties are in agreement, the work of monumenting their mutual line can begin right away.

The monuments are placed before witnesses. The best witnesses are the proprietors themselves in the company of others. But whatever the desires or the capacities of the owners, witnesses must be present. The surveyor must give formal notice to the proprietors that he will be setting monuments on a specified date. Naturally, previous consultation on the matter of suitable dates will smooth the path for such arrangements.

The surveyor must make an official report (un proces-verbal) on his work of marking the line. A plan showing the position and kind of monuments placed, their relation to the lot lines, and relevant topography, is an indispensable portion of this report. Formerly there was no obligation for such a report to be placed in the land registry. This is now a requirement by virtue of the Land Surveyors Act. The surveyor is responsible to see that this is done.

The registration of the surveyor's official report completes the bornage. It confirms the proper dividing line between proprietors. The work is done.

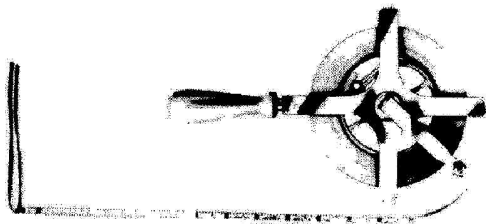
References

Le bornage, seconde edition, Paul Lachance, l'Universite Laval, Quebec, 1974.

Le code civil Quebec, Renault et Baudoin, Guerin, Montreal, 1978.

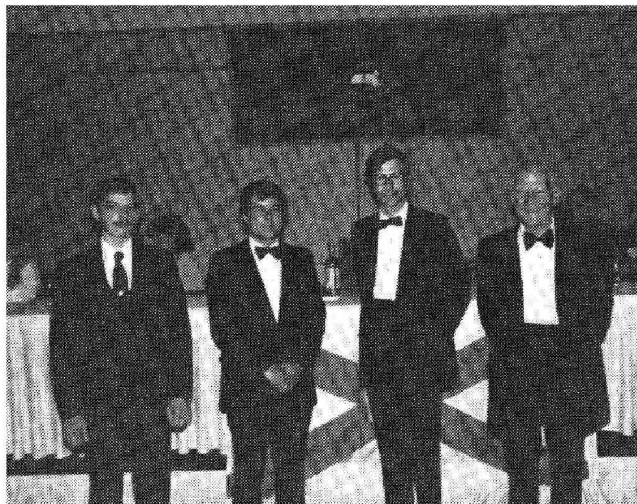
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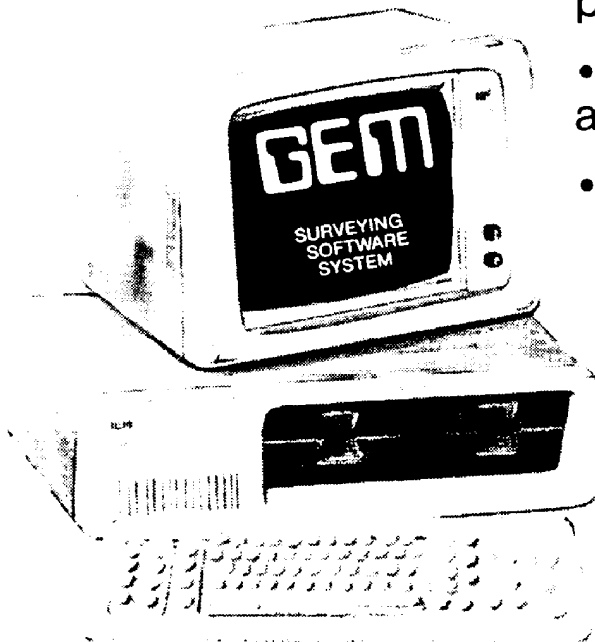


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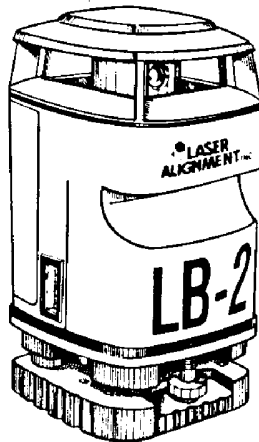
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 **LASER
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'The Cinderella profession' is how we glibly describe ourselves in moments of pessimism. It is a phrase which seems to have caught the ear of land surveyors and lodged in the speech centres of their brain. In any conversation between surveyors about the present state or the future prospects of the profession, the Cinderella phrase will inevitably be used. Its utterance has the immediate effect of bringing about the cessation of talk, a general down-casting of eyes and the appearance of expressions of contemplative despair on the faces of the conversationalists. When talk does resume it is usually about non-professional topics, falsely light-hearted in character.

This depiction of a conversation scene at a surveyor's gathering is perhaps etched with too strong an acid, but it is not untypical. Certainly there is not exaggeration in the observation that the interpretation invariably given to the words 'Cinderella profession' extends no further than the opening scene of that legend which depicts the browbeaten, rag-clothed girl dominated by her more wordly sisters, acting on beck and call and having no life of her own. Why does the legend and the conversation stop there? What prevents the analogy of the Cinderella story proceeding beyond the scene of the ash-heaped hearth and the cold stone of the kitchen floor?

A sharp answer to these questions may be that fairy godmothers with magic wands do not exist except in legend. In this response there is some comfort because it leads to the realization that Cinderella also is a myth and that analogies, appealing and illustratively simple, tend to obscure rather than reveal the truth. At best they emphasize and call attention to one aspect of a complex situation, one which might not otherwise be obvious; at worst they cleverly distort.

The next time the Cinderella phrase is used in conversation, those who hear it should resist the abrupt ending of discussion and instead set about bringing the story to a more positive conclusion. As a guide to the general strategy which it is advised be adopted let us invent here continuation of the fable, which in proper tradition must have a happy ending:

SCENE: Cinders, the land surveyor, is laboriously fixing 10,000 property beacons, the cold wind blowing the while, causing her fingers to ache and cheeks to pinch palely hollow. Meanwhile up at the castle, her sisters in business suits and with diamond encrusted document cases are among the glittering throng at the symposium on the future of the nation. Suddenly there is a soft plosion of sound and to Cinder's astonishment the cheerful figure of Godmother Technology appears in her field of view. 'So you want to be among the planners and implementers of our future, gathered in royal splendor at the castle for the great conference,' asks Godmother. 'Yes, yes I do so wish I could be there and be seen by the Prince, but I must finish all this work otherwise my sisters will be angry and will cast me out.'

'Do not worry so, dear Cinderella, for your wish will be granted.' Godmother Technology waves her silicon wand and lo and behold Cinderella's theodolite, tape and field book are instantly transformed into a total station linked directly to a data logger computer and high-speed AO printer, and a pair of curious farmboys are changed into qualified technicians. Another wave of the wand and Cinderella's ragged shorts and scuffed boots are replaced by a Gucci suit and Pierre Cardin shirt and tie. With a third wave the unpanel beaten bakkie becomes a gold-coloured BMW on the passenger seat of which rests a calf leather briefcase embossed with the name: Cinderella, data manager.

'Off you go to the castle, we shall see that this field work is rapidly and accurately completed. But remember you must meet your Prince and make him fall in love with you before the last stroke of midnight. If you do not my magic spell will fail and you will be rejected and thrown into the wilderness.' Smiling, Godmother Technology watches proudly as Cinderella drives off on the road to the castle.

Under the bright lights of the great chandeliers in the ballroom at the castle were gathered the land's wise men and women; scientists debating with philosophers, politicians orating at planners, engineers pragmatically conversing with economists; all of them concerned with the welfare of the future. Cinderella knew only a few of the people there, recognizing them as visitors to the home of her sisters. No one recognized her but she listened politely to what was being said, occasionally making a contribution or asking a question and receiving a polite response. But there was no sign of the Prince and time was moving on.

Then, all at once, there he was, splendid in his silver suit standing on a platform at the very centre of the ballroom. A silence fell as the gathering waited for his words: 'so my wise people, have you formulated a Great Plan by which the future of our land will be secure?'

Suddenly everyone was talking at once, waving papers, unrolling plans, each one trying to gain the attention of his Extreme Highness Prince Public Approval. Cinderella realized that she could not possibly catch the Prince's eye, no one in that room now full of confusion, could do so. Slowly she edged herself towards the platform, and climbing up, pulled at the Prince's cuff. 'Please, sire, the room is full of good ideas and many talents, but unless they are properly organized and brought together you will never have your Great Plan.'

The Prince called for silence. When the ballroom was quiet, he turned to Cinderella and said: 'Now you may speak, that we shall all hear if you talk sense or no.'

So Cinderella began to talk of information systems and spatial organization of data, of thematic mapping and tenure of land, of resource management and land economics. As she finished the mantle clock began to strike midnight.

'Who are you?' asked the Prince.

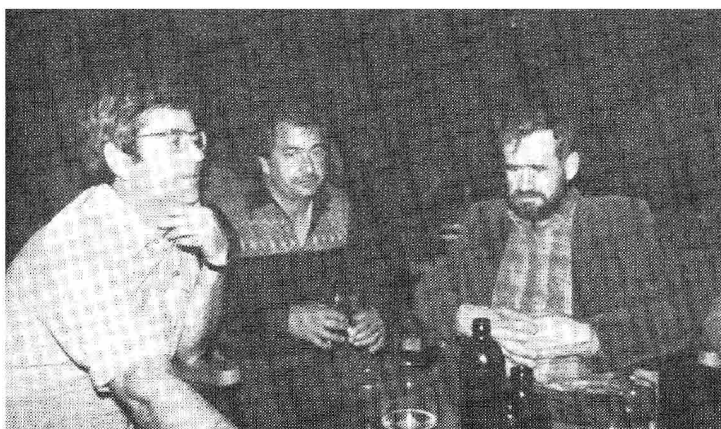
'I am Cinderella, the land surveyor.'

'From now on,' said the Prince, taking her hand, 'you will be the grand Vizier of the Great Plan.'

So it came to pass and everyone lived happily ever after.

You do not believe it? -- there is no reason to, of course: Cinderella is a fairy tale, after all. And we can convince ourselves all too easily that midnight will not strike.

- ALS NEWS, Winter, 1985
Reprinted from South African Survey Journal,
Vol. XIX, No. 114, December, 1983.



What do you mean we have to go home? The party's not over yet!

L - R: Erwin Turner, Everette Hall, and Roddy MacDonald.

** TWELVE RULES FOR STAYING OUT OF COURT **

1. Approach every single survey as if it is going to court and you will be surprised about the quality of the job you will do.
2. To avoid liability, the surveyor should be on the side of safety and try to do a little more than an ordinary prudent surveyor would do under the circumstances.
3. It is the land surveyor's duty to locate and mark property lines correctly as described in the deeds furnished him, and to relate lines of possession to ownership lines. The surveyor cannot assume responsibility for providing that a given deed is correct and true. That is the function of the attorney and the court of law.
4. Search diligently for the monuments and other evidence. If they are there, find them, and if they are not, be able to say with certainty that they are not there.
5. The surveyor incurs liability when he fails to do those things he purports to do.
6. The surveyor is a fact-finder. He goes upon the land with only the available documents and searches for physical evidence such as markings and monuments. After all the evidence, measurements, and observations are assembled, the surveyor must come to a conclusion from these facts.
7. Never set a corner in disagreement with improvements without first satisfying yourself that you are not only right, but that your right will prevail in court, if necessary. Discovery of a county surveyor's monuments does not relieve the surveyor of his obligation to look further. A county surveyor's monument is proof only in the event that superior evidence could not be discovered. Therefore, the surveyor must seek all other evidence and use these monuments as though they were the last resort.
8. The conclusions that flow from evidence may produce proof. Evidence in itself is not proof of the fact, conclusion, or inference that may be drawn from evidence is proof. In coming to conclusions from evidence, the most important need of the surveyor is the ability to recognize and to know what is the best possible evidence that is available.
9. The best evidence of a monument's original position is a continuous chain of history by acceptable records, usually written, dating back to the time of the original monumentation. A found monument without a background history is a found monument of little value as evidence. A set monument is unidentifiable and worthless in the future without a record.
10. In civil cases having to do with land surveying of real property, it is only necessary to prove a preponderance of evidence and not necessarily to prove beyond a reasonable doubt, as in criminal cases.
11. It is of the utmost importance that a surveyor seek and find all of the evidence at the time of the initial survey. This must be done irrespective of costs. The major cause of disagreement between surveyors relates to the lack of discovery of available evidence. If every surveyor uncovered all of the evidence, differences would be reduced to a minimum and their surveys would have finality of location.
12. A surveyor may be able to compute, make drawings, use instruments, and stake engineering projects, but, until he understands property line law and the rules of evidence, he is not qualified to make property locations.

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** FROM THE FIELDBOOK **

by Marcelline S. Chiasson (#355)

We congratulate C.J. "Joe" MacLellan (#273) of Antigonish on his election as President of A.P.E.N.S.

* * * * *

We also salute R.S. Huestis, Q.C., of Dartmouth on his election as President of the Barristers' Society - L.K. Evans is their 1st Vice-President. Congratulations.

* * * * *

During the Tall Ships Visit to Sydney in July 1984, Stewart Setchell and his wife Rosalind were visited by her uncle, Bill Blakney (a former resident of Hubbards) and his family. Bill graduated from Dalhousie in 1946 and N.S.T.C. in 1949. He obtained his Masters in Photogrammetry from Ohio State University in 1955.

Bill is a (1) member and former President of the Alabama Society of Professional Land Surveyors, (2) member of the American Congress of Surveyors and Mapping, (3) member of American Society of Photogrammetry and (4) member of C.I.S.

* * * * *

Here is an amendment entered during 1985 sitting of the Provincial Legislature:

"C. 21 Bill 49 Mortgage Brokers and Lenders Registration Act, R.S.M.S. 1967, c. 189, amended."

- "This Act provides that mortgage particulars including prepayment particulars must be disclosed at least 48 hours before a mortgage is signed. Every mortgage entered into or renewed after the coming into force of the subsection (June 30, 1985) must state whether the mortgage may be prepaid, and if prepayment is allowed, the mortgage must state the terms of the prepayment. If the mortgage is silent with respect to prepayment, it can be prepaid without penalty at any time.

A mortgagee is required to assign a mortgage instead of releasing it, at the request of the mortgagor.

This Act by repealing an exemption requires all real estate brokers to be registered pursuant to the Act and provides for the staggering of renewals of registrations.

* * * * *

In the October '84 Issue of the National Lawyers Magazine, we have an article entitled "Funny Court Stories" which related among other stories, the following:

"Then there was the Western Canadian" rape case where the accused claimed that the complainant had consented and she claimed that she'd only agreed to a coffee with him. "Now, ladies and gentlemen," the judge is supposed to have said to the jury, "the complainant says she went with the accused for the sole purpose of having a piece of coffee."

* * * * *

We welcome the following new members to our association and encourage them to take an active role in our affairs:

As of July 10, 1985:

- #551 - Dennis Prendergast, Donkin
- #552 - David Wedlock, Middleton
- #553 - John DeLorey, Linwood
- #554 - Dean Benedict, Falmouth

#555 - Alexander MacLeod, Dartmouth
 #556 - Peter Lohnes, Halifax
 #557 - Mitchell Brison, Lower Sackville
 #558 - Simon AuCoin, Belle Cote
 #559 - John Cunningham, Sydney
 #560 - Raymond Pottier, Tusket
 #561 - Stephen Rutledge, Truro
 #562 - Kenneth Whalen, Halifax
 #563 - D. Allan Cyr, Kentville
 #564 - W. Bruce MacDonald, Halifax
 #565 - Allan MacCullough, Dartmouth
 #566 - Patrick D. Muise, Halifax
 #567 - S. Andy DeCoste, Monastery
 #568 - Lawrence Miller, Halifax
 #569 - Bruce Lake, Windsor
 #570 - Bruce MacQuarrie, Truro
 #571 - William Sterns, Glace Bay
 #572 - James Redden, Christmas Island
 #573 - Curtis Kimball, Windsor
 #574 - James E. Weaver, Halifax
 #575 - Michael McKenna, Lawrencetown
 #576 - Michael Peters, S.W. Margaree
 #577 - Jerry Borden, Amherst
 #578 - David Alexander, Dartmouth
 #579 - Glenn Crews, Enfield
 #580 - Edward Jeffrey, Dartmouth
 #581 - Gerald Bourbonniere, Dartmouth
 #582 - George Bruce, New Glasgow
 #583 - Kevin Munro, New Germany
 #584 - Glenn Myra, Dartmouth
 #585 - David Steeves, Halifax
 #586 - Stephen White, Shelburne
 #587 - Valerie MacKay (our second female member), West Bay
 #588 - Michael Tanner, Halifax
 #589 - Wayne Mailman, Bridgewater
 #590 - Rebecca Ritchie-Antonick (our third female member), Auburn
 #591 - Terry MacGillivray, Antigonish

Darrell Creelman, Stewiacke and Brian MacIntyre, Halifax have passed all requirements and are ready to be sworn in.

* * * * *

It appears that several rural municipalities throughout Nova Scotia will be adopting the "4 lot rule" with reference to definition of subdivision under the Planning Act.

* * * * *

We are pleased to learn that Elizabeth V. Fraser (#548), our first female member, is getting along fine after her motorcycle accident. Best wishes, Elizabeth.

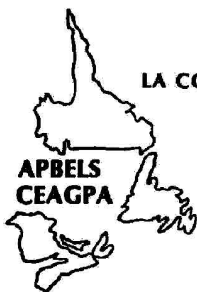
* * * * *

The President of the new incorporated Association of Canda Land Surveyor is J.D. Simpson, The Secretary-Treasurer is G. Yeaton.

* * * * *

HE WHO IS SLOW TO ANGER IS BETTER THAN THE MIGHTY (Prov. 16:32)

* * * * *



**ATLANTIC PROVINCES BOARD OF EXAMINERS FOR LAND SURVEYORS
LA COMMISSION D'EXAMEN POUR ARPENTEURS-GÉOMÈTRES DES PROVINCES ATLANTIQUES**

P.O. BOX 22, FREDERICTON, N.B., E3B 4Y2

REGISTRAR'S REPORT

1. This past year has been quite busy, with a fair number of inquiries and correspondence to be considered.
2. Examinations were set in September (5 set; 4 passed) and February (9 set; 4 passed.)
3. 7 new candidates have been registered since July 1, 1984. These included 3 candidates from New Brunswick, 3 from Newfoundland and 1 from Nova Scotia.
4. Certificates were granted to three candidates:
 Mr. Bruce Mahar (#17) of New Minas, N.S.;
 Mr. Donald MacFadyen (#18) of Fredericton, N.B.;
 Mr. Grant Smith (#19) of Newcastle, N.B.
5. The financial report for the year beginning July 1, 1984 is appended. Major outstanding revenues for the year will be the annual dues from the provincial associations. The only outstanding expenditure item is the \$500 honorarium to the Registrar.
6. It has been a pleasure serving as registrar this past year and I wish to thank the chairman and members of the Board for their support.

**John McLaughlin
Acting Registrar**

May 1, 1985



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** REVISIONS **

by Fred Hutchinson, N.S.L.S.

The word revision is defined by Funk and Wagnalls Dictionary as "the act or result of revising; a revised version or edition". One may also consider that the word "vision" is prefixed by "re" indicating that another look or another view is being offered.

The survey profession has, on occasion, made use of revisions to certain documents and it appears that the practice may become much more common. Revisions are made for various reasons; some to correct errors, drafting or spelling mistakes or to alter the configuration of a parcel of land at a client's request.

It would be nice to think that errors do not exist on plans of survey but from time to time they do appear. The best way to try and eliminate or catch this type of problem is to review your work thoroughly before it leaves the office. Try not to let the client rush you!

1. Have your preformed your field work in a responsible manner?
2. Can someone other than yourself understand your field notes?
3. Do you use a check sheet in reviewing your final plan?
4. Do you make a print of your plan and check for errors?
5. Do you use your print to do a mathematical closure on the figures that have been created?
6. Do the distances on either side of a common line total the same?

This list can be much longer and is only meant to present a sample of things to look for. If some form of checking is not done, preferably by another person, problems will develop. A plan that is professionally checked should not need revisions due to errors.

Revisions, however, do become necessary from time to time and since they do occur, I would like to deal with the procedure that "I feel" best suits the profession to date.

In years gone by, the only method available to the surveyor was to physically change his original plan and indicate on the drawing that a revision had taken place and the date of same. This procedure is still used by surveyors as well as engineers and architects.

I feel that this procedure is not the best way to handle "revisions" on a survey plan used for legal purposes. I am somewhat less opinionated on topographic plans or plans that are not used to delineate boundaries.

One particular example that I would like to relate deals with a plan of survey, showing a subdivision consisting of many lots. The plan was prepared and certified by the surveyor in 1964. Several revisions over the next few years were made to the plan. The date, what was changed or added and the surveyors initials all clearly labelled.

Several years pass and the plan now has lots shown on it that did not exist in 1964 but the plan still bears the 1964 certification and no other. If you still see no problem, then consider the next development. The surveyor ceases practice and his files become the legal property of another surveyor. Another revision is preformed to the plan, dated, change noted and the new surveyors initials. No new certification has been added and the 1964 certificate along with the previous surveyors signature still appears on the plan. The coordinate monuments that now appear on the plan did not exist in 1964 nor did many of the lots that are now shown.

I personally find this procedure a bit cumbersome and suggest that an alternate method is available and is even indicated in our regulations or March 22, 1977;

Sect. 75 all original plans or reproducible copy of same shall be retained by the surveyor or survey firm.

Sect. 76 - revisions made to an original plan shall be identified, dated and initialed by the surveyor but an unrevised reproducible copy of the original shall be retained by the surveyor.

- Step 1) The client requests that a change in boundary location is desired and you feel that it can be accommodated on your existing plan.
- Step 2) Obtain a reproducible copy of your existing plan. (A "dilar" made from a white print machine or a plastic film prepared by photographic methods)
- Step 3) File this copy away as the original document and prepare to revise your master plan.

Note: Working with the original document maintains the quality of the drafting and line density and also produces first generation prints.

- Step 4) Make the necessary changes to the plan and give it a new certification date.

- Step 5) Outline the area dealt with by this most recent survey in a heavy line weight as per Sect. 57 so as to distinguish it from other areas of the plan.

Note: If you had outlined the original area of survey on the back of the plan instead of the front, this alteration becomes the simplest of all.

- Step 6) You may if you wish indicate what was changed or simply make a reference to your previous plan since you have created a totally new document.

Note: This final step solves the problem about certifying revisions as indicated by Provincial Subdivision Regulations Part 8, Sect. 18, Subsection 2 (P) - Final plans of subdivision shall show the following: the date on which the final plan of subdivision was certified with all revisions to be certified with all revisions to be certified.

This procedure can save the client money and the surveyor time in most cases and can be used several times with very little reduction in quality.

There are times, however, when a totally new document is more economical to produce due to the amount of alterations that would be required. If you are not presently using a method similar to the one that I have described, why not give it a try the next time that a revision comes your way.

ATLANTIC PROVINCES BOARD OF EXAMINERS FOR LAND SURVEYORS

INTERIM 1984-1985 FINANCIAL REPORT

July 1, 1984-March 31, 1985

Revenues

Registration Fees	\$350.	
Certificate Fees	\$150.	
Examination Fees	<u>\$260.</u>	
		\$760.

Expenditures

Honorarium	\$500.	
Examiners' Fees	\$140.	
Postage	16.	
Bank Charges	<u>13.50</u>	
		<u>\$669.50</u>
		\$ 90.50

Bank Deposit March 31, 1985	\$2132.77
Bank Deposit July 1, 1984	<u>\$2050.77</u>
	80.00
Cash on hand	<u>10.50</u>
	90.50

1984 - 1985 COUNCIL

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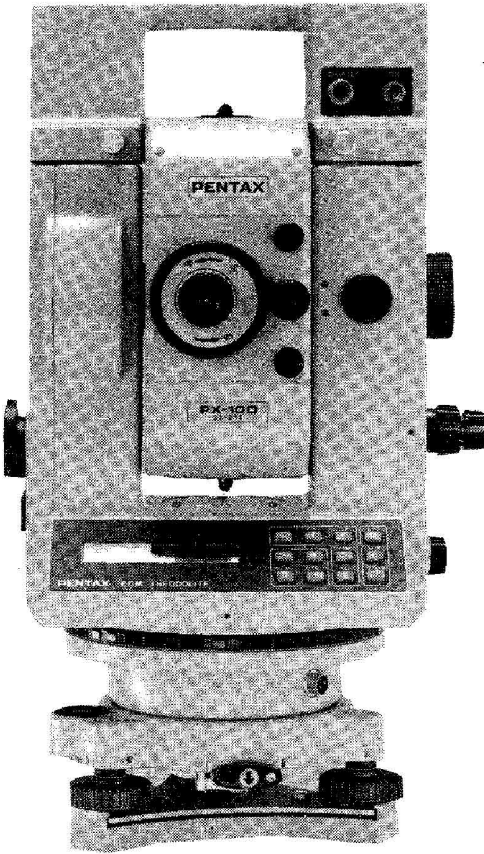
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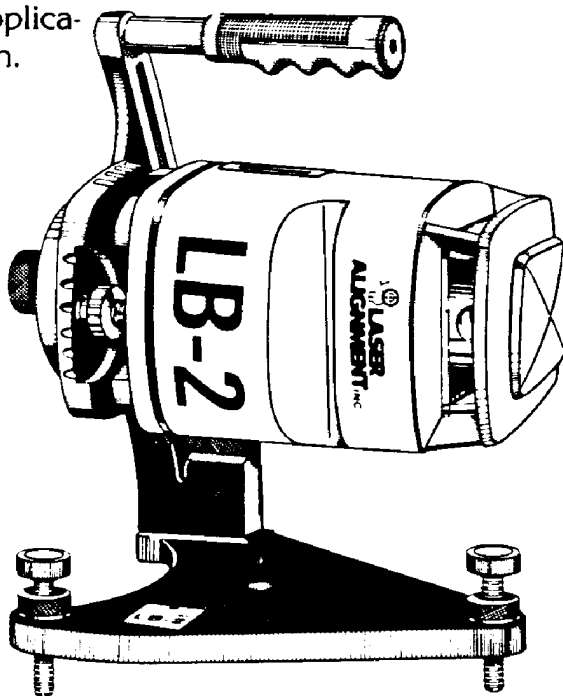
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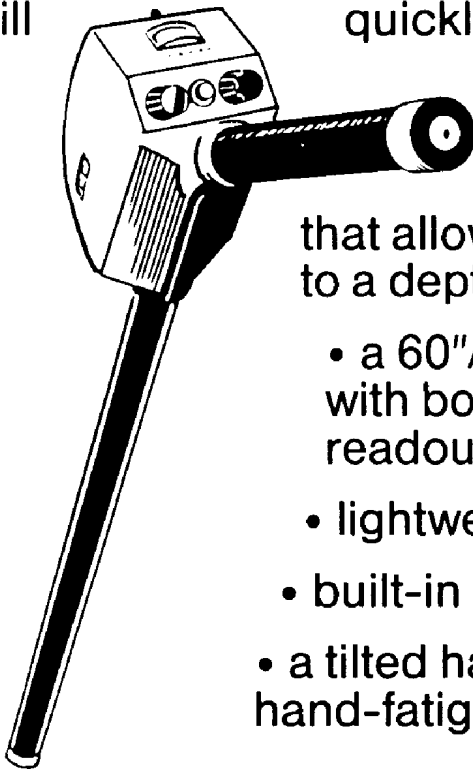
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