

The California Surveyor

Institutional Affiliate of American
Congress on Surveying and
Mapping

THE VOICE OF THE LAND SURVEYORS OF CALIFORNIA

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1974

PRIORITIES OR WHICH COMES FIRST

by Chuck Wooldridge, L.S., Past President CLSA

For about four years, the California Land Surveyors Association has been saying that education is our biggest weakness and our greatest need. To prove it, our Board of Directors has adopted several Resolutions so stating, and each year's budget increases the Education Division funding, even without request from the division. Doesn't this prove that we recognize that our present lack of educational requirement is our major hurdle?

Like all good members, I've endorsed this position! I've even helped look for committee chairmen to serve this major interest! I've delivered speeches encouraging the requirement of a BS for qualification to take the exam. I've appeared before the legislature, urging adoption of amendments to the LS Act to require the BS Degree, or at least more education and/or experience as prerequisites to the exam. Doesn't this prove that I think education is among the most important matters facing the surveying profession in California, or probably the nation?

But I recently found myself wondering if I were really sincere in this desire! The minority leaders tell the legislature and apprenticeship programs that mathematical aptitude is merely a smokescreen to avoid equal opportunity, and I accept our inability to impose educational prerequisites. I speak for such requirements, but mentally, if not vocally, say that the door must always be left open to future applicants to come up through the ranks as I did. I'm afraid I'm not being honest with myself, nor to my profession while I continue to harbour such reservations.

I recently had occasion to hear our Land Surveyor member or our Board of Registration plead for support! It shamed me to think that he even had to ask, let alone plead. He sees the future as it is available to us only through education. There is no real reason why he should even have to ask, let alone plead. But even

(Continued on page 8)

CAMINO FORESTER IS SPEAKER AT SURVEYING AND MAPPING CONVENTION

by Homer Banks, L.S.

The California sections of the American Congress of Surveying and Mapping held their annual convention on October 18 at the Riviera Hotel in Palm Springs with a two day program of related lectures.

Larry Hyder, a Camino forester and cadastral survey expert, was a principal speaker at the annual meeting of the American Congress of Surveying and Mapping in Palm Springs.

Hyder commenced his talk by presenting apples and cider to the convention to extend a hand of neighborliness and friendship from the apple and christmas tree capital of California. His speech and slides covered many of the phases of survey corner research and emphasized the integrity and diligence of the surveyors who did their work over 100 years ago under the adverse conditions of an unmapped and often hostile countryside.

Hyder also expounded on the value of hiring local surveyors, as their local knowledge of the area is only gained by years of study and hard work, whereas surveyors entering into an unfamiliar area must spend an excessive amount of time on research before starting the project.

In closing, Hyder referred to the Holy Bible and the many references in it to landmarks such as that in Deuteronomy 19:14 "Thou shalt not remove thy neighbour's landmark, which they of old time have set in thine inheritance . . ."

Among other honored guests and speakers was Robert D. Reckert, president of A.C.S.M., from Rock Rapids, Iowa. President Reckert, at the Friday luncheon, referred to Hyder's talk in adding favorable impetus to his own discussion of upgrading the image of professional surveyors.

Hyder's talk was so well received that President Reckert invited him to present the same or a like presentation at the national convention of A.C.S.M. in Washington, D.C., in March of 1975.



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PRESENTATION BEFORE THE AMERICAN CONGRESS ON SURVEYING AND MAPPING

by Don Ward, L.S.

My presentation today is entitled "Legal Aspects of the Land Surveyor and the Subdivision of Land." It more accurately could be called a study of the decline of the surveying profession.

This is what has really happened since the American Society of Civil Engineers changed their policy in 1959 and declared land surveying as a part of the civil engineering profession.

The tragedy of that policy with respect to the land surveyor is that the fathers of the policy did not at the same instant formulate a working program to bring about the change in an orderly fashion. But instead, the policy began to mean different things to different people. Boards of Registration began to set policy that tried to harmonize with the ASCE policy. The result was that the land surveyor as a professional was mortally wounded.

Since that time there has been greater and greater pressure placed on the land surveyor in private practice to stop doing the very things that he must do if he is to practice in that specialized area of the surveying profession, the subdivision of land.

There are three types of land surveyors in the United States:

1. One that has always practiced his profession in an area and time space with the freedom accorded any professional. He knows *no attrition*.
That is to say, that the rule changes have not caught up to *that* surveyor.
2. One that has always practiced his profession in an area and time space with his professional freedom completely subjugated with only the freedom accorded by those who confess ignorance.
He knows *no attrition*.
Why? Because he simply does not know any other way.
3. One that began his professional practice in an area and time space with the freedom accorded any professional and has been forced to subjugate his professional freedom to those who profess ignorance.

He knows attrition and he does not like it.

The subdivision of land is an area of responsibility where the land surveyor has taken the greater loss in professional responsibility.

When I first started doing work on the subdivision of land I was working for a civil engineer. Neither one of us knew anything about it. It was right after World War II and America was starting a new life on the wings of a greatly expanding economy. The subdivision of land was a rather simple engineering job that could be done for \$35 a lot engineering and surveying cost, and \$300 to \$400 improvement costs. Total cost to the buying public for a house was \$7000 to \$8000. Compare that same thing with today, if in fact it could be done at all, considering the environmental factors and the Sierra Club. Today's engineering and surveying bill is more like \$500 per lot and the improvement costs are more like \$6000 per lot, and the total cost to the buying public for a house of no better quality is \$40,000 to \$50,000.

There are so many controls by government and so much more expected in improvement, it is small wonder that newly licensed

land surveyors may be losing out. But what about the surveyors like myself who have their whole professional maturity occur in this changing climate. Nor is the civil engineer any better equipped to cope with this situation unless he, too, is involved with this new breed of engineer.

The California Land Surveyors Association made a study a few years ago, and it indicated the California surveyor in private practice was as involved in subdivision of land as in property line land surveying. See attached study.

In my community it is the land surveyor who knows and does the subdivision of land, while the civil engineer takes little part in it except in the governmental agencies with which we deal.

The land surveyor is not well enough organized to cope with the changes being wrought in this area.

Ironically it is the engineers in government, who set policy and control engineering departments of cities and counties, who really hold the axe. The land surveyor has a client and that client cannot be held up because a government official won't accept a plan signed by a licensed land surveyor, forcing the land surveyor to subordinate his professionalism to another.

To whom can the surveyor turn? Only himself — he still is in the driver's seat because the subdivision of land still must start with him. But he must recognize he has to fight to get it back and he must organize himself and he must educate himself.

All land surveyors should be concerned about the profession of land surveying. Where it has been, where it is now and where it is going.

State Boards must stop the flow of licensing subprofessional technicians who must remain subprofessional, and insist upon programs to insure subprofessional undergraduates who may aspire to and successfully become professionals.

Obviously education is necessary. An education which recognizes the dynamic character of land surveying. An education which gives the student the necessary tools with which to compete, and at the same time the necessary foresight to realize that by the time he graduates and seeks a position, he probably is already outdated and must catch up to modern expertise.

Obviously examination is necessary to test the applicant's capability to assume the responsibilities of a professional as well as some of the technical know-how.

Job opportunity is necessary. We exist in a free market system. Any job applicant who can demonstrate technical know-how and professional aspirations will find a position so long as he recognizes his professional studies are just beginning.

Most important to this system is the professional climate which must be promoted as a singular purpose by society public relations. This needs the coordination of all societies which promote land surveying and professionalism. It needs the cooperation and coordination of Boards of Registration even to the extent of a moratorium on licensing of land surveyors so that the educational institutions can catch up.

With the above as a program, land surveying can be a part of the ECPD and will have dimension.

The American Congress on Surveying and Mapping is currently preparing a model subdivision law, to be published by the Congress to be used nationwide. It will have very little effect

(Continued on page 14)

WHY AND WHY NOT?

by Reuben B. Hurd, R.C.E.

If I understand the policy established by the corner record form, any private surveyor who finds a government corner in a county that is in a badly deteriorated condition, is to replace the located corner with a permanent type monument. A corner record form giving all the pertinent data must then be filed with the County Surveyor.

Why should the private surveyor be instructed to replace the original corner and bear the added expense of having to set the type monument as specified by the Government Code?

In the Government Code pertaining to the duties of the County Surveyor, Article 2, Sections 27580 and 27583 outlines his responsibilities in preserving government corners.

Section 27580 states "If in the performance of his official duties any surveyor finds a government corner which has been marked by a government surveyor by placing charcoal in the ground or a wooden stake, earth mound, or other perishable monument, he shall remark the corner by placing therein a monument of heavily galvanized iron pipe or galvanized iron stake not less than two inches in diameter and not less than two feet long, or other monument not less in size and equally imperishable."

Section 27581 explains how the monuments are to be placed.

Section 27582 states "The Surveyor shall note witness objects that are within a reasonable distance of any corner and state distance and course from the corner. He shall record the note in a properly indexed record book in the County Surveyors' office. The book is a public record."

Section 27583 states "The Board of Supervisors shall furnish all necessary pipes or stakes for monuments in the county on demand and without cost."

When the Sectionized Land and Rancho Boundaries were originally surveyed under the direction of the Bureau of Land Management, the corner monuments set usually had additional reference or witness ties established to assist in relocation of these points.

Why not have the private surveyor reference out or swing tie the evidence recovered and interpreted to be the original corner? This data must then be placed on a corner record form and submitted to the County Surveyor of the county where the corner was recovered.

Why not make it the responsibility of the County Surveyor to physically field inspect the corner record from data and verify or deny it as being the government corner?

If the County Surveyor is willing to accept the evidence as the government corner, why have him destroy the evidence? Why not have the County Surveyor place permanent and properly marked witness pipes of the type specified in the Government Code? The County Surveyor should also note other existing bearing data that may be available. All this data would be kept in a properly indexed book and cross referenced to the private engineers corner record form.

Once evidence is destroyed it can never be replaced or verified. What is to prevent a surveyor from digging a hole; finding nothing, but still setting a pipe according to the required code and filing a corner record form on the point set? Without ex-

tensive surveying the data on the corner record form cannot be verified or disproved because all possible evidence has been destroyed.

Permanent type reference points set and data properly noted and indexed will preserve the location of the old point without destroying any more of the evidence.

What is to prevent a County Surveyor from altering the filed corner record form to agree with the data in his office?

Why not require a field verification of the corner record form data by the County Surveyor within 60 days after receipt of the form?

Wouldn't it be more practical to have the corner record form data processed by the County Surveyor and then recorded in the County Recorders' office? The recorded data should include a copy of the engineer's corner record form and all the pertinent data assembled by the County Surveyor. In some counties, the Recorder's office and the Surveyors' office are a few miles apart. If recorded, then the private engineer can obtain all the data at one place at a big savings to him.

Why not eliminate the charge to the private surveyor for filing the corner record form with the County Surveyor?

Why not set up some communications requirements on the County Surveyor to notify the private engineer as to the finalized determination of his corner record form?

I would be interested in answers to the why and why not's as well as any other ideas on the corner record form. ▲

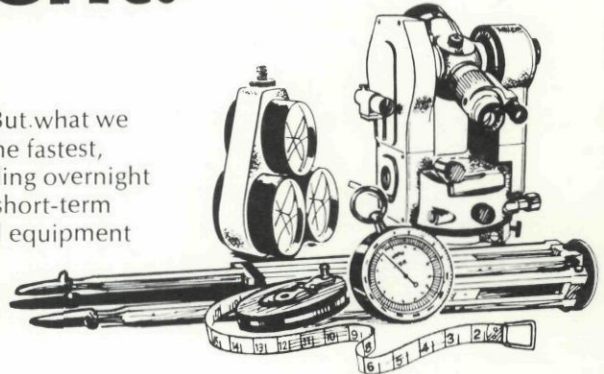
PROFESSIONAL CODE

It shall be considered professional and consistent with honorable and dignified professional conduct for any member of the California Land Surveyors Association:

1. To devote effort and support programs to raise the professional, ethical and social status of Land Surveying.
 2. To maintain a campaign for public recognition of professional contribution to the ethical, economical and social well-being of citizens of California and of the United States.
 3. To accept and maintain standards of professional conduct of the highest order to win the respect and admiration of all citizens.
 4. To protect the profession of Land Surveying and the public against the unqualified.
 5. To promote an effective program of exchange, communication and cooperation amongst its professional members.
 6. To maintain a constant effort of understanding between professionals in government service and private consulting, recognizing the common aims and philosophies and mutual respect of the professional society.
 7. To promote and stimulate leadership in public service on a community, state and national level.
 8. To promote and maintain an effective and continuous program of expanding our knowledge of social and technical advances.
 9. To protect the professional reputation, prospects and practice of another professional with the same vigor and determination as he would his own.
 10. To manage his professional ethics with the courage to uphold his integrity over all other considerations.
 11. To publish thoughtful and subdued public announcements free from ostentatious complimentary or laudatory implications. Professional cards, brochures, posted projects, press releases of worthy news items and project participation notices are acceptable forms of public announcements.
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RPS OR MINI-RANGER THERMOELECTRIC GENERATORS — Propane powered, 24 volt, 20 watts	10.00	4.50	3.00
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**CLSA LAND SURVEYOR'S
REFERENCE BIBLIOGRAPHY**

by E.K. "Dave" Roberts, L.S.

At the recently concluded ACSM-CLSA Retracement Workshop, it became quite apparent that the practitioners of surveying in California need a good reference bibliography. We decided that CLSA should prepare such a bibliography with the assistance of the membership. Robert W. Curtis, Past President of CLSA, 1970-1971, volunteered the use of his office and staff to begin this project, and he directed Dave Roberts to take charge of preparing a preliminary list of reference books.

After conferring with several land surveyors, it was decided to prepare a bibliography comprised of the following categories: Legal, Historical, Technical (other than basic surveying measurement texts) and Survey Retracement. We solicit comment from all interested in Land Surveying regarding the categories and the content of the bibliography. Please send any suggestions for books to be included, any additional categories, books that should not be included, or any additional comments, suggestions or criticisms to:

E.K. Roberts, L.S.
c/o Curtis & Turk
805 Healdsburg Avenue
Healdsburg, California 95448

HISTORICAL

VALLEY OF DEMOCRACY, The Frontier versus the Plantation in the Ohio Valley, 1775-1818

by John D. Barnhart
University of Nebraska Press
Lincoln, Nebraska \$2.25

ONE LEAGUE TO EACH WIND
accounts of Early Surveying in Texas
compiled by Historical Committee,

Texas Surveyors Association
Von-Bockmann-Jones, Printers
Austin, Texas

LINCOLN WITH COMPASS AND CHAIN
by Adin Baber \$15.00

Available from:
Arthur H. Clark Company
1264 South Central Avenue
Glendale, California 91204

The CIVIL ENGINEER: HIS ORIGINS

ASCE Historical Publication No. 1
by the Committee on History and Heritage of
American Civil Engineering
Available from American Society of Civil Engineers
345 East 47th Street, New York, N.Y. 10017 \$5.00

**EARLY AMERICAN SCIENTIFIC INSTRUMENTS
AND THEIR MAKERS**

by Silvio A. Bedini
Museum of History and Technology,
Smithsonian Institution
Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402 \$1.00

**THE MAKERS OF SURVEYING INSTRUMENTS
IN AMERICA SINCE 1700**

by Charles E. Smart
W. & L.E. Gurley
Troy, New York
Printed by Regal Art Press (out of print)
Troy, New York

GREAT SURVEYS OF THE AMERICAN WEST

by Richard A. Bartlett
University of Oklahoma Press
Norman, Oklahoma \$7.95

MEN AND MERIDIANS, The History of Surveying and Mapping in Canada. Vol. 2, 1867 to 1917

by Don W. Thompson
The Queens Printer
Ottawa, Canada \$8.00

LOOTERS OF THE PUBLIC DOMAIN

**embracing a complete exposure of the Fraudulent Systems
of acquiring titles to the Public Lands of the United States** by
S.A.D. Puter

DaCapo Press
227 West 17th Street
New York, New York 10011 \$25.00

The ROMAN LAND SURVEYOR

by O.A.W. Dilke
Barnes & Noble, Inc.
New York 1971

The PERALTA GRANT

by Donald M. Powell
University of Oklahoma Press
Norman, Oklahoma 1960

**BEGINNINGS of the AMERICAN RECTANGULAR
SURVEY SYSTEM, 1784-1800**

Department of Geography Research Paper No. 50
by William D. Pattison
University of Chicago
Chicago, Illinois 1957 (out of print)

THE PUBLIC LANDS

by Vernon Carstensen
University of Wisconsin Press 1962
Box 1379
Madison, Wisconsin 53701

HISTORY OF PUBLIC LAND LAW DEVELOPMENT

by Paul W. Gates 1968
Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402 \$8.25

TECHNICAL

FOREST TREES of the PACIFIC SLOPE

by George B. Sudworth 1967
Dover Publications, Inc.
New York, N.Y.

TREES

by Herbert Zim
Golden Press
New York, N.Y.

(Continued on page 17)

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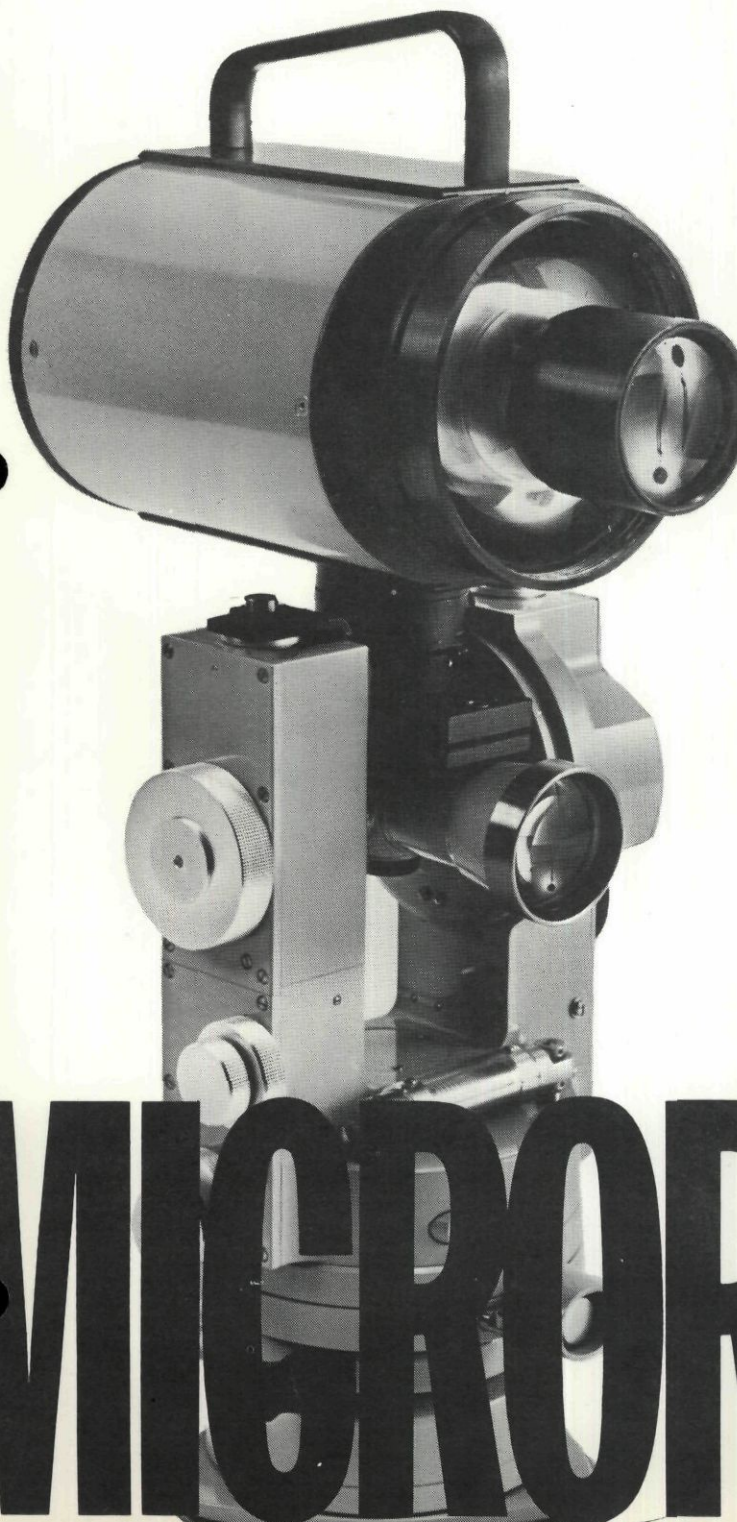
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MICRORANGER

LEAGUE OF CALIFORNIA SURVEYING ORGANIZATIONS

by Eugene P. Ehe, L.S.

The League of California Surveying Organizations is not another society or association for surveyors to join. It is not another organization to draw membership from the existing organizations. It is just the opposite. It was created to encourage mutual cooperation and standardization throughout all surveying organizations in California. The Southern Region is presently composed of delegates from the American Congress on Surveying and Mapping, California Land Surveyors Association, California Council of Civil Engineers and Land Surveyors, American Society of Civil Engineers, American Society of Photogrammetry, State of California Department of Transportation, ten different County Governmental Surveying Organizations, three large utility companies, and four of the larger cities within Southern California.

The sequence of events leading up to the formation of the League came from two independent sources. One source was John Pedri, the Land Surveyor member on the State Board of Registration. John wanted input from the surveying organizations throughout California as an aid in the creation of Uniform Surveying Standards. These Standards would then be presented as working guidelines to the State Board of Registration. The other source was the Southern California Section of American Public Works Association. The A.P.W.A. created a subcommittee on their Uniform Standards and Practices Committee to study a Standard Practices Manual for the Public Works Surveyor. Many of the initial representatives now in the League were members of this subcommittee. The subcommittee became frustrated after one year of operation by the fact that they were limited to the topics they could cover by the governing board of the A.P.W.A.

In Southern California both governmental and private surveyors recognized the need for one group of representatives with the surveying expertise and the desire to standardize surveying procedures. After a series of discussions, it was felt that the only way to get the desired independence needed to reach decisions in the best interest of all surveyors and the public was to divest ourselves from any one parent organization and become a League of all interested surveying organizations. In April, 1974 the League was officially established. It consisted of two regions, one in Northern California and one in Southern California. Because of the greater need in Southern California, the Southern Region has been the most active. Membership in the League is limited to organizations, associations, and societies that have an active interest in land surveying. Each organization appoints one delegate who must be licensed to practice land surveying. An alternate is normally also appointed.

The League has presently appointed committees to study the following topics:

- Accuracy
- Monumentation
- Monumentation Preservation
- Legislation
- Liaison with the State Board of Registration

Employees duties and classes

Safety

Subdivision Map Act and Land Surveyors Act

Metric Study

A uniform standards manual is being designed that will contain the above topics as standards are adopted.

Subjects now ready for adoption as guidelines are:

1. Survey information repository
2. Size and composition of survey parties for various types of surveys.
3. Field employees duties, titles, and classifications.

The League's manual with guidelines and standards will be made available to all Counties, Cities, and participating organizations.

Names of participating organizations and delegates for the Northern California Region are presently being collected by Walt Clark, Asst. Director of Public Works for Fresno County. Anyone interested should contact him. ▲

PRIORITIES OR WHICH COMES FIRST

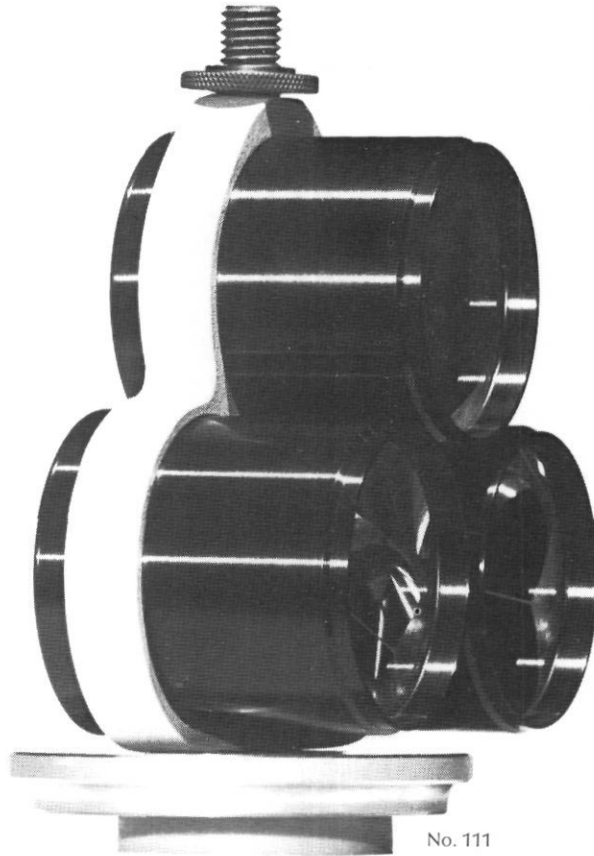
(Continued from page 1)

pleading, all he can get is our empty statement that the surveying profession needs more education.

We have been requested to help shape the Fresno State University curricula, and we submit a report outlining the need to consider certain technical details. We are asked to comment to the Board on the Senate Resolution regarding continuing education, so we state we intend to shape the program. We are asked to help to implement the law we drafted and passed to require our Registration Board to accredit surveying curricula and we say we will work on the matter. IS THE LAND SURVEYOR MERELY A PROCRASTINATOR, OR IS HE GIVING LIP SERVICE TO THE CURRENT BAND WAGON, EDUCATION?

Yes, I'm proud of coming up the hard way through the ranks. I'd like to see this option remain open to the coming generation. But I am convinced that our proclamations are right. Only through educational requirements can we lift surveying from the technical employment category it now occupies to the professional position we envision for it. But that route is not open by way of procrastination and lip service. There is a lot of hard work and doing what we're saying before we'll see any improvement. I'm probably never going to live long enough to see it, but surveying will be a respected learned profession some day if my dreams mean anything.

I'm putting my effort where my mouth is! This is notice to our President, Joe Scherf, that I finally recognize the commitment we've been making. I am available to serve wherever my help is needed. Education, or the present lack, is our problem. We've got to quit procrastinating. Appoint me to whatever action has the greatest need. I may have to resign from other activities, but this is the only way to ensure any future for the profession. And I do want the future to include professional recognition for surveying. How about you? ▲



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by Leighton Keeling

by Peter C. Stofle

The Cadastral Retracement Workshop held at the Caravan Inn in Sacramento on November 7-9, 1974 was very successful. Tim Train gave the welcome and made the introductions.

Walter G. Robillard, Regional Cadastral Surveyor, U.S. Forest Service, Atlanta, gave the group some food for thought concerning the reasons for the workshops. He also presented an interesting history of the G.L.O. System. Ed Griffin, Chief, Branch of Cadastral Surveys, B.L.M., Sacramento spoke on the history of California Surveys.

Homer Banks, spoke on Retracement Surveys and how important it is for the surveyor to know as much as possible about the original surveyor and to follow in his footsteps as nearly as possible.

Emerson Smith, complete with hard hat and vest, gave a very interesting presentation on equipment necessary for use in the recovery and interpretation of evidence. The subject of evidence continued on into the second day.

Ed Griffin spoke on section subdivision. This subject generated interest and the fire under his feet got pretty hot as evidenced by the many questions.

Jim Dowden, California State Land Commission presented an interesting history of the work of the State Land Commission and the many problems they encounter.

Walt Robillard and Peter C. Stofle, Cadastral Surveyor — U.S. Forest Service — Tahoe National Forest discussed the use of aerial photos in corner recovery. The class was shown how to plot the calls from the old survey notes on to the photos. They were also shown how to use the photos stereoscopically.

Dick Stephan, Passarino Surveying, Inc., spoke on the Retracement of metes and bounds and state subdivision surveys.

Ed Griffin and Homer Banks discussed the use of Field notes, corner records and record of survey plots and how important they are to the work of the surveyor.

Tim Train and Walt Robillard spoke on the ethics and liability, boundary disputes and court presentations.

The session was well received, as evidenced by the many comments received and the fact that participants came from such far away states as Arizona, Nevada, Utah and Wyoming.

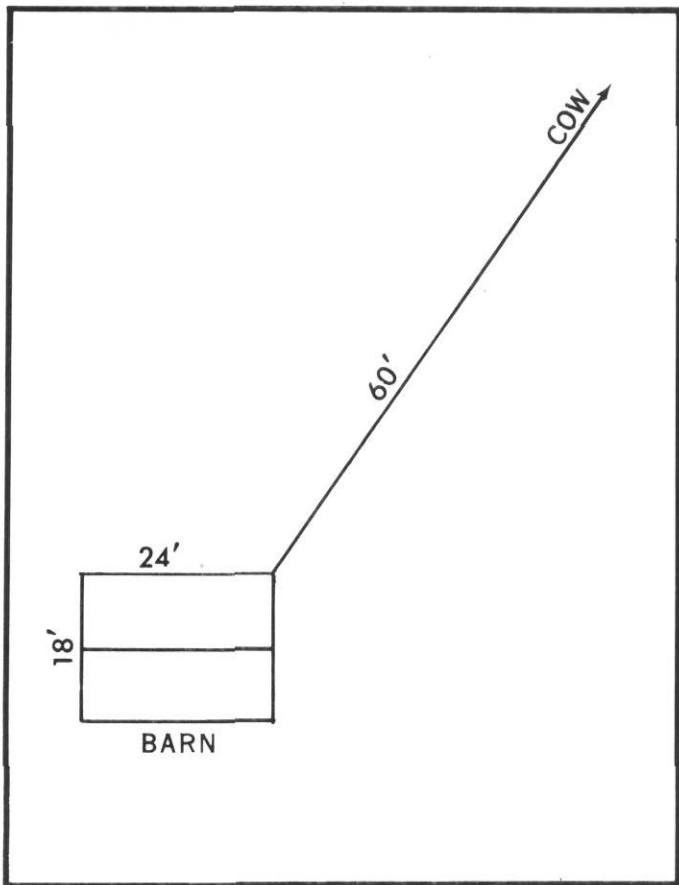
Due to the response of the group, another session is planned for the San Diego area in October, 1975. ▲

**CALIFORNIA BOARD OF REGISTRATION
FOR PROFESSIONAL ENGINEERS
Written Examination Schedule**

1975		*Final Filing Dates
Examination Dates		
Land Surveyor-in-Training — LSIT		
April 18, 1975		January 27, 1975
November 7, 1975		August 18, 1975
Land Surveyor — LS		
November 8, 1975		July 14, 1975

*Applications filed after the final filing date specified will be considered for the following examination.

NOTE: This schedule is subject to change at any time without prior notice. ▲



A cow is tethered at the end of a 60 foot rope attached to the corner of an 18' x 24' barn. Disregarding the length of the cow's neck and tongue, over what total area (in square feet) may the cow graze. Note that the border of the above drawing is arbitrary, and does not represent the size of the entire field.

As a handful of your members and readers already know, my secondary hobby is model railroading. (My prime hobby is trying to peddle surveying instruments and kindred gear!)

Anyhow, a model railroading acquaintance, who also happens to be an engineer, passed along a problem that CLSA members might get a kick out of solving.

Just to make it more interesting, Surveyors Service Company will supply, with their compliments, a copy of ITW's pocket-sized trig tables, and a copy of Lufkin's chainman's handbook to every CLSA member submitting the correct solution to Editor Watley on or before January 16, 1975.

Make it easy on Roy: submit your entries, with your name and address legibly printed, on a 3x5 card. Mail to Puzzle Contest Editor, CLSA, P.O. Box 3707, Hayward, California.

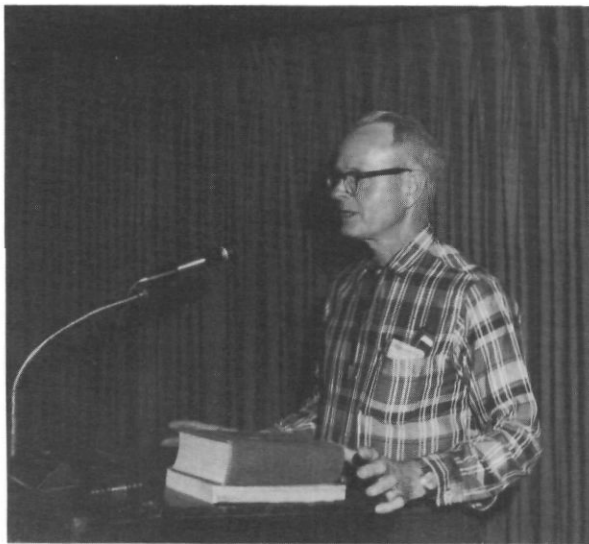




HOMER BANKS



WALTER ROBILLARD



EMERSON SMITH



JIM DOWDEN



TIM TRAIN



ED GRIFFIN



RETRACEMENT WORKSHOP IN ACTION

CIVIL ENGINEERS, SURVEYORS FORM GROUP

by Leo L. Strecker, L.S.

Editors note: Mr. Strecker served as key executive in three engineering and surveying companies employing up to 300 architects-engineers and surveyors from 1946 to 1969. He is past president of the Civil Engineers and Land Surveyors Association of California, a licensed land surveyor, a radiation consultant, and a licensed landscape architect. He has an extensive background in civil engineering in the U.S.A., Canada, Alaska and Central America. Mr. Strecker also served on the Advisory Committee, California Senate Interim Committee on Subdivision, Development and Planning and is considered a top authority in this field.

A group for civil engineers and land surveyors has been formed in Coachella Valley.

Called the Coachella Valley Civil Engineers and Land Surveyors Association, the group recently elected its officers at a luncheon meeting at Palm Desert Mobile Home Country Club.

Elected president was Leo L. Strecker, owner of A-1 Surveying Company, Inc., of Palm Desert.

John Sanborn of Webb Engineering, was elected vice president.

Other officers elected were: Harold Housley, secretary-treasurer; Leonard Gerkia, and Don Shayler, directors.

Strecker announced that the goals of the new association would include striving to improve quality of engineering and surveying professions.

"We shall also try to improve relationships, communications and processing time with government agencies, and to promote better relationships, understanding and professionalism among consulting engineers and surveyors.

The president also said that the group would work to improve professional ethics of consulting engineers and surveyors, and would review all state and local laws and ordinances which may effect the professions.

"We shall also recommend additions or changes whenever we feel they are needed," Strecker said.

Charter firms of the group are: A-1 Surveying Company, Palm Desert, Benner & Ghormley, Indio, J.F. Davidson Association, Palm Springs; Hallmark Engineering, Cathedral City; Pacific Rim, Palm Desert; Wilsey Ham, Palm Springs; Philip Abrams, Palm Springs; Buena Engineering, Palm Springs; Frank Hamerschiag, Palm Springs; K. W. L. Associates, Cathedral City and Webb Engineering, Palm Springs. ▲

DEADLINE DATES FOR THE CALIFORNIA SURVEYOR

Convention January 18, 1975

Spring Edition February 15, 1975

Articles, Reports, Letters, etc., received after the above mentioned date will be placed in the next edition.

Editor

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PRESENTATION TO THE AMERICAN CONGRESS ON SURVEYING AND MAPPING

(Continued on page 3)

on areas which already have such subdivision laws, but in areas that do not have such laws it will become a valuable tool. Also, it will become a guide to be used all over the United States.

The model law tends to project the land surveyor into the process of the subdivision of land. The committee working on this instrument is chaired by LaMonte Urban from Albuquerque, New Mexico, and while this is an excellent piece of work, I hope that it is not *too little too late* as far as the land surveying profession goes.

The work by the Congress on the model subdivision law will give him a boost in that direction.

So long as the subdivision creates boundaries, so long will the surveyor exist.

The following policy was presented to the committee for adoption by the American Congress of Surveying and Mapping.

POLICY ON LAND SURVEYORS AND SUBDIVISION OF LAND

Where the Land Surveyor is required by law to sign final maps of subdivisions and the final map is required by law to conform substantially with the tentative and preliminary plats, it is a persuasive conclusion that the Legislature intended the Land Surveyor to be the designated administrative professional with all of the responsibility with respect to all of the salient features of the proposed subdivision.

With respect to the subdivision of land the Land Surveyor is analogous to the architect with respect to the design of buildings. The architect is the designated administrative professional responsible for all of the salient features of the on-site planning, design and construction of the building. It is the architect that makes the judgment if and when he needs expertise beyond his capabilities.

Salient Features

Preparation of a tentative or preliminary plat of a subdivision requires that all of the engineering and surveying features have been carefully studied including the relation thereto of the street alignment and design, traffic engineering, topography, hydrological features, soil conditions, sewage collection and disposal, boundary and title investigations, drainage continuity, grading plans, water supply and distribution, general and specific plans, land use and zoning, environmental impact reports and analysis, and any other planning aspect which may affect the design and construction of the proposed subdivision.

These matters may be divided for convenience into the following categories:

1. **Background studies.**
 - (a) Title investigations.
 - (b) Applicable zoning, land use restrictions, subdivision ordinance, and other standards.
 - (c) Hydrologic investigations regarding drainage features and associated grading problems for the project.
 - (d) *Source of water supply, sewage disposal, and solid waste disposal.*
 - (e) Existing topography of the project area, including existing structures and other facilities.
 - (f) Relative compaction and percolation tests.
2. **Design studies.**
 - (a) The physical configuration of the land and the design of the lots.
 - (b) The physical configuration of highways, streets, and the location of associated structures (bridges, culverts, etc.).
 - (c) The establishment of design flows and the establishment of the configuration of design facilities (drainage channels, culverts, etc.).
 - (d) The layout of water distribution facilities and the tentative sizing thereof (exclusive of major water supply and water transmission facilities).
 - (e) The layout of sewage collection facilities and the tentative sizing thereof (exclusive of major sewer outfalls).
 - (f) Preparation of cost estimates for the project.
 - (g) Preparation of a grading plan for all project facilities.
3. **Construction.**
 - (a) Field staking.
 - (b) Supervision of construction.
 - (c) Contracts and estimates.
 - (d) Final acceptance.

The subdivision of land is a uniquely private practitioner's function regulated by governmental agencies.

Historically the Land Surveyor has been responsible for the preparation of all background and design studies associated with development of subdivisions.

It is incumbent upon the Surveyor to provide himself with continuing education to keep abreast of the constantly changing technology, laws, planning principles and requirements that affect the design and construction of subdivisions.

Land Surveyors' examinations must also keep abreast of the very same criteria in order to assure the public that future Surveyors are capable of this professional responsibility. ▲

Private Practice:
Principally:
Manager:
Other:

Consulting Utility Others
54 7 7
13 7 7
3 7 7
38 Did not indicate what office.
38 Did not complete form.

1479 questionnaires sent out.
50% returned, completed and signed.
50% indicated both license as Land Surveyor
40% government employees.
8% retired.
2% deceased.

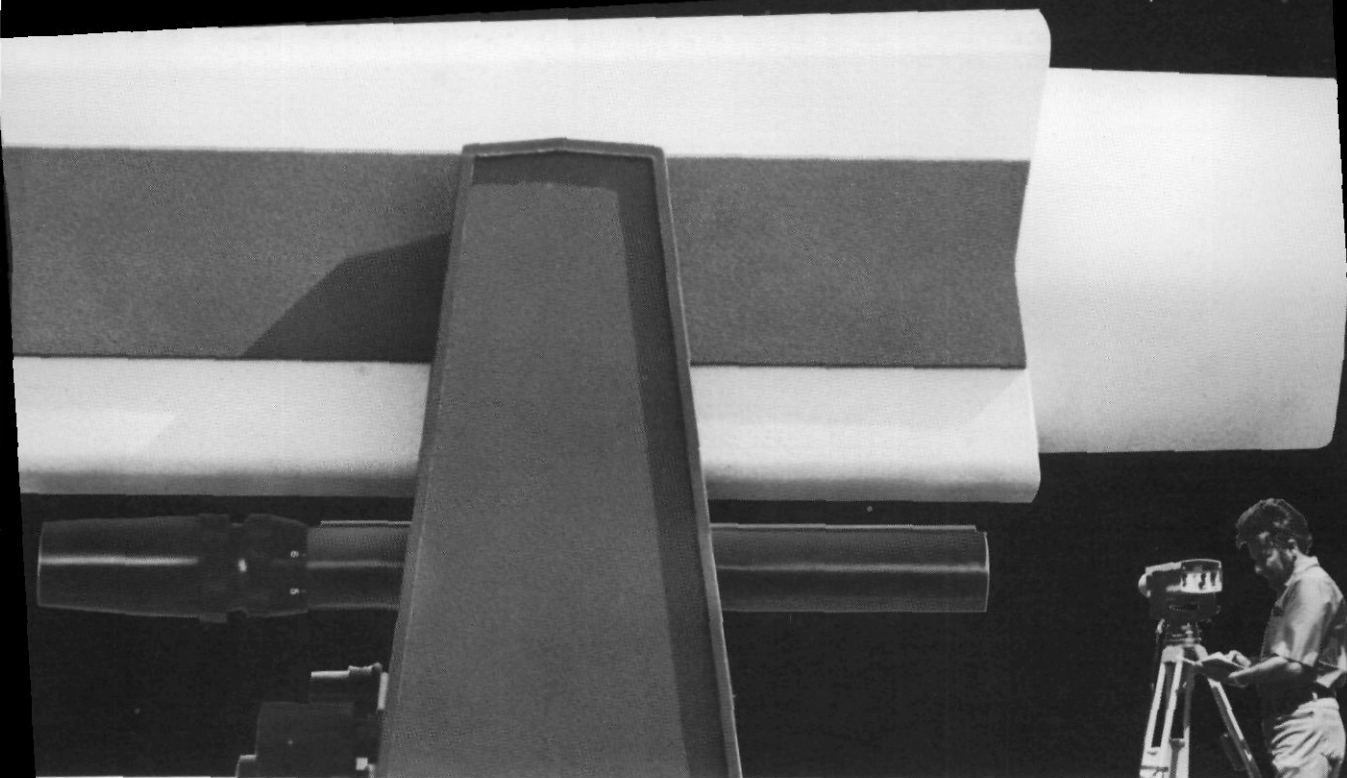
Only signed questionnaires were acceptable.
20% indicated both license as Land Surveyor
4% and Registered Civil Engineer.

The tabulation shows the percentage of surveyors answering the questionnaire.

DUTIES:	Land Surveying												Data-Accumulation Systems												Construction Personnel															
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12				
A. Conceptual Planning	37	53	50	39	38	36	32	27	30	22	10	9	7	7	19	24	16	23	18	3	6	12	19	7	10	8	20	21	30	14	31	40	42	41	39	49	26	24	19	21
B. Independent Judgment	54	52	49	43	38	34	30	26	28	21	9	9	7	5	20	25	16	23	14	2	7	11	16	7	11	8	21	26	36	15	37	45	53	51	49	55	28	21	10	
C. Make Decisions	47	52	43	39	35	32	29	26	24	20	8	8	7	4	20	25	16	23	13	4	4	11	16	7	11	8	21	26	36	15	37	45	53	51	49	55	28	21	10	
D. Public Contact	39	50	42	37	33	29	25	23	17	15	9	9	6	4	12	17	21	12	3	3	7	10	16	7	11	8	21	26	36	15	37	45	53	51	49	55	28	21	10	
E. Site Control	36	46	34	32	28	25	22	17	15	7	7	5	4	14	17	17	13	2	2	2	3	5	8	7	10	8	21	26	36	15	37	45	53	51	49	55	28	21	10	
F. Cost Control	34	46	34	32	28	25	22	17	15	7	7	5	4	14	17	17	13	2	2	2	3	5	8	7	10	8	21	26	36	15	37	45	53	51	49	55	28	21	10	
G. File Reports	36	46	34	32	28	25	22	17	15	7	7	5	4	14	17	17	13	2	2	2	3	5	8	7	10	8	21	26	36	15	37	45	53	51	49	55	28	21	10	
H. Court Minutes & Integ.	30	43	35	34	32	28	26	29	15	18	7	7	6	7	14	16	9	17	12	3	5	10	16	7	11	8	21	26	36	15	37	45	53	51	49	55	28	21	10	
I. Court Prof.	35	45	34	30	30	27	24	21	18	13	4	4	3	4	12	19	7	16	10	1	3	7	12	7	11	8	21	26	36	15	37	45	53	51	49	55	28	21	10	
J. Int. Prof. Respon.	32	48	35	32	30	25	28	15	16	7	7	6	3	13	22	12	18	13	3	3	5	12	19	7	11	8	21	26	36	15	37	45	53	51	49	55	28	21	10	
K. Int. Prof. Respon.	15	16	11	17	16	13	15	13	6	6	3	2	3	11	6	7	1	2	2	2	2	3	5	7	11	8	21	26	36	15	37	45	53	51	49	55	28	21	10	
L. Sched. & compl. cont.	17	24	21	21	15	16	14	14	7	7	3	3	3	10	5	12	16	28	13	27	33	23	26	7	10	8	21	26	36	15	37	45	53	51	49	55	28	21	10	
M. Authorized representa-	22	29	20	26	25	24	20	16	16	10	7	5	4	2	15	12	7	14	10	2	7	13	15	7	11	8	21	26	36	15	37	45	53	51	49	55	28	21	10	
N. Before Bodies	34	42	40	39	28	24	22	19	16	11	7	7	6	5	14	17	17	13	2	2	3	5	8	7	10	8	21	26	36	15	37	45	53	51	49	55	28	21	10	
O. Planning Commissions	20	27	23	20	26	22	16	15	12	7	7	6	5	14	17	17	13	2	2	2	3	5	8	7	10	8	21	26	36	15	37	45	53	51	49	55	28	21	10	
P. Courts of Law	20	27	23	20	26	22	16	15	12	7	7	6	5	14	17	17	13	2	2	2	3	5	8	7	10	8	21	26	36	15	37	45	53	51	49	55	28	21	10	
Q. Officials of Gov.	20	27	23	20	26	22	16	15	12	7	7	6	5	14	17	17	13	2	2	2	3	5	8	7	10	8	21	26	36	15	37	45	53	51	49	55	28	21	10	
R. State Plans	27	34	35	29	27	25	24	21	16	22	13	2	2	6	5	3	13	13	5	2	8	10	16	7	11	8	21	26	36	15	37	45	53	51	49	55	28	21	10	
S. Organize & Manage:	34	51	53	44	39	36	38	32	31	34	18	20	7	7	5	17	25	7	14	12	3	7	16	7	11	8	21	26	36	15	37	45	53	51	49	55	28	21	10	
T. Field Office	34	40	43	39	34	34	39	29	27	32	17	20	7	7	5	17	25	7	14	12	3	7	16	7	11	8	21	26	36	15	37	45	53	51	49	55	28	21	10	
U. Office	34	40	43	39	34	34	39	29	27	32	17	20	7	7	5	17	25	7	14	12	3	7	16	7	11	8	21	26	36	15	37	45	53	51	49	55	28	21	10	

Government Employees:
Department:
Head of?
Assist?
Other?

Federal State County City
6 4 7 5
16 10 7 7
3 10 10 7
3% Did not indicate what office.



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**RIVERSIDE-SAN BERNARDINO
STARTS CALIFORNIA
LAND SURVEYORS ASSOCIATION CHAPTER**

by Eugene P. Ehe, L.S.

The Southern California Riverside-San Bernardino area after years of discussion finally has an official California Land Surveyors Association Chapter. The Chapter is made up of a cross-section of governmental and private surveyors. The motivation behind the local Chapter is to provide a local forum where problems of mutual interest can be discussed and where standardization between the various governmental and private entity can be achieved.

The 22 charter members of the Chapter in July elected the following officers:

Ernest Pintor, President
Bill Addington, Vice-President
George Brimhall, Secretary
Claude Tomlinson, Treasurer
James McGillvray, Chapter Representative
Willard Plummer, Walter Williams, and
Richard Siegmund — Directors at Large

At the August Meeting the following committees were appointed:

Legislation
Monumentation & Ties
Parcel Map Procedure
Professional Exchange
Education
Business Practices
Corner Record
Membership

Various County and City Surveyors will be asked during the next few months to speak to the Chapter. This will be done in an attempt to determine how local governmental agencies view the surveying profession and to give the local surveyor a better understanding of how the local agencies operate. ▲

CLSA LAND SURVEYOR'S REFERENCE BIBLIOGRAPHY

(Continued on page 6)

TREES of North America

by C. Frank Brockman \$3.95
Golden Press
New York, N.Y.

A MANUAL FOR NORTHERN WOODSMAN

by Austin Cary
Cambridge
Harvard University 1911

READING MAPS

An introduction to maps using color
stereo photographs
by Paul A. Riffal
a series of books available from
Hubbard Press
Glenview, Illinois

**FORESTERS GUIDE to INTERPRETATION
of AERIAL PHOTOGRAPHS**

by T. Eugene Avery
Agriculture Handbook 308
October 1966
U.S. Government Printing Office
Washington, D.C.

**INTERPRETATION of AERIAL PHOTOGRAPHS,
Second Edition**

by T. Eugene Avery, Ph.D.
Burgess Publishing Co.
426 South Sixth Street
Minneapolis, Minnesota 55415

The ELEMENTS of ASTRONOMY FOR SURVEYORS

by J.B. Mackie 1971
Charles Griffin & Co., Ltd.

LEGAL

BOUNDARY CONTROL & LEGAL PRINCIPLES

by Curtis M. Brown, 2nd Edition
John Wiley & Sons, Inc. New York

**EVIDENCE AND PROCEDURES FOR
BOUNDARY LOCATION**

by Curtis M. Brown & Winfield H. Eldridge
John Wiley & Sons, Inc., New York

CLARK ON SURVEYING AND BOUNDARIES

Third Edition by John S. Grimes
Bobbs Merrill Co., Inc.
Indianapolis, Indiana

**The LEGAL ELEMENTS of BOUNDARIES
AND ADJACENT PROPERTIES**

by Ray Hamilton Skelton, C.E.
Bobbs Merrill Co., Inc.
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by William C. Wattles
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**OGDEN'S REVISED CALIFORNIA REAL PROPERTY
LAW**

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California Continuing Education of the Bar
Department CEB-OGD
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of the University of California)

Vol. II Available about April, 1975

Note: This is the basic book on California Real Property Law and has been out of print for ten years. It is not in the Lawyer's book stores, therefore order directly from the above address.

HANDBOOK FOR TITLE MEN

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433 South Spring Street
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(Continued on page 18)

CLSA LAND SURVEYOR'S REFERENCE BIBLIOGRAPHY

(Continued from page 17)

**A HANDBOOK FOR TEXAS ABTRACTORS
AND TITLE MEN**

by Frank A. Stamper 1966
Primitive Press
P.O. Box 966
Bellaire, Texas 77401

REAL ESTATE LAW IN CALIFORNIA

by Arthur G. Bowman, 3rd Edition \$13.00
Prentice Hall, Inc.
Englewood Cliffs, N.J.

BLACKS LAW DICTIONARY

4th Edition Revised 1968 \$16.00
West Publishing Co.

St. Paul, Minnesota

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1850 to date

Vol. 10, 1973 (includes boundary cases)

West Publishing Co.
St. Paul, Minnesota

CALIFORNIA JURISPRUDENCE III

Bancroft-Whitney Co.
San Francisco, Ca.

Vol. i (includes Abandoned Property)

Vol. II (includes Adjoining Owners and Adverse Possession)

SUMMARY OF CALIFORNIA LAW, Eighth Edition

by B.E. Witkin, 1973

Vol. 3 Real Property
Bancroft-Whitney Co.

San Francisco, Ca.

CALIFORNIA OFFICIAL REPORTS

Bancroft-Whitney Co.
San Francisco, Ca.

RETRACEMENT

HODGEMAN'S SURVEY MANUAL

The F. Hodgeman Co.
Climax, Michigan 1911

**INSTRUCTIONS TO THE SURVEYOR
GENERAL OF OREGON 1851**

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**ORIGINAL INSTRUCTIONS GOVERNING
PUBLIC LAND SURVEYS 1815-1855,**

a guide to their use in resurveys of public lands,
by J.S. Dodds \$7.50

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**MANUAL OF INSTRUCTIONS FOR THE SURVEY OF
THE**

PUBLIC LANDS OF THE UNITED STATES 1973

Prepared by the Bureau of Land Management
Technical Bulletin 6

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by Ira M. Tillotson, P.E., R.L.S. 1973

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241 West Main
Missoula, Montana 59801

Note: The Montana Association of Registered Land Surveyors are contemplating reprinting the 1902 MANUAL OF SURVEYING INSTRUCTIONS and the addendas to it. Anticipated costs are \$8.50 for the manual and \$1.00 for the addenda. They are soliciting interest to see if this is a worthwhile project. Write to 241 West Main, Missoula, Montana 59801

We suggest that all U.S. Government publications be ordered through the Printing Office Book Stores rather than sending to Washington, D.C., or through private suppliers (unless the private supplier has a catalog listing the desired book in stock). The Government Book Stores usually provide immediate service and will inform you if the book is out of print or available through Washington, D.C. only. A telephone call to the store will generally provide if the book desired is available and the current price.

U.S. Government Book Store
450 Golden Gate Avenue
San Francisco, Ca. 94102
415-556-6657

There is also a U.S. Government Book store in Los Angeles. ▲

PROFESSIONAL ENGINEERS AND LAND SURVEYORS:

Part of the registration process requires each applicant to provide the State Board of Registration with several references. Each applicant is required to seek out registrants to serve as references, and most registered professional engineers or licensed land surveyors are asked to serve in a reference capacity at some time.

Reference forms have been designed to assist in the evaluation of an applicant's record, and to provide informed commentary from a registrant derived from a personal knowledge of an applicant's background in education and experience and observance of the applicant's performance.

Each professional should consider his own attitude when proceeding to fill out an individual reference. To assist the Board, an honest and direct appraisal of an applicant is indicated. You are the individual who presumably has personal knowledge, and you should transmit this to the Board in understandable language. The Board must process several thousand references each year and it cannot read an implied intent or read between the lines.

If references are to continue to have value in the registration process the registered professionals are the individuals who must give them meaning. It is not enough to treat them superficially just to create a favorable image. References deserve thoughtful consideration in the interest of the public and the profession. ▲

"Restoration of Lost or Obliterated Corners, and Subdivision of Sections," - A Guide to Surveyors. US Dept. of Interior-BLM.

This booklet has been reprinted by the Illinois Registered Land Surveyors Association Education Committee. The booklet is available for immediate distribution at \$1.00 each including handling and postage. Mail all checks for the correct amount (\$1.00) to:

IRLSA, PO Box #642
Broadview, Ill. 60153 ▲

Consumer Affairs

BEFORE YOU SIGN A CONTRACT . . .

Every sales, service, or work agreement you sign is probably a contract. Contracts can be long or short and don't always look legal or binding. There are usually two parties to a contract — the seller and you, the buyer. Each has the same right and obligation to "live up" to its terms.

Before you sign a contract read it thoroughly. Be sure any writing is clearly understood and legible. Your signature on a contract means you have agreed to *all* its terms and provisions.

If something in a contract does not apply to you cross it out. If the seller won't accept it, you don't have to sign it. Be wary of statements by the seller who says, "Pay no attention to that because we never enforce it." The paper you sign is what counts.

If blank spaces appear in the contract, draw a circle with a line through it (0) in the blank spaces before you sign to prohibit anyone adding something at a later date. Once you attach your signature it's difficult to prove the space was blank when you signed.

Generally, verbal representations are not legal unless they are in the contract. Don't depend on oral promises — insist all promises and agreements be written into the contract before signing.

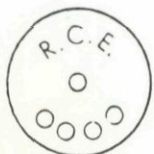
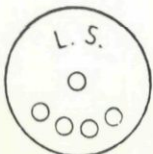
Obtain an exact copy of the contract at the time you sign it and keep it in a safe place. If it is not a carbon copy, have it signed by the person who made it out and have them acknowledge in writing that it is an exact copy.

Know with whom you are dealing. A contract is absolutely worthless if the seller disappears after you have paid and before he has delivered the merchandise or rendered his services. A contract is never a substitute for dealing with honest, reputable businesses. ▲

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CONVENTION - 1975

"California - Nevada Land Surveyors Convention"

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and the
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COMMERCIAL
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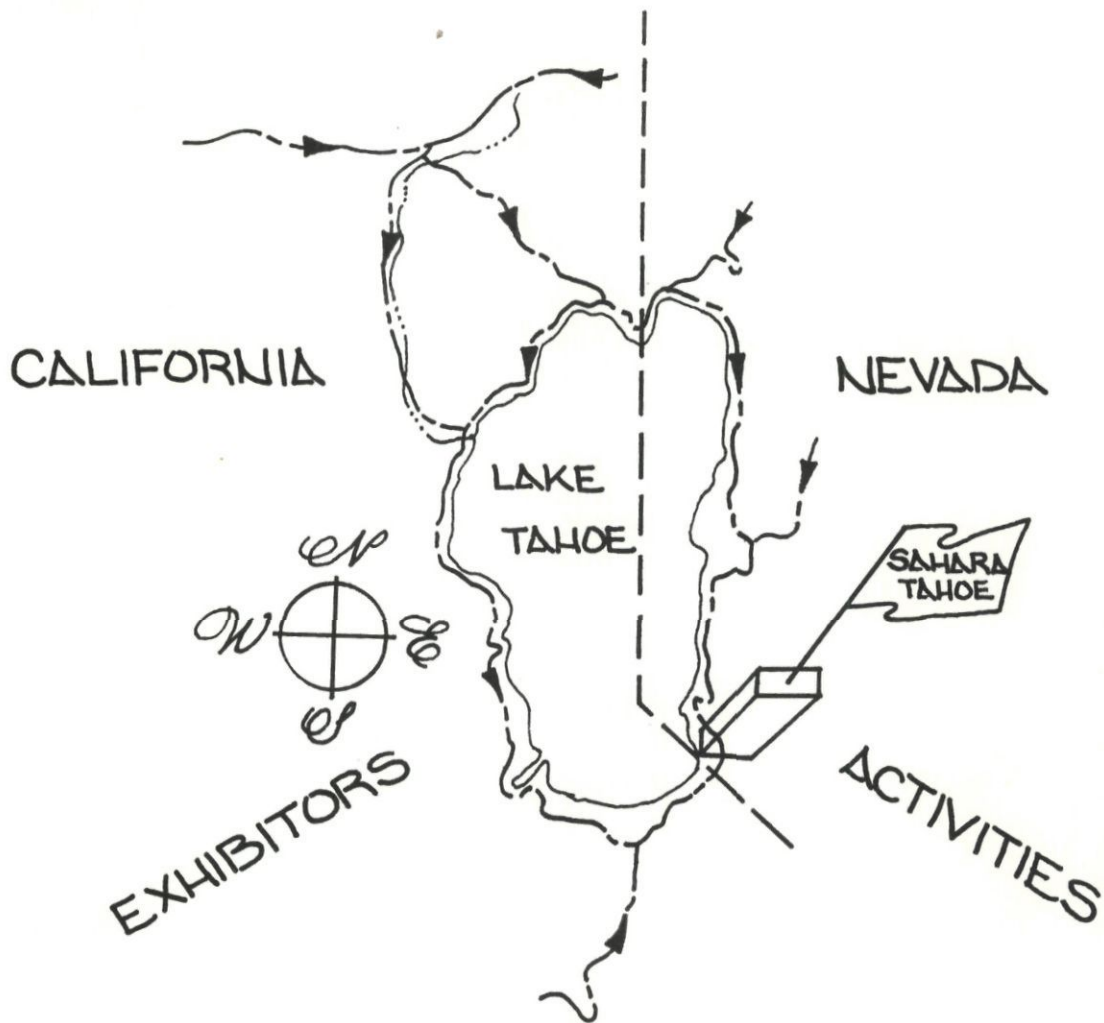
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SOUTHSHORE, LAKE TAHOE
IN MARCH 6-8, 1975

GAMING

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"FUTURE DIRECTIONS IN SURVEYING"
 AND THEY ALL LEAD TO
 SAHARA TAHOE
 MARCH 6-7-8, 1975
 FOR THE BI-STATE N.A.L.S.-C.L.S.A. CONVENTION

YOU THINK YOU HAVE RED TAPE!!!

Chapter II

The little story about "Red Tape" in the Spring issue of THE CALIFORNIA SURVEYOR inspired one of our readers to submit a similar item.

The following is an abridgement of a completely serious set of questions and answers to a questionnaire compiled in 1919 by the Committee On Logging Railroads, of the Pacific Logging Congress. Our informant took it from the February 1973 issue of Pacific News, which, in turn, credits the Pacific Northwest Chapter of the National Railroad Historical Society. The original survey was published in the October 1919 issue of *Timberman Magazine*.

We have deleted a few of the original questions and answers as being of little or no interest to surveyors, but, imagine, if you will, the exasperation of the railroad superintendents being queried, as they tried, usually in all sincerity, to comply with the wishes of the "paper pushers" who were bothering them at a time when, in most instances their main problem was a derailed shay tying up all operations!

Q - HOW MANY MEN DO YOU USE IN A SURVEY PARTY?

A - The engineer says he has to have three: one to run the transit and two to swamp, chain, etc., but we contend that we are wasting one man. One man could both chain and swamp by tying the chain to a peg.

Q - HOW DO YOU LOCATE, BY OFFSET, MIDDLE ORDINATE, OR DEFLECTION METHOD?

A - Yes.

Q - WHAT ARE THE GOVERNING FEATURES IN THE LAYOUT OF YOUR RAILROAD?

A - Hills, gullies, rocks and stumps.

Q - WHAT IS THE MOST ECONOMICAL WAY TO HANDLING ROCK WORK?

A - We haven't found it.

Q - HOW DO YOU TREAT SWAMPS AND MARSHLAND?

A - We go around.

Q - WHAT IS YOUR LIMIT AS TO GRADES AND CURVES?

A - We have never reached it.

Q - IN MAKING TOPOGRAPHIC MAPS, DO YOU USE CONTOUR LINES OR HATCHURES?

A - Don't keep chickens in camp.

Q - DO YOU RUN PRELIMINARY LINES ON ALL MAINLINES AND SPURS?

A - 50% said yes; 50% said "What are they?"

Q - DO YOU HAVE ANY NEW APPLIANCES TO FACILITATE PICKING UP AND LAYING RAIL?

A - Yes, we bought a claw bar and a push car this year.

Q - WHEN DO YOU GRADE BY HAND?

A - When we have no machines.

Q - WHEN DO YOU GRADE BY MACHINE?

A - When we haven't hands. ▲

JOHN PEDRI HAS BEEN APPOINTED TO THE LAND SURVEYING COMMITTEE BY THE PRESIDENT OF THE NATIONAL COUNCIL OF ENGINEERING EXAMINERS.

right on

ALL KINDS OF MEMBERS

A lot of members are like wheelbarrows - not good unless pushed.

Some are canoes - need to be paddled.

Some are like kites - if a string isn't kept on them, they'll fly away.

Some are like kittens - they are more contented when petted.

Some are like footballs - you can't tell which way they'll bounce next.

Some are like balloons - full of wind and ready to blow up.

Some are like trailers - they have to be pulled.

Some are like lights - they keep going on and off.

Many, thank God, are like the North Star - there when you need them, dependable, ever loyal, and a guide to all people.

Adapted from

"Be a Wonder to Yourself"

David MacLennan

CONVENTION 1975 AT T-H-E LAKE

by Greg Young

With the unique activities readily available, Lake Tahoe lends itself perfectly as a Super Convention Center.

Skiing, lake fishing, gaming, sight seeing, eating, dancing, shows and more.

With the informative and interesting lectures and guest speakers scheduled for the meetings, this convention will prove to be the best yet.

Environment of Tahoe, National Trends in Surveying, Future of Surveying Education, Photographic Mapping, California Senate Bill No. 977, Trends in Plotting and more.

With the combination of the two, you and your spouse are in for the time of your life. If you never make it to another convention, or have never been to one . . . This is T-H-E one to attend.

This is the first of hopefully many Bi-state Conventions. ▲

SUSTAINING MEMBERS

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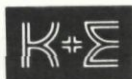
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- MEMBER GRADE:** Have a valid California Land Surveyor's or Photogrammetric Surveyor's License
- AFFILIATE MEMBER GRADE:** R.C.E. or those who rely upon the principles of land surveying.
- ASSOCIATE MEMBER GRADE:** Work in land surveying and be recommended by a member.

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b. Address _____ Zip _____

c. Mailing Address _____ Phone No. _____

d. Employment: Private _____ (Principal _____) Retired _____ Public _____

Name of Firm or Agency _____

e. Signature and L.S., P.S. or C.E. No. _____

f. Recommended by (Associate & Affiliate Grade Only) _____

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CALIFORNIA LAND SURVEYORS ASSOCIATION — 1974

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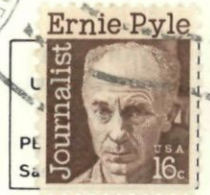
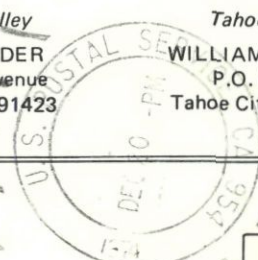
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