

MAY 57

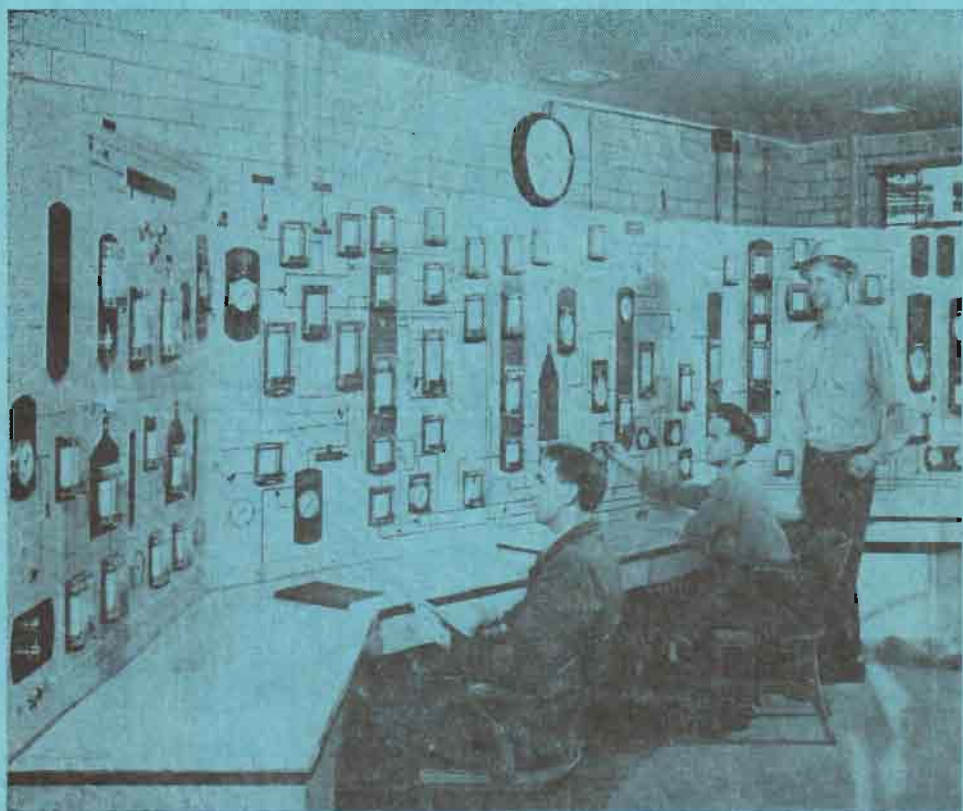
INSTRUMENT  
SOCIETY of  
AMERICA



SARNIA SECTION



Monthly Bulletin



## WIDE-SCREEN PRESENTATION OF PETRO-CHEMICAL PLANT

by *Taylor*

Taylor Graphic Panels, contributing close supervisory control in the Petroleum Industry, are also serving in the Petro-Chemical field. Photographed above, for example, is the Taylor Panel at CIL'S Polythene Plant at Edmonton, Alberta.

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**TAYLOR INSTRUMENTS MEAN ACCURACY FIRST**



# **The Instrument Society of America**

## **SARNIA SECTION**

has as its objective the advancement of the arts and sciences associated with the theory, design, and use of measuring and control instruments in the various industries in the Sarnia area.

The immediate benefits derived by the Sarnia members include a monthly meeting at which a qualified speaker discusses an instrument subject after which members fraternize with other instrument men and interchange ideas and news at a social hour, a subscription to the "I.S.A. JOURNAL", a subscription to the Sarnia Section "BULLETIN", access to all technical data, servicing techniques and standardization policies developed by the National Committees of the ISA and an annual school for mechanics and technicians.

As a member of the National body of the Instrument Society of America, a rapidly growing and influential technical society, the member partakes indirectly in the progress of instrumentation made possible by the work of the various National Committees.

Executive Officers for the 1956-57 season are:

President	H. KOHLMEIER Polymer Corp. Ltd.
Vice-President	R. ASSELSTINE Canadian Oil Refineries Ltd.
Secretary	F. CROFT Catalytic Construction Co.
Treasurer	R. ROSE Catalytic Construction Co.

Meetings are held on the fourth Monday of each month from September to May inclusive at 8.00 P.M. The meetings are held at the Vendome Hotel unless otherwise announced.

Anyone earning his livelihood through the manufacture or use of instruments and who is acceptable to the executive body may become a member of the Sarnia Section, I.S.A. Dues are \$12.00 per annum. Associate Members are those who are associated with instruments but who do not earn their livelihood directly from them, such as stationary engineers, process operators, etc. Their dues are \$7.50 per annum.

Correspondence relating to the general activities of the Sarnia Section should be addressed to the Secretary, Mr. F. Croft, 612 St. Clair Ave., Pt. Edward, Ont. Dues should be made payable to the Sarnia Section, Instrument Society of America and sent to the Treasurer, Mr. R. J. Rose, 675 Woodhaven, Sarnia, Ont.

Correspondence concerning programs should be sent to the Program Chairman Mr. G. M. Hicks, 280 St. Vincent St., Sarnia, Ont.

Copy for "THE BULLETIN" should be sent to the Managing Editor, Mr. H. Hobbs, 122 Cameron Street, Sarnia, Ontario.

# PRECISION INSTRUMENTS AND CONTROLS



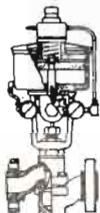
BARTON

**BARTON DP FLOW-METERS**—with stainless steel, rupture-proof bellows. Indicators, recorders and pneumatic transmitters are available (electric contacts optional).



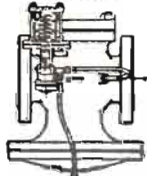
ALNOR

**ALNOR INSTRUMENTS**—for measuring surface and furnace temperatures—Alnor Velometers for air speed—Alnor Dewpointers—multi-circuit electrical thermometers.



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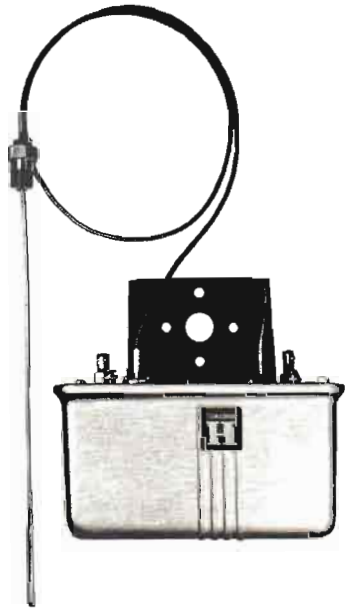
# **TEL-O-SET TRANSMITTER**

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**Absolute Pressure**



This instrument answers the demand of industry for a versatile pneumatic transmitter. There is no need to add or change parts to get any span within the overall limits of the transmitter and these spans can be extremely narrow. The narrow span feature, coupled with high accuracy and rapid response, greatly enlarges the field of application for completely pneumatic systems. These features also make the transmitter particularly suitable for applications where close process control is essential — in the food, petroleum, chemical, and other industries.

Range limits are — 375 to + 1,000 F, and 40 to 600 psi. A simple adjustment allows you to set the span limits of 20 psi and 50 F minimum, and 150 psi and 400 F maximum. Zero output can easily be adjusted to allow this span to cover any desired portion of the overall transmitter range.

For more information about this and other controls contact your nearest HONEYWELL Branch Office, or write HONEYWELL, Leaside, Toronto 17, Ontario.

**Honeywell**  
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*Brown Instruments*



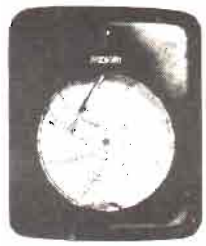
12A Temperature Transmitter



M/42 Indicating Pneumatic Transmitter



13A Differential Pressure (d/p) Cell



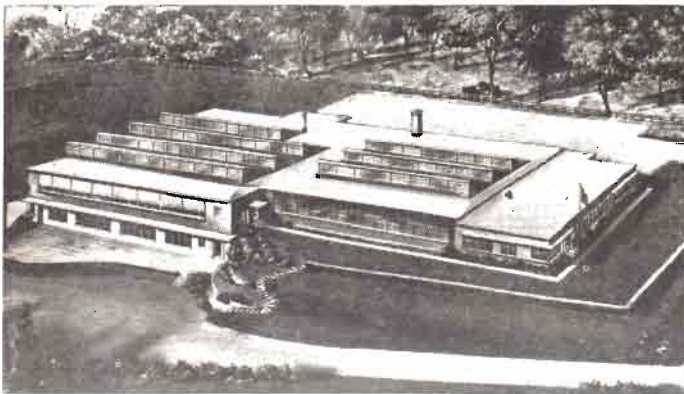
M/40 Recording Controller

## PROCESS MEASUREMENT AND CONTROL

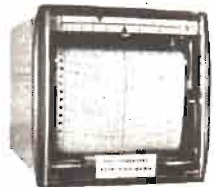
Complete process measurement and control instrumentation covering such variables as temperature, pressure, flow, liquid level, humidity, pH, conductivity, density, dew point, viscosity, force, speed, position, etc. etc. Instrument designs to suit conventional or graphic type panels — controllers for board or local mounting.

This complete line of Canadian made Foxboro instruments, combined with the wide application knowledge and engineering experience of Peacock Brothers Limited, guarantees the best instrumentation for almost any process.

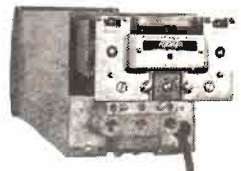
Pictured below is the Canadian home of Foxboro instruments — Canada's largest and most up-to-date process instrument manufacturing plant.



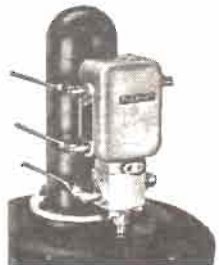
M/52 Consotrol Indicating Controller



M/53 Consotrol Recording Station



M/58 Consotrol Controller



M/59 Consotrol Valve Mounted Controller



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# The "BULLETIN"

VOLUME 6 No. 9

MAY 1957

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## MAY MEETING

The regular meeting of the Sarnia Section was the Annual Dinner Meeting, held May 3rd, at The Guildwood Inn. Close to fifty members and friends attended, and enjoyed a splendid repast and a pleasant, sociable evening.

The executive for the coming year, headed by our popular President, Ron Asselstine, took over from the outgoing group, with the usual lack of ceremony.

Ron, in making, at our insistence, a speech, gave everyone fair warning that he intended to extract hard work from all of us during his term of office. He expressed the hope that everyone would submit ideas for our meetings for the coming season. Tell Ron what you want, friends, and that is the policy he will pursue and fulfill.

No Fred, our budget can not include dancing girls.

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## INSTRUMENTS ARE MY LINE

By E. W. Kirk

For the last article of the current season, I would like to dwell a moment on the subject of control valves. The following was a situation which happened to me, and I feel it has enough merit to pass on to other mechanics.

It all started one day when I was assigned the task of making up and having installed a pressure controller and valve. The specifications given me were:

- (1) 0 - 150 spring range
- (2) ½" control valve with a ¼" trim.

The controller part was easy. I found an idle Brown temperature controller. By exchanging the temperature element with a pressure spring, and doing the necessary calibration steps etc., it was soon ready for installation.

The valve is the part where I ran into trouble. Among our stock of idle control valves, I couldn't find one with the proper sizes. However, I

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did find a  $\frac{1}{2}$ " valve with a  $\frac{1}{8}$ " trim. In our storehouse, I was able to get a  $\frac{3}{8}$ " plug. So armed with the  $\frac{3}{8}$ " plug and  $\frac{1}{8}$ " dia seat ring, I left instructions for our shop crew to bore out the seat ring to  $\frac{1}{4}$ " and turn down the plug to match.

In due course this was done, but when I picked up the necessary parts, I noticed the hole about  $\frac{1}{8}$ " dia, in the seat ring and a matching plug. Oh no! What a mix up. I wanted a  $\frac{1}{4}$ " hole. But I soon was told, this was the  $\frac{1}{4}$ " seat and plug I requested. I also found out, that although you say you want a  $\frac{1}{4}$ " trim, the dia of the seat ring hole isn't necessarily  $\frac{1}{4}$  of an inch.

How come? I asked, if the valve is sized as  $\frac{1}{4}$ " trim, why isn't the hole  $\frac{1}{4}$  inch dia? By long and patient explaining by our shop engineer, I found, that the valve trim can be sized by comparing the pressure drop of a  $\frac{1}{4}$ " dia orifice plate, to a control valve of  $\frac{1}{4}$ " trim size with the valve in the fully open position. In other words under the above circumstances the pressure drop of the two, should nearly be equal.

Of course many other things enter into proper valve sizing, but I think for the average mechanic in the field, the important thing to remember is to never gauge the trim size of a control valve by the diameter of the plug, or the hole in the seat. You could very easily be led astray, like I was.

The best and safest way (especially if the trim or plug isn't stamped) is to measure the diameter of the plug, then compare it to specifications set forth by that particular valve manufacture. As an added word of caution, trim sizes can also vary with different makes of valves.

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## INSTRUMENT TECHNICIANS

Harold Kohlmeier has very kindly sent along an article on the classification of ENGINEERING TECHNICIANS by the association of Professional Engineers of Ontario. This is something that our local section has been hoping for and working toward for many years. It provides a challenge and opportunity for all those who will apply the effort to advance themselves and gain an official certificate attesting to the fact. A lot of hard work will be required in order to qualify, but I am sure we all realize that nothing worthwhile is gained without working.

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## CLASSIFICATION OF ENGINEERING TECHNICIANS

The Association of Professional Engineers of Ontario has announced a plan for the certificating of engineering technicians.

The purpose of this certification is to give the engineering technician a definite and accepted form of recognition for his training and experience. It also indicates the direction in which he may go in order to add to his qualifications and upgrade his classification.

The certification will be of value to the employer since it establishes a set of defined classifications which, heretofore, have been largely based on local or plant terminology. Certification should assist in providing avenues for advancement within the employment framework.

There should be benefit to those who have written some Association exams but have not completed the full set and to those who have completed some university work but have not continued on to receive a degree. If examinations passed fit into the pattern of qualifications for classification as an engineering technician a grading as an engineering technician may be obtained. In this way recognition for educational qualifications is obtained.

Certification is on a purely voluntary basis and the recording of this by the Association must be renewed annually. The annual dues are \$5.00 for Grade I and \$10.00 for all other grades.

The certification and recording does not provide for any form of membership in the Association of Professional Engineers of Ontario and does not give the holder any right to practice as a professional engineer.

The certification is in the hands of the Certification Board under the Chairmanship of Dr. George B. Langford, P. Eng. The examining of qualifications for certifications in the various grades, or for reclassification, will be carried out by the Panel of Examiners under the chairmanship of M. J. McAuliffe, P. Eng.

A register of certified engineering technicians will be maintained by the Association. A certificate will be issued to each registered technician stating that he is registered in a certain grade at the Association offices.

There will be five grades of certificates issued, the requirements for which are as follows:

### I. Engineering Technician (Grade I)

#### (a) Minimum educational qualifications

The Ontario Secondary School Graduation Diploma (obtained at the end of Grade XII) or equivalent provided the applicant has taken the science and mathematical subjects of Grade XI and XII, and

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(b) Practical Experience

One year's experience in an approved engineering office.

**II. Engineering Technician (Grade 2)**

(a) Minimum education requirement

Grade XIII Technical, or Grade XIII General Course, (English Composition, English Literature, Algebra, Geometry, Trigonometry, Physics and Chemistry), or

The Advanced Technical Evening Class Certificate or  
The Ordinary National Certificate, and

(b) Practical Experience

Three years experience for applicants who possess a Grade XIII Technical standing, or standing in the seven subjects of the Grade XIII General Course referred to above.

Five years experience for holders of the Advanced Technical Evening Class Certificate, or for holders of the Ordinary National Certificate.

**III. Engineering Technicians (Grade 3)**

(a) Minimum educational requirement

Completion of one year of an Engineering Course in a recognized university, or

Completion of a two-year Technical Institute Course, the admission requirement to which is complete Grade XII standing or equivalent,  
or

Higher National Certificate (without endorsements), or Engineering Technician (Grade 2) qualifications plus further evening school or part-time instruction to the level of the two year Technical Institute Course referred to above,  
and

(b) Practical Experience

Three years experience (one of which shall be in Canada) for holders of the Higher National Certificate (without endorsements)

Three years experience for applicants who have completed one year of an Engineering Course in a recognized university or a two year Technical Institute course.

Three years further experience for persons who previously had been classified as an Engineering Technician (Grade 2).

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**IV. Engineering Technician (Grade 4)**

- (a) **Minimum educational requirement**  
Completion of the first two years of an engineering course in a recognized university, or  
Diploma from the Ryerson Institute of Technology, or  
Other Institutions with an equivalent standing, or  
Higher National Certificate with satisfactory endorsements, or  
Examinations established by the Certification Board.
- (b) **Practical Experience**  
Three years further experience for applicants who have completed the first two years of an engineering course in a recognized university, or for holders of the Ryerson Diploma (or equivalent)  
Two years experience (one of which shall be in Canada) for applicants who hold a Higher National Certificate (with endorsements)  
Two years further experience for persons who had previously been classified as an Engineering Technician (Grade 3)

**V. Engineering Technician (Grade 5)**

- (a) **Minimum educational requirement**  
Intermediate examinations of the Association of Professional Engineers of Ontario, or  
Completion of examinations prescribed by the Certification Board.
- (b) **Practical Experience**  
Two years further experience beyond Grade 4, or  
Equivalent.

**Note:**—Experience in all grades must be of a type that is satisfactory to the Certification Board.

Applications forms and further information may be obtained by writing to the Association of Professional Engineers of the Province of Ontario, 236 Avenue Road, Toronto, Ontario.

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**WRITTEN ON A ROLL CHART****Is It Jaundice?**

To coin a Proverb, trite but sage,  
More than whiskey mellows with age,  
And as the years go racing by,  
More sparse the locks, more dim the eye,  
More slow the step, more bent the spine,  
And sleep our chiefest anodyne,  
(And deep and sad one fact doth rankle,  
No use to chase yon shapely ankle,  
She, ll laugh and tell you that you rather  
Strongly remind her of her father.)  
So cast aside such thoughts as these,  
Content yourself with memories,  
And though one should not cease to hope,  
Keep, more or less, within your scope.  
Distractions all are incidental,  
And far less glandular than mental,  
So follow well my master-plan,  
And tolerate your fellow man,  
Endure his ill-advise-ed whims,  
Avoid fits and paroxysms,  
If he insists you calibrate,  
Though storm doth blow and hour grow late,  
And the line he seems to love and trust,  
Is orifice-deep in a greyish dust,  
And you know that a deed of far more use,  
Were a few deep drags at the poppy-juice.  
Caution my friend, consider a bit,  
Peace is advised by Holy Writ,  
And, if you'll pardon my expression,  
Better than war is non-aggression.  
Better the smile, though forced and bleak,  
Better to turn the other cheek,  
Better to make friend of him,  
Than quarrel with all you vigour and vim.  
The easier way, and far less strain,  
On ageing artery, muscle and brain,  
Is do the job, with a right good-will,  
And gracefully swallow the bitter pill.  
Time was, I'd argue and debate,

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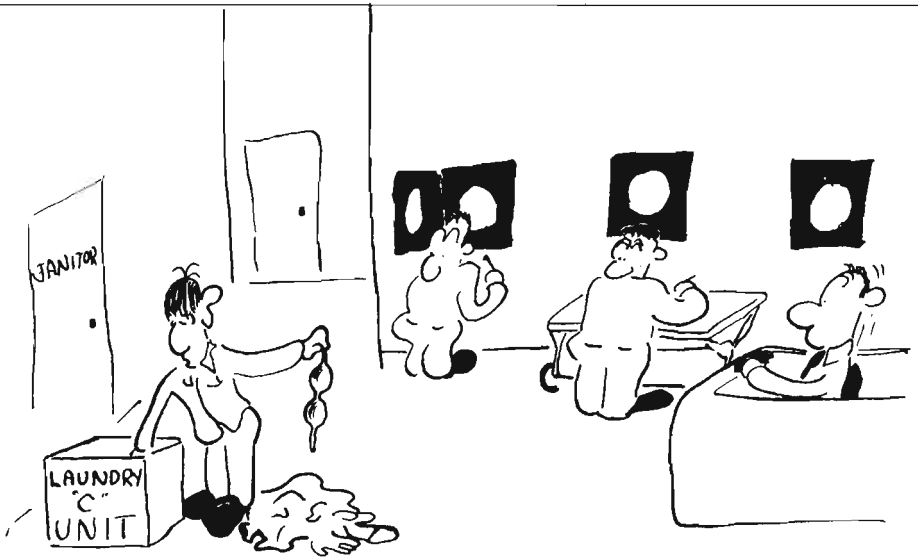
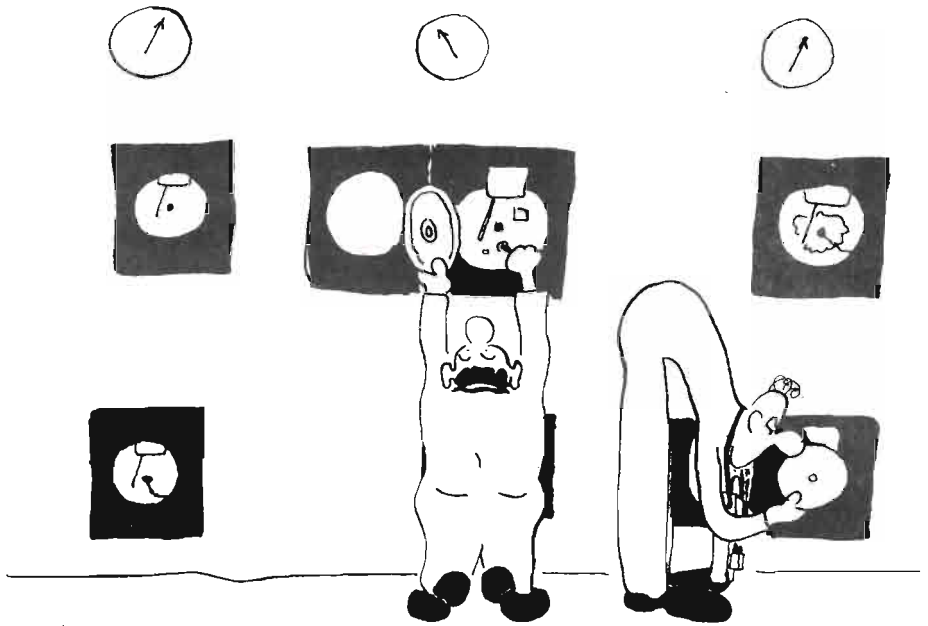
From early morn 'till way, way late,  
And push my cause with all my might  
Convinced this policy was right,  
And fluent as Demosthenes,  
Had less defeats than victories,  
All this is past, I'm pleased to say,  
Hath dawned a calmer, brighter day,  
My screams, once heard from here to Tulsa,  
No more awake my dormant ulcer,  
No more the virtuous, towering rage,  
Each day a clean unblemished page,  
And as these days increase in number,  
Home each night to dreamless slumber.

like to think I'm growing mellow,  
Not just cowardly or yellow.

—H. Hobbs

# NOTICE TO ADVERTISERS

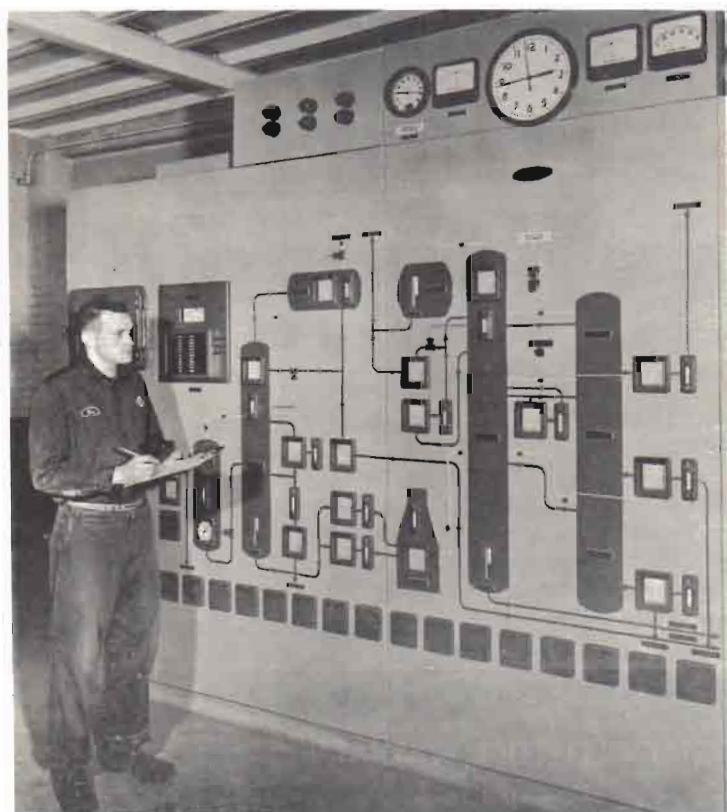
**Plans for the Bulletin for next season are getting under way almost at once. Our Advertising Manager will be sending out letters to each of you within the next few weeks. Please submit your advertising copy as promptly as possible. The Bulletin wishes to thank everyone for their past co-operation and extends best wishes for a prosperous future.**



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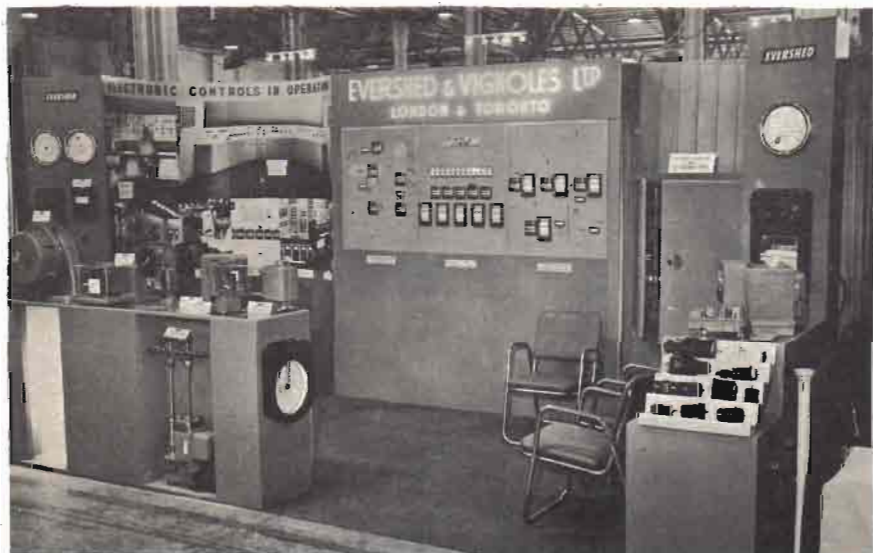
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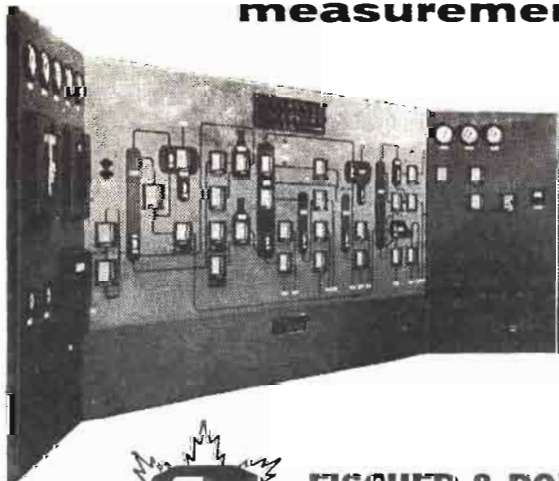
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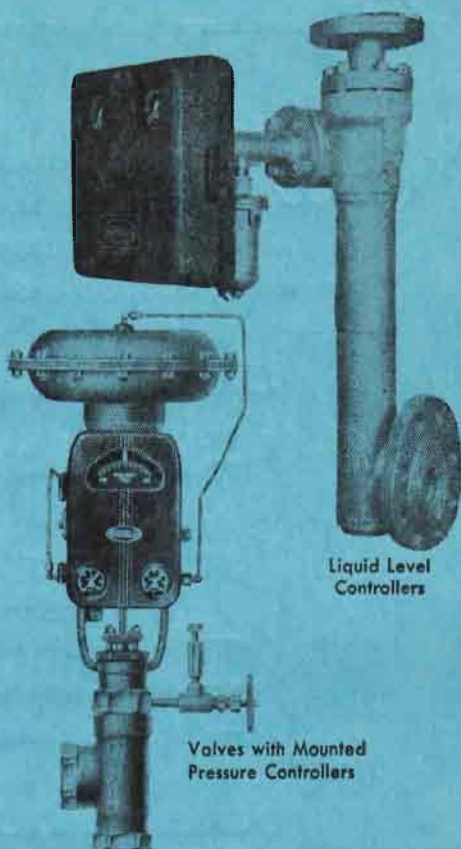


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