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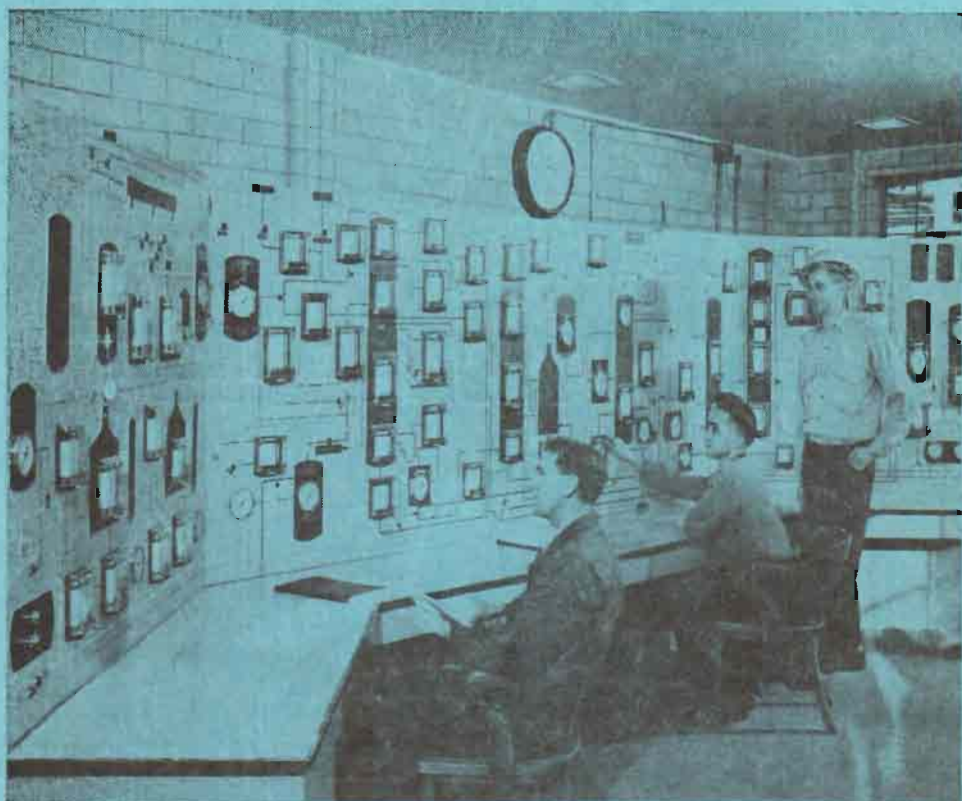
INSTRUMENT
SOCIETY of
AMERICA



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.

The instrumentation here is served by Taylor Controls and Transmitters throughout the extensive intricate plant operation.

Taylor produces instruments for indicating, recording and controlling temperature, pressure, flow, liquid-level, speed, density and humidity.

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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



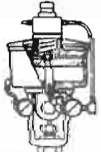
BARTON

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



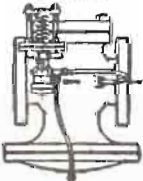
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ALNOR INSTRUMENTS—for measuring surface and furnace temperatures—Alnor Velometers for air speed — Alnor Dewpointers — multi-circuit electrical thermometers.



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Position

Company

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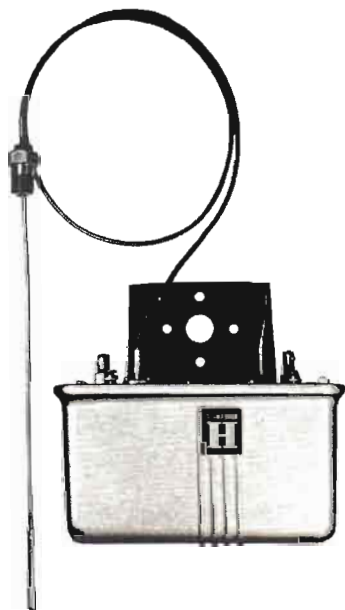
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Range limits are — 375 to + 1,000 F, and 40 to 600 psi. A simple adjustment allows you to set the span limits of 20 psi and 50 F minimum, and 150 psi and 400 F maximum. Zero output can easily be adjusted to allow this span to cover any desired portion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



Brown Instruments



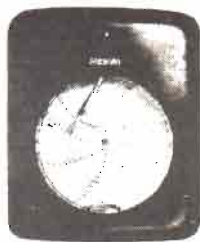
12A Temperature Transmitter



M/42 Indicating Pneumatic Transmitter



13A Differential Pressure (d/p) Cell



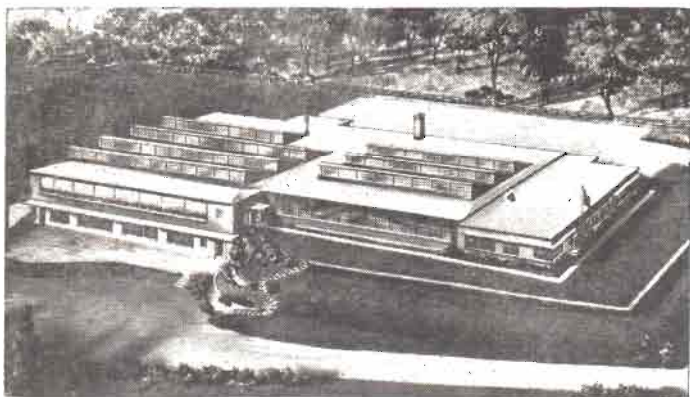
M/40 Recording Controller

PROCESS MEASUREMENT AND CONTROL

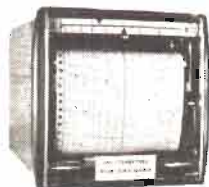
Complete process measurement and control instrumentation covering such variables as temperature, pressure, flow, liquid level, humidity, pH, conductivity, density, dew point, viscosity, force, speed, position, etc. etc. Instrument designs to suit conventional or graphic type panels — controllers for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

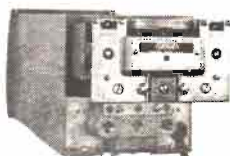
Pictured below is the Canadian home of Foxboro instruments — Canada's largest and most up-to-date process instrument manufacturing plant.



M/52 Consotrol Indicating Controller



M/53 Consotrol Recording Station



M/58 Consotrol Controller



M/59 Consotrol Valve Mounted Controller



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Sydney Toronto Sudbury Winnipeg Edmonton Calgary Vancouver

The "BULLETIN"

VOLUME 6 No. 5

JANUARY 1957

EDITOR'S NOTE

With the holiday season safely behind us, this January issue is fortunate in that our contributors have rallied around in a heart warming manner.

We have included both Bill Kirk's and Larry Hall's impression on steam tracing, because they are not only very timely, but they do not overlap. To anyone in this area, this is a big important subject and well worthwhile discussing fully. Thanks boys.

Our President, Harold Kohlmeier, has provided several items of general interest, and no Bulletin is complete without the art of Neville Knowles. His cartoons seem to have a universal appeal and we hear a lot of kind words about them.

Please take note of the Third Maintenance Clinic, scheduled for February. The others were well-attended so let Larry know your intentions as soon as possible.

INSTRUMENTS ARE MY LINE

By E. W. Kirk

With the recent cold snap and snow, we of the Instrument Group, begin to think of freezeups and of course steam tracings.

This in turn brings to light another phase of our trade, namely the art of proper meter installation. Of course, we can always get a book and study the diagrams and literature, but the book doesn't always tell a few minor, but important details. Some of these are like the number one problem, namely, to get enough heat and insulation to prevent freezing in the coldest weather, yet not too much to boil the line fluid on a warmer day.

One stunt used, is to lightly insulate the line first, then install the steam tracing, over which the heavier and final insulation is wrapped. Another way is to never strap the steam tracing directly to the leg lines, but rather to simply put spacers at each spot the tracing is strapped.

Of course, sometimes, no matter how many precautions you may take there are always those meters that defy all rules and freeze anyway. So when we start the job of thawing out, it is pretty handy to have a drip valve upsteam of the filter and trap. This is the first thing to open, because it might have been a trap failure as the original cause, so no amount of steaming would ever get the tracing working again without a valve open beforehand.

If your company does have a frozen meter and you are stuck as the man to thaw it out, you might find a little gadget one of our fellows made up come in handy. He took a 2 foot piece of $\frac{1}{4}$ inch pipe onto which he brazed a steam hose fitting. Now when he has a thawing job to do, he inserts this pipe under the insulation and turns on the steam. The result of course is a long section of a line warmed up, without having to strip off any insulation.

PRESIDENT'S PAGE

The changes which were made to the I. S. A. constitution are now being felt, so it is time to explain some of these changes and show how they affect us in the Sarnia Section.

As you know, the Society has been divided into nine geographical areas or districts. Sarnia is in District number six. The other sections in district six are: Central Illinois, Chicago, Detroit, Fox River Valley, Indianapolis, Kalamazoo Valley, Louisville, Milwaukee, Missouri Valley, Northern Indiana, Paducah, South Bend, Twin City, and Wayne County.

Each of the nine Districts is represented on the National Executive Board by a District Vice President who is elected by the District for a two year term. Our District Vice President is R. R. (Bob) Proctor of Crystal Lake, Illinois. The main duty of the District V. P. is to provide better contact between the sections and the Executive Board than the section delegates were able to give. In addition, the V. P. will establish a Planning Council, a Membership Committee and a Program Committee in each district. The primary objective of all these various committees is to increase and improve the service that the National Office can give the sections and to help the sections make themselves better sections.

The contact man between the section and District V. P. is the section delegate. The local membership chairman and program chairman automatically become members of the respective district committees. With the organization of these district committees, more work will be required of the local committee chairmen, but we should have a much better section as a result.



Many of you have received notices of membership dues for amounts other than the usual \$12.00. The reason for this is that in future everyone's dues will become payable on November 1st of each year. The length of time you are allowed to pay your dues has been reduced from one year to six months. If dues are not paid within **three months** the membership becomes inactive; if they are not paid within the next three months the membership is terminated. If, however, the dues are paid during the fourth, fifth or sixth months the member is reinstated and the back issues of the I. S. A. Journal, etc., sent on. Of course, once a membership is terminated (that is, dues not paid for six months) a membership application must be filled out again.



Speaking of money, 1956 was a good year for the Instrument Society. A total of \$48,000.00 was added to the surplus, which brings the surplus to \$150,000.00. This re-organization of the Society, including the appointment of an Executive Director has certainly paid off in terms of dollars! The objective of the Society is now to expand its services to members and to industry.

HOW TO REDUCE STEAM TRACING

By Larry Hall

Steam tracing of most instruments in a modern refinery or chemical plant is a necessary evil in our climate. It is necessary because it is better than letting the instruments freeze up some cold night and then having to go out and thaw out the offender with a steam hose — or, even replace a broken meter. It is “evil” because it makes the instrument hard to remove for servicing or to work on in the close confinement of a protective box and frequently means burned hands when a wrench slips suddenly. It also means more maintenance as tubing corrodes, or steam traps plug up, and, of course, it means money because it uses steam and is far more expensive to install.

So, if there is any way to avoid the use of steam tracing, let's hear the good news!

As any instrument man knows, a flow transmitter or similar type of instrument is always installed below the line on liquids and steam and above the line on gases. If a dry type differential pressure transmitter is used, however, it is possible to get satisfactory results on certain services by installing meters on liquid service ABOVE the line. Where a small amount of entrained water is present such as on butane, gasoline or naphtha services, mounting the meter below the line in accordance with standard practice invites a gradual collection of water in the meter and leg lines. A teaspoonful is enough to put the instrument out of service in freezing weather. So, tracing and its attendant evils are necessary.

However, if the meter is mounted directly above the line, any accumulation of water tends to drain back into the line and the need for tracing is eliminated. This only works, of course, on those services where:

- (1) Only a small amount of entrained water is present.
- (2) The static pressure of the liquid is always higher than the vapor pressure.

After a start up (if the meters have not been turned off during the shut-down) there is sometimes enough extra water in the lines to cause water to collect in the low side of the instrument. (In some instruments, this is the upper side and cannot be completely drained). This extra water is to be expected after a start up, but, of course, is not good for the meter. The solution is simple and quick. A teaspoonful of alcohol is introduced into the chamber through the vent plug with an ink syringe.

We have used this installation on about five per cent of our flow transmitters for over a year with no tracing and no freeze ups. Accuracies of measurement are not affected. .

MEETING NOTICE

PLACE: VENDOME HOTEL

DATE: MONDAY, JANUARY 28, 1957

TIME: 8.00 P.M.

SPEAKER: **MR. CHARLIE DOAK**
THERMOELECTRIC
NEW JERSEY

SUBJECT: **THERMOCOUPLES, their design and maintenance**

THE THIRD MAINTENANCE CLINIC

of the 1956 - 57 Season

will be held at the

**SARNIA COLLEGIATE INSTITUTE AND
TECHNICAL SCHOOL
Room 313**

**WEDNESDAY, FEBRUARY 20th, 1957
From 7.00 to 10.00 P.M.**

Subject

THE FOXBORO DYNALOG TEMPERATURE CONTROLLER

Lecturer

MR. JOE WHITE

Service Manager

**THE FOXBORO INSTRUMENT CO.
TORONTO, ONTARIO**

WRITTEN ON A ROLL CHART**IF ALL THIS IS INTENTIONAL, CONGRATULATIONS!**

(I would someone, the giftie gie 'em,
To see their plans as others see 'em.)

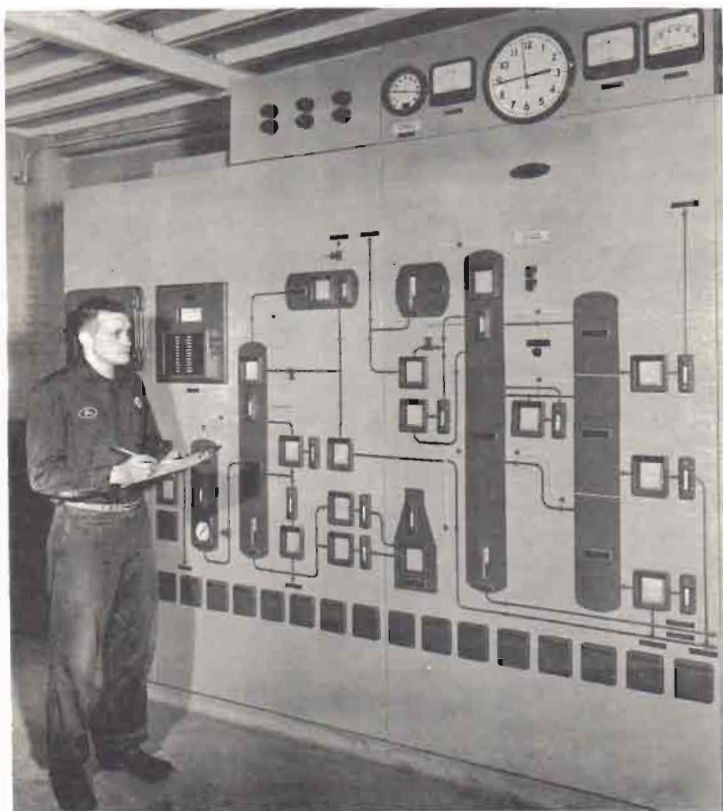
Somewhere, down in the golden south,
A hive of activity boils.
Where many a canny and vigorous youth,
Must smile to himself as he toils.
He grins as he sketches an intricate plan
Of tower, and furnace, and still,
And pictures some frustrated instrument man,
Up here in the near-Arctic chill.
He laughs as he inks in an orifice run,
All crowded with fittings and turns,
The backward control valve is more of his fun,
(And think of the money he earns!)
He rolls on the floor, at the things I deplore,
As he draws them up high, hard to get.
One slip means disaster, for only Lancaster
Performs with the aid of a net.
With merriment reeling he plasters each ceiling,
With things that could people the floor,
And clutches his belly, this Machiavelli,
And gleefully totals his score.
 So much for each space-hung transmitter,
 So much the unreachable plate,
 And more, truth to tell, for each temperature well,
 That ought to be just where it aint.
 He'll bury them in insulation
 Or blocked by a neighbouring bend,
 Or sketch them so fine in some very small line,
 They must bring the flow to an end.
 He rocks with a tearful amusement,
 And wipes a salt drop from his eye,
 He's happy, our Hero, if Tarzan can't zero,
 A meter on which we rely.
So try to be patient my comrades,
Its just a huge joke, I believe,
And too monumental to be accidental,
And better to give than receive.

—H. Hobbs

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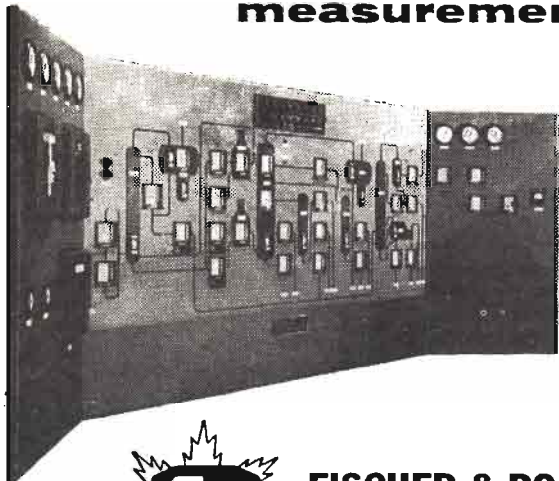
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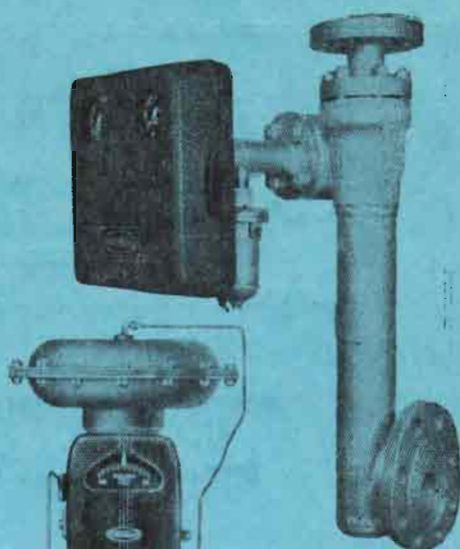
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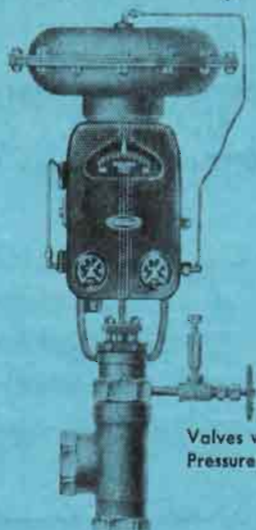
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