

Feb 57

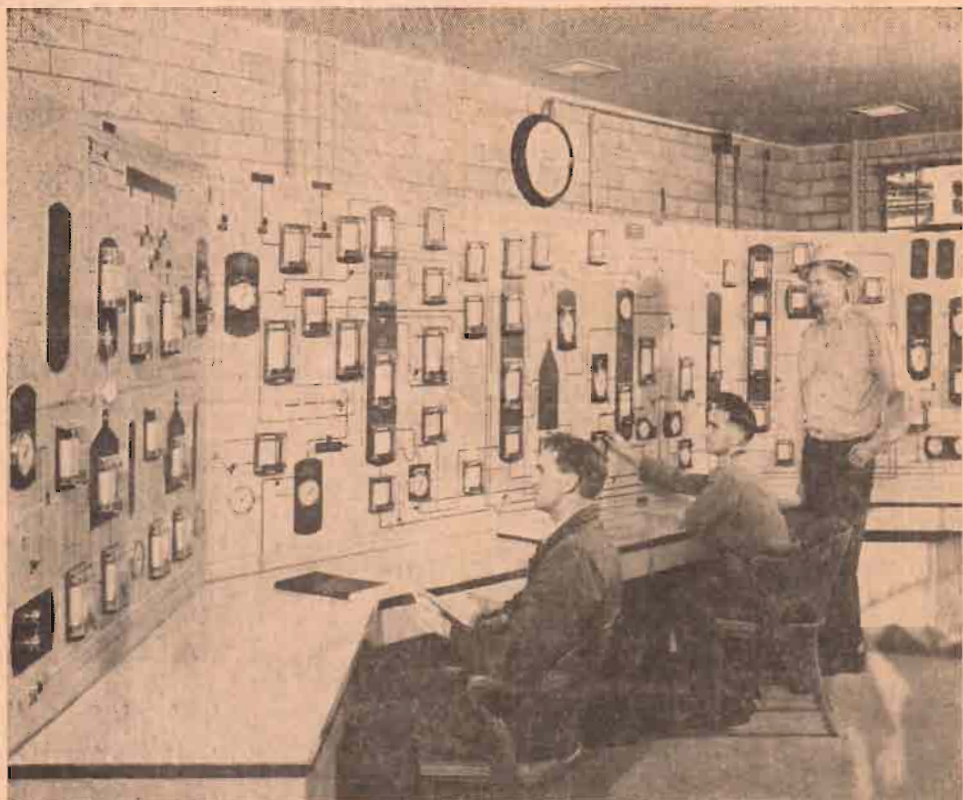
INSTRUMENT  
SOCIETY of  
AMERICA



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.

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.

Taylor Instrument Companies of Canada Limited,  
P. O. Box 87, Station D. Toronto 9, Ontario. Branches  
Montreal, Winnipeg, Calgary, Vancouver.

**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



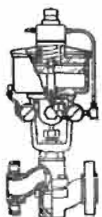
BARTON

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



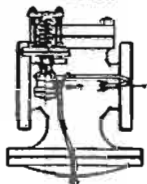
ALNOR

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



CONOFLOW

**CONOFLOW CONTROL VALVES**—with powerful pneumatic motors. Also Butterfly, Saunders and Pulp Stock valves for throttling control. Instrument air differential and filter regulators.



SPENCE

**SPENCE STEAM REGULATORS** — Packless, non-wiredrawing, self-contained pressure, temperature, and back pressure regulators. Pump governors, desuperheaters and differential regulators.



ROCHESTER

**ROCHESTER DIAL THERMOMETERS** — of all stainless steel construction. Hermetically-sealed cases, an external calibrator, accuracy and fast response are standard features.

**CONAX  
THERMOCOUPLES**

**BAKER INSTRUMENTS LIMITED**  
185 Davenport Rd., Toronto, Ontario

# PRECISION INSTRUMENTS for MEASUREMENT and CONTROL

1. Precision resistors accuracy 0.05%
2. Resistance Decade Boxes
3. Voltage Dividers
4. Wheatstone Bridges
5. Temperature Bridges sensitivity to 0.001°C.
6. Temperature Controllers accuracy 0.1°C. or better
7. High Speed Voltage Stabilizers  
*Canadian design — made in Canada*
8. Manganin wire
9. Selenium rectifiers from 1 to 20 Amps.
10. Photoelectric devices
11. Instruments to ASTM specifications
12. Smoke indicators
13. Flame failure indicators
14. Turbidity meters.

PLEASE CIRCLE THE NUMBER CORRESPONDING TO THE ITEM IN WHICH YOU ARE INTERESTED.

Name .....

Position .....

Company .....

Address .....

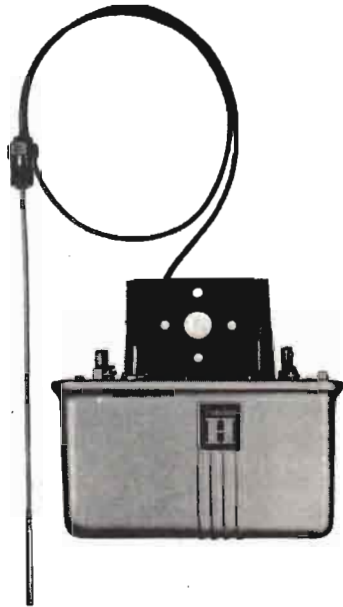
Mail your inquiry to

**POLYTRONICS CO.**

582 Bathurst St.  
TORONTO 4, ONT.

# THE NEW TEL-O-SET TRANSMITTER

**For**  
**Temperature**  
**Gage Pressure**  
**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**  
**Industrial Division**



*Brown Instruments*



12A Temperature Transmitter



M/42 Indicating Pneumatic Transmitter



13A Differential Pressure (d/p) Cell



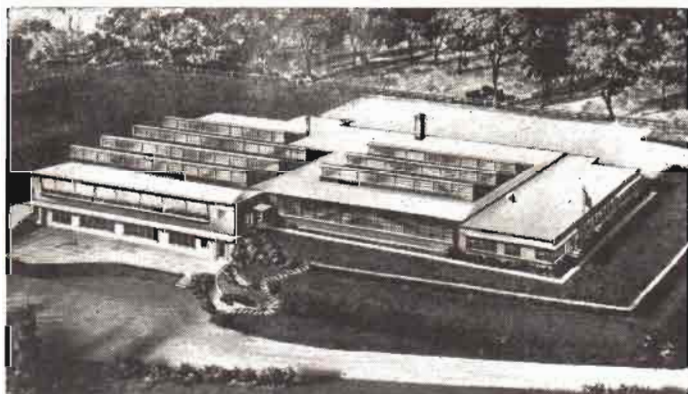
M/40 Recording Controller

## PROCESS MEASUREMENT AND CONTROL

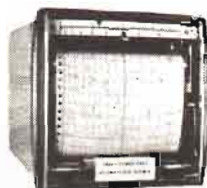
Complete process measurement and control instrumentation covering such variables as temperature, pressure, flow, liquid level, humidity, pH, conductivity, density, dew point, viscosity, force, speed, position, etc. etc. Instrument designs to suit conventional or graphic type panels — controllers for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



**PEACOCK BROTHERS LIMITED**

Montreal

Sydney Toronto Sudbury Winnipeg Edmonton Calgary Vancouver

# The "BULLETIN"

VOLUME 6 No. 6

FEBRUARY 1957

---

## EDITOR'S NOTE

In this February issue we include not only our usual fascinating items, but also:

1. A letter from a friend and former associate of Fred Croft, Mr. Ivan A. Windsor, who seems to have had his heart-strings plucked by last month's articles on steam-tracing.

2. A reminder, which I hope is on time, of the Third Maintenance Clinic.

★ ★ ★

## JANUARY MEETING

Our regular meeting was held the evening of January 28th. The speaker, Mr. Charlie Doak of Thermolectric was introduced by our President, Mr. Harold Kohlmeier of Polymer.

Mr. Doak's topic was Thermocouples, and his speech was both detailed and comprehensive. I found it very enlightening to have the **limitations** of thermocouple temperature measurement so clearly outlined after years of struggle to make them read to within **one** degree.

Thank you Charlie, and Thermolectric.

★ ★ ★

## INSTRUMENTS ARE MY LINE

By E. W. Kirk

This month I'm going to write about pressure gauges, as most people consider the gauge, playing a small role in the field of Instruments.

I believe, that in our own plant there are more pressure gauges used in various roles, than all other Instruments put together. We tend to not pay much attention to these creatures except when we get into trouble. Then us, the operator and anyone else connected with the problem, starts looking at pressures, be it air supply or one of the other numerous pressures present. Ironically enough, the average person will believe a pressure gauge over any fancy control system you may have installed and so gauges **are** important and should be accurate. To be accurate they must be serviced and calibrated periodically.

This presents the main thought, I have in mind. How does your department calibrate its gauges? We, here at Polymer have a good, but perhaps a bit outdated system. It consists of a hand cranked oil pump and a panel of various ranged gauges. The pump and gauges are connected by a manifold. The panel gauges are checked periodically by a dead weight tester.

---

This system is fine for a few gauges, but when one considers the amount of gauges calibrated over the period of a year, it means a lot of winding in and out on the oil pump, and a considerable amount of time used because it is slow work.

Now, if we of the Instrument Group are so good at devising the many complicated automatic control systems used today in modern industry, why don't we devise a better system for calibrating gauges.

One suggestion put forth, was, by using our present panel of gauges, etc., remove the hand pump, and in its place install a hydraulic valve, operated by a stack controller. Have a master scale, by which the mechanic may set his desired pressure. This system could also be used for quick checking the operation of a stack controller, before taking it out in the field.

I would be very interested to know how your department calibrates it's gauges, and your ideas on how it could be improved. Perhaps, if we all thought a little about it, we maybe would come up with a simple quick and cheap way to calibrate our old friend the pressure gauge.

2018 Center Street,  
Arabi, La.  
January 23rd, 1957.

The Instrument Society of America,  
Sarnia Section.

Gentlemen:

I am writing this letter to your local section for a number of various reasons, namely:

1st—A request (informal of course) by postal authorities to notify you of my change of address in order to take less of the postman's time spent in stopping to collect postage due for forwarding services rendered.

Although I will save "2 cents" a month, I have hesitated to do this, for some six months now, as it will probably indicate to you, my severance from the Tullahoma Section, which as past secretary of said Section is the reason I have been receiving your very fine publication. This of course will make me ineligible to receive your magazine, which I enjoy immensely, and will certainly miss, unless my pleas as an ex-member of your section, to keep me on your mailing list, are met with the considerations, that some of us oldtimers in the game, foolishly hope will be accorded us eventually. Since withdrawing from your Section in 1953 I have been successful in securing your official bulletin through the other sections I have been affiliated with namely — Edmonton and Muscle-Shoals and expect that I will be able to beg, borrow or steal the copy that you send to the New Orleans Section, whose jurisdiction I am presently within.

2nd—In the event that the Fred Croft who is presently listed as your secretary is the same one I had the pleasure of associating and working with at B-A's Montreal East plant, then I should like to forward to him my kindest regards and very best wishes.

---



3rd—The articles in your latest issue on the subject of steam tracing, has brought tears to my eyes. As one who has spent most of my instrument career in the Canadian Northwest where weeks of -30's are common, well my heart bleeds for those of you, who as you down your morning toast, know that in an hour or so, that delectable morsel of food, will be replaced by an ugly piece of red or black, blistering hot rubber hose. As we used to say back west, you all deserve a "leather medal with a wooden string", and here I am where an unprecedented (they say here) low of plus 28 has been experienced this (ha-ha) winter (?). On this awfully cold day my wife was besieged with calls from the neighbours asking if their washing on the line would break to pieces if it were moved. My of my, if only some of them had been with me at B-A's Calgary refinery where four mornings in a row during January of 1943, our reliable laboratory thermometer registered -59.

As to cold weather remedies, have any of you ever tried putting a circulating line, using union type orifices, of the purge variety, beyond and below the meter connections from high to low legs.

It's surprising just how much can be circulated before meter performance is affected appreciably.

And then again a slightly erroneous reading is somewhat better than no reading at all. This arrangement of course would be installed with shut-off valves on both sides of the orifice unions, for warm weather shut off and trial and error selection of the size of orifice necessary to cold weather operation.

The foregoing should not be interpreted as a cure all or a substitute for steam tracing completely, but in some of the unprepared or meaner applications could be the difference between a shop job or a steam hose assignment.

Trusting the above will not be judged too critically, and thanking you for our past mailing association, I remain

Sincerely yours,

Ivan A. Windsor.

P.S.—For the record, I have repeatedly asked I.S.A. and the Tullahoma Section to remove my name from the I.S.A. secretarial roster — it is almost a year now since I resigned the particular post.—I.A.W.

---

**MEETING NOTICE**

PLACE: VENDOME HOTEL

DATE: MONDAY, FEBRUARY 25, 1957

TIME: 8.00 P.M.

SPEAKER: **MR. J. BILODEAU**  
**National Sales Manager for Canada**  
**HONEYWELL CORPORATION**

SUBJECT: **HUMAN ASPECTS OF AUTOMATION**

---

# **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****DINOCERAS, EN GARDE!**

This evening, during the hour devoted to the supremely entertaining Steve Allen,

The thought occurred to me that employers of Instrument Mechanics are getting a great number of miles to the gallon.

The situation is such that if it were not so tragic it would be indeed be comical.

And of all the hordes of dollars invested, the few thrown away on us are evidently tres economical.

Our trade has grown, in one generation, to mighty proportions from many an insignificant source.

So that some ill-advised persons belittle, decry and ignore us and label our activities as trifling and matter-of-course.

These persons still hark back to, and live in, a world where vital temperatures are tested by spitting on a pipe.

They feel that our claims to superior worth are constructed of the purest tripe.

They feel that, having done without us twenty years ago, their present need is small,

And very little insolence from us might convince them there was no need at all.

And we must respect their feelings, and gain little should we mutter and glower.

Because often these people, through squatter's rights, occupy positions of power.

And even though we may feel toward them as Sherlock Holmes felt toward the late Professor Moriarity,

We needs must defer to them because any deficiency in little gray cells is amply made up by authority.

I suspect, that due to the delicate, refined nature of our activities, many of these people think that hard labour is something we shirk.

And because we may seem to enjoy ourselves and are not carrying large wrenches, they don't feel that what we do ought to be called work.

---

And so, my unfortunate friends, we find ourselves subservient to this group of hidebound scoffers,

Who support each other in the belief that we do nothing to enrich the Company's coffers.

And these graduates of more physical trades clench their calloused fists and double-dare us to boo boo or bungle.

Because, should some trouble be traceable to us then off with our heads by the immutable law of the jungle.

Not that they hate us, personally, for many of them are kindly men to whom friendship is a thing of beauty.

It is just that they fear that which they do not comprehend, and consider the suppression of radicals a sacred duty.

And so, woe betide us, should we hold our breaths while waiting for the above-mentioned to grant some promotion.

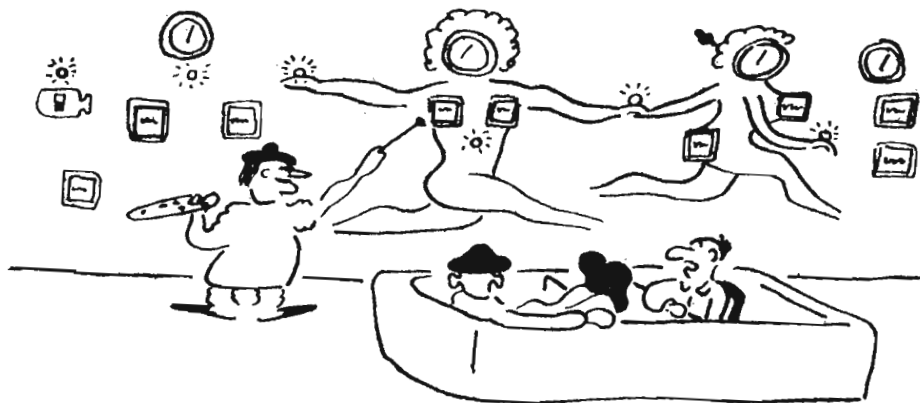
They respect us little, and fear us not at all, and I suspect that detached amusement is their chief emotion.

In just such a frame of mind lived the ancient, fearsome, sixty-ton swamp-lizards, who were, in their day, undisputed despots and felt the upstart man to be a rather feeble joke.

A little later, these lizards became scarce, for man discovered how to scramble a king-size yolk.

—H. Hobbs.

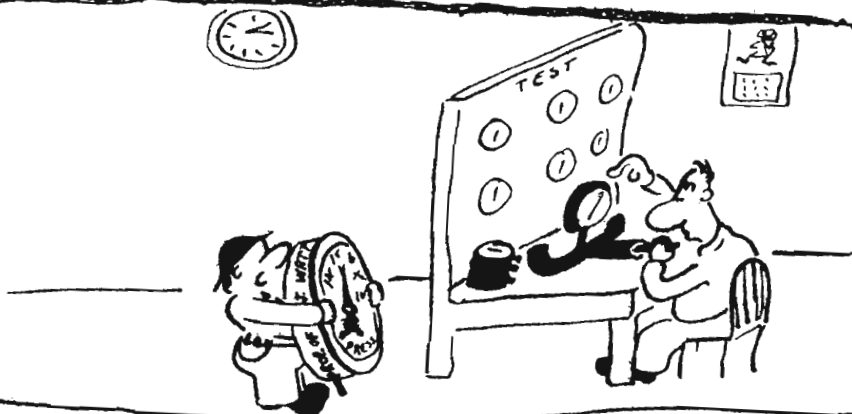
---



---

IT SURE IS A SNEAKY WAY OF  
GETTING US TO WATCH THE  
PANEL BOARD

---



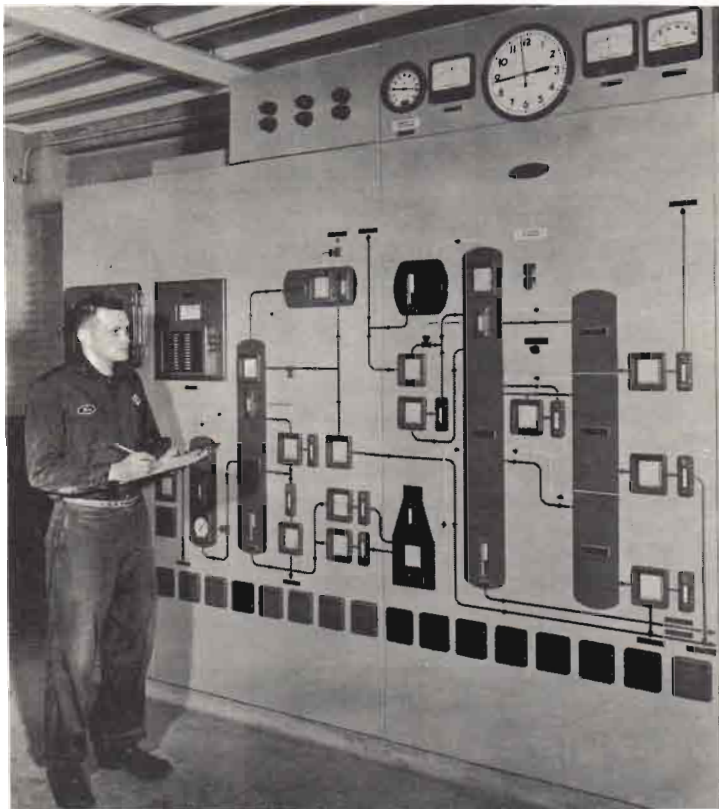
---

HERE'S ONE THAT HASN'T BEEN  
CHANGED FOR SOME TIME. I FOUND  
IT ON A STEAM PUMP BEHIND  
THE UNIT.

# Process-Instrument Systems Limited

1918 AVENUE ROAD, TORONTO 12, ONTARIO  
ORchard 5514

- **Askania Hydraulic Controls for Heavy Duty Applications**
- **Bendix Viscosity Control**
- **Continental Butterfly Control Valves**
- **Daniel Orifice Fittings and Plates**
- **Dekoron Instrument Tubing**
- **Instrof Tubing Support**
- **Kates Flow Regulators**
- **Limatorque Electric Valve Operators**
- **Scam Annunciators**
- **Swartwout Electronic Controls**



**SWARTWOUT AUTRONIC CONTROLS—**  
**CRUDE OIL DISTILLATION UNIT—**  
**REGENT REFINING LIMITED — PORT CREDIT, ONTARIO**

- Positive Displacement Meters
- "American" Orifice Meters
- Orifice Plates and Meter Runs
- Needle Valves
- Robinson Orifice Fittings
- Cannon Meter Pens



Head Office:  
MILTON, ONT.

Western Division:  
EDMONTON, ALTA

Sales Offices also at Calgary and Regina

# INDUSTRON

## CORPORATION

297 CARLTON ST., TORONTO 2

WALnut 1-2032

**HALLIKAINEN-SHELL** — Continuous Recording Viscometer — Continuous Vapor Pressure Recorder — Continuous Flow Color Alarm — Continuous Initial Boiling Point Recorder — Continuous Dielectric Constant Recorder — Continuous Beta Ray Density Recorder — Recording Variable Area Flowmeter — Pneumatic Sine Wave Generator — Gas-Liquid Chromatography Unit (lab instr.) — Beta Ray Absorption Unit for analysis of Hydrogen in Liquid Hydrocarbons (lab instr.)

**HALLIKAINEN-TIDE WATER OIL CO.** — Continuous Acid Analyzer for gasoline alkylation plants.

**LISTON-BECKER** — Continuous Infrared Analyzer for Gas and Liquid Streams.

**MANUFACTURERS ENGINEERING & EQUIPMENT CORP.** — Continuous Recording Electrolytic PPM Water Analyzer for gases and liquids — Continuous Recording Ultraviolet & Photoelectric Analyzer — Continuous Recording Differential Refractometer — Differential Colorimeter for plastics and paints (lab. instr.)

"Continuous Analyzers for the Oil & Petrochemical Industries"



Introducing **EVERSHED**



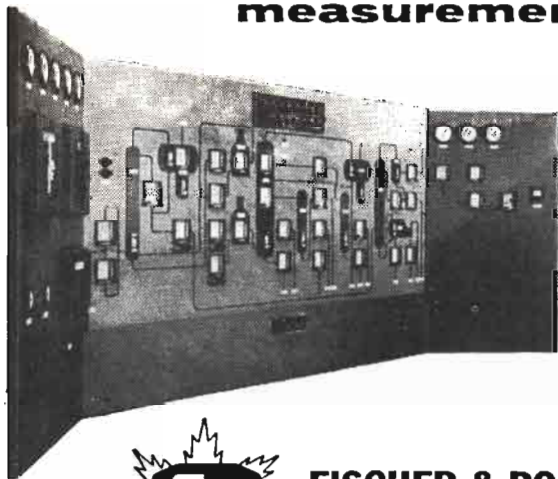
**"Pressure — Temperature — Level — Flow"**

**EVERSHED & VIGNOLES (CANADA) LTD.**

2781 Dufferin Street

Toronto 10, Ontario

**when you have problems of  
measurement and control**



CONSULT **FP**

the specialists in

- Complete Process Instrumentation
- Data Reduction
- Panel Boards (Graphic and Standard)
- Water Treatment Equipment



**FISCHER & PORTER (Canada) LTD.**

HEAD OFFICE & PLANT: TORONTO, ONTARIO

BRANCH OFFICES: MONTREAL & VANCOUVER

IN THE U.S.A.: FISCHER & PORTER COMPANY, HATBORO, PA.

## *How You Can Shorten Turnaround Time*

# **Augment Your Repair Staff With Our Prompt Repair Service**

When your own instrument repair department has its hands full during turnaround, use Manning, Maxwell & Moore of Canada, Ltd.'s prompt repair service on Consolidated Safety and Relief Valves and Ashcroft Gauges. The latest and most modern equipment for testing and calibrating work plus years of experience in instrument engineering and manufacturing should make us your headquarters for repairs your own men are too busy to handle. Each job is guaranteed and cost controlled. Drop us a card — or call GALT 2000 — for further information.



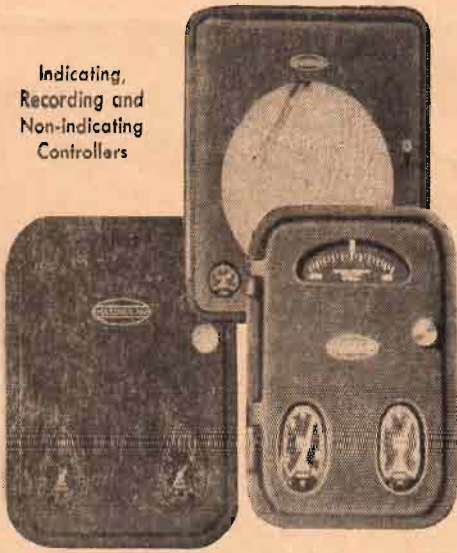
**MANNING, MAXWELL & MOORE  
OF CANADA, LTD.**

GALT

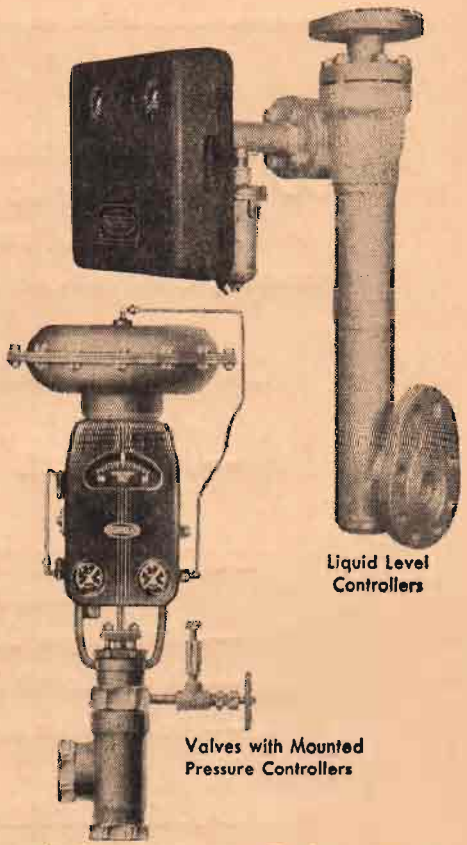
ONTARIO

CANADA

Indicating,  
Recording and  
Non-Indicating  
Controllers



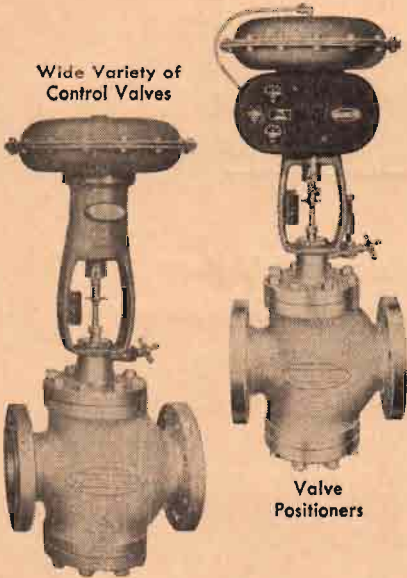
Differential Pressure Transmitters



Liquid Level  
Controllers

Valves with Mounted  
Pressure Controllers

Wide Variety of  
Control Valves



Valve  
Positioners

# Mason-Neilan

**Serves the Process Industries  
with Accurate and  
Reliable Control Equipment**

Mason-Neilan offers a wide variety of standard and specialized automatic control equipment for process and associated services. Each type is a development of practical engineering based on experience gained in close contact with industrial control problems. Each is specifically designed to do an exceptional job. In Mason-Neilan products you get engineered equipment that assures superior performance, long life with minimum maintenance.

*Industrial Control Specialists Since 1882*

**MASON-NEILAN REGULATOR CO., LTD.**

5415 PARÉ ST., MONTREAL 16, P. Q.

VANCOUVER 10, B. C.  
150 West First Ave.



TORONTO 18, ONT.  
2842 Bloor St., West

Distributors in: Winnipeg • Regina • Calgary • Edmonton

We have the pleasure of serving industry in the Sarnia area for the following manufacturers of quality Instruments, Controls and Accessories:—

**CHIKSAN OF CANADA LIMITED**

—Swivel Joints

**FISHER GOVERNOR COMPANY**

WOODSTOCK, ONTARIO

—Diaphragm Control Valves

—Liquid Level Controls

—Pressure Reducing Valves

**INDUSTROL CORPORATION**

—Dryers

**MANNING, MAXWELL & MOORE  
OF CANADA LIMITED**

GALT, ONTARIO

—Ashcroft Gauges & Hancock Valves

—Consolidated Safety and Relief Valves

—Microsen Electronic Controls

—American Thermometers

**TRINITY EQUIPMENT CORPORATION**

—Thermowells

**G. W. Beecroft Company Limited**

254 Merton Street  
TORONTO 7, ONTARIO