

DEC 57

INSTRUMENT
SOCIETY of
AMERICA

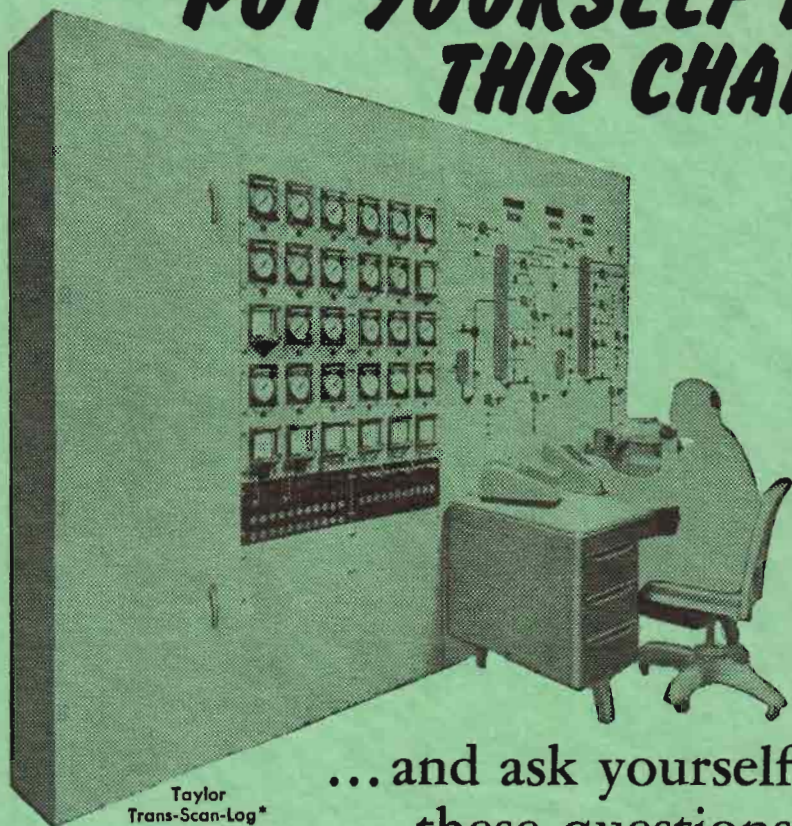


SARNIA SECTION



Monthly Bulletin

PUT YOURSELF IN THIS CHAIR



Taylor
Trans-Scan-Log*
Control System

...and ask yourself
these questions

Is scanning and logging economically justified? The new Taylor TRANS-SCAN-LOG* System enables the operator to instantly visualize, evaluate and act upon every processing irregularity as it occurs — without leaving his desk in front of the panel.

What about control room space and operator requirements? It will take about 60% of the space normally required by a standard graphic panel without scanning and logging. Because the scanning and logging equipment is an integral part of the process control, one operator can identify and correct any off-normal condition, as well as having a continuous trend record.

Your Taylor Field Engineer will supply you with further information or write for Bulletin No. 98268.

Taylor Instrument Companies of Canada Limited
75 Tycos Drive, Toronto 10, Canada

*Reg.

MONCTON, 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 1957-58 season are:

Post President	H. O. KOHLMEIER Polymer: ED. 7-8251, Local 261 957 Beverley, ED. 7-6279
President	R. L. ASSELSTINE Canadian Oil: DI. 4-1103, Local 219 891 Burr St., ED. 7-2550
Vice-President	G. M. HICKS Polymer: ED. 7-8251, Local 261 R. R. 3, Sarnia, DI. 4-3931
Secretary	W. D. VETTER Catalytic: ED. 7-8271 McCaw St., ED. 7-2032
Treasurer	GEORGE WESTERBERG Imperial Oil: DI. 4-4451 799 London Road, DI. 4-5328
Bulletin Editor	H. D. HOBBS Dow Chemical 122 Cameron St., DI. 4-3257
Bulletin Advertising Mg	E. BROWN Polymer Corp.: ED. 7-8251, Local 522 977 Grandview Ave., ED. 7-6670
Programs & House	J. R. CONNELL Imperial Oil: DI. 4-4451 169 Richard St., DI. 4-7591
Employment	R. J. ROSE Catalytic 675 Woodhaven Ave., ED. 7-8394

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.

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).



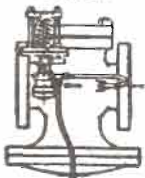
ALNOR

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

WHEATSTONE BRIDGES

TEMPERATURE BRIDGES

TEMPERATURE CONTROLLERS

PRECISION RESISTORS

HIGH SPEED VOLTAGE
STABILIZERS

MINIATURIZED ELECTRIC
EYES

TURBIDITY METERS

SIMPLIFIED RINGLEMAN
METERS

SMOKE PERISCOPES

SMOKE INDICATORS,
RECORDERS AND
CONTROLLERS



POLYTRONICS CO.

582 Bathurst St.
TORONTO 4, ONT.

THE NEW

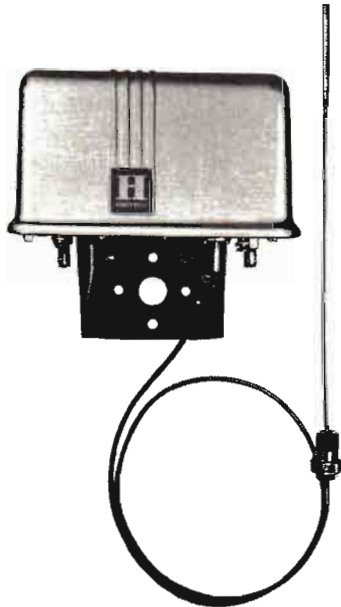
TEL-O-SET TRANSMITTER

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, Toronto 17, Ontario.

Honeywell
Industrial Division



Brown Instruments

FOR MEASUREMENT AND CONTROL

*... The Most Complete Line of Instruments
and Auxiliary Equipment Available
in Canada.*

FOXBORO instruments and valves for measurement and control

BUDENBERG pressure and vacuum gauges and gauge testing equipment

MERIAM manometers, flow meters, absolute pressure gauges and draught gauges

JERGUSON liquid level gauges and valves

BIN-DICATOR bin level indicators

BALDWIN SR-4 strain-gauge devices and materials testing equipment

COPE boiler level controls and valves

CUNO engineered filtration

*... All available through Peacock Brothers Limited,
1669 Eglinton Ave West, Toronto 10 — Telephone
REdfern 6127.*



PEACOCK BROTHERS LIMITED

Sydney

Toronto

Winnipeg

Calgary

Montreal

Sudbury

Edmonton

Vancouver

The "BULLETIN"

VOLUME 7: No. 4

DECEMBER, 1957

EDITOR'S NOTES

This December issue does not announce a regular meeting, because everyone is customarily, too involved in other affairs to make such a meeting feasible.

We have a few lines from our President, Ron Asselstine, who yielded to the Editorial threats of last month. Keep this up Ron, and I'll be able to stop twisting your arm.

Bill Kirk, our most prompt and faithful contributor, has once again given us a lot of help.

The January meeting on Radio-Activity promises to be a good one, and will be announced in Next Month's Bulletin.

H. Hobbs.



NOVEMBER MEETING

The regular meeting of the Sarnia Section, I. S. A., commenced at 8 p.m. Monday, November 25th at the Vendome Hotel. Nearly sixty members and friends were present.

The first item on the program was a film, which employed both sound and colour to outline the development, growth, present uses, and future possibilities of our complicated friend, the Mass Spectrometer. I fear, that the uninitiated, at whom the film was evidently aimed, would certainly fall easy victims to its well-directed and tremendous broadside. With all due respect to this clever machine, I feel that it is not ready to emerge from the lab and rub shoulders with more simple-minded and robust equipment. He, who sets his temperatures from mass spec, results may put a lot of heavys up the flare or gasoline down the (heaven forbid) sewer. The graphs that emerge, seem open to many interpretations, and operations just can't wait for the sort of analysis they would appear to require.

The film was, nevertheless, clear and well worthy of the awards, which are mentioned prominently in its own preamble.

Our speaker for the evening, Dr. Charlie Skarstrom of Esso Research was introduced by the Program Chairman, Bob Connell of Imperial Oil.

Dr. Skarstrom's topic was "Gas Chromatography". He approached this subject by a rather circuitous route, giving us all a rather good glimpse of the bogs and pitfalls of materials analysis in general, along the way. There were many slides depicting actual analyzers in operation and others lying abandoned where the last frustrated Instrument man had left them. We saw sample systems that contained more valves, rotameters and temperature baths than many a process unit. We followed the Doctor up the dark alley, where dwell the infra-red machines and rubbed our bleary eyes in vain, as we peered through their rapidly fouling optical systems. We waved a sad good-bye to escaping reference gases. (And who can blame any sensible reference gas for escaping?) He conducted us past some sinister looking viscosity meters and we waited breathless for the float to drop through almost unpumpable tars.

We saw a very successful instrument, that related an obscure electrical property, (perhaps capacitance?) of a material to quality control.

We, toured the swamps and muskegs of the ever popular thermal conductivity system, and, as this forms part of most gas chromatography equipment, were brought to a halt at the brink of this new abyss. One more thing would have brought us to a halt anyway, friends, and that is the price tags. We all know that money is a dirty subject, so let it be enough to say that about here, things got real dirty.

I wonder how many of you have ever noticed that the more someone knows about any subject, the more thoroughly and simply he can explain it. Dr. Skarstrom gives much support to this theory. His comprehensive knowledge of analysis instruments, shows up in the way he can relate their action to common phenomena and in layman's terms. His analogy of gas chromatography to the action within a burning cigarette was one we will all remember.

He, quite rightly, stressed that any analyzer must not drift, must require little or no maintenance, and must from the very outset inspire confidence in the operating crew. These are qualities that, to date, few analyzers can boast of.

Of the various chromatogs, we were given a glimpse of, it seems evident that the one approaching these ideals is that developed by Dr. Skarstrom. To operate for a year and still total 97% among three materials, is almost miraculous.

This was a splendid lecture and we are all grateful to Dr. Skarstrom, Esso Research, and our Program Committee for having arranged it.



Best Wishes
for

A Merry Christmas

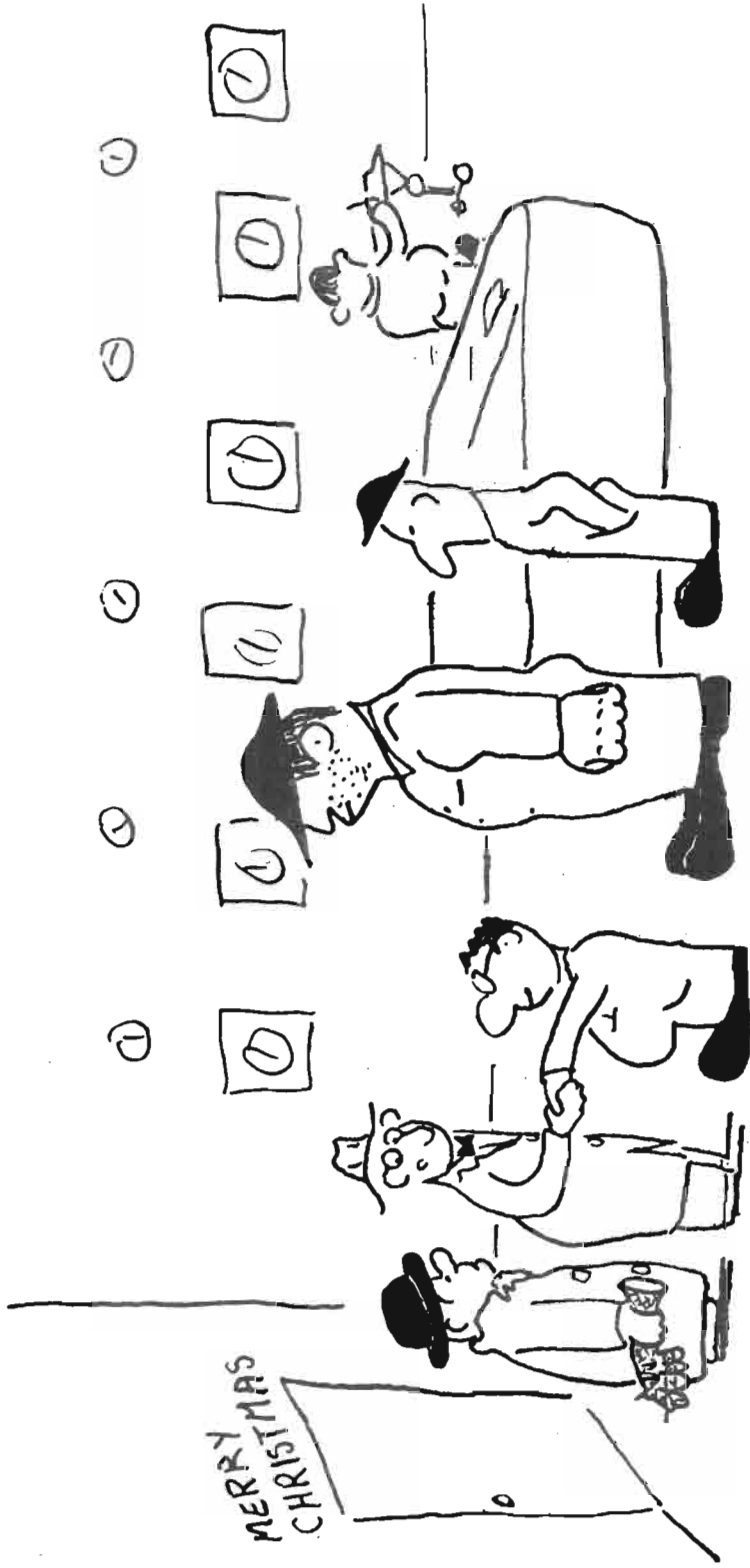
and a

Happy New Year

to our

Members and Advertisers

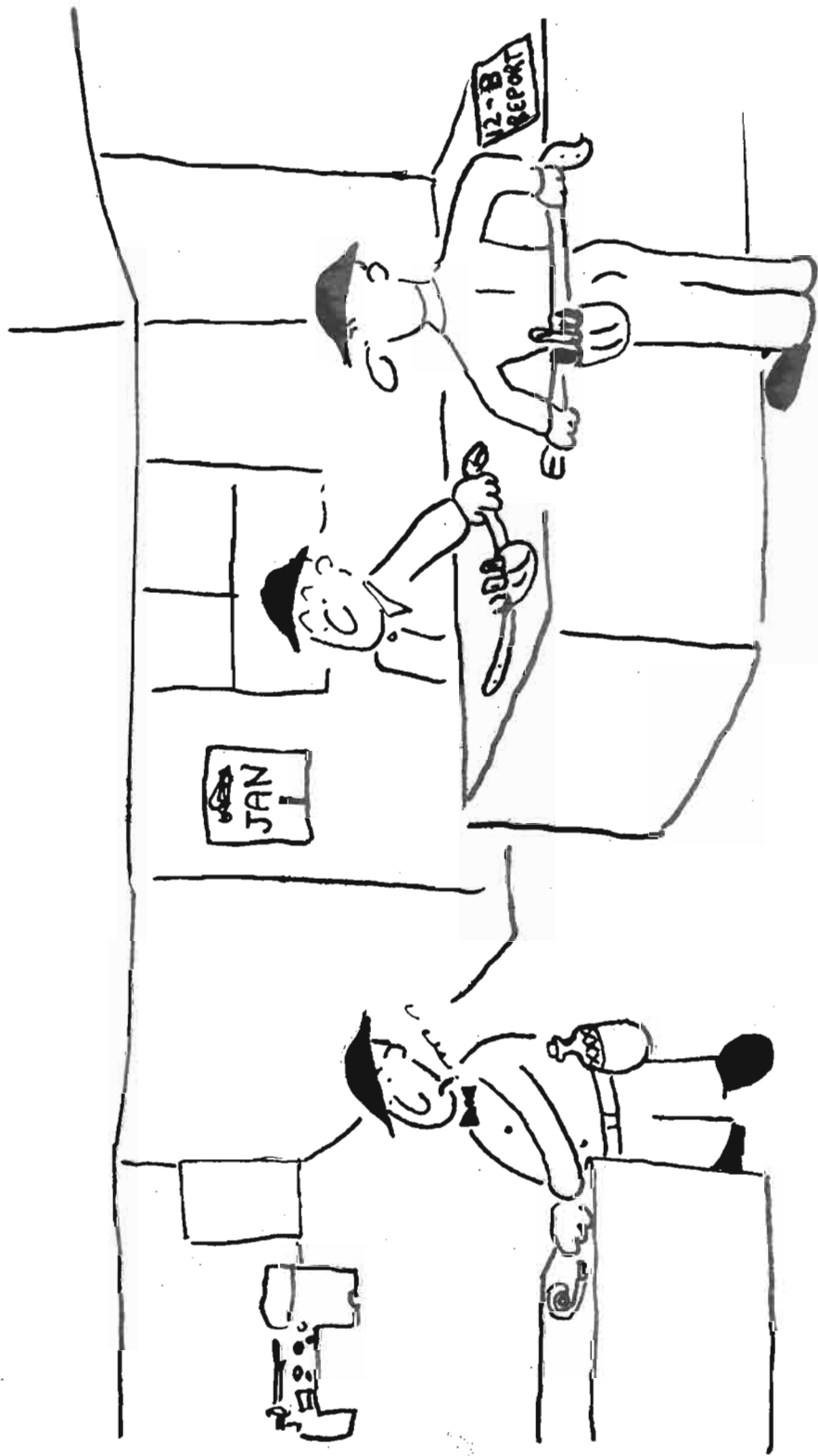




MERRY CHRISTMAS

IF HE BREAKS MY KNUCKLES AGAIN THIS YEAR WITH THAT IRON GLOVE ON, I'M SENDING YOU TO GIVE HIM A DRINK

HAND SHAKE.



THE PRESIDENT'S CORNER

By Ron Asselstine

One of the most repeated questions heard in a local I. S. A. section is, "What is the National Organization Doing For Me?" In order to answer this question in a more resounding fashion, the I. S. A. reorganized into Technical and Industry Divisions.

The purpose of the Industry Divisions is to seek out and present Instrument Industry Data peculiar to the industry of its concern.

The Chemical and Petroleum Industry Division, in conjunction with the Wilmington I. S. A. Section, are planning to do just that in a two-day symposium presented in Wilmington on the 3rd and 4th of February, 1958. This symposium is keyed to members working in the chemical and petroleum industries and is the most important I. S. A. function of the year for this group.

Program information and advance registration forms may be obtained by writing Mr. William Durkin, Fischer & Porter Company, 2011 Concord Pike, Wilmington, Delaware.

Several conclusions may be drawn from the poor attendance of members at the special meeting of November 14th. Which one, will no doubt be decided by next years Executive.

In closing, may I extend to one and all sincere wishes for a very MERRY CHRISTMAS and a HAPPY AND PROSPEROUS NEW YEAR.



INSTRUMENTS ARE MY LINE

By E. W. Kirk

The Instrument Mechanics have always had new and various types of controls presented to them. With each new type, arguments pro and con were sure to follow. For example, when the stack controller with its counter part the p.c. cell made their appearance, the shop discussions that followed were sometimes hot and heavy.

Recently, however, the latest discussion appears to centre around electronic versus pneumatic types of instruments. Such a discussion was overheard the other day and although, I have worked on both types, I was pulling for the wind or reed type. Our pneumatic friend seemed to be slowly losing ground until he mentioned the control valve. In part, the following conversation:

REED: You say you have a springless Saunders type of control valve?

ELECTRONIC: Yep.

REED: So you use a large 4" Saunders valve eh? Ha! !! I'll go along with you in so far as your transmitters may be faster, and that your power relay, also serves as a valve positioner and I'll even go so far as to say your meters require less maintenance, but — tell me my friend, of what value is all this speed if the end result is a 4" Saunders valve, which is one of the slowest travelling types of valves known?

ELECTRONIC: Wait a minute now. Sure, I said, a "Saunders valve" but I also said, " it was a springless type."

REED: So what? The springless still have an air loading side on their diaphragms.

ELECTRONIC: That's just the point ole buddy. On this loading side of the valve, we installed a 3 to 1 reversing air relay. Now, for each 1" air change coming from the power relay, you also have a 3" air change on the loading side because the relay is tied into the controlled air line. Thus you have a very rapid movement of the valve stem. This relay, also helps keep the valve positioned when the live pressure changes because the relay senses any controlled air changes. Works something like a fudlock, you know

As this last outburst began to hit home, our Reed friend, slowly slipped away, muttering something to the effect that, "Well he still uses air somewhere in his control system."

I thought perhaps, this idea of the reversing relay, could be of value to other people, who have these types of valves regardless of the type of controls used.



WRITTEN ON A ROLL CHART

Pax Vobiscum

There's snow on the ground,
 The breeze far from balmy,
 On their musical round,
 Go the Salvation Army,
 The merchants are singing
 Glad songs in our ear,
 Cash registers ringing,
 What they like to hear.
 That music persistent
 Let's try to forget,
 It's ringing each one of us
 Deeper in debt.
 Deeper and deeper,
 Let's try to be gay,
 We'll never recover
 'Till Valentine's day.
 Never recover Lets end
 This dull chatter.
 Demonstrate victory of
 Mind over matter.
 If we but think of
 Some things to delight us,
 Vanished are myriad
 Doubts that affright us.
 Imagine conditions
 Impossibly good,
 And we'll be as happy
 As babes in the wood.
 Let's wish one another
 The best of good cheer
 And hope we'll encounter,
 A trouble-free year.
 May your pens keep a-flowing,
 May your charts never stick,
 May all your mechanical
 Clocks sweetly tick,
 May your valves keep from plug-
 ging,
 Nor leak not, Nor bind,
 May dual accounting be
 Two of a kind,
 May hot thermocouples
 Stay constant and whole,
 May all of your roll-charts
 Right faithfully roll.

May cold things stay cold,
 And warmer ones warm,
 May warming devices
 Not need to alarm,
 May all your contractors
 Work ably and fast,
 With field alterations
 A thing of the past.
 May all of us witness
 The dawn of a day,
 When plants can be builded
 The "engineered" way,
 When we with emotions
 Supressed may not choke
 And drawings are less of
 A tragical joke.
 May your instrument buyers
 Experience reap,
 And purchase for virtues
 Other than cheap.
 May that which vapour,
 Remain in its state,
 And never a mixture
 Pass orifice plate.
 May level and temperature,
 Pressure and flow,
 All draw perfect circles,
 The way they **should** go.
 And this more than anything,
 Heart of my heart,
 May product stay up
 At the top of the chart.

—H. Hobbs.

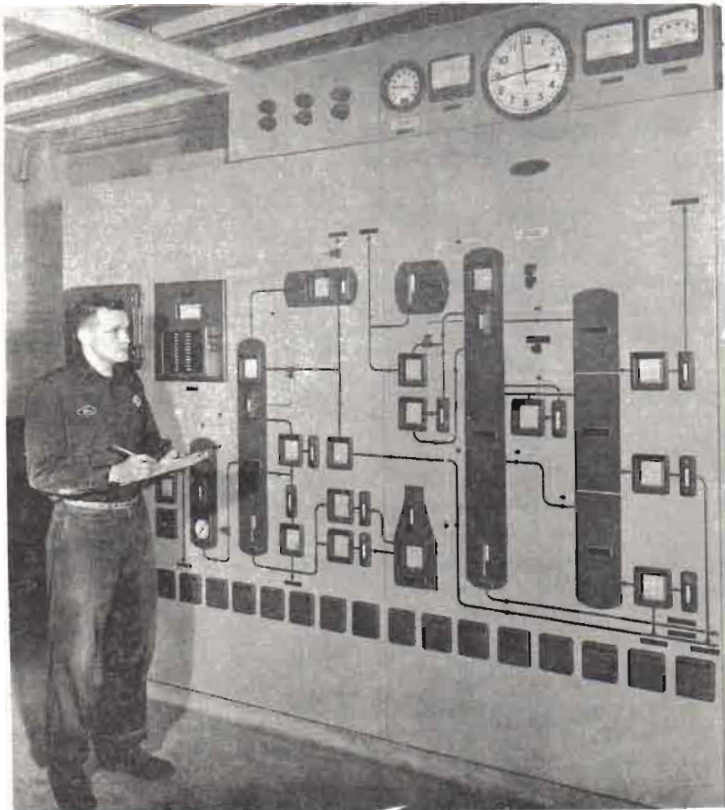
Process-Instrument Systems Limited

1918 AVENUE ROAD, TORONTO 12, ONTARIO

ORchard 5514

REdfern 2058

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



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



ORIFICE METERS



ALUMINUMCASE METERS

- Positive Displacement Meters
- "American" Orifice Meters
- Orifice Plates and Meter Runs
- Needle Valves
- Robinson Orifice Fittings
- Cannon Meter Pens
- Security Valves
- O. I. C. Valves



Head Office
MILTON, ONT.

Western Division
EDMONTON, ALTA.

Sales Offices also at Calgary, Montreal, and Regina

INDUSTRON

CORPORATION

297 CARLTON ST., TORONTO 2

WALnut 1-2032

HALLIKAINEN-SHELL — Continuous Recording Viscometer and Gravimeter for Lube streams, Bunker streams, Asphalt etc. — Continuous Vapour Pressure Recorder for Gasoline Blending — Colour Alarm — Initial Boiling Point Recorder — Thermometer Calibration Bath — etc.

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

BECKMAN — Continuous Industrial Gas Chromatograph — L-B Infrared Analyzer — Electrolytic Hygrometer — Ratio Recording Flow Colorimeter — etc.

INDUSTRIAL GAUGES CORPORATION — Electronic Refractive Index Recorder.

"Continuous Analyzers for the Oil & Petrochemical Industries"

INSTRUMENTATION & CONTROL

PRESSURE

TEMPERATURE

EVERSHED

FLOW

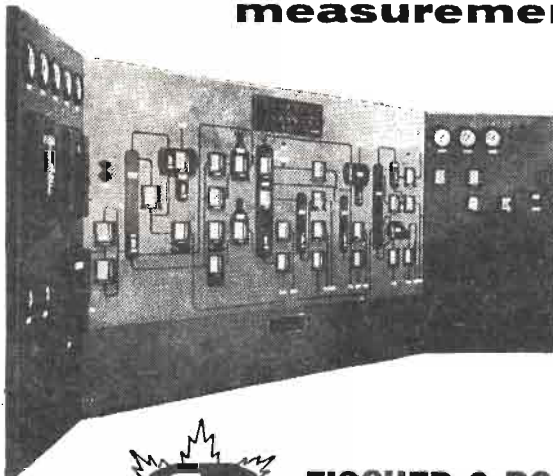
LEVEL

EVERSHED & VIGNOLES (CANADA) LTD.

2781 DUFFERIN STREET

TORONTO 10, ONTARIO

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



CONSULT 

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 our 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.

'Ashcroft' Gauges - 'Hancock' Valves - 'American' Industrial Instruments

'Consolidated' Safety and Relief Valves - Microsen Instruments

'Budgit' and 'Load Lifter' Electric Hoists and Other Lifting Specialties

GALT

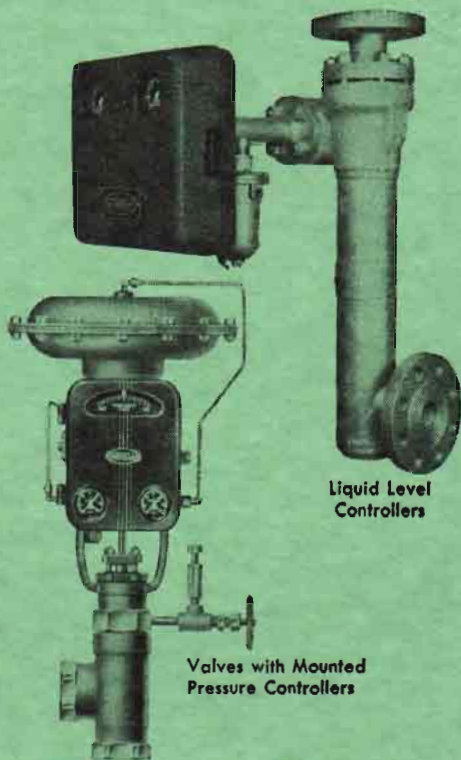
ONTARIO

CANADA

Indicating,
Recording and
Non-indicating
Controllers



Liquid Level
Controllers

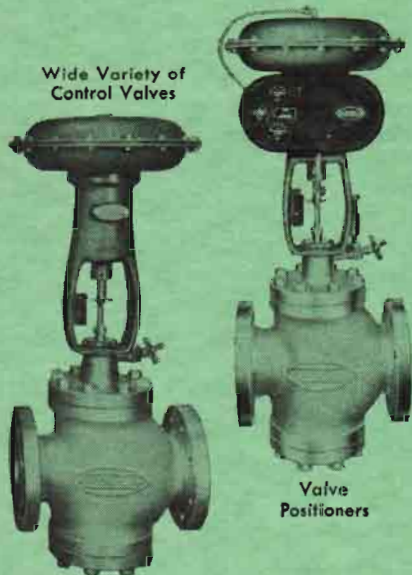


Differential Pressure Transmitters



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.

HEAD OFFICE AND PLANT

— BRANTFORD, ONT.

MONTREAL 16, P.Q.
5415 Paré St.



TORONTO 9, ONT.
2490 Bloor St. West

Distributors in: Winnipeg

Regina

Calgary

Edmonton

Vancouver

We have the pleasure of serving industry in the Sarnia Area, representing the following manufacturers of quality instruments, Controls and Accessories:

**CHIKSAN COMPANY OF CANADA
LIMITED**

—Swivel Joints

**FISHER GOVERNOR COMPANY
WOODSTOCK, ONTARIO**

—Pressure and Level Controllers

INDUSTROL CORPORATION

—Dryers

TRINITY EQUIPMENT CORPORATION

—Thermowells

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

GALT, ONTARIO

—Ashcroft Gauges

—Hancock Valves

—American Thermometers

—Consolidated Safety and Relief Valves

G. W. Beecroft Company Limited

254 Merton Street
TORONTO 7, ONTARIO