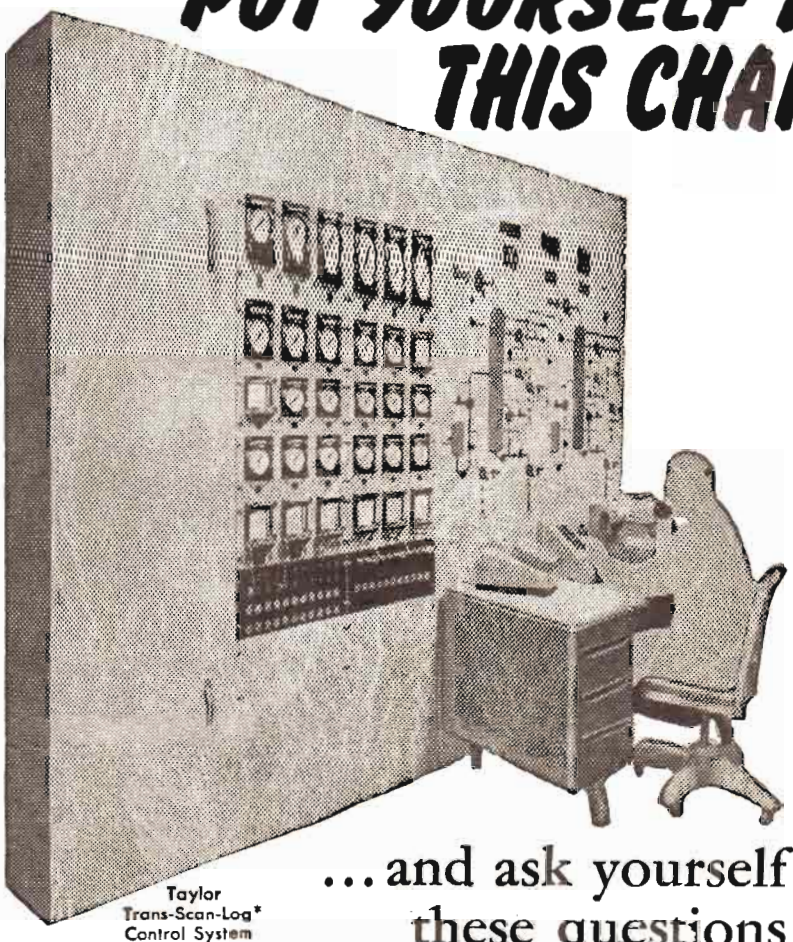
INSTRUMENT SOCIETY of AMERICA

SARNIA SECTION

Monthly Bulletin

PUT YOURSELF IN THIS CHAIR



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

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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 1957-58 season are:

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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.

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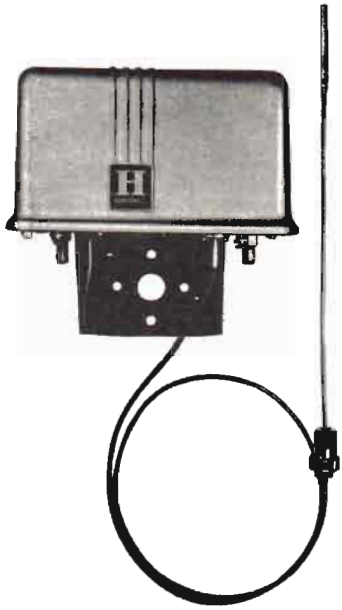

This instrument answers the demand of industry for a versatile pneumatic transmitter. There is no need to add or change parts to get any span within the overall limits of the transmitter and these spans can be extremely narrow. The narrow span feature, coupled with high accuracy and rapid response, greatly 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.

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The "BULLETIN"

VOLUME 7: No. 6 FEBRUARY, 1958

EDITORIAL COMMENT

In this February issue, we have an article from our Vice-President, Mike Hicks, which has been in my possession for some time. It feels good to have a little material on hand, and Mike's efforts are perennially appropriate.

Bill Kirk has deviated from his usual custom, and is giving a reply to an interesting article in last month's Bulletin, which has aroused comment in many quarters. I should like to affirm at this time, that this paper welcomes all contributions and is delighted at any that cause discussion and controversy. If, you don't agree with an opinion, don't just talk about it for we, as yet, do not make tape recordings. Send us a letter and we will print it.

The new custom of holding executive meetings before our General meeting has proven a good thing. Much business done and little time wasted. Spectators who are willing to keep quiet are invited to attend.

—H. Hobbs.

★ ★ ★

JANUARY MEETING

The January meeting of the Sarnia Section was held at 8 p.m., Monday the 27th in the Vendome Hotel. About 40 members and friends attended.

We were shown the film "A IS FOR ATOM" through the courtesy of the General Electric Company. A very interesting film, indeed, which gave us an insight into the structure of atoms in a very understandable manner.

Our Speaker for the evening, was Mr. Eric Leaver, President of Electronic Associates Ltd., whose topic was "Radiation and its Industrial applications."

Mr. Leaver attacked this formidable subject with all the force and energy of the many elusive particles in his atomic armory. He bombarded us without mercy until many of us, feeling that our half-life was, by now, half-shot leapt off the cyclotron and sought mental shelter until such time as our frontal bones stopped ringing.

Mr. Leaver displayed an astounding familiarity with this field. His audience could not help but realze that here was a glimpse of a very useful tool, a tool with such future prospects that they exceed imagination.

Some present-day applcations were also very fascinating. My only fear is that the use of Radiation in instruments involves employing complex electronc circuitry, which might make maintenance a bit heavy.

Our thanks to Mr. Leaver and to his young, aggressive Company for this fine lecture.

INSTRUMENTS ARE MY LINE

By E. W. Kirk

I had prepared an article on Electronic Instruments, but I find myself forced to drop this for a month and instead make a few remarks about Larry Hall's article "Training of Instrument men".

This is a good article, but I feel that it has belittled the Instrument trade to such a simple line that anyone can, by having only two months training, call himself an Instrument Mechanic.

What Larry, in effect is saying, that with this two months training, a pipefitter can assume the responsibility of a shift. This, no doubt may be true at Sun Oil, but I wonder if Larry would be willing to let a man with only two months training overhaul his automobile without any supervision? Here I am talking about a three-four thousand dollar investment, if the mechanic completely wrecked the car, **but** if an Instrument man goofed on a large process unit, it could mean many human lives, besides the hundreds of thousands of dollars invested.

No, Larry, I'm afraid I cannot agree with you, that you can produce an Instrument mechanic in two months. A helper maybe, but not a mechanic. If I did, I think I would be letting the world know that Instrument men can be had at a dime a dozen. I also feel, that this reflects on our I. S. A. because its objectives are, and I quote, "The Instrument Society of America has as its objective, the advancement of the **arts** and **sciences** associated with the **theory, design** and **use** of measuring control instruments in the various industries."

This quotation makes instrument work sound important and varied, requiring a more skilled type of mechanic—which I think it does—because a good Instrument man must besides knowing his own trade, have a fair knowledge of other trades, such as pipefitting, electricity, machine shop practices and lots of theory involving math, chemistry and other subjects.

I wll say in closing, as a defender of all Instrument mechanics, that if you can train men to be efficient Instrument mechanics in two months, then my hat is off to you and your staff.

* * *

WHAT IS AN INSTRUMENT MAN?

By G. M. Hicks

The other day I had to give some thought to the question of the qualifications that are required for to be an instrument man. Most of us could recognize him when we saw hm but if called upon to give a full job description I think we would bog down after the phrase "Well, he looks after instruments". That is of course, perfectly true but surely the instrument man does more than that and in any case, what is an instrument?

Let us first try and answer that question. The dictionary offers the following definition. "a thing with or through which something is done or

effected; a tool, implement or weapon". This seems pretty broad but fits in with the other and more cynical definition that "an instrument is anything that the maintenance department does not want to or cannot look after". Possibly this is a little hard but I think by and large it is true. I have known some instrument men who looked after watches and clocks. I have known others who service quite large electrical switch gear and I have known others who looked after the plant hydraulic system. Admittedly they did not all work for the same organization but this shows the wide range of devices that are called instruments. In the Sarnia area I suppose instruments are defined as any devices which measure and/or control. On thinking however that is not so since in my own plant the instrument department services some pneumatic systems which certainly do not measure or control anything. We seem then to have fallen down on our first task which is to define instruments.

What sort of man is the instrument man? Even this a very difficult question to decide since there does not seem to be any set pattern. I have known electrical, mechanical, chemical and even civil engineers who call themselves instrument men. Some men get started in their instrument careers as plumbers and others with Ph. D's in nuclera physics. Farming and school teaching seem to be good starting trades for an instrument man. In fact almost anyone apparently can be in the business. Formal education or the lack of it does not seem to matter too much one way or the other. Yet every time a job in the instrument department is posted the cry immediately goes up that the only guy who can fill all the requirements is a cross between Leonardo di Vinci and Einstein.

This instrument man then certainly seems to be a paradox. Even the department in which he work is a paradox. Some instrument departments I have known were rated to be the crack department in the plant to whom almost any task could be entrusted safely including even unit operation when the pressure was really on, whilst in at least one company I know of the instrument department is reckoned to consist of nothing but dolts and laggards who are not trusted with anything more difficult than the task of changing a pressure gauge, and even this could be done better and more quickly by the process man.

Yet, in spite of this we can all recognize an instrument man when we see him. In the modern refinery or chemical plant he is something akin to the old time village blacksmith, ready and willing to tackle almost anything even if it can be done better by someone else. (As an instrument man I can say this but woe betide anybody else.) The job may not be perfectly done but at least it will always be done and the unit kept operating. He is something of a do-it-yourself man who is often been told initially to mind grudgingly, that the breach was justified (occasionally it cannot be justified and then cunning fellow that he is, he usually covers up well enough that nobody knows about it anyway). He normally has a wide if not deep knowledge of most aspects of plant operation and equipment involved. He may even, if he is a good man, have o knowledge of instruments but although helpful this is not necessary in about 50% of his work. Any instrument man worth his salt can peer inside his black box looking confident and muttering weird incantations about proportional, integral and derivi-

tive and almost invariably this drives off anybody bold enough to look over his shoulder. He can then dabble at will inside a black box and by a process of changing every component in turn can usually fix matters up.

I would then sum up the necessary qualifications for an instrument man as follows: common sense, initiative, handiness, willingness, and a certain amount of that God given grey matter known as brains. Courage and acting ability are also necessary in certain rare circumstances to cope with extreme situations.

Having reread this article I am now waiting with a certain amount of fear and trepidation for the chariot of fire to descend and take myself and several friends to places unknown. Obviously anybody who is an instrument man is too good for this world.

* * *

PROGRAM CHAIRMAN'S NOTES

Whether or not you are using Electro-hydraulic Valve Actuators, we are sure you'll all agree that this type of device is the missing link in the his own business but in true Dale Carnegie fashion goes on to win friends and influence people. He is usually an individualist who refuses to conform to the general run of the plant and believes that plant rules were made to be broken, occasionally that is. This annoys his opposite numbers in other departments but when questioned they normally admit albeit "all-electronic" control system. Even if you have read the literature and consequently consider yourself (in all modesty) an expert on the subject, we invite you to attend the February 24th meeting to be further enlightened. The topic is a timely one and therefore we feel that everyone will appreciate and enjoy the talk to be given by Mr. Werner G. Holzbock, Chief Engineer as Askania Regulator Company.

Mr. Holzbock will discuss Electro-hydraulic Valve Actuators in general and as Chief Engineer of a leading manufacturer of this type of device, we may be sure he is well qualified to speak. The subject illustrated with slides, will include the design considerations in the electrical signal system, the hydraulic relay and the combination of the two into different types of valve actuators.

To start the meeting off at 8.00 P.M. sharp, we have a thought-provoking, instructive film entitled, "Productive Maintenance". This is a coloured film produced by General Electric. It deals with maintenance organization and presents ways and means of dealing with the problem of unscheduled breakdowns.

MEETING NOTICE

TOPIC: **ELECTRO-HYDRAULIC VALVE ACTUATORS**

SPEAKER: **MR. WERNER G. HOLZBOCK**
Chief Engineer of Askania Regulator Company

DATE: FEBRUARY 24th, 1958

TIME. 8.00 P.M.

PLACE: VENDOME HOTEL

FILM: **PRODUCTIVE MAINTENANCE**
Produced by General Electric

WRITTEN ON A ROLL CHART

Propane

Propane is a very elusive material, and all-too-often we are called upon, requested and required to measure it.

Which is all very well as long as those who call remember that to measure it they must also pressure it.

Which in its turn is all very well as long as the increased pressure does not make it difficult to pump.

Which eventually may mean that he who can't pump must dump.

And this dumping is a procedure that is not popular with those in high places.

Because anything that cuts profits brings on shouts of rage and downcast faces.

And executives feel that such conduct demands that they clamor and holler.

For no wound is as grevious and painful as a direct thrust at the sacred, ever-loving, almighty dollar.

So please take warning, neighbours, that pressuring propane is something we propose to do with constant vigiliance and a right good will.

And we disclaim all responsibility if your tired old pumps cannot get it away from the bottom of your pea-pickin' still.

And we're prepared to greet with courteous indifference your wails, of anguish, and fail to meet your tear-filled eyes.

So please don't think it personal if our only visible emotions are faint sympathy and mild surprise.

These conditions are vital if we are to have a maximum of good dual metering and a dearth of name-calling and trouble.

So let us all try to conform and allow our transactions with one another be rather more authentic than the late, lamented South Sea Bubble.

Because good accounting meter charts pour healing oil on regions of bitterness and strife.

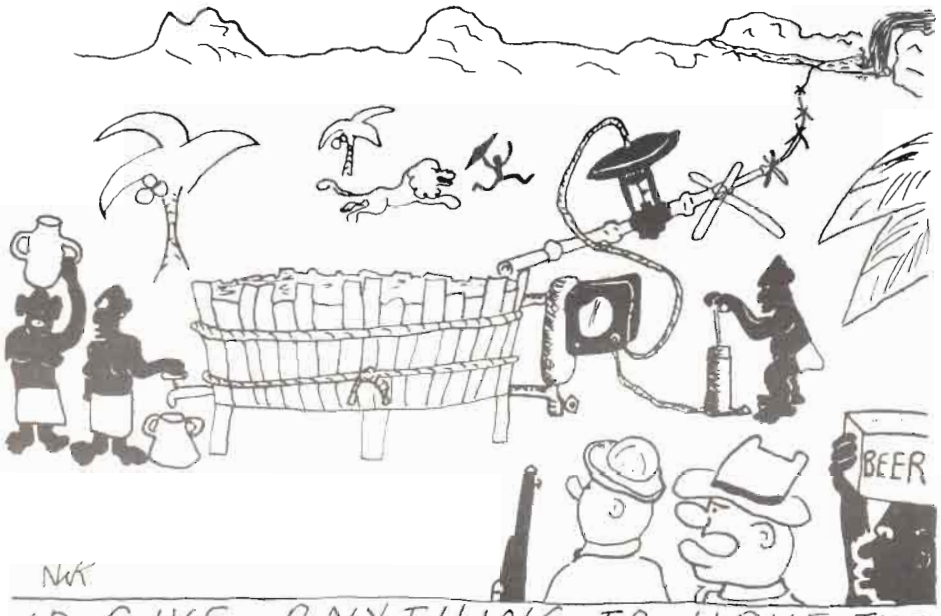
And they give otherwise nefarious dealings that seal of approval not required by Caesar's wife.

So, even though, when we last looked, your flow was falling by leaps and bounds.

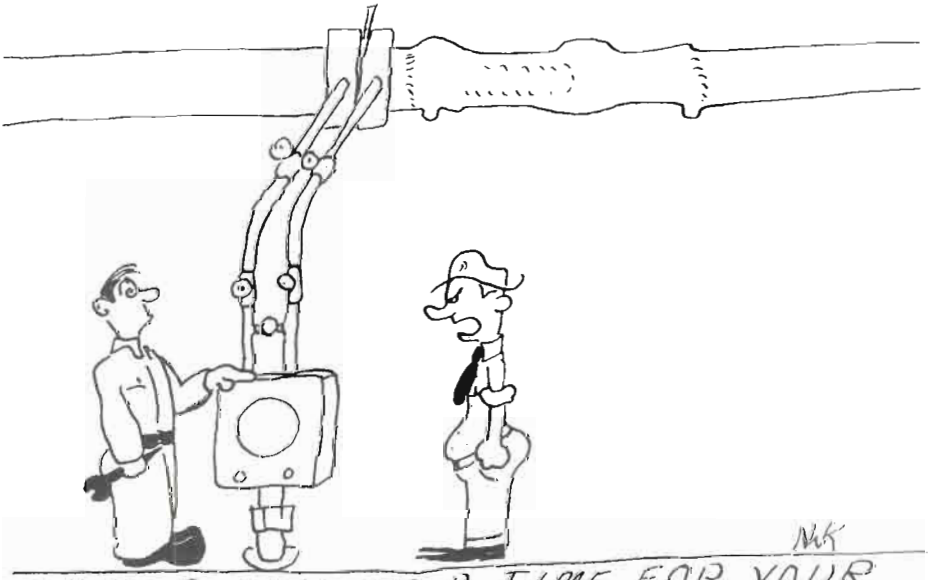
We are unshakeably firm in our intention to hold it at one hundred and seventy-five pounds.

Lots of luck!

—H. Hobbs.



I'D GIVE ANYTHING TO HAVE THE GUY WHO SOLD THAT TO THEM ON MY SALES STAFF



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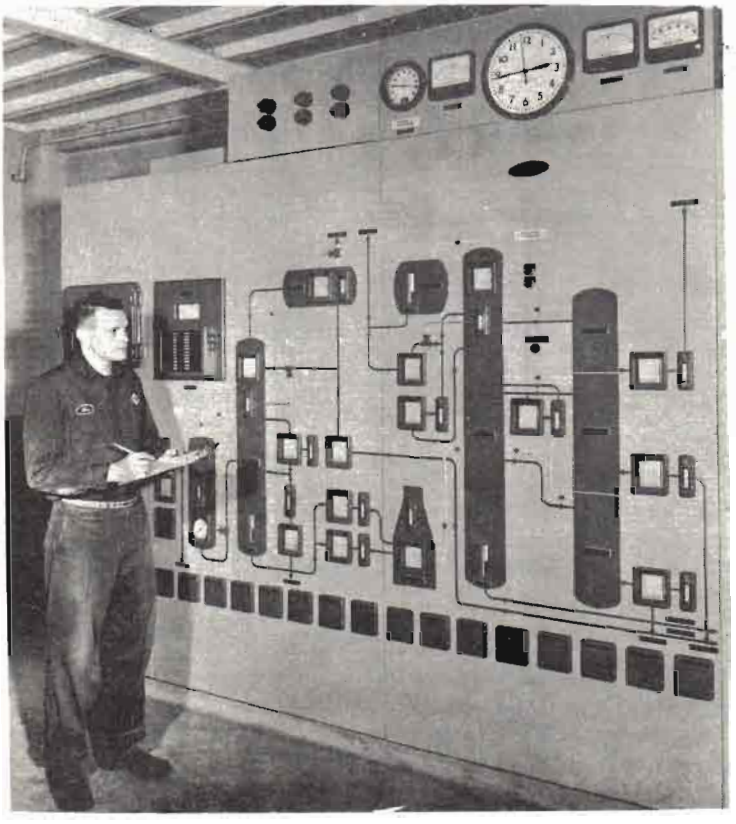

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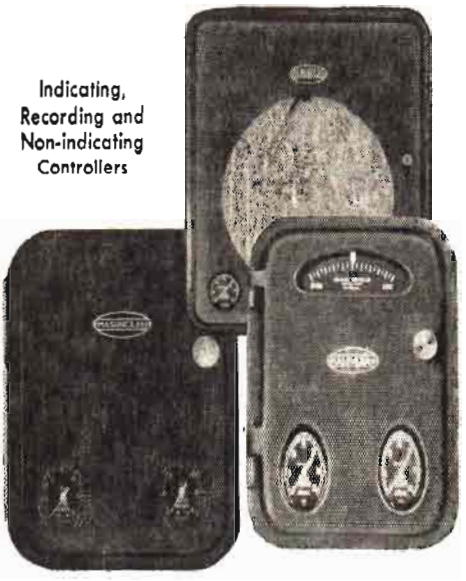

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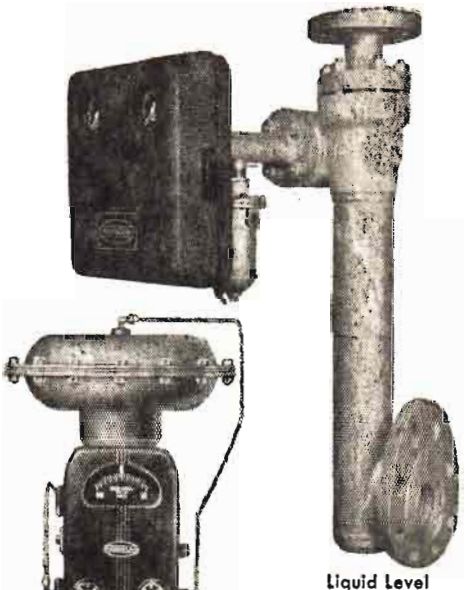

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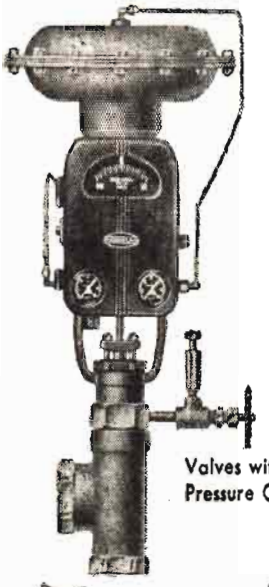

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