

Radio-Television & Appliance Sales

FULLERTON PUBLISHING CO. LIMITED

TORONTO, CANADA



"Gone Fishing"

**SELL BRAND NAME
REFRIGERATORS**

JULY, 1953



All this -

**to make this
in Canada . . .**



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month

after

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after

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after

month



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LONG
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for
Approved Precision Quality*

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Phone EMpire 4-8347

175 Jarvis St.

Toronto 2, Canada

JOHN A. FULLERTON, President
CHARLES F. FULLERTON, Vice-President
M. A. BLAKE, Secretary-Treasurer



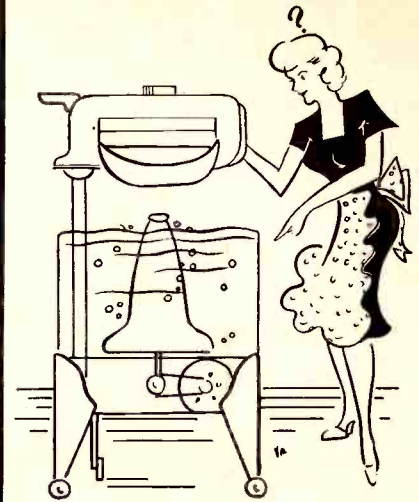
ARTHUR L. VINCENT, Editor and Publication Manager
ROBERT C. POULTER, Managing Editor
H. F. CROSBY, Advertising Manager
GEORGE F. HENDERSON, Eastern Manager
432 Ontario Street West, Montreal
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The Editor Comments

Success or Failure—*which shall it be?*

In recent months a number of retailers have gone into bankruptcy—a rather odd situation in view of the high level of business which has prevailed generally, the introduction and popularity of television and of new appliances and related merchandise.

There has been no depression or recession. True, there has been a slowing up of sales in some areas but this has largely been seasonal. The buying power of the public has been and is, at a high level; in fact most people have more money today than ever before.

Employment too is at an all-time peak. In Ontario alone there are 25,000 more industrial jobs in the province than there were a year ago. The upward trend in business has also created more vacancies for sales people and clerical workers. Even though prices of practically every kind of commodity and service are up, more people are able to buy more things than ever before in the history of Canada. Why therefore should any dealer get into financial difficulty?

Well, there are numerous reasons, such as unwise extension of credit to customers, stretching his own credit past safe limits, inefficient accounting, indiscretion in buying, lack of financial reserves, ineffectual sales efforts, unbusinesslike handling of service.

A study of several cases which might be described as typical—if there is any such thing as a "typical" bankruptcy—reveals factors which re-occur time after time. Lack of any real sales drive is a major cause of trouble. The radio-TV and appliance business is a highly competitive one in most markets and probably always will be. Modern retail merchandising demands, for its success, showmanship, persuasiveness, a keen understanding of human nature, good personality, a liking for people, plenty of energy and enthusiasm, a knack of getting things done, and a knowledge of local market conditions. What is happening today has been predicted quite frequently during the past few years. There are too many dealers and "salesmen" who have never learned to sell under competitive conditions. Some of them are now withdrawing from the field—under pressure or otherwise.

Another factor which also showed up prominently is the lack of efficient methods of accounting and of business acumen generally. Slowness in paying bills and in sending out invoices and statements. Unwillingness to insist on payment of delinquent accounts, affect the dealer's credit standing and place his cash position in a precarious condition. The lack of adequate financial reserves to carry them over the slow periods which every kind of business must expect to experience at some time or other is a type of quicksand in which many dealers who should have been successful become mired.

The smart sales-minded dealer knows that there are great opportunities in radio-TV and appliance merchandising—opportunities which will grow as Canada grows and as new products and models come on the market. He also knows that to take advantage of these opportunities he must have capital and above all, a practical hard-headed sales approach. It goes without saying that today's store must be smart, clean and attractive. But even if the prospective customers go into the store they still have to be sold. Customers can easily slip through the dealer's fingers if he and his salesmen do not know how to demonstrate and, especially, how to close.

Another point which some dealers correctly or incorrectly believe gets them into trouble is service. Now service is a highly-important part of modern retailing. Without it sales cannot be made. The trouble is that dealer service departments are not always organized on a business-like basis. In some cases guarantee service is not charged back to sales as it should be. This puts the service department in a bad light and misrepresents the true sales picture. An efficient service department must be well-equipped and properly staffed. Above all it must be soundly managed.

As stated before there are wonderful opportunities in retailing today but there are many pitfalls, too. It is a wise dealer who has sense enough to analyze himself and his business frequently and to apply whatever remedial measures may be necessary from time to time.—R. C. Poulter.

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and then some!

All Motorola dealers know they can count on Motorola for *Standout Products*.

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That's because every Motorola distributor is backed by an organization that doesn't hesitate to break all rules . . . to keep the *Golden Rule*.

This isn't just another management theory with Motorola, it's *operating policy*.

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Motorola has always leaned over backward to live up to the spirit—as well as the letter—of its franchise. It's a *well-known reputation*.

That's why you can count on Motorola* for Fair Dealing

—and then some!

Sell
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G-E SPECIALISTS BOOST THE MARKET FOR YOU

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G-E SALES SPECIALISTS MAINTAIN THE MARKET FOR YOU

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are the key man on this team



GENERAL ELECTRIC

Major Appliances

MAJOR APPLIANCE DEPARTMENT, MONTREAL

IW-753



Tips the beam in your favor

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A SERVICE AVAILABLE THROUGH
COMMERCIAL CREDIT
CORPORATION LIMITED

Head Office in Toronto with other
offices from Coast to Coast

COMMERCIAL CREDIT DEALERS ARE *Successful* DEALERS

The BIGGEST PUSH in BUSINESS!



I AM enthusiastically—overwhelmingly—in favour of door-to-door selling. I recently saw an ad in a trade publication—a picture showing a big finger on a big button with a caption, “The Biggest Push in Business”. Those of you who were in the appliance business in its earliest days know that it was built on door-knocking. Those of us who went through the highly competitive days of 1930-37 know that it saved our business lives. The intelligent dealer of today—seeing the handwriting on the U.S. wall, knows that knocking on doors is his great white hope against a coming slump. I am going to be very blunt. The dealer who is going to survive—not prosper—*survive* the next few years is the one who *immediately* gets a crew of salesmen together—trains them with the help of the manufacturer who serves him—gets them out ringing doorbells!

I would like to give the question a new twist which may not have occurred to you. Every time a consumer buys merchandise, the part of the profit which is earmarked for sales expense is split two ways—to the dealer for sales staff and advertising and to the manufacturer for sales staff, promotion and advertising. If you can prove to the manufacturer that you are aggressively selling his merchandise, he feels that he doesn't need to apply as much pressure through National Advertising—and consequently, can afford to pay you more for your

sales services in the way of longer discounts. If you cannot prove to him that you can sell his merchandise without an overwhelming national advertising campaign to drive people into your store and force people to buy his merchandise without much help from you, then he feels justified in shortening your discount, and spending the money thus saved, as you have indicated that you want it spent on large national advertising campaigns to drive people into your store and save you the trouble of going out after them. Frankly, if this is the way you are thinking, you don't deserve any more than a grocer's discount. You are not willing to perform any more sales services than he performs.

Another facet to the same question—You are now selling your sales facilities to a manufacturer. You get paid for your services in the form of a good discount. If you permit your sales facilities to break down—your prerogatives as a sales outlet to be absorbed by some other medium—if you miss any opportunities to sell—then the manufacturer begins to feel that the price you are charging for your services is too high for the job you

Several years ago, this speech was delivered to a group of dealers and subsequently, published in Radio-Television & Appliance Sales. In response to several requests, we are again bringing it to our readers.

are doing! Then what happens? He cuts his discount. To make more money? No. To lower his price—to get more people to buy his merchandise—the same people you could have sold at a higher price with more profit for you. Let's put it this way. You can sell them at a high discount, or, you can wait for them to come in and buy at a low discount.

Do you know what is in the back of the manufacturer's mind these days? I'll tell you. He often wonders when he comes away from a dealer's store after seeing the way some dealers operate—he wonders if it wouldn't be better, instead of paying the dealer 35 per cent for his sales services, to take 15 per cent and put it into a hell of a big national advertising campaign and market his merchandise through Loblaw's. I think Loblaw's would take it for 20 per cent and he'd get the same sales services as some dealers are supplying now—and a damn sight better display! The soap companies did that some time ago when the grocers stopped being interested in active sales promotion, and, while I haven't heard of any grocers becoming millionaires recently—you can take my word for it that neither of the Lever Brothers has missed a meal.

Frankly gentlemen, the answer to the question is not in my hands—it's in yours. Let me phrase it for you: instead of saying “What is Your Opinion of a Door-to-Door Canvass” I'm going to say “Do you want to continue to be aggressive sales outlets—at a good profit—or—order-taking shopkeepers—at a poor profit!”

Brand Name Refrige

1 Smart Dealers Keep an Adequate Variety of Models And Carry Only Well-Known Brand Names —Automatic Defrosting Now Important Feature In Refrigerators.

WITH the arrival of hot summer weather, a large number of housewives are beginning to look at their refrigerators with very critical eyes. Advertising of all kinds pointing out the advantages of the new types of refrigerators with automatic defrosting and smaller outside dimensions with larger inside capacities, is making her old refrigerator or ice box (there are still quite a number in use) look pretty shabby, especially if she is having a little trouble with it.

This is an ideal time to push refrigerators and the accompanying series of photos shows a good demonstration of a modern electric refrigerator.

2 (1) This customer has more than likely, been attracted by the dealer's advertising on this particular make of refrigerator. She has indicated her interest in a new type of low cost automatic defrosting and the salesman is showing the complete line of refrigerators. At this point the customer is undecided as to what capacity, price and type she wants and by watching her reactions while showing a number of models and by questioning her, the salesman can finally steer her to one particular refrigerator.

(2) This is a conventional, 7 cubic foot model, reasonably-priced and with full width freezer, door shelves, etc. He is showing the large vegetable crisper which usually attracts the feminine interest.

(3) Salesman is pointing out the features on another model in this line. It is also a 7 cubic foot model, but with "flash defrosting" and butter keeper. He is showing her the 27 lb. freezer.

3 (4) This refrigerator is a larger, 9 cubic foot model —also with flash defrosting. Features that win the ladies' hearts are the removable door shelves and the attractive, glacier blue interior finish. In this photo he is showing her the butter conditioner that keeps that butter at spreadable temperatures at all times.



rators Easier To Sell

(5) On the same refrigerator he is showing her how the flash defrosting works. The salesman is pushing the button that starts the defrosting cycle. Minutes later, he explains, the refrigerator automatically resets itself for normal operation.

(6) Here, the salesman is demonstrating the removable door shelves. Made of clear plastic, the shelves are easily removable for cleaning without the use of tools. The shelves place smaller items such as bottles, eggs and small cartons within easy reach at all times.

(7) The salesman is showing the adjustable drip deflector on the back of the freezer drawer. It can also be used to control temperatures in the refrigerator, by closing off the back of the freezing compartment. The customer is holding the plastic "Handi-Tray" which can be lifted out of the freezer drawer and used as a hostess serving tray. He explains that sandwiches may be prepared in advance and stored on the tray and then lifted out, ready to serve.

(8) This is the deluxe, 11 cubic foot model refrigerator with a 60 lb. freezer and fully automatic defrosting. One of the roll-out shelves can be seen in an extended position in the refrigerator. These roll-out shelves make it convenient to store and reach items at the back of the refrigerator.

(9) This is the control that can be set for automatic defrosting. It is pre-set to defrost the refrigerator at the same time every day. After defrosting, the excess moisture is carried away and disposed of completely without attention. Nothing to empty, nothing to mop up. At the left of the defrosting control is the conventional temperature control switch. Switch in centre is to cut out automatic defrosting at any time should the customer not want to use it.

(10) This is the ultimate in refrigerators—the "Dual-Temp"—the luxury refrigerator of this line. It has features not found in the conventional types and the salesman is here, demonstrating the 2 separate temperature controls—one for the main food compartment and one for the freezer. Main food compartment uses the "moist-cold" principle that prevents foods from drying out. Food stays fresh for weeks—bowl

(Continued on page 28)

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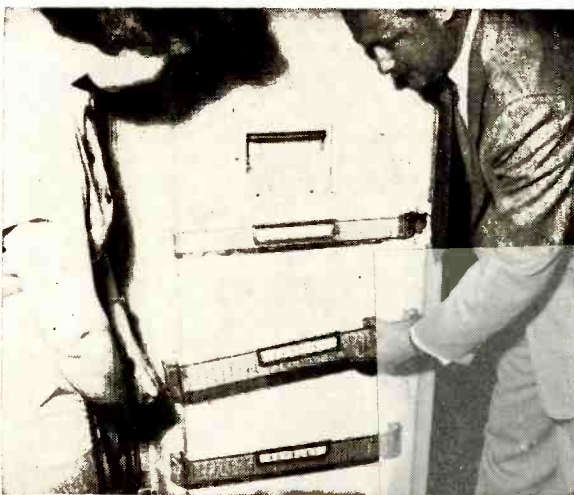
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10



A. B. Hunt Re-Elected President of R-TMA



Some of the newly elected officers of the R-TMA who attended the annual meeting at Bigwin Inn. Standing (left to right)—R. H. Tanner, Lloyd Harris, M. H. Reed, James Key, S. Marsland, J. D. Houlding, C. A. Norris, E. Olson. Seated (left to right)—S. D. Brownlee, C. A. Pollock, A. B. Hunt, N. H. Futher, H. S. Dawson.

A. B. HUNT, manager of the Communications Division of Northern Electric Co. Ltd., was re-elected president of the Radio-Television Manufacturers Association of Canada at the Twenty-Fourth Annual Meeting held at Bigwin Inn, Muskoka, on June 19.

In his report and in his capacity as chairman of the board, Mr. Hunt reviewed briefly the work accomplished by the association during the past year. "The year under report has been a good one," he said. "The members of our association have turned out more goods at a greater dollar value than ever before in the peacetime history of the association. Much of this increase was, of course, due to television."

Mr. Hunt went on to say that with the glamour of television, the industry was likely to overlook our old friend, the radio receiver. Radio was the original backbone of the association, he said. In the twelve months ending April 30th, 1953, member companies reported sales with an increase of 31 per cent over the previous year.

Mr. Hunt also reviewed the activities of the various committees. He gave brief outlines of the meetings held by the executives during the past year and paid tribute to

the work done in regard to defence programmes and of the efforts made to have the tax situation alleviated. He outlined the promotional efforts made by the association with the opening of the TV stations in Ottawa and Montreal.

In mentioning the work of the committees, Mr. Hunt paid tribute to Ralph Hackbusch, whom he referred to as our "father of engineering". Mr. Hackbusch was re-elected as chairman of the Planning Board.

"On looking back over the association's work for the past twelve

months," he said, "I think we can all agree that, due to the unfailing support of the committee members, the membership at large and the loyal and untiring efforts of Stuart Brownlee, it has been one of our most successful years and a great deal has been accomplished." Mr. Hunt closed his report with a reference to the three vice-presidents—C. A. Pollock, S. G. Paterson and J. R. Longstaffe.

Other members of the executive elected for the 1953-54 season were: C. A. Pollock, vice-president of the association and chairman of the Receiver Division; J. D. Campbell, vice-chairman of the Receiver Division; H. S. Dawson, vice-president of the association and chairman of the Technical Products Division; J. D. Houlding, vice-chairman of the Technical Products Division; N. H. Futher, vice-president of the association and chairman of the Parts and Accessory Division; L. Harris, vice-chairman of the Parts and Accessory Division; S. Marslan, J. R. Longstaffe, J. Key, D. Lou Harris—Parts and Accessory Division additional representatives to the board of directors; E. Olson, chairman Receiver Engineering Committee; T. Millen, vice-chairman, Engineering Committee; C. A. Norris, chairman Parts Engineering Committee; G. J. Irwin, vice-chairman Parts Engineering Committee; H. B. Seabrook, chairman Technical Products Engineering Committee; R. H. Tanner, vice-chairman Technical Products En-

(Continued on page 30)



Left—A. B. Hunt, re-elected president, giving the annual report. Centre—W. R. McLachlan, director, Electronics Division, Department of Defence Production, speaking at the annual meeting. Right—S. D. Brownlee, executive secretary of the association.

Why Blow Your Own Horn ...We Give You a BRASS BAND!



Only CBS-COLUMBIA Offers You These Exclusive Selling Tools!

You lose money when you don't take advantage of them. So . . . why "blow your own horn"?
We give you a "brass band" of business-getters that mean year-round profit for you!



The Prestige of CBS . . . Greatest Name in Television

A NAME SEEN AND HEARD ON TV and Radio every hour of every day. 102,000,000,000—yes, *one hundred and two BILLION* free sales boosts a year for CBS-Columbia dealers from coast to coast!



The Greatest Names in Show Business

CBS-TV STARS Jack Benny, Arthur Godfrey, Burns & Allen, Marie Wilson and many others . . . recommend CBS-COLUMBIA TV SETS in your Newspaper Ads! On your Radio Spots! In your Store Displays!



America's Newest and Most Advanced TV Set

"ENGINEERED BY CBS-COLUMBIA" is your guarantee of trouble-free performance in a TV set of beauty—at a price that spells *value!* Priced low for store traffic—with step-up models for greater profit.



Powerful National Advertising

LIFE, LOOK, SATURDAY EVENING POST, BETTER HOMES & GARDENS—double spreads and full pages in color. *Plus*—Saturation Spot Radio in every TV market. *Plus*—Newspaper Ads that sell your customers on CBS-Columbia Television Sets.



Powerful Dealer Advertising

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Tested Sales Builders

CBS-COLUMBIA gives you exciting promotions to help you move merchandise *now!* Sales Kits, Direct Mail Devices, Traffic Promotions, Premiums, Store Events. Now is the time to see your CBS-Columbia Distributor for full details.

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CBS *Columbia*  ENGINEERED BY **CBS** *Columbia*

CBS-COLUMBIA INC.
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Service Is Their Business

NO industry picture would be complete without some mention of the man who maintains and repairs the products of that industry. In our own industry, it is the service technician who is the man behind the scenes. It is the technician who carries out the manufacturer's warrantee and in a good many cases, faces the complaining customer. Even after the guarantee has long run its course, the technician is expected to sometimes, even perform miracles with old worn out equipment.

One such business, dedicated to seeing that our industry's products function properly at all times, is Howard Radio Company Service Centre, Yonge Street, Toronto. Beginning originally as a radio and appliance store, the business has gradually developed into pure servicing with little or no retail business.

Along each wall, once lined with appliances, are now service benches, packed with every conceivable type

of service and test instrument. At these benches, working on a wide variety of types of electronic equipment, are qualified electronic technicians. Each man is a member of the Radio Electronic Technicians Association and one of the qualifications insisted on is that they must be a graduate of a recognized school such as Radio College of Canada or the Ryerson Institute.

In addition to the television and radio service work, a substantial portion of the business is in mobile communications equipment such as that used in police cars and taxi cabs. In this mobile section, Howard Radio are field service representatives for such names as Pye, Canadian Marconi and Rogers Majestic.

They are also Canadian Marconi service depot for Toronto and for Philco in West Toronto. In addition they distribute radio and television parts for Canadian Marconi for Ontario. There is one complete service bench for auto radios and

here, Howard Radio act as a service depot for Ford car radios and look after all warrantee service.

The work is done very quickly and efficiently. They carry an unusually large stock of parts and with the top-flight technicians employed most work is completed within 24 hours. This policy is promoting more and more dealer service work and the two trucks are kept busy with the retail business.

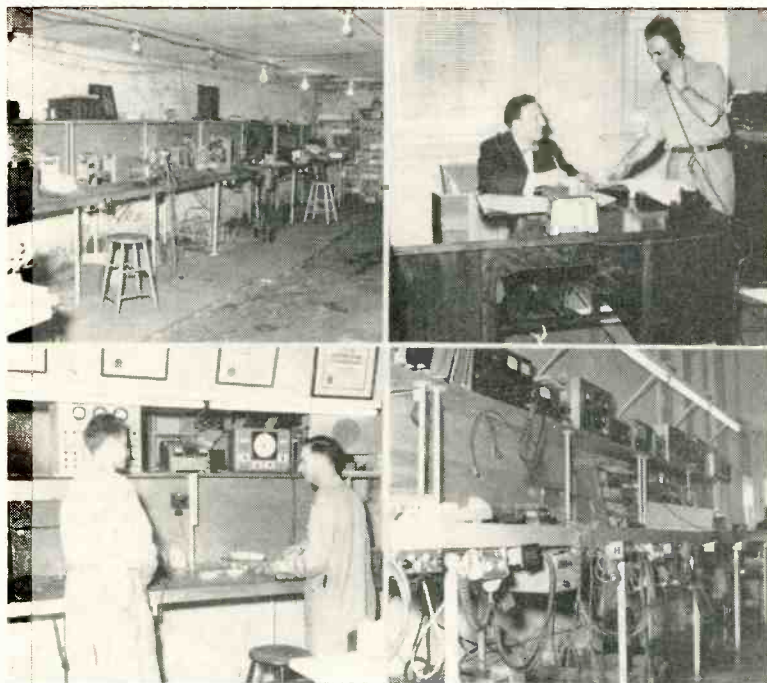
The store is located in almost the exact geographic centre of Toronto. This has a lot to do with the rapid increase in the business, says Max Cainer, owner and manager. At the same time it gives rise to a few problems such as street car interference and 25 cycle power. To overcome this handicap of 25 cycle power Max has installed his own generating unit and generates as much as 10,000 watts of 60 cycle power.

The service benches were all designed by Max Cainer. They are very rigid and yet are so made that they can be dismantled in a very short time should the need arise for moving. Along the top of one of these bench sections is a very complete library with manuals on every type and make of radio and television receiver and communications equipment, regardless of age.

No matter what comes into the store for servicing, when it leaves it is guaranteed for three months. The receivers are all completely aligned and checked. The three months warrantee also includes any materials or parts that are installed in the receivers. Should any other parts need replacing during the three month warrantee period, the customer pays for the cost of the parts only—the labour costs them nothing.

Max started the business with very little capital. He is not a service technician himself, but is a smart businessman and can organize and plan the work on a profitable basis. He takes very little credit for the success of the business

(Continued on page 30)



Top, left—A large service bench in the basement. Right—Max Cainer (seated) owner and manager and Morris Goldenberg, bookkeeper. Lower, left—the auto radio service bench. Right—a low view of the mobile radio service bench, showing maize of wiring and test equipment.

Now! Fowles
acclaims
LEWYT 1¢ SALE
"Sold 16 Lewyts
on First Day!"

LEWYT 1¢ SALE
"Sold 206 Lewyts
in first 2 days!"

LEWYT 1¢ SALE
Smashing Records

Murray's of Paoli, Pa. (pop. 3,018)
**SELLS 29 LEWYTS
WITH JUST**

PROOF YOU CAN DO IT with LEWYT!

POGUE'S of Cin
**SELLS 62 LEWYTS
with 2 SMALL ADS!**

core in Milwaukee
**SELLS 38 LEWYTS
WITH ONLY 1 AD!**

LEWYT 1¢ SALE
29 LEWYTS SOLD
IN 4 DAYS!

Cleveland
**SELLS 20 LEWYTS
WITH ONLY 1 AD!**
LAWRENCE, MASS LEWYT DEALER REPORTS:
"SOLD 8 LEWYTS
IN 2 DAYS with these
LEWYT FULL
COLOR POSTCARDS"



**Read the dramatic reports from all over America!
Dealers like yourself cash in with Lewyt, "the
one cleaner you can sell in volume today"!**

Large dealer or small dealer, here's proof you can Do It with Lewyt!
Tie in with Lewyt's national advertising program—the heaviest
in all cleaner history! Get your Display Kit up, identify your store
as local Lewyt headquarters! Exploit floor traffic with a 10-second
demo after every appliance sale! Drive in prospects with Lewyt's
sensational "1¢ Sale" or "Bag O'Pearls" promotions! Push
Lewyt and watch your cleaner sales climb!

**DO IT
with LEWYT**



Listed by
Underwriters'
Laboratories

CANADIAN DISTRIBUTORS

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CAMPBELL SALES AGENCIES LTD.
18 Germain St., St. John, N.B.

QUEBEC
INDUSTRIAL DISTRIBUTORS CO.
1505 St. James St. W., Montreal

LEWYT CORPORATION, Vacuum Cleaner Division, Dept. C-1, 84 Broadway, Brooklyn 11, New York

ONTARIO (except Lakehead)
ANTHONY FOSTER & SONS LTD.
294-306 Church St., Toronto

MANITOBA, SASK. & ONTARIO LAKEHEAD
ALLAN LYONE LIMITED
62 Albert St., Winnipeg

ALBERTA (Red Deer & South)
BRUCE ROBINSON ELECTRIC LTD.
815 4th St. W., Calgary

ALBERTA (North of Red Deer)
BRUCE ROBINSON ELECTRIC LTD.
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R.E.T.A. News and Notes

Urges Technicians To Bring One New Member To Meeting



JACK M. FORDE
President, R.E.T.A. of Ontario Inc.

LAST month RETA of Ontario was invited by RETA of Canada to send a delegate to the National Convention. It was with real regret that our association declined again this year. The commitments which our board of directors had already made, made our acceptance impossible. However, on behalf of all our members, we sent them a cheque as a token of our good-will and appreciation for the job they are undertaking. So, fellows, be sure to look for the report on the National Convention.

It rather looks like a lot of the fellows in the districts have been doing a lot of fishing lately. Our genial editor, Art Vincent, is bemoaning the lack of reports on District activities. We know the call of the wild is hard to ignore, but you secretaries can give Art a real lift if you will just give him all the dope on the district's summer activities. Many of the districts are organizing picnics and such, so be sure and send him the story, and don't forget that he likes pictures too.

Further to our Proposal for Legislation, our board of directors will soon be meeting with the Minister of Education to discuss matters as they may relate to that Department. We hope to be able to report to you at a later date on these further developments.

We feel it important that each member of RETA think of himself as a member of the Membership Committee of your district and make it an objective to bring at least one new member to your first meeting in September. Will you make that your personal project? You will be helping yourself as well as your Association.

Sincerely yours,
Jack M. Forde, Pres.,
RETA of Ontario, Inc.

Ottawa Chapter

THE regular monthly meeting of the Ottawa Chapter was held on June 4 at the Ottawa House Hotel. With president J. Bouzek in the chair, twelve members and eight guests were present.

Applications of Paul Kaminski and John Robillard for senior membership were approved and several new applications were presented by membership chairman Bill Hill. These were held over to give members a better chance to get acquainted with them. Plans for speakers and films were also discussed.

Guest speaker for the evening was Jerry Gardner of National Carbon who gave a talk on the various new types of batteries. He also discussed the life expectancy of batteries and other features of the newer batteries. Following a question and answer period, several films, donated by National Carbon, were shown.

RCA TV Equipment for First Private Canadian Station

A rich new television sales market is opening up with the announcement that Canada's first privately-owned TV station is being erected at London, Ontario. The new station, to be called CFPL-TV, will be one of the most powerful in Canada, with primary coverage up to a radius of 50 miles of London, and secondary coverage well beyond that 50-mile arc.

News of the new station has come as a result of a statement by Walter J. Blackburn, president and general manager of The London Free Press Com-

pany, Limited, owners of CFPL-TV, to the effect that his company has completed contractual arrangements with RCA Victor Company, Ltd. to the amount of \$200,000 for the purchase of a 10-kilowatt transmitter, 76-foot, 12-bay antenna and other equipment. RCA Victor has promised delivery of equipment, which includes 6 1/2-inch steatite coaxial lines, monitoring and test equipment and field cameras and film projector units for August 31. Present plans call for test pattern telecasting by October, with regularly-scheduled programs slated for on-the-air presentation by the 30th of the following month.

At the outset, CFPL television will be seen for four hours a day in the evening on a seven-day-a-week basis, with test patterns beamed throughout the day for the benefit of service men. Of the present 26-hour telecasting week, 10 1/2 hours will originate from the network via kine-recorded film shipped from CBC Toronto, with about seven hours of live local productions, direct from the London studio. Network affiliation of the type now planned for all future privately-owned television stations will be with the CBC, with both Canadian-produced programs and American shows brought in by the CBC being made available to the CFPL-TV audience. There will be no direct link with the American networks. As technical skill increases, programs originating in London will be fed to the national system. Plans are underway for network programs to be fed from Toronto to London by microwave relay, but it has been indicated that the link-up will not be ready until sometime in 1954. Until it is available, network shows will be filmed and shipped to London for showing on the next or succeeding evenings.

The TV station will be operated independently of CFPL Radio, and will be seen on Channel 10.

Auto Antenna Floor Displayer

An auto antenna floor displayer has been announced by Radelco Manufacturing Company. Available from Electro Sonic Supply Company in Toronto, the auto antenna floor displayer has been designed to help dealers increase auto antenna sales.

The displayer is printed in three attractive colours. Body of the carton is dark blue, lettering in yellow against brilliant red background. It has mounting space for six different model antennas. Mounting shelves have open ends so that prospects can see how easily aerials are installed.

To obtain this displayer the dealer must order Radelco's DB-40 assortment of auto aerials. The assortment contains 40 popular auto aerials—10 CS-3; 10 EZ-3; 10 MH-3; 5 CO3A; and 5 FD-3. Dealers are urged also to write for the 8-page Radelco catalogue.



World-Wide 8-Band Portable

MODEL TW1000

A truly astounding portable radio that brings the whole world to its listener, using Battery or 105 to 120V AC-DC current: Short-wave spectrum, from 1.9 to 18.4 Mc, is spread into 6 tuning ranges.

WORLD-WIDE short-wave time map, shows at a glance when and where to dial.

Equipped with THREE antennas — a telescoping whip, built-in loop and "Sky-rider" attachable for peak reception in trains, automobiles, planes, etc. Facilities for external antenna and ground.

Cabinet of humidity-proofed, marine plywood, with Navy Blue Covering.

Specifications: 5 tubes plus selenium rectifier; headphone jack; 5" x 7" speaker; provision for 220 volt AC-DC operation.

Tap the big market for . . .

hallicrafters

SHORT-WAVE PORTABLES



MODEL 5R40

Easy to pack or carry Hallicrafters Portable Standard Broadcast covers 535 to 1620 kc — PLUS one shortwave band from 5.8 to 18.3 Mc. Striking overseas dial in black and white, foreign stations clearly marked. Smart maroon leatherette carrying case with black and gold trim. 117 v. AC-DC or battery. 5 tubes including selenium rectifier.

Just look at the features of these Hallicrafters portable radios — and you'll see why there is a huge market for them in Canada today.

You'll find ready customers for Hallicrafters short wave receiving instruments among sportsmen, campers, travellers and business men. You'll also find a BIG market in the tens of thousands of recent immigrants who can now hear broadcasts from their native lands.

Stock and display Hallicrafters Short Wave portables — offer your customers the whole world of listening appeal!

the hallicrafters CANADA LIMITED

Toronto 2B

Damping Circuits

By

EDDIE REALE

Field Service Representative, Stark
Electronic Instruments Ltd.

HAVING just recently returned from the Ottawa district, where the boys are rapidly becoming initiated into the Fraternity of Harassed TV Technicians, (Don't laugh! If you're not already a member you will be in the near future), I found they still were able to find time to pay me a visit at a TV technicians test equipment clinic I was conducting at one of the jobber outlets.

I was parrying beautifully the barrage of questions from the boys until one bright Radio Electronic Technicians Association member asked me "What does the reaction scanning circuit do"? That's the one that made me feel like crawling into my scope. Then I recalled that it was just a fancy term for a damper circuit.

I remember that I had a bit of difficulty in checking these same circuits and how easy it was to overcome, once I became familiar with them and their actions. I hope the following information will be of use to you.

The primary purpose of a damper tube is to place a short circuit on energy stored up in the deflection coils, to prevent transit circuit oscil-

lation, from causing raster distortion on the left side of the screen.

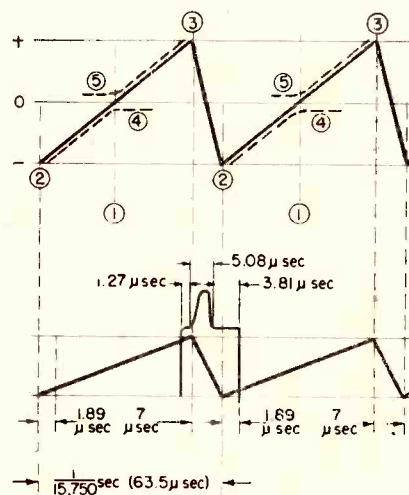
The damper circuit usually consists of the damper tube, horizontal width and horizontal linearity coils, with its associated circuitry and which in damping transient oscillations in the deflection system, aids producing the linear current sawtooth waveform in the horizontal deflection coils.

When the electron beam has reached the right hand side of the raster, the conducting horizontal output tube is drawing its greatest plate current, and the deflection coil has stored the maximum magnetic energy available.

At this time, a negative pulse is applied to the grid of the horizontal output tube, cutting off the plate current of the tube and causing the magnetic field in the horizontal output transformer and deflection coils to start to collapse, and since

this will cause a current to be set up in the opposite direction, it will result in damped oscillations appearing on the left side of the raster only.

This is where the damper tube enters the picture. At the instant the output tube plate current is cut off by the negative pulse to the grid, the voltage induced becomes negative in polarity at the plate of the damper tube, and rendering the tube non-conducting. The deflec-



(1) Centre of screen. (2) Left side of screen. (3) Right side. (4) Collapsing current through damper tube. (5) Current from horizontal output.

tion coil circuit is excited into self-oscillation. In the first half cycle of self-oscillation (which will occur during the horizontal blanking period), the current through the deflection circuit reverses to a maximum in the opposite direction and produces the return trace.

Now when the oscillatory current reverses through the deflection coil on the second half of the cycle, the induced voltage across the deflection coil also reverses, and the voltage becomes positive at the plate of the damper tube. The tube starts to conduct heavily and is now a very effective short circuit, which tends to kill any tendency for the circuit to oscillate. The damped current through the deflection coil dies out at a linear rate over its greater portion and in so doing starts the new scanning line.

(Continued on page 30)



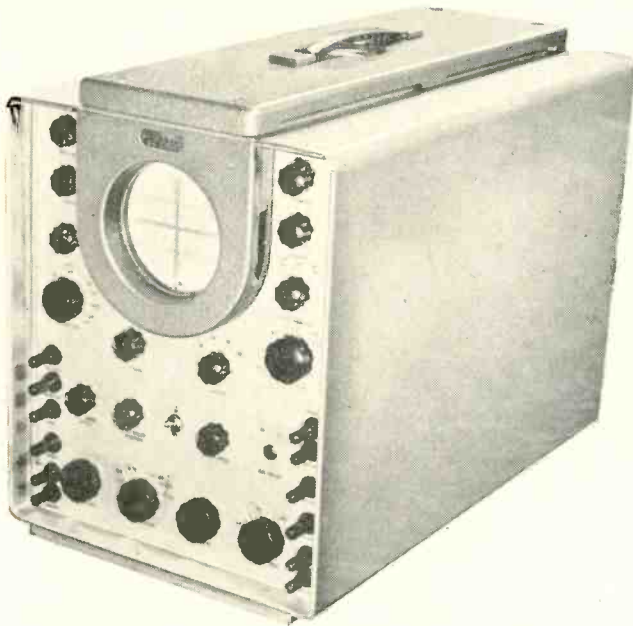
EDDIE REALE

EDDIE REALE'S TV experience is so well recognized that a prominent manufacturer of test equipment has sought his assistance as field service representative. In this capacity he will make periodic visits to all TV centres in Canada and set up a complete service bench where all interested technicians will be invited to discuss their problems. Eddie will be virtually on his own and when time permits, will make personal calls at the technician's own premises as well as to factories, jobbers and, in fact, anywhere that his vast experience can prove of help and benefit. Although Eddie has been engaged by Stark Electronic Instruments, his assistance will be general and not confined to any make of set or test equipment. Many readers will be familiar with the name of Eddie Reale who was recently president of

the Toronto district R.E.T.A. and who is presently on the board of directors for the provincial council. Starting with this issue we hope to be making a regular feature of "Reale Hints By Eddie" based on his experiences as field service consultant. Eddie wants to be of "Reale" assistance to technicians and readers are invited to send in questionnaire which he will be very pleased to answer in these columns.

COSSOR

Model 7514 C
HIGH SPEED OSCILLOSCOPE



A Complete waveform measurement instrument.

The Cossor Model 7514C oscilloscope is a versatile high gain wide band instrument for general laboratory and industrial applications. The model 7514C brings to this price range the accurate quantitative measurement found heretofore only in more elaborate and expensive equipment. The Amplifier handles signals from 5 cycles to 10 Mc.

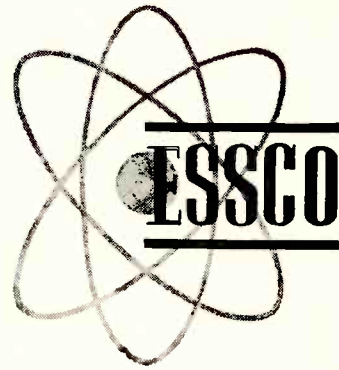
Time Base speed from .01 sec. to 0.1 microseconds per cm., plus expanded and delayed sweeps.

Built-in voltage and time marker generators giving 0.1 to 100 V square waves and a range of locked oscillations to 0.2 microseconds.

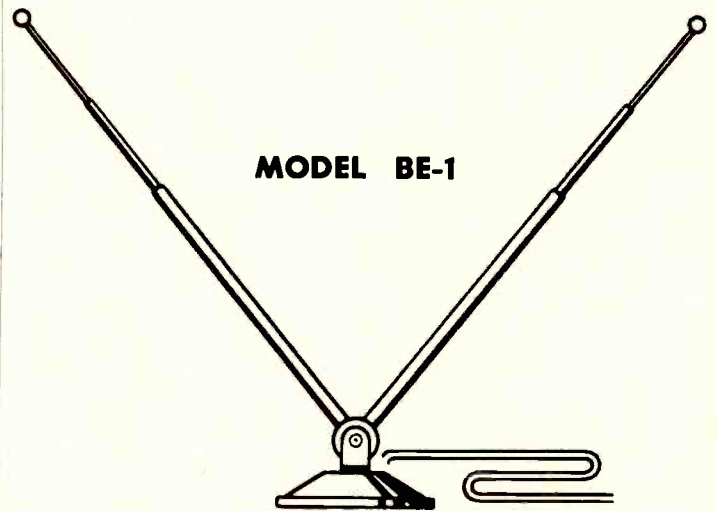
A complete range of oscilloscopes suitable for all industrial purposes is immediately available. For further details and illustrated literature write

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MODEL BE-1

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Single Lot **\$2.10**

10-24

\$1.99

List **\$3.50**

... A high quality antenna, attractively designed and finished in mahogany lacquer to harmonize with all room furnishings. Three section, brass tubing masts with lustrous satin finish extend to 45" for fine reception. Heavily weighed base.

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ELECTRO SONIC SUPPLY CO. LTD.
543 YONGE STREET TORONTO MI. 2481

Test Pattern Interpretation

PART TWO
(conclusion)

by
LLOYD GRAHAM
Canadian General Electric
Co. Ltd.

Issued by the Service
Committee, Radio-Television
Manufacturers Association
of Canada

In 1 microsecond a one-megacycle signal produces one cycle. In 40 microseconds a one-megacycle signal produces 40 cycles. Each video cycle is represented by one black line followed by one white line of the same width in the wedge. Therefore a 40-cycle video signal requires 80 lines in the test pattern. In other words, a horizontal

vides a test of the receiver's ability to reproduce a horizontal resolution of 50 lines. The other rectangles in this row have successively narrower widths to provide for testing in steps of 25 lines up to 300 for the lower rectangle. In the row to the left, the rectangles provide for testing from 325 lines to 575 lines in steps of 25 lines.

Suppose ringing occurs to the right of the seventh rectangle from the top in the row to the right. This is a horizontal resolution of 200 lines. By dividing this figure by 80, we obtain the ringing frequency of 2.5 megacycles.

In the absence of these vertical bars in the test pattern the ringing frequency may be calculated in the same manner from the effects on the vertical wedges.

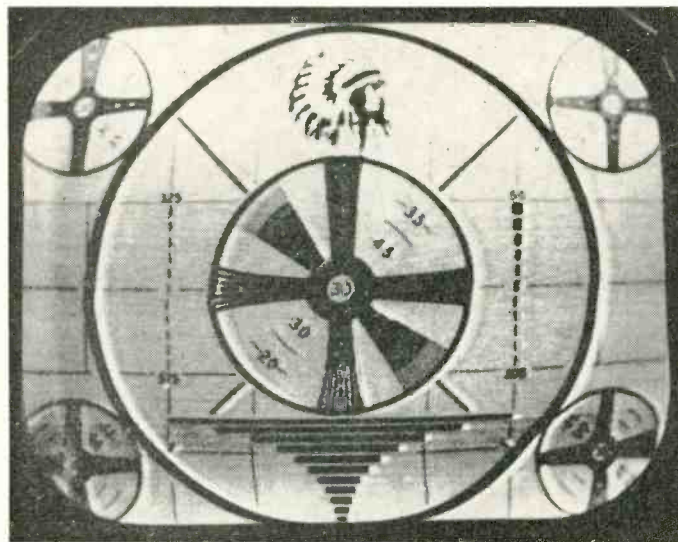


Figure 6

resolution of 80 lines is equivalent to a video frequency or bandwidth of 1 megacycle. Similarly 160 lines is equivalent to 2 megacycles, 240 lines to 3 megacycles, etc. The overall receiver bandwidth can be determined by dividing the number of lines of horizontal resolution by 80. By this method the high frequency response of the receiver can be determined.

RINGING:

Ringing is usually the result of overpeaking in the video amplifier causing a damped oscillation. This appears in the picture as a series of narrow dark and light vertical lines or bars to the right of black vertical bars of picture content.

The two vertical rows of small rectangles, one on the right and the other on the left of the central wedges, are useful in testing for ringing which is usually shown up

more clearly by the rectangles than the wedges.

In the row to the right, the top rectangle has a width of 1/50 of the test pattern height. This pro-

LOW FREQUENCY RESPONSE:

The eleven horizontal bars below the central wedges provide a test for video low frequency response. The longest bar is 2/3 picture height with the bars varying logarithmically in length. The shortest bar has a length of 1/50 of the pattern height.

These bars represent half cycles of square wave signals of low frequency. The longest bar represents approximately a 19-kilocycle video

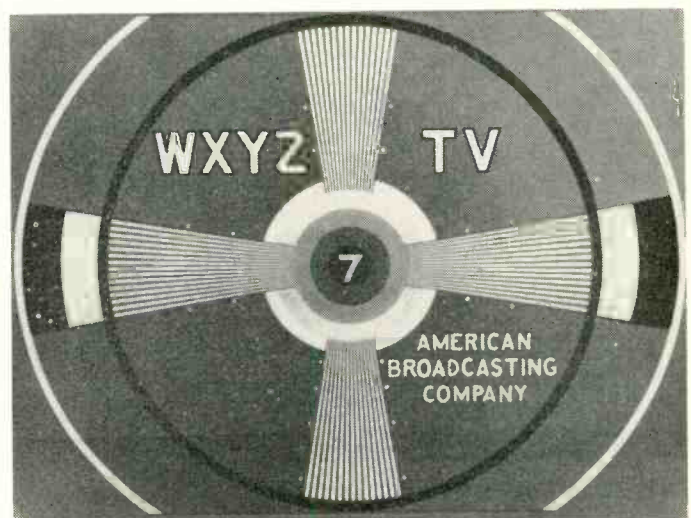


Figure 7

signal and the shortest bar approximately a 600-kilocycle signal.

If the television receiver has poor low frequency response, the leading and/or trailing edges of these bars are not sharply defined. In some cases this effect originates at the transmitting station.

By a study of the wedges an indication of the low frequency response may be determined. Since the scanning lines cut the various bars of the horizontal wedges at

resolution in number of lines. Resolution of less detail in a corner than in other parts of the pattern indicates that the spot is defocused in that corner.

CONTRAST AND SHADING:

Two tone-scale diagonal wedges in the central part of the Indian Head test pattern are provided to check for proper contrast ratio between black, white and the gray shades. Each diagonal wedge has four gradations of shading with

dark grays have become black and resolution and smearing is objectionable.

INTERLACE:

For perfect interlace, the scanning lines of one field must fall midway between those of the other field. Interlace may be checked by examining the four diagonal lines in the large circle. Partial interlace is evidenced by the jagged or irregular reproduction of these lines. This is not effective for complete pairing of the lines where the lines of one field completely overlap those of the other.

In such cases, a decided reduction in vertical resolution as indicated by the horizontal wedges is evident. If the receiver has good interlace the vertical resolution is normally approximately 340 lines as previously mentioned. When the interlace is poor, but not complete, diamond shaped and spurious patterns appears near the narrow portion of one or both horizontal wedges.

STATION TEST PATTERNS:

When the Indian Head test pattern is used for station identification, the call letters and location replace the Indian Head at the top of the pattern.

Another test pattern used extensively is shown in Figure 7 with Figure 8 its negative version. In these test patterns the outside ends of the four wedges represent 150 lines of horizontal resolution. The ends of the vertical wedges toward the centre represent a horizontal resolution of 325 lines. In the upper vertical wedge and in the two horizontal wedges, the first dot from the broad end represents 200

(Continued on page 28)

different angles, different video frequencies are produced. The intensity or blackness of the horizontal wedge compared to the vertical wedge is therefore, dependent on the low frequency response of the receiver. If the low frequency response is poor, the horizontal wedge will be gray when the vertical wedge is black.

FOCUS:

Focusing is the converging of the beam of electrons in the picture tube to a small spot on the screen. The vertical and horizontal wedges are used in adjusting focus. Resolution depends upon spot size and hence the degree of focusing.

Focus adjustments are made for a maximum reading of both the vertical and the horizontal wedges. If the setting of focus is slightly different for the two wedges it indicates that the spot is oval in shape. In this case it is usually preferable to adjust for best focus on the vertical wedge for maximum horizontal resolution.

The four corners of the test pattern contain circles and wedges which provide a check for spot defocusing at the edges of the picture. These corner wedges are calibrated similar to, but not the same as, the central wedges for

extreme black near the centre of the pattern. The three shades of gray from the outer end to the inner end of each wedge is approximately 25%, 50% and 75% black.

When the receiver brightness and contrast adjustments are properly made, each shading step should stand out separate and distinct from one another with the black and white background at the extremes.

Fig. 6 shows the results with excessive contrast. Note that the

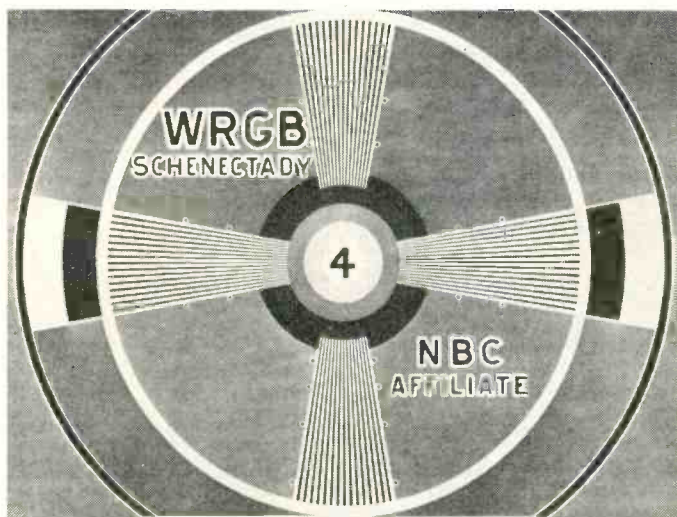


Figure 8

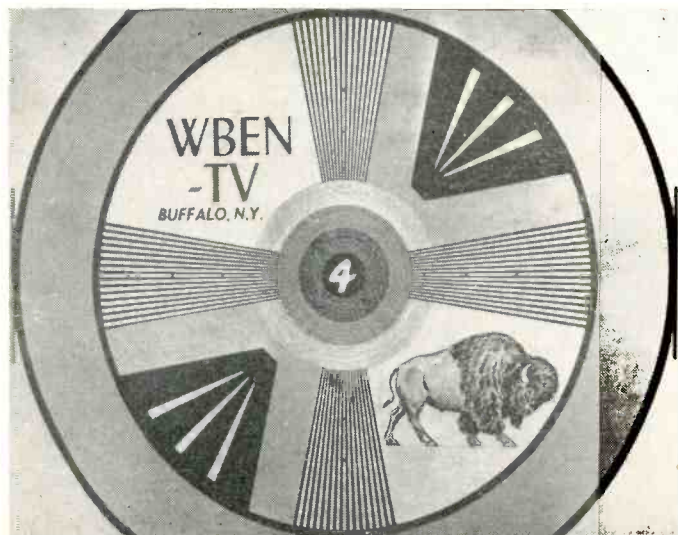


Figure 9



New Products

New Wave Guide Attenuator

A new kind of waveguide attenuator that gives direct and precise readings from zero to 50 db has been developed by the Hewlett-Packard Company.

The instrument, Model X382A, provides highly accurate db readings that are completely independent of frequency. Phase shift is independent of attenuation setting and accuracy is within plus or minus 2% of decibel reading. The attenuator is directly set and read, and requires no interpolation or charts.

Design of the compact instrument is unique in the attenuation depends on the angular position of the attenuating film rather than its specific resistivity. Model X382A employs three resistive films—two mounted in line within each waveguide extension, and a third film rotatable axially in the centre section. With all three films aligned in the same plane, there is no attenuation. Rotating the centre film with the front panel knob increases attenuation proportionally to the cosine squared of the angle of rotation.

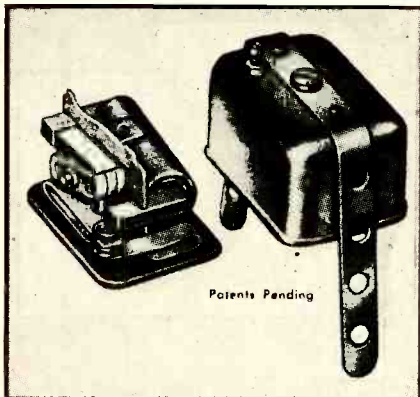
Model X382A is now offered only for X-band use at frequencies from 8,200 to 12,400 mc. Calibrated range is 0 to 50 db, VSWR is less than 1.15 throughout range and zero setting attenuation is less than 1 db. Power may be fed to either end.

Canadian Factory Distributor: Atlas Radio Corporation Limited, 560 King St. West, Toronto, Ontario.

Universal Motor Starting Switch

Two models of the "F-A" motor switch will operate all makes of motors from 1/6 to 1/3 H.P. inclusive and thus offers economies in reduced inventories.

The "F-A" is an electro magnetic



Patents Pending

"F-A" Motor Starting Switch

switch for single phase, split phase or capacitor, single or dual voltage, F.H.P. motors. Dimensions of the switch are 1 11/16 x 1 1/8 x 1 inches. For installation a slotted metal strap attached to the switch case provides the means of extremely flexible mounting—internally, externally or remote.

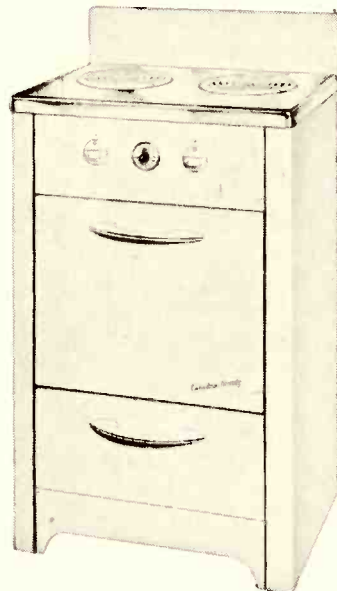
Model "A" is designed for 1/3 and 1/4 H.P. motors, model "B" for 1/6 and 1/5 H.P. motors.

These switches are available from Waugh & MacKewn Ltd., London, Ontario and Montreal, Quebec.

New Canadian Beauty Rangette

Renfrew Electric and Refrigerator Company Limited have announced an electric rangette—an addition to the "Canadian Beauty" line of electrical appliances.

The new rangette comes in three models—118, 118-TE and 118-T. No special wiring is needed for these



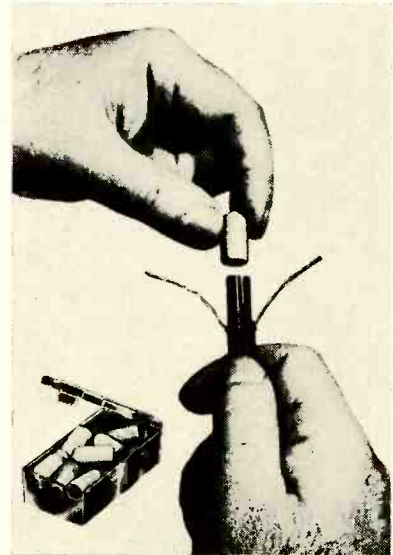
Canadian Beauty Rangette

rangettes. They are just plugged in. Models 118 and 118-T have two, 7 3/4 open type, porcelain elements, each fitted with 1500 Watt elements and one top and one bottom open type porcelain element in the oven. Model 118-TE features two 1500 Watt high-speed Chromalox elements.

All three models are finished in infra red baked enamel and as a safety feature—double-pole switches.

G.C. Announces UHF Line Caps

With the growth of tubular 300-ohm lead-in lines as a means of overcoming UHF signal attenuation due to moisture, television servicemen will be glad to know one company has come up with a quick and easy means of sealing permanently the exposed line ends. Made by General Cement Mfg. Co., Rockford, Illinois, these UHF Line Caps are of polyethylene materials and



G.C. UHF Line Caps

flexible enough to conform with both the round and oval hollow line types.

Packed in hinged cover plastic boxes, these G.C. UHF Line Caps have been added to the firm's "50 Line" of electronic hardware. (Catalogue No. 8912) available through leading parts distributors everywhere. Full information may be obtained by writing direct to General Cement Mfg. Co.'s Canadian representatives, Chas. W. Pointon, 1926 Gerrard St. East, Toronto.

Mallory Power Rheostats

With production of a 25-watt power rheostat, P. R. Mallory & Co., Inc. Resistor Division at Frankfort, Ind., now supplies a full line of power rheostats from 25 watts to 500 watts.

The new 25-watt, vitreous wire-wound, power rheostat has a resistance range of 1 ohm to 2500 ohms and is equipped with the patented hinged contact arm which assures constant contact pressure.

Diameter of the new rheostat is 1 9/16" and it measures 1 3/8" deep. It will be built to JAN specifications and JAN approval will be applied for.

Built with a round shaft and including six positions of non-turning device, the 25-watt rheostat includes all the features of other Mallory type K power rheostats, including the antibacklash characteristic, low contact resistance, low wear characteristic, ease of cleaning and brush replacement.

Mallory is represented in Canada by A. C. Simmonds & Sons, Toronto.

International Harvester "Decorator" Room Air Conditioners

Highlight of the 1953 International Harvester Air Conditioner line is the "Decorator" feature. This IH exclusive, found on all four models, makes it possible for housewives to match the air conditioner to their decorating scheme.

The "Decorator" Air Conditioner may be decorated in a few minutes to match drapes—to blend with room colors—and can be changed at any time with less than a yard of material. A piece of rich textured, custom-designed fabric is supplied with every model. Where extreme simplicity is wanted, the frost-grey finish can be left uncovered.

Designed to eliminate drafts, the new International Harvester Air Conditioners have air vents on top, instead of on the front of the unit, and a quiet, blower-type fan directs air upward through these louvres. On three models, the air stream is adjustable; it can be directed to the right or left, forward or backward.

Objectionable noise has been eliminated in the Decorator Air Conditioner through the use of a spring-mounted, hermetically sealed refrigeration unit that reduces vibration.

The full line of Decorator Air Conditioners includes four models—designed to accommodate rooms of almost any size. They range from Model L-350 weighing 115 pounds, with a one-third horsepower condensing unit and a 4,000 BTU capacity per hour to Model L-1000, weighing 198 pounds, with a 1-horsepower condensing unit and a capacity of 10,600 BTU per hour.

Designed so that they may be placed in operation without any carpentry work on window ledges or sills, the IH air conditioners are rust resistant—even to the use of stainless steel screws—to avoid stains or streaks on outside walls.

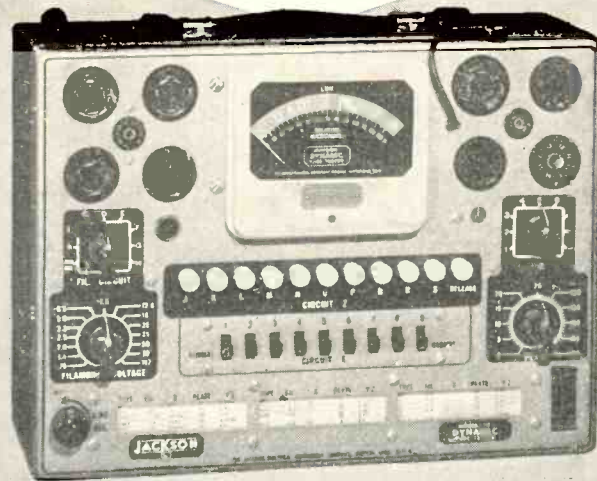
Another new product by International Harvester to help control the weather is the Dehumidifier which removes up to 12 quarts of water from the air every day. With a minimum of moving parts, it weighs less than 60 pounds.

Special Westinghouse Transformer

Canadian Westinghouse Company engineers have developed a special transformer housing for use in locations where unsightly overhead wires and poles detract from the architectural setting.

It is a semi-buried housing which is installed in an excavation 3½ ft. deep and 3½ ft. in diameter. The housing is in two sections, and when the lower section is in place concrete is poured around it for rigidity. The top section provides a protective covering, with apertures for ventilation and inspection. Both units are bolted together to give a tamper-proof enclosure for a 75 KVA transformer.

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value than ever!



JACKSON CHALLENGER DYNAMIC® Model 715 Tube Tester

New in design and performance. Latest Jackson patented switching circuits.

Modern in every detail of construction, appearance, operation.

Complete with every valuable feature, including provision for CRT testing.

In this improved instrument you get separate voltage to each tube element . . . higher plate voltages . . . spare circuits with switch and socket positions for future use . . . simplified operation . . . large, easy-to-read meter . . . complete shorts and leaks tests . . . provision for testing over 700 types of tubes . . . built-in roll chart.

Finished in gray Ham-R Tex with ivory knobs, push buttons, and meter cover. Net weight, 11 lbs.

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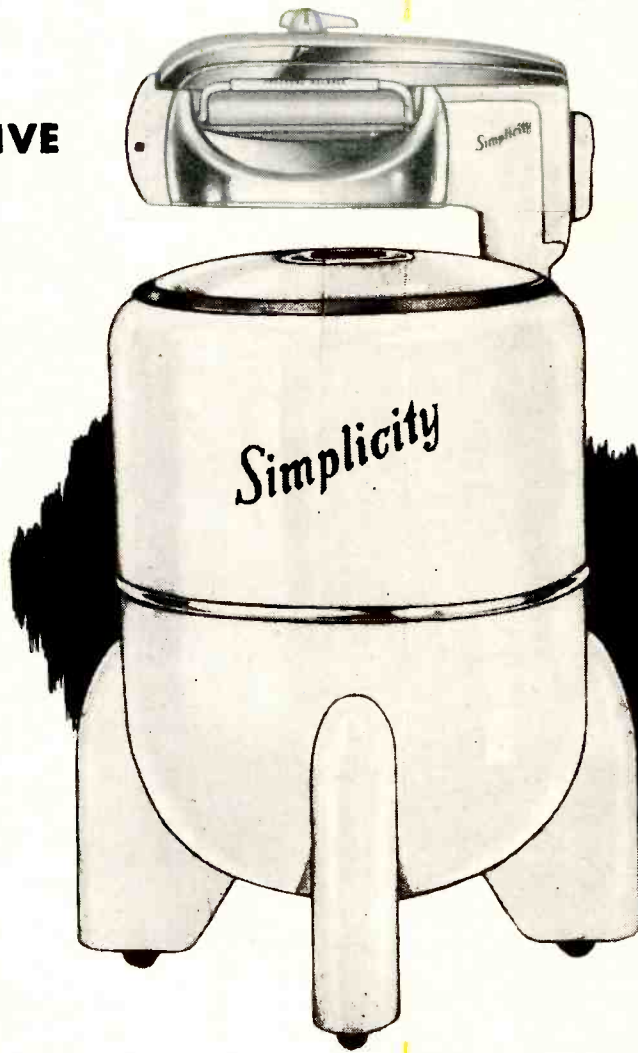
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**THOUSANDS OF PROSPECTIVE
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AND BE SOLD . . .**

Many of the sales you will make this fall and winter, will start during the Exhibition. The crowds visiting the Simplicity booth are receptive to new ideas: They are definitely "buy" minded. You can bank on it that many will be "sold" on owning a Simplicity Rocket Washer or Automatic Clothes Dryer. Sooner or later these pre-sold people become local customers. You are more certain to get your full share of Simplicity sales, if you display the models prominently and keep posted on the selling points. Come and see our exhibit in a new and larger booth under the grandstand at the C.N.E.



*We have a pleasant surprise in store for you.
Be sure to call in at the Simplicity Booth.*

S I M P L I C I T Y P R O D U C T S

C.N.E.

UNDER THE GRANDSTAND

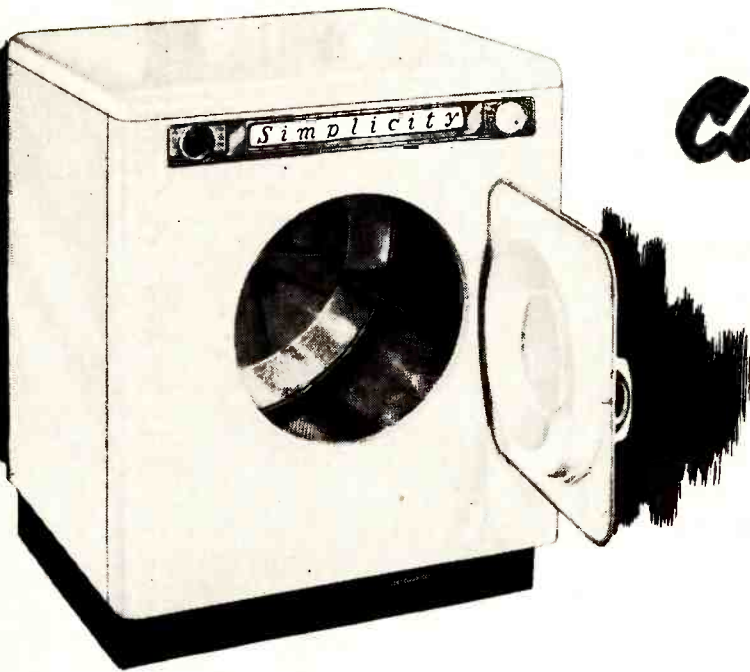
NEW AND LARGER DISPLAY SPACE

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CLOTHES DRYER



AND OTHER
FAST SELLING
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Come and see this new 1953 display that is helping to build business for you. Same building as last year . . . under the grandstand . . . but in a new and larger booth.

L I M I T E D

H E S P E L E R

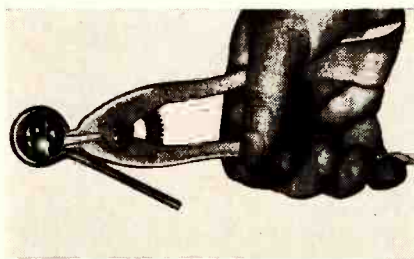
O N T A R I O

New Products . . .

G.C. Improved "Eye-Opener" Tool for UHF Lines

With the increasing necessity for using 300-ohm lead-in wire of the round line, oval line and similar non-ribbon types, in connection with the widening UHF field, General Cement Manufacturing Company, Rockford, Illinois, has introduced its improved stand-off "Eye-Opener" tool.

Use of this tool, according to G.C.'s R. G. Ellis, means that the metal bail on a TV stand-off can be opened up



G.C. "Eye-Opener"

quickly and safely to accommodate the larger lead-in lines and then squeezed to its original position so as to hold the line tight. A pair of pliers or any other standard tool will not do this job satisfactorily, he says.

The G.C. Stand-Off "Eye-Opener" Tool (catalogue No. 8450) is now available through leading radio-TV distributors. Additional information may be obtained by writing direct to General Cement Mfg. Co.'s Canadian representatives, Chas. W. Pointon, 1926 Gerrard St. East, Toronto.

JFD "Golden Mini-Cor" UHF Fringe Antenna

Ed Finkel, Sales Manager of the JFD Manufacturing Company, Inc., Brooklyn, N.Y., announces production of the Golden Mini-Cor antenna model No. UHF633.

The Golden Mini-Cor averages a gain of 12 db (over half-wave-length folded reference dipole) and provides a front-to-back ratio of 20 to 1, the company claims. Free matching stacking harnesses are provided with the Golden Mini-Cor in order to balance stacked units for full transfer of the extra radiation stacked units receive.

The Golden Mini-Cor is one of 6 gold-colored UHF antennas backed by the JFD full-year "Gold Shield" guarantee to resist all corrosion and rust with complete JFD "Bronzidite" electric plating, which consists of cadmium, iridite and chromate. Other members of the "Gold Shield" antenna family are the Golden Maxi-Cor, Golden Para-Loop, Golden Bridge, Golden Bow-Flector and Golden Yagi. Details

on these models will be released in the near future.

JFD are represented in Eastern Canada by J. R. Tilton, Toronto, and in Western Canada by the Millen Durnin Agencies, Winnipeg.

Roto-Splay Display Turntables

Roto-Splay Company moved to larger quarters recently at 1276 Queen St. West, Toronto, telephone Lombard 6132.

Roto-Splay Company has recently introduced a new turntable, especially designed and manufactured by them, to accommodate heavy weight displays. This is the heavy duty Model "G" turntable, which can easily handle displays weighing up to 750 lbs., and is



Roto-Splay Turntable

particularly suitable for such items as stoves, refrigerators, washing machines, furniture, and similar heavy-weight merchandise.

This turntable is available for 25 or 60 cycle, and operates noiselessly, with no interference on radio or television.

Roto-Splay Company manufactures a number of other models, capable of carrying lighter weight and heavier weight displays, as well as models for special purposes.

The Staver "Sub-Mini-Shield"

The Staver "Sub-Mini-Shield" is a combination shield, clip, and mount. Heat is effectively dissipated through an aluminum wrap around shield. This is also obtainable in Beryllium Copper. Tube diameters from a minimum .366" diameter to a maximum .400" diameter are held securely since the shield is of the overlap type, thus allowing for close contact between tube and shield.

The shield mount, made of phosphor bronze, serves to clamp the shield firmly to insure good contact between tube and socket under severe conditions of vibration. Heat is conducted from the shield through the mount into the chassis. Rivet holes in the base of the mount are unobstructed to

allow for ease in riveting of mount to chassis.

After riveting of mounts to panel, tubes are inserted into the shields and the shields snapped into the mount clip from the front, top or bottom.

Minimum mounting centre distances between mounts is 9/16". Shield lengths are obtainable for tube types T3-1, T3-2, T3-3, and T3-4. The Staver Company is represented in Canada by Atlas Radio Corporation Limited, 560 King Street West, Toronto, Ontario.

JFD Announces New "3-In-1" Lightning Arrester

Julius Finkel, president of the JFD Manufacturing Company, Inc. of Brooklyn, New York, reports full production and immediate availability of the new "3-in-1" UHF-VHF lightning arrester Nos. AT110 and AT110S (AT110S includes stainless steel hanger strap for universal mounting). Designed to reduce lightning arrester inventory requirements, the "3-in-1" unit grounds picture-smearing static and destructive lightning from either flat ribbon, tubular, ovaltube, double-barrel or open-wire twin-lead.

The exclusive JFD patented strain-relief lips that protect twin-lead from ripping apart against contact-teeth have been incorporated in the new "3-in-1" lightning arrester in a design that enables them to overlap and secure either open-wire or any of the polyethylene twin-leads.

JFD are represented in Eastern Canada by John F. Tilton, Toronto, and in Western Canada by the Millen Durnin Agencies, Winnipeg.

Mallory Vibrator Tester

An important addition to the auto radio serviceman's work bench is the new Mallory 12VT1D Vibrator Tester now being produced by P. R. Mallory & Co. Inc. of Indianapolis.

The 12VT1D is designed as a companion unit to other Mallory Recto-power bench power supplies and will test directly, without adaptors, either 6 or 12 volt vibrators of the most popular types and all auto radio vibrators used since 1940. In conjunction with a filtered DC power supply, such as the Mallory 12RS6D or 12RS14D, the 12VT1D Vibrator Tester will test accurately either self-rectifying or tube rectified vibrators of any frequency from 100 to 250 cycles.

DC input voltage may be adjusted accurately for both "start" and "condition" tests by use of a push button switch. After passing the "start" test, the condition of the vibrator may be determined by reading on the "good-bad" scale.

Overall dimensions of the 12VT1D are: 6 3/4" high, 10 3/8" wide and 5 1/2" deep. Shipping weight is approximately eight pounds.

Mallory are represented in Canada by A. C. Simmonds & Sons, Toronto.

Philips 17" Table TV

Model PH334 is one of the new models of Philips television receivers. This 17" table model has incorporated every new advance known to television, the company claims. Powerful circuits give finer picture and sound quality.



Philips Model PH334

Built-in antenna makes outside aerial unnecessary in strong signal areas. Circuit is easily and economically adaptable to UHF reception. Modern cabinet styling is available in walnut, mahogany or oak with matching base.

Atlas Releases New Desk Stand

The new Model DS-10 "Streamliner" Desk Stand for all types and styles of microphones is now coming off the production lines at Atlas Sound Corp., 1451 39th Street, Brooklyn 18, N.Y., manufacturers of the complete Atlas line of public address sound equipment and microphone accessories. It incorporates a new modern-design feature of "Rear Cable Exit" that greatly enhances the stability and appearance of the stand.

By means of this new feature, the microphone cable is concealed in a slot underneath the centre section of chromium trim and is directed out at the rear of the base. Thus no removal of plugs or connectors is necessary.

All parts are die cast and finished in gun metal enamel and chromium.

For full details on Model DS-10 and the rest of the complete Atlas line, write directly to Atlas Radio Corp. Ltd., 560 King St. West, Toronto.

RMS Swivel-Bow UHF Antenna

Swivel-Bow, a window sill bow tie antenna for UHF has just been developed by RMS (Radio Merchandise Sales, Inc.), New York City.

The bow tie unit of this entire assembly is actually of the same design as included with the company's roof top unit. Extreme flexibility in posi-

tioning for maximum signal is afforded by the incorporation of a rotating head and a swivel-action extension arm.

The WB-10 Swivel-Bow accommodates windows from 32" to 42" wide. Extension mounts are also available from RMS, under Model WEX-1 and WEX-2 designations, for windows up to five feet and six feet respectively.

These units are all packaged one to the carton.

RMS is represented in Canada from Saskatchewan East by the MJS Television Accessories Co., Toronto, and in B. C. by the Burt C. Porter Co., Seattle, Wash.

New Catalogue Published By Telco

Just off the press is a brand-new 32-page catalogue on television hardware, published by the Television Hardware Mfg. Co., (Division of General Cement Mfg. Co.), Rockford, Illinois. Fully illustrated, the brochure lists everything needed by TV servicemen from stand-offs in an extremely wide variety to the latest model UHF antennas.

Copies of the new "Telco" publication No. T-54 may be obtained by writing direct to Television Hardware Mfg. Co. Canadian Representative, Chas. W. Pointon, 1926 Gerrard St. East, Toronto, Ont.



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General Industries

MODEL DSS (4-pole) PHONOMOTOR

Here's a three-speed phonomotor that was designed expressly to meet the requirements of high-fidelity reproduction. From its dependable, heavy-duty 4-pole motor to its unique step-shaft speed change mechanism, this new GI Model DSS Phonomotor represents the ultimate in phonomotor engineering, design and construction.

Specifications, quantity price quotations on this or its companion, the new Model SS, with 2-pole motor, will be furnished promptly upon request.



THE GENERAL INDUSTRIES CO.
DEPARTMENT MK • ELYRIA, OHIO



11 12
BRAND NAME REFRIGERATORS

(Continued from page 11)

covers and lids are unnecessary. In this refrigerator no defrosting is needed as no frost ever forms in it.

(11) This is the 12 cubic foot freezer in the two-door "dual-temp" refrigerator. The salesman tells the customer that it will hold 77 lbs. of frozen foods and freezes down to 52 degrees below freezing. He is showing the generous ice cube trays and the shelf on the freezer door.

(12) After discussing the down payment and monthly payments on the refrigerators in which she has shown the most interest, the salesman finds that the 9 cubic foot model with "flash-defrosting" fits the customer's budget yet at the same time, fills all her needs in a refrigerator. She can be seen in this photo, handing the salesman the down payment for delivery of this model.

TEST PATTERN

(Continued from page 21)

lines and the other dot represents 250 lines. The intersection of the wedges with the outer edge of the inner shaded circles represents 300 lines and the narrow ends and the equivalent point in the horizontal wedges represent 325 lines.

The lower vertical wedge is calibrated in megacycles of receiver response or bandwidth. The dot at the broad end of the wedge represents a bandwidth of 2 megacycles. The other three dots in order represent frequencies of 2.5, 3 and 3.5 megacycles. The extreme narrow end represents slightly over 4 megacycles. As before these frequencies in megacycles can be calculated by dividing the number of lines by 80.

The tone scales in the centre circles represent white, 25%, 50%, 75% and 100% black.

The large circles provide a test for both vertical and horizontal linearity.

Figure 9 test pattern has four calibration wedges which provide a measure of resolution from 150 to 350 lines. The outer edge, the three black dots in the centre spacing and the inner end of each

wedge are calibration points for 150, 200, 250, 300 and 350 lines respectively.

The tone scales in the centre provide shades of 25%, 50%, 75% and 100% black. The black wedges in the upper right and lower corners are inserted for ease in adjusting the receiver for the shades of gray in the central section.

In Figures 7, 8 and 9 the diameter of the large complete circle represents the height of the picture and the diameter of the arcs on the sides represents the width of the picture. This gives us the correct aspect ratio of 4 to 3 width to height.

Hastings New President Toronto Electric Club

M. B. Hastings, president of Powerlite Devices Ltd., was recently elected president of the Toronto Electric Club at the annual meeting and election of officers. C. A. Ogilvie, N. Slater Company, was appointed a vice-president, and two members, C. A. Morrison, Canadian General Electric Company, and S. R. Spence, National Carbon Ltd., were elected to the executive committee.

Mr. Hastings is a graduate of the Engineering Faculty of the University of Toronto. Late in 1912 he joined Winter Joyner Ltd., now Powerlite

Devices Ltd., to organize a new street lighting department.

Mr. Hastings is a past chairman of the Toronto Section, American Institute of Electrical Engineers; the illuminating Engineering Society, and is vice-president elect of the Canadian Regional Illuminating Engineering Society. He is a past president of the University of Toronto Alumni Association; the Engineering Alumni Association, and is at present, a member of the Senate of the University of Toronto.

Other members of the 1953-'54 executive are: past president, J. G. Inglis, Toronto Transportation Commission. Vice presidents: George T. Dale, Electrical Maintenance and Repairs Co. Ltd.; E. W. McLeod, Ontario Hydro Electric Power Commission; I. M. MacLean, Canadian General Electric Co.; H. M. Morris, Bell Telephone Co. of Canada; H. R. Fardoe, Moloney Electric Co., and C. A. Ogilvie, N. Slater Co.

Secretary, I.D.A. Cook, Bell Telephone Co., and treasurer, W. E. Pointon, T.T.C.

Executive committee: J. A. Clish, Northern Electric Co.; W. J. Wylie, Toronto Hydro-Electric System; W. G. Pengelley, Canadian Westinghouse Co.; G. A. Brace, Ferranti Electric Co.; T. A. Lindsay, Automatic Electric (Canada) Ltd.; George Appleton, T.H.E.S.; J. H. Smith, C.G.E.; W. H. Patterson, T.T.C.; R. L. Mooney, Square D Co. Ltd.; J. R. Montague, H.E.P.C.; C. D. McCaig, Amalgamated Electric Co.; W. N. Herod, Canada Wire and Cable Co. Ltd.; H. E. C. Smith, Bell Telephone Co.; Leonard Roberts, Canadian Controllers Ltd.; A. G. Haley, Northern Electric Co.; Noel Holmes, British General Electric (Canadian) Ltd.; C. A. Morrison, C.G.E.; and S. R. Spence, National Carbon Ltd.

Auditors: W. D. Brown, Minneapolis-Honeywell Regulator Co.; and R. R. Logan, T.H.E.S.

Automatic Electric New Factory

Automatic Electric (Canada) 1953 Limited, today announced plans to construct a modern factory building in Brockville, Ontario and the promotion of three executives as the latest steps in its programme to extend manufacturing in Canada of communications, electrical control and allied equipment.

The company has reached agreement with Brockville, Ontario town officials on acquisition of twenty-three acres of land at the north-west town limits and arrangements are being made for the construction of a siding by the Canadian Pacific Railway to the factory site. T. Pringle & Son, Ltd., consulting engineers of Montreal, have been retained to design a modern structure of about one hundred and twenty-five thousand square feet. This will permit much needed expansion of the present manufacturing facilities.

Charles A. Funk, superintendent of telephone manufacturing operations for the organization since 1948, has

been named production manager. He joined the Automatic Electric organization in 1929 and has filled supervisory and managerial production positions. He will direct the manufacture of all communications, control and allied equipment.

E. R. O'Kelly, associated with the Automatic Electric organization since 1937, has been appointed secretary and treasurer and a director of Automatic Electric (Canada) 1953 Limited and of its sales affiliate Automatic Electric Sales (Canada) Limited, both of which are associate companies of Automatic Electric Company, Chicago. Mr. O'Kelly is a member of the Controllers Institute of America and a governor of the Certified Public Accountants Association of Ontario.

Walter W. Ashworth, assistant chief telephone engineer since 1948, has been named chief engineer. He joined the organization in 1935, after previous service as a transmission and apparatus engineer with Northern Electric Co. Ltd., and has filled production and technical positions. Mr. Ashworth is a member of the Association of Professional Engineers of Ontario and of the Canadian Association of Physicists. He will direct the engineering activities of the company in both the communications and the industrial control and allied field.

Four Westinghouse Appointments

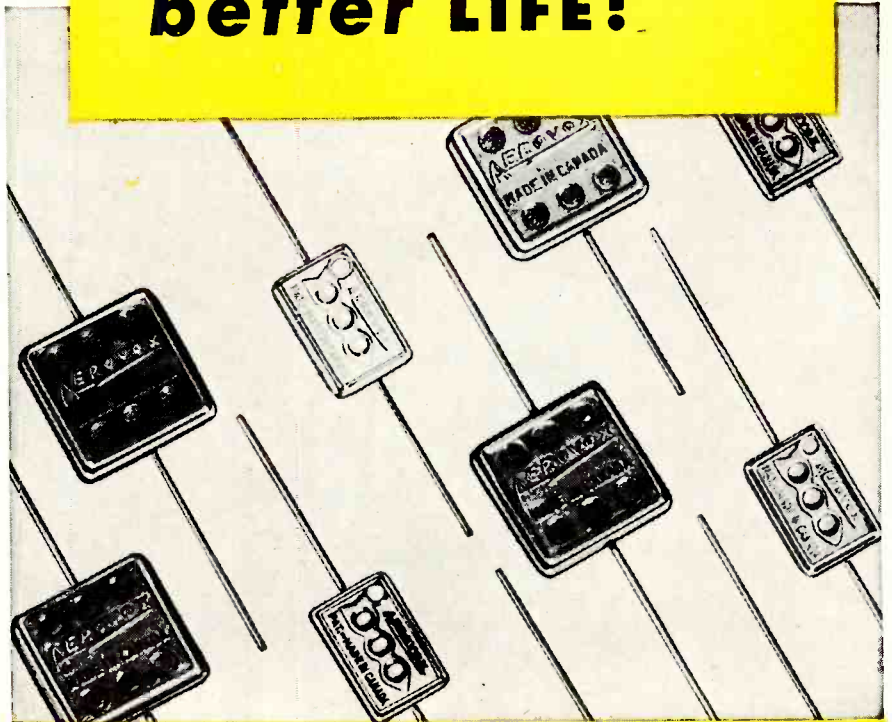
Four new appointments under the recent reorganization program at the Canadian Westinghouse Company have been announced by the sales manager of the Industrial Products Division, J. E. Cranswick. T. R. Murphy is now manager of motor and control sales. He joined Westinghouse in 1936 following graduation from Royal Military College and after wartime service entered the Industrial Sales Division. He was appointed assistant manager of the division in 1950 and later became manager of the motor and control section of the Marketing Dept.

J. B. McCullum has been appointed manager of marine and transportation product sales in Mr. Cranswick's division. He was formerly in the company's Marketing Department, managing a similar section.

The third appointment in the new Industrial Products Division places R. E. Young as manager of distribution product sales. A graduate of the University of Toronto, Mr. Young was with the Hydro Electric Power Commission of Ontario before serving with the armed forces and in 1946 joined Etobicoke Hydro-Electric Commission.

Just appointed manager of specialty product sales is R. Brown who has been with Westinghouse for the past eighteen years. Mr. Brown has managed a special products section for some time under the Marketing Department, handling.

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DAMPING CIRCUITS

(Continued from page 18)

Now if we did not supply any further current from the horizontal output tube the electron beam would return only to the centre of the screen. The current does not reduce at a linear rate over its latter portion to zero. The horizontal output tube is so timed that it will begin to conduct just before the collapsing current reaches zero, and increasing output tube current will cause deflection of the beam to the right hand side of the screen. Non-linear rise of this supply current compensates for the non-linearity of the latter part of the collapsing current.

From the above, we can see that the damper circuit will allow only one half of the cycle to occur without loading, and that during the second half cycle it loads the circuit to prevent further oscillation.

The damper tube has another primary purpose, and that is to convert surplus energy into useful D.C. voltages. When the horizontal output tube is brought into the cut-off region, there remains stored a great amount of energy in the output transformer. Part of this is used, as I have indicated, to bring the electron beam from the right hand side of the screen to the left. The following positive half cycles are rectified into D.C. and appear across the damper diodes output circuit and raise the potential on this circuit to approximately sixty to eighty volts above B+ supply. The source of plate voltage for the horizontal output tube is commonly this "boosted B+" potential. (Note then that low damper diode emission will result in reduced plate voltage for this tube.)

The effects of a faulty damper tube, or circuitry, are readily apparent on the screen of a television receiver. (1) A weak damper tube will result in reduced picture brightness and reduced width. (2) Overlapping of the left side of the screen which cannot be cured by adjustment of the horizontal size and hold controls, is generally caused by a defective damper tube. (3) Poor linearity can also be traced to trouble in the damper circuits, if the linearity cannot be corrected by the linearity and drive controls. (4) A weak damper tube may cause wrinkles to appear on the left hand side of the raster, but as a rule it will be due to a defective deflection

yoke or one of the small capacitors connected across the coils. (5) By far the most common effect produced by a defective damper tube or circuit is a white line or bar, (or possibly several) down the left hand side of the raster. This happens when the undamped oscillations swing back and forth near the beginning of each horizontal line, causing the raster to brighten at these points. Generally, it can be overcome by replacing the damper tube.

Foldover is another effect that can be caused by a defective damper circuit but it is generally confined to either side of the raster and to a maximum of about one inch.

A single vertical bar at or near the centre of the screen, as a rule results from other causes most commonly a defective horizontal output tube.

If the TV set has been in operation for some time and the vertical bar appears on the screen—adjusting the horizontal drive control may eliminate the effect but not the cause.

SERVICE

(Continued from page 14)

himself but gives it to his wife and to the people that work with him.

Max Cainer is the owner and manager and his brother Gary Cainer looks after stock control. Morris Goldenberg looks after all the bookkeeping. In the actual service work Harold Taylor is responsible for all radio and television servicing and Bill Morris looks after the allocation and repair of the mobile equipment.

HUNT RE-ELECTED

(Continued from page 12)

gineering Committee; G. B. Elliott, chairman Service Committee; M. H. Reed, vice-chairman Service Committee.

During the afternoon meeting, W. R. McLachlan, director of the Electronics Division, Department of Defence Production, gave a brief talk about the electronics defence picture. Mr. McLachlan reviewed the progress made during the past year in the placing of defence contracts and mentioned some of the important projects that have come into production.

He stressed particularly the need for men to help with the defence

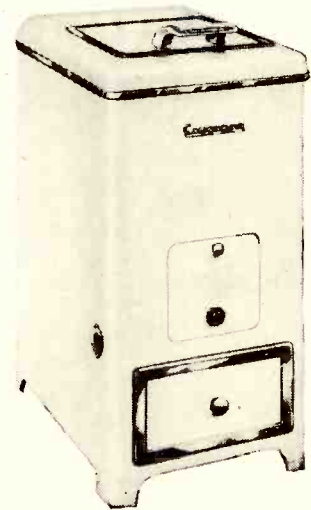
work in Ottawa. "For some time," he said, "we have been trying to build our department on a more permanent basis, and have been fortunate in securing some good men. The Services have also seconded some very capable technical officers and together with promotions within the department we hope to be able to reduce the drain on industry. I feel, however, that some continuing assistance will be required and submit to you that it is in your interest to continue to send men of stature to serve in Ottawa.

He went on to tell of the future need for electronic equipment in defence. "It must be apparent," he said, "that electronic gear will play an increasingly important role in the control of military devices and in the provision and transmission of military intelligence, as it will in the commercial and industrial field."

He outlined the Canadian position in regard to design, component supply and cost experience and in closing said, "I sincerely hope that you will continue to give your directors and the various committees charged with developing policy, your sincere and loyal support."

Sparton To Handle Calcinator

Sparton of Canada Limited, London, is pleased to announce its appointment as sole Canadian agents for Calcinator, a new garbage disposal unit that completely dehydrates and then burns garbage. The unit is capable of handling all domestic garbage, except bottles



and cans, having an ash which makes excellent garden fertilizer.

Three basic models of Calcinator are available in Canada—gas, (illustrated) electric, and bottled gas in either standard taupe or deluxe baked white enamel finish. Designed for kitchen, basement or garage, the Calcinator disposes of waste quietly, quickly and without odour or heat loss.

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NEWS

Vol 9

JULY, 1953

No. 7

Vancouver TV Transmitter Contract

The contract for the CBC's television transmitter building on Mount Seymour has gone to the Bennett and White Construction Company, the lowest tender received. The announcement was made in Vancouver today by Kenneth Caple, regional representative of the Corporation.

Work on the two-storey building, situated at the 2,700 foot level in Mount Seymour Park, will begin immediately. The clearing of the four-acre site has been mainly completed under separate contract.

It is expected that the building will be ready for the installation of equipment by September 1.

Kelvinator Appointment

R. H. Line, President of Kelvinator of Canada Limited, has announced the appointment of J. A. P. Willis as Manager of Kelvinator's new Vancouver Zone.

The Vancouver Zone is the second regional sales zone to be established by Kelvinator to provide better service to its dealers.



J. A. P. WILLIS

A member of the Incorporated Sales Managers Association, Mr. Willis has extensive experience in commercial and household refrigeration merchandising. He will operate from Vancouver in his new position.

Denis W. Brogan To Address Westinghouse Conference

Denis W. Brogan, noted British political scientist, and holder of the Legion of Honour from the French Government, will address the final dinner of the Westinghouse-sponsored "Canada's Tomorrow" Conference to be held in Quebec City, November 13th—14th, Dr. George P. Gilmour, president, McMaster University, and chairman of the Conference Committee, has announced.

Dr. Brogan is particularly well-suited to this assignment, said Dr. Gilmour, because in addition to his knowledge of Canada, he has an unusual grasp of affairs in France and the United States. He has written extensively about both countries and will be able to appreciate Canada's debt to Britain, France and the United States, and the effect of the mingled heritage on our future development.

The Conference dinner, Dr. Gilmour pointed out, will be attended by dignitaries of state, church, and all walks of public and industrial life in the nation, and will be a finale to the two-day forum on the trend of Canada's growth and development in the next 50 years.

The Conference which is being held to celebrate the 50th Anniversary of the Canadian Westinghouse Company, Limited, will be attended by a representative group of Canadians. Invitations to the Conference have been extended by the committee, and arrangements are now complete for this serious study of Canada's future, the chairman, Dr. Gilmour, announced.

Marconi Display At Trade Fair

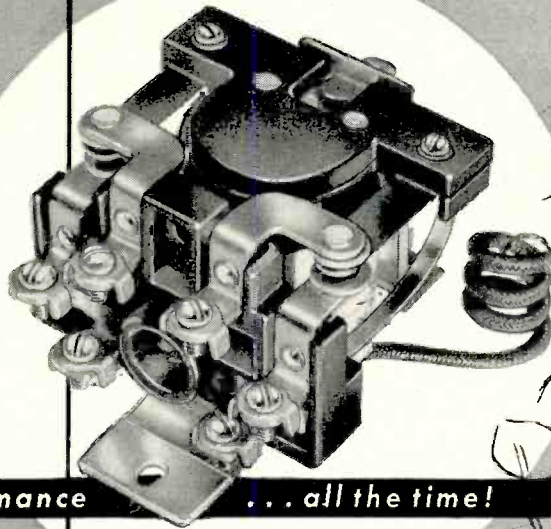


Canadian Marconi Company's exhibit at the 1953 Canadian International Trade Fair being inspected by the Hon. Lester Pearson and the Hon. J. J. McCann. D. T. Reid, sales manager, Commercial Products Division, explains one of the intricate pieces on display.

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TYPE J11. Standard Ratings of 15 amp. double pole—double throw, 115v.A.C. or 7.5 amp. 230v.A.C.; 1.0 amp. 48v.D.C. or .5 amp. 115v.D.C. per pole are available (Bulletin B-2). Special types can be made to meet your specifications.

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Contact

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News of the Industry . . .

Comptroller for Redisco

William E. Henning, former comptroller of Refrigeration Discount Corporation (Redisco) in the United States, has been named comptroller of Redisco of Canada Limited. Both are Nash Kelvinator Corporation subsidiaries.



W. E. HENNING

The appointment, made by the board of directors at its last meeting, was announced by C. R. Brogan, vice-president of Redisco of Canada Limited.

In 1945 Mr. Henning went to Redisco as office manager and became

comptroller a year later. Redisco of Canada Limited offers specialized financing services for Kelvinator and Leonard dealers and distributors in Canada.

Platers Technical Service Tests JFD "Bronzidite" Plating

Officials of the JFD Manufacturing Company's Antenna Division report results and details of "Bronzidite" tests simultaneously with the advent of a new "Gold Seal" guarantee to accompany their six new "Bronzidite"-plated UHF antennas.

In accordance with U. S. Army testing requirements for rust resistance, the Platers Technical Service, Inc. exposed several "Bronzidite"-plated antennas to concentrated Salt Fog for 72 hours—equivalent to approximately 2 to 3 years of weather effects when an antenna is in outdoor use. While the "Bronzidite"-plated antennas showed no red rust after 72 hours' exposure, other antennas that had received only one or two parts of the "Bronzidite" process respectively lasted 36 to 48 hours without showing any signs of red rust.

Former GSW President Passes

Founder and former president of General Steel Wares Limited, John C. Newman, 74, was chairman of the finance committee and a director of the company at his death. He was also president of the Canadian Sheet Gal-

vanizers Limited and the J. S. Mitchell Co., Sherbrooke; vice-president and chairman of the executive committee of Canadian Car and Foundry Limited; a director of the Canadian Bank of Commerce; Price Brothers and Co. Ltd.; Sherwin-Williams Company of Canada Ltd.; and Anglo-Canadian Telephone Company. He was formerly president of Baldwins, Montreal, Ltd., vice-president of the Lake Superior Corporation and director of the Hamilton Bridge Co.; Canada Steamship Lines; Northern Navigation Company and the Montreal Trust Company.

He was a former member of the Montreal Harbour Commission and president, 1932 until 1935.

Born in Montreal in 1878, he was educated at Montreal primary schools and Montreal High School.

He is survived by his widow, the former Margaret Talbot; two daughters, Mrs. William Eakin and Mrs. Douglas Cowans Jr., and four grandchildren and a brother, Harry, all of Montreal.

Avco of Canada Purchase Moffat Stock

Donald R. Moffat, president of Moffats Limited, today confirmed that negotiations have been completed for the purchase of its outstanding stock by the newly formed Avco of Canada, Limited, in a move that will greatly expand Moffat production and sales activity throughout the country. Avco of Canada, Limited, of Toronto, is a subsidiary of Avco Manufacturing Corporation, which has headquarters in New York City.

Victor Emanuel, chairman and president of Avco Manufacturing Corporation, will be president of Avco of Canada, Limited. Mr. Emanuel announced that the majority of the seven-man board of Avco of Canada, Limited will be outstanding Canadians.

He also disclosed that Avco Manufacturing Corporation's present Canadian subsidiaries, Crosley Radio and Television, Limited, and Bendix Home Appliances Canada, Limited, will become operating divisions of the new Avco of Canada, Limited. Moffats Limited will be operated as a subsidiary of Avco of Canada, Limited. Mr. Moffat remains president and general manager of Moffats and will, in addition, serve as a Vice-president and director of Avco of Canada, Limited.

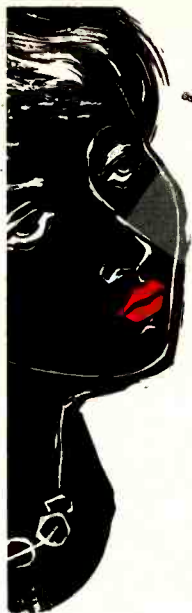
Since the end of World War II there has been an increasingly close relationship between Moffats and Avco, through the latter's Crosley Division. Moffats began manufacture and distribution of Crosley products in the Canadian market in 1946.

The Moffat firm was founded in 1882 and pioneered in the manufacture of electric ranges. Now included in its lines are household appliances and commercial electric and gas cooking equipment. The company's main manufacturing plant is located at Weston, Ontario.

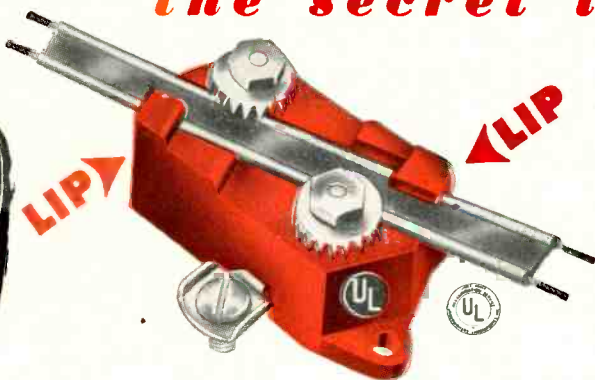
RCA VICTOR PORTABLE RADIO WINDOW DISPLAY



RCA Victor portable radios and record players are given an eye-catching summer vacation treatment in a new window display just unveiled by RCA Victor Company, Ltd. Featuring green lattice side panels, a brilliantly warm beach scene and a colorful cardboard display with moving compass points, a similar effect could be achieved by most RCA Victor stores, using materials on hand in basic colors of green, yellow and brown with floor of yellow or sand-colored paper. The compass display is obtainable through the district office of RCA Victor Company, Ltd.



the secret is in the LIPS!



"Little Giant" LIGHTNING ARRESTER

the *only* lightning arresters with the strain relief lips are made by JFD. A patent is its proof!

for flat and oval jumbo twin lead
No. AT105 (with hardware for wall or window sill mounting) \$1.25 list
No. AT105S (with stainless steel strap for universal mounting) \$1.50 list

JFD MANUFACTURING CO., INC. BROOKLYN 4, N.Y.

World's largest manufacturer of TV antennas and accessories

General Manager for Cossor

A. C. Carter, who has been appointed general manager of Cossor (Canada) Limited, Halifax, Nova Scotia.

Mr. Carter, who has been a frequent



A. C. CARTER

visitor to Canada for the past ten years, comes to Cossor from Montreal where, for the last two years, he has represented the United Kingdom on the Air Navigation Commission of the International Civil Aviation Organization.

CAE Starts Construction of New Montreal Plant

Preparing the way for a new phase in CAE's program of expansion, K. R. Patrick, president and general manager, signed the construction contract and turned the first sod signifying the construction start of the new Canadian Aviation Electronics plant at Cote de Liesse Road, Montreal.

An all Canadian company financed by Canadian capital, operated by Canadian management, CAE has in six years grown from five to more than one thousand employees. With complete engineering and service depots reaching from coast to coast, the company is now staffed by a hand-picked group of one hundred and seventy-five experienced electronics engineers and four hundred technicians.

Looking to the future the new Montreal plant and head office which is scheduled for completion in November includes all the latest engineering, research and manufacturing facilities for all its divisions.

Westinghouse Appointments

R. L. Brown, vice-president and general manager of the Canadian Westinghouse Supply Company, has announced two appointments in the Montreal district. W. E. M. Walsh has been appointed district apparatus and supply manager, and R. Graves is now district stores manager.

Mr. Walsh joined the Canadian Westinghouse Supply Company in 1952 after wide experience in the electrical industry. Mr. Graves was with Franke, Levasseur, and Company from 1940 until the company was taken over by Westinghouse in 1952.

CROSLY PERSONNEL LEAVE FOR CINCINNATI



An enthusiastic delegation from Canada attended the semi-annual Crosley electronic products sales convention in Cincinnati, June 18th and 19th. Shown here, outside their private Pullman car, just prior to leaving Toronto are the Crosley Radio and Television Limited personnel who made the trip. Left to right—STANDING (FRONT ROW): Earl Clements, Quebec Sales Manager; Murdoch Curran, Western Ontario Sales Representative; Warren Wilkes, Vice-President, Tandy Advertising Agency Limited; Eddie Barrett, Ontario Sales Manager; Paul Guay, Quebec City Sales Representative; Alex Peters, General Sales Manager; George Gurney, Eastern Ontario Sales Representative; IN DOORWAY (TOP TO BOTTOM): Art Collins, Creative Director, Tandy Advertising; Reg Ling, Toronto Sales Representative; Ray Neander, Eastern Townships Sales Representative; Pete Peters, Montreal West Sales Representative; Ben Johnston, London Sales Representative. Programme for the two-day convention included presentation of the 1954 line of Crosley TV and radio sets, plus U. S. sales promotion and advertising plans.

News of the Industry . . .

H. F. Shoemaker Heads New Radio College Division

The establishment of a new division of Radio College of Canada, to be known as "Radio College Publications" has been announced. This division will be responsible for the production and sales of all RCC Radio and Television



H. F. SHOEMAKER

Service Manuals and other technical publications or service aids.

Fundamentally, this new division has been created to enable the College to provide a still more valuable service to the technician and assistance to those concerned with the distribution of RCC Manuals.

H. F. Shoemaker, who is widely known in the radio service field through his articles in the trade magazines and Town Meeting Lectures, has been appointed manager of this new division. Mr. Shoemaker has had over 30 years experience—including many years with Radio College as lecturer, writer and editor of lesson texts.

Admiral Sponsors Telecasts

Canadian Admiral Corporation has spent in excess of \$15,000.00 to sponsor telecasts of major sports events on Montreal and Toronto TV stations in CBC's first seven months of operation.

From September 12th 1952 to April 12th 1953, the Toronto television radio and appliance manufacturer bankrolled 33 programs on CBFT, Montreal and 11 programs on CBLT, Toronto. The Montreal events televised included Alouettes football and the Quebec

Senior League Royals hockey games and playoffs. In Toronto, Admiral televised Junior OHA hockey playoffs and other top sports events.

Denis J. Olorenshaw, Canadian Admiral Advertising Manager said that the cost of these telecasts was relatively low for events of this calibre, especially since most broadcasts averaged 2 to 2-1/2 hours in length. The average Montreal program cost is approximately \$3400, and the average for Toronto \$3800. 73% of the total expenditure was used for Montreal TV programs.

"Admiral started to use TV in Montreal at a time when there were only a few thousand receivers in the area" Olorenshaw said, "Not for the advertising impact, which was very limited, but to promote the sale of TV sets by televising Montreal's favourite sports. After the first few weeks last year in Montreal, and this year in Toronto, we began to get actual proof of television's amazing ability to sell by demonstration. TV boosted the sale of Admiral refrigerators and TV sets remarkably."

Only 8-1/2%, or less than five hundred minutes of the total TV time was used for advertising Admiral products, considerably less than the 10% allowed.

In March 1953, Admiral's complete program cost per thousand tuned-in homes in Montreal was between \$15 and \$20 per half hour, varying with the number of sets in use. In the same month in Toronto, the program cost per thousand tuned-in homes varied between \$6 and \$12 per half hour, according to the number of sets in use and CBLT's share of audience with WBEN-TV.

"It is perhaps a little unfair to the Canadian Broadcasting Corporation to compare single-station costs in new Canadian TV areas with United States network television costs, but the comparison in Admiral's case is not discouraging", Mr. Olorenshaw said. "In 1949, the Columbia Broadcasting System full-network television price-per-1000 for its average half-hour evening show was \$4.74. At that time there were about 3-1/2 million TV sets in use in the U.S. By March of this year there were only about 52,000 TV sets in the Montreal area and approximately 148,000 in the area covered by Toronto's CBLT."

Elected to Philips Board of Directors

P. H. Vink has been elected to the board of directors of Philips Industries Limited and has been appointed vice-president and general manager of the company. Mr. Vink comes to his new position from the Philips Company in Holland, where he was a director in charge of sales promotion. In that capacity he has travelled widely in many countries in this Hemisphere, the far and near East, and Europe.

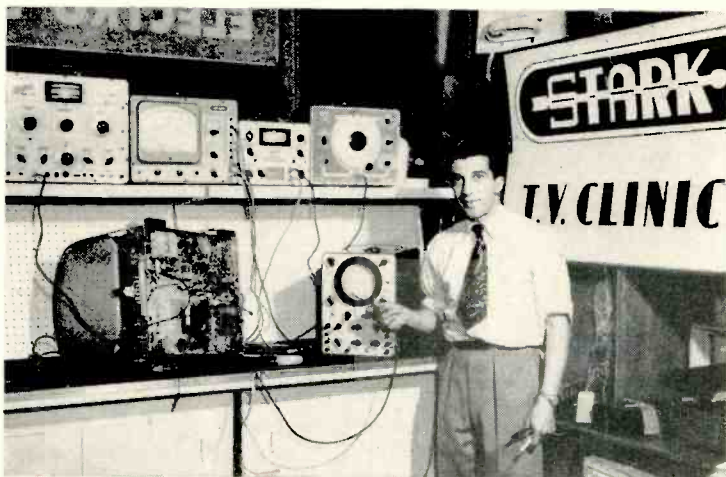
Stark TV Clinic Held at Escco

Sol S. Budd of Stark Electronic Instruments Limited, and Len Finkler of Electro Sonic Supply Co., recently organized at 3-day TV clinic at Escco. The clinic was under the direction of Stark's field service consultant, Eddie Reale.

Throughout the 3 days Mr. Reale discussed and demonstrated various Stark and Hickok Test Instruments. He devoted much of his time to the Hickok 650 video generator. Mr. Reale demonstrated the 650's ability to quickly and accurately check a com-

plete TV receiver from antenna to picture tube and to include both vertical and horizontal synchronizing circuits, video, amplifier, I.F. and front end by the use of a composite signal. It was also emphasized that the 650 could be used to check sensitivity of any channel directly in microvolts.

At the conclusion of the clinic, Mr. Reale on behalf of Stark Electronic Instruments Ltd., offered his assistance to service technicians with TV servicing problems. Mr. Reale can be reached at Stark's Toronto Office, 2028 Avenue Road, HU. 1-3337.



Ed Reale with array of Stark Test Instruments, set up at Electro Sonic during recent TV clinic in Toronto.

announcing the new



Oil Fired WATER HEATER



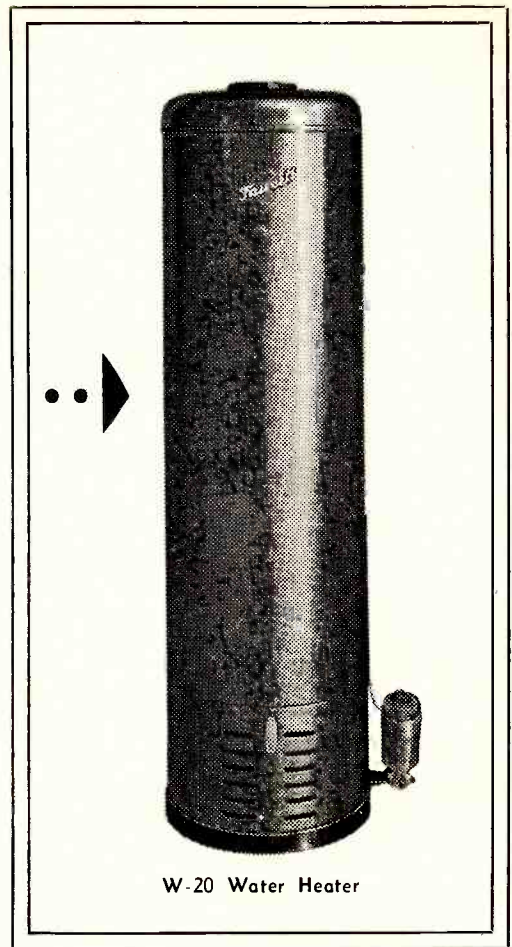
It's profitable to keep YOUR CUSTOMERS "in hot water" and best of all, YOUR CUSTOMERS will be happy about it, too!

The new Fawcett makes it possible to have plenty of hot water in the home or summer cottage whenever it's needed — and more important . . . economically, too!

Easy to install and safe to operate, (C.S.A. approved) the new Model W-20 water heater is the answer to all your customers' hot water problems.

ENAMEL & HEATING PRODUCTS LIMITED

GENERAL OFFICES: Sackville, N.B.
PLANTS: Sackville, N.B., Amherst, N.S., Victoria, B.C.
BRANCHES: Montreal and Vancouver
PRAIRIE DISTRIBUTOR: Walter Woods Ltd., Winnipeg, Saskatoon and Edmonton.



W-20 Water Heater

Benco Appoints MJS Television

H. Sadel, general manager, Benco Television Associates Limited, and Sol S. Budd, general manager, MJS Television Accessories Limited, jointly announce MJS Television Accessories Limited as national sales representatives for Benco Television Associates. The new line presently being mer-



H. SADEL



SOL BUDD

chandised through jobber outlets from coast to coast by MJS features a multiple TV distribution system which serves any number of sets in one or more buildings.

The Benco System is designed to accommodate any model or make of TV receiver. It is said to provide a simple, compact installation that has a greatly improved reception.

The most recent development of the company is their Model FSP-1 port-

able field strength meter.

For further information on Benco Products, write MJS Television Accessories Limited, 2028 Avenue Road, Toronto, Ontario.

Admiral Sales Appointment

Edwin Whittaker, vice president of Canadian Admiral Sales, Limited, Toronto has announced the recent appointment of John Woods as sales manager of the Toronto Branch. Mr. Woods has had over twenty years varied experience in the appliance field. He was born in England.

Westinghouse Appointment

The appointment of W. A. Campbell as vice-president, Canadian Westinghouse Company Limited has been announced by H. H. Rogge, president. Mr. Campbell's appointment to a top level post comes after a seven-year association with Westinghouse.

He joined Canadian Westinghouse Company in 1946 and was named secretary and general counsel in 1947. Mr. Campbell's impressive career with Westinghouse has been marked by a swift rise from his original post as solicitor to that of a vice-president, under whose general jurisdiction are two highly important departments—Industrial Relations and Law—as well as carrying out many executive and secretarial duties.



Latest Books For Radio, TV "KNOW-HOW"!

TV TROUBLESHOOTING AND REPAIR GUIDE BOOK. R. G. Middleton. Finest practical book to make TV servicing easy. Spot your TV receiver troubles fast! 204 (8½ x 11") pp. \$4.10

TELEVISION—HOW IT WORKS. Rider Editorial Staff. Discusses all sections of TV receivers. Excellent introduction to TV servicing, 203 (8½ x 11") pp., illus. \$2.85

TV MANUFACTURERS' RECEIVER TROUBLES CURES. Vols. 1, 2 and 3. Positive official cures for TV troubles. Over 120 (5¼ x 8¼") pp., illus. ea. vol. \$1.90

HOW TO USE METERS, by Rider. Discusses meters VOMs, VTVMs for servicing radio, TV, Amplifiers, Transmitters. Over 140 (5½ x 8½") pp., illus. \$2.55

OBTAINING AND INTERPRETING TEST SCOPE TRACES, by Rider. Over 500 actual traces. Shows how to use scopes and what the traces mean. Over 140 (5½ x 8½") pp., illus. \$2.55

TV SWEEP ALIGNMENT TECHNIQUES, by Liebscher. Never before a book like this on TV sweep alignment... exclusive information... introducing the new Supermark method! Over 100 (5¼ x 8¼") pp., illus. \$2.20

ENCYCLOPEDIA ON CATHODE-RAY OSCILLOSCOPES AND THEIR USES, by Rider & Usan. Most complete 'scope book! Cloth cover. 992 (8½ x 11") pp., 3,000 illus. \$9.40

TV INSTALLATION TECHNIQUES, by Marshall. "How-to-do-it" book on antennas, receiver adjustment, municipal laws on installing etc. 336 (5½ x 8½") pp., 270 illus. \$4.75

TV AND OTHER RECEIVING ANTENNAS (Theory & Practice), by Bailey. All details on more than 50 latest type receiving antennas. Cloth cover. 606 (5½ x 8½") pp., illus. \$7.25

UHF PRACTICES AND PRINCIPLES, by Lytel. Complete discussion about theory and applications of ultra high frequencies. Cloth cover. 390 (5½ x 8½") pp., illus. \$6.95

TV MASTER ANTENNA SYSTEMS, by Kamen & Dorf. A practical working manual on master antennas; problems and solutions. Cloth cover. 356 (5½ x 8½") pp., 270 illus. \$5.25

FM TRANSMISSION AND RECEPTION, by Rider & Usan. 2nd edition covers FM from start to finish, including receiver servicing. Cloth cover. 460 (5½ x 8½") pp. \$5.20

HOW TO USE SIGNAL AND SWEEP GENERATORS by Johnson. First book with test uses... problems... solutions on all types of signal and sweep generators used in AM, FM radio and TV servicing. Over 120 (5¼ x 8¼") pp. \$2.20

HIGH FIDELITY SIMPLIFIED, by Weiler. Story of high fidelity—clearly told, easily understood... tells what to buy and what to do. 224 (5½ x 8½") pp., 104 illus. \$2.65

Place your order with your Parts Jobber NOW... or write:

CHARLES W. POINTON
1926 Gerrard Street, East, Dep't. 7AS,
Toronto, Ontario, Canada

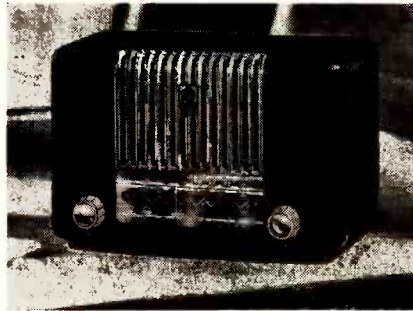
JOHN F. RIDER PUBLISHER
INC.

480 Canal Street, New York 13, N. Y.

New Products . . .

Battery Portable

Philips PH102 is a walnut battery-operated radio, recently introduced by Philips Industries Limited. This modern plastic radio gives coverage on



Philips Model PH102

standard broadcast, marine band and international short wave band. It is said to be highly sensitive and selective. Very low drain gives excellent performance and long battery life.

Astron Announces New Bulletin on Blue Point Capacitors

Availability of a new 4-page bulletin, AB-20A, containing complete performance characteristics and test specifications on the new Blue-Point

molded plastic capacitors (patent pending) was announced by Astron Corporation, 255 Grant Ave., East Newark, N.J.

Engineered and produced exclusively by Astron, new Blue-Point capacitors are housed in an attractive, yellow, tough, non-inflammable molded plastic case and are permanently sealed against heat and moisture by means of a special solid glass-like thermo-setting bond that becomes an integral part of the case.

The Blue-Point bond also locks in the leads so that they cannot be pulled out. Neither lead, bond nor case is affected by flame or soldering iron heat, regardless of how close they are applied.

Blue-Point Capacitors are impregnated for continuous operation at 85°C. and to permit extremely stable operating over a wide temperature range.

Safety margin voltage characteristics of the Blue-Point provide positive compliance to the exacting requirements of RTMA standards. Blue-point capacitors withstand AC voltage tests specified by Underwriter's Laboratories for trouble-free performance.

New Bulletin AB-20A on Astron Blue-Points may be obtained by writing Astron's Canadian Representatives, Chas. W. Pointon, 1926 Gerrard St. East, Toronto.

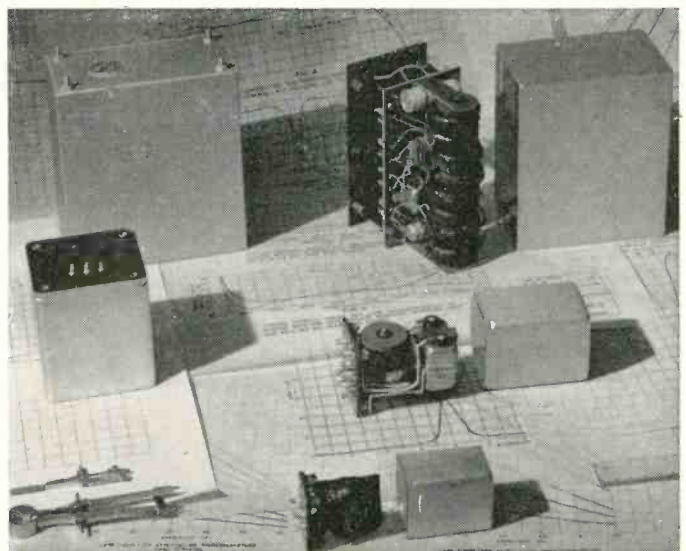
Lenkurt Toroidal Coils and Filters

The Toroidal Coils manufactured by Lenkurt for use in such diverse fields as guided missile development and ultra-fidelity recordings are available in a wide range of sizes, down to the so-called wedding ring size—0.800 in. O.D. The windings in the coils can be in balanced halves, tapped at any desired point and with closely-coupled

secondary or tertiary windings. They are available cased or uncased, either hermetically sealed or mounted in an aluminum case with a bakelite terminal board. And, the cased types come in several standard styles.

For complete information on Lenkurt Toroidal Coils and Filters, write the Canadian Distributor: Automatic Electric Sales (Canada) Limited, 26 Hollinger Road, Toronto.

Lenkurt Toroidal Coils and Filters



Electro-Voice Model 3300 UHF TV Converter

A new Model 3300 continuously tuned UHF TV Converter is announced by Electro-Voice, Inc., Buchanan, Michigan.

Research-engineered by E-V and thoroughly field-proved, the "3300" Converter readily adds all UHF channels to VHF television sets. Connects to antenna input of the VHF TV set and plugs into the a.c. electrical outlet.



Snap-On Drawers

Non-slip micrometer type tuning mechanism provides smooth continuous tuning of all UHF channels 14-83. Large fingertip knob with flywheel action operates legible, colorful slide rule dial.

The E-V Converter operates with either separate UHF and VHF antennas or on all-channel (2-83) antenna. One small control turns converter "on" or "off" and switches to correct antenna.

Utilizes channels 5 or 6 of VHF TV set as IF. Does not affect VHF reception. Housed in smart compact dark brown cabinet—size 7¾" wide, 5¼" high, 6¼" deep. Operates from 105-125 volts, 50-60 cycles AC. Input and output impedances, 300 ohms.

For further information, write for Bulletin 182 to Electro-Voice, Inc., Buchanan, Michigan. Represented in Canada by Kelly-Heenan Co., Toronto and D. Eldon McLennan, Vancouver.

Rider's "How To Use" Series of Books

John F. Rider Publisher, Inc., 480 Canal St., New York 13, N.Y., is starting a brand new series of practical "how to use" books. The first three titles in this series are scheduled for July publication. They are *How To Use Signal Generators*, *How To Use Meters* and *Obtaining and Interpreting Test Scope Traces*.

How To Use Signal Generators, by J. R. Johnson is the first book to devote itself entirely to all types of signal generators. It contains over 120 (5½" x 8½") pages and is paper bound.

The second book in Rider's new "how to use" series is *How To Use*

Meters, by John F. Rider. Written for the service technician, the TV and radio student and the ham, the book discusses all types of meters. It contains over 140 pages, paper bound.

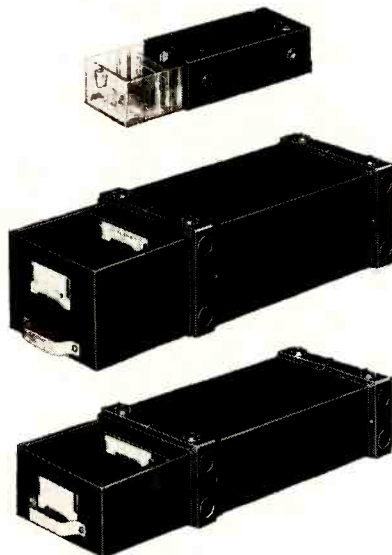
Obtaining And Interpreting Test Scope Traces, by John F. Rider, gives the service technician more than 500 actual test scope patterns and explains what they mean. More than 140 (5½" x 8½") pages are in the book.

The three books will be available at Rider distributors in July. Other books in Rider's "how to use" series are now in preparation. Rider is represented in Canada by Charles W. Pointon, Toronto.

MJS Handles New Snap-on Drawer Line

MJS Television Accessories Co. Ltd., have recently been appointed Canadian representatives for the Snap-on Drawer Co., Morrow, Ohio.

The Snap-on Drawer offers an economical space-saving method for filing small parts in a minimum of space. These Snap-on Drawers may be ordered individually as they are required and by snapping into place, they can be added to one another to form an attractive cabinet, occupying only a minimum of space.



Electro-Voice UHF Converter

They are available in three sizes: Model 1, 6 1/16" by 3¼" by 1¾", the shell being made of steel and the drawer section of water-clear plastic, making small parts easy to see at a glance and thereby saving time and space. Models 2 and 3 are 11¾" by 5¼" by 2½" and 11¾" by 5¼" by 3½" respectively. They are both constructed of gun metal grey steel shelves and drawers.

Please write MJS Television Accessories Co., 2028 Avenue Road, Toronto, for further information.



No. 34 of a series

TUBE SUBSTITUTION IN TV SERVICE

In many cases tube substitution is more reliable than a tube checker in locating faulty tubes. Take the 6SN7 for example; coupling may exist internally between its two sections. This will not be disclosed by a tube checker but can cause hum in the sound and ripple in the picture.

Manufacturers of

- Power Transformers
- Audio Transformers
- Filter Chokes
- Speaker Field Coils
- I.F. Transformers
- Solenoid Coils
- Special Purpose Coils
- Electric Fence Transformers
- Signal Transformers (14 v. for doorbell chimes)
- UTIL-A-PAC-Filtered "A" Supply
- BOGEN Model BB-1A T.V. Booster

Another Good Tip!

Specify "Standard" when buying transformers for new and replacement work. Designed and engineered to rigid quality specifications, they assure complete customer satisfaction.

STANDARD radio products are sold by leading jobbers throughout Canada.



News of the Industry . . .

Simplicity Appointment

J. V. Stark, vice-president and director of sales of Simplicity Products Limited, Hespeler, Ontario, manufacturers of Simplicity washing machines and clothes dryers, is pleased to announce the appointment of R. A. (Bob)



R. A. (Bob) BEACH

Beach, as sales representative covering the Maritimes and Newfoundland.

Mr. Beach has had many years' experience in the washing machine business and was employed for the last five years by Beatty Brothers Ltd.

Philips Appointment

O. W. Rodmar, vice-president of Philips Industries Limited, and Rogers Majestic Radio Corporation Limited, announces the appointment of Desmond Devine to the position of sales manager for Canada of the radio and tele-



JOHN D. VASS

New C.G.E. Appointments

The Appliance Division of Canadian General Electric Company now has a new departmental set-up to meet many of today's marketing problems. One of these, the Radio and Television Department, is operating as a self-contained unit within the Division.

R. Story, manager of the Radio and Television Department, has grouped the following as section managers: K. C. Hartwell, manager-sales; E. S. Brown, manager-product planning; P. Humeniuk, manager-manufacturing; and W. H. Meyer, manager-product service.

All are located at the company's Royce Works in Toronto.

New Bulletin on Electro-Voice CDP Compound Diffraction Projector

Electro-Voice has published a new Bulletin No. 197 giving full details of the CDP Compound Diffraction Projector, a new public address loud-speaker system designed by E-V to provide improved voice penetration and full range musicasting.

Bulletin 197 explains the performance and operating features of this compact, rugged new-type coaxial sound projector, illustrates and describes the audio diffraction principle, compares polar pattern and response curve with existing reentrant type horns, gives coverage and efficiency in-

vision products of both companies. Mr. Devine is one of the original members of the company.

John D. Vass, who succeeds Mr. Devine as Ontario sales manager, was formerly regional manager of the Halifax office of both companies.



DESMOND DEVINE

formation and mounting instructions. The Bulletin also lists and describes the E-V accessories available for the CDP.

For a copy of Bulletin No. 197, write to Electro-Voice, Inc., Buchanan, Michigan. Represented in Canada by the Kelly-Heenan Co., Toronto and D. Eldon McLennan, Vancouver.

Beatty Appointments

D. B. Beatty, general sales manager of Beatty Bros. Limited, Fergus, Ont., has announced two new appointments in conjunction with recent sales expansion. O. L. Lovell is appointed general appliance sales manager. Mr. Lovell joined Beatty Bros. Limited in 1922 as a factory employee. He has since held such important positions as plant manager, production superintendent and group sales supervisor.

R. F. Somshor succeeds Mr. Lovell as manager of the Beatty Winnipeg branch. Mr. Somshor joined the Beatty sales force in 1950. During the past two years he has been sales manager of the Beatty Branch at Edmonton, Alta.

Westinghouse Appointment

The appointment of D. I. W. Bruce as manager of the Canadian Westinghouse Company's Law Department has been announced.

Mr. Bruce joined Westinghouse in 1951 as company solicitor and had previously been associated with the legal firm of Smith, Rae, Greer, Sedgwick, Watson and Thom, of Toronto, for some years. He is a member of the Council of the Canadian Bar Association and is secretary of the Ontario Section of the Bar Association.

C.G.E. Appointment

J. W. Greenlaw has been appointed manager - Air Conditioning Department, Industrial Products Division, Canadian General Electric Company, according to a recent announcement by J. S. Keenan, general manager of the division.

A graduate in electrical engineering of the University of Manitoba, Mr. Greenlaw has wide experience in the Canadian electrical industry. Prior to joining C.G.E. in his present capacity, he was a partner in Lighting Materials Limited, a Winnipeg electrical manufacturing firm.

He is a member of the Association of Professional Engineers of Manitoba and the Engineering Institute of Canada.

Your salesman and service technicians are vitally interested in the articles and news items contained in this issue of RADIO-TELEVISION AND APPLIANCE SALES. Make sure they see it.

Are You a Member of the Quarter-Century Club?

ARE you eligible for membership in the Quarter-Century Radio Club of the radio industry in Canada? If you have been engaged commercially in any branch of the radio industry for the last 25 years you may become a member of this club by simply filling out the form on this page and mailing to R. C. Poulter, Quarter-Century Radio Club, 86 Bathurst Street, Toronto 2-B, Ontario.

The Quarter-Century Radio Club was founded by R. C. Poulter, managing editor of **Radio-Television and Appliance Sales** in 1945 and since its inception has been growing steadily. At the present time

there are nearly 200 members from every branch of the industry from coast to coast—broadcasting, manufacturing, engineering, sales, wholesaling, retailing, service and associated work.

Twenty-five years is a long time to be engaged in any one line of endeavour and the main purpose of this club is to mark this very important milestone in the lives of those who have served in the industry for that period.

There is no admission charge whatever and no membership fees. The club is an industry club and has no commercial or other affiliations of any kind. Members re-

ceive an attractive certificate of membership signed by the founder. The cost of the certificate, mailing, etc., is borne by **Radio-Television and Appliance Sales** as a tribute to those who have pioneered this great industry.

Due to the widespread location of its members, there has not been much activity within the club as yet but with its membership starting to attain substantial proportions, plans are underway to form a national committee and for meetings this winter, wherever and whenever the members may be brought together. Such meetings will consist, probably, of an informal dinner followed by an evening of reminiscing. From among the old timers present are bound to come some stories, tall or otherwise, of early happenings in the industry which are bound to create keen interest among all members.

If you have been in radio for twenty-five years or more you may become a member by filling out the form on this page and sending it to the address given. But please give sufficient information to support your claim to twenty-five years in the industry. It matters not what branch of the industry you are engaged in. You may be in administrative work, you may be an engineer or technician, an announcer, an MC or a program director, or you may be a salesman, dealer or service technician. If you can qualify, send in your application today.

There are many old timers who can qualify and as time goes on the number increases rapidly. Let's have all of them in the club! Send your application form to R. C. Poulter, Quarter-Century Radio Club, 86 Bathurst Street, Toronto 2-B, Ontario.

NOTE—If you prefer not to cut your copy of Radio-Television and Appliance Sales write for an application form which will be sent without charge.

Quarter-Century Radio Club

I,, declare that I have devoted 25 or more years of my life to the radio industry (any branch). I certify that the following synopsis of my commercial radio activities is true and I hereby make application for membership in the Quarter-Century Radio Club.

My address is

Nature and date of first commercial radio activities

Present position in radio in Canada

Brief synopsis of work during intervening years:

.....

It is understood that the above information will be treated in confidence.

Date Signed

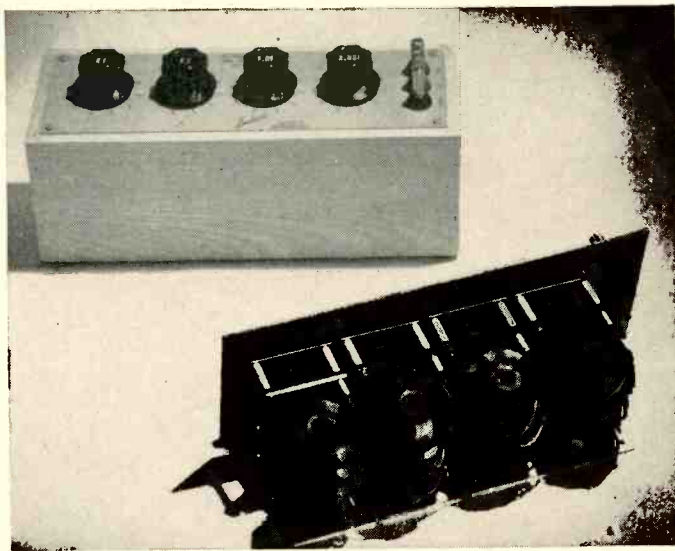
Fill in, sign and tear out and mail promptly to R. C. Poulter, Quarter-Century Radio Club, 86 Bathurst Street, Toronto 2-B, Ont.

News of the Industry . . .

New Decade Inductors

Automatic Electric Sales (Canada) Limited, distributors for Lenkurt Electric Company, announce the availability of New Lenkurt Decade Inductors that the company guarantees to an accuracy within one per cent of inductance value.

The new type DE Lenkurt Decade Inductors offer the flexibility of a four-range unit and individual instruments each covering one of the ranges: 1 to 10mH, 10 to 100mH, 100mM to 1H, and 1 to 10H. They are of high quality laboratory-instrument design and construction, and feature moisture resistant impregnated inductors, wound on molybdenum-permalloy toroidal cores for high-Q and low external pick-up.



New Lenkurt
Decade
Inductors.

They have complete electrostatic shielding, full rotary switches and low-contact resistance, laminated self-wiping contacts and positive detents.

Complete decades as well as individual units are housed in sturdy, attractive hand-rubbed Phillipine mahogany cases with dovetailed-corner construction. Full-grip black control knobs with white engravings are designed for optimum readability against light green panels with black markings. Jack-top binding posts are provided for ease and flexibility of connection.

For further information on the new Lenkurt Decade Inductors write the Canadian Distributor: Automatic Electric Sales (Canada) Limited, 26 Hollinger Road, Toronto.

floor depends entirely on the size of the floor area.

Remember, people are not interested in the number of one type of merchandise that you may carry in your store. But they are interested in the benefits they receive from the merchandise that you have to offer.

An over-crowded store limits the possibilities of displaying the merchandise to its full advantage and therefore, it is impossible to create any emotional appeal that will stimulate the desire to own that gives cause to stop and buy.

From the "Tie-In", published by the British Columbia Electric Co., Ltd.

Westinghouse Appointment

A. D. Elmhirst has been appointed manager of industrial sales in the Canadian Westinghouse Company's Toronto district. He joined the company in 1929 and was formerly manager of the Swastika, Ontario, district.

J. W. Henley, recently-appointed industrial relations manager at Westinghouse, has appointed J. W. Nuttall as manager of Industrial Relations Research and N. MacKenzie to the post of Labour Relations.

Canadian Electrical Toronto Branch Manager

M. T. Rosenthal, general manager of Canadian Electrical Supply Co. Ltd., has announced the appointment of Jack Caplan to the position of Toronto branch manager.

Mr. Caplan has served with this company in the capacity of sales manager for the past nine months. He has had wide and varied experience in electrical sales and is well known to the trade across Canada.

With the opening of new and larger premises at 522 Yonge Street, Mr. Caplan will concentrate on keying the Toronto branch to the service of deal-



JACK CAPLAN

If Possible, Avoid Overcrowding

WHILE planning your store. Originally, the picture you had in mind, no doubt, was a smart, up-to-date modern store that had plenty of eye appeal due to the pleasing atmosphere you had planned.

It was to be a store that had everything to create emotional appeal through its arrangement, its colour scheme, its neat appearance and services offered that would entice people to have confidence in doing business in your store.

Time goes on and due to the increase, perhaps, of other related lines that may have been added, the inclination is to overcrowd the store with merchandise and lose the original picture. This must be avoided at all costs for as soon as this takes place customers lose

confidence and will go elsewhere. We must always remember that the store is a showroom, a place to display merchandise to its fullest advantage.

Mass displays are permissible in grocery stores but not in places where appliances, furniture and other valuable merchandise is displayed. A store that is cluttered up with merchandise will not get the care of cleanliness and neatness to warrant the prices that are asked.

To increase the floor area of a store, canopies, shelving and appliance dividers mentioned in a previous article will give more area for displaying small items floor area for larger merchandise.

The number of large items that may be allocated for the showroom

ers and industrials in keeping with the CESCO policy. In this direction he will have the support of experienced department heads and staff.

RCA Victor Introduces New Table Model TV

RCA Victor Company Ltd. recently announced the introduction of the successor to the Townsman—the popular, low-priced 17-inch table model. The Townsman II retains all the features of the original set plus new circuit improvements which is said to give increased sensitivity, greater contrast and brighter pictures.



RCA Victor "Townsman II"

Among the features are a new super-sensitive "Magic Monitor", new RCA Victor "Picture Lock", new "Power Transformer" and new "Long Distance" circuits. Available in walnut, mahogany or limed oak. A matching base is available at slight extra cost.

In line with RCA Victor's sales promotion policy, a complete point-of-sale program together with an extensive national advertising campaign is planned in support of this new model.

New Electronics Supply In Montreal



W. J. McINTYRE

Recently appointed sales manager of the newly formed electronics supply department of Century Electric, 420 McGill Street, Montreal. The new department will handle a variety of electronic equipment for Quebec, Eastern Ontario and the Maritimes.

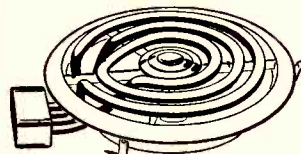
1st choice

for modernization and replacement



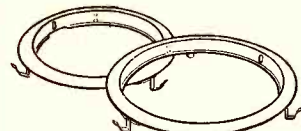
CHROMALOX *Supreme* UNITS

HERE ARE SOME REASONS WHY:



COMPLETE UNITS COME READY TO INSTALL

Make installation faster, easier, more profitably with Chromalox Units. There's no assembling of parts! A screwdriver and pliers are your only tools.



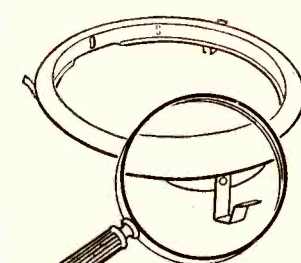
SMALL ASSORTMENT OF ADAPTOR RINGS FITS ALL ELECTRIC RANGES

Only Chromalox gives a selection of units and adaptor rings that permits proper fit of all range openings. For example:

Adaptor RF6SR fits most openings 6¾" to 7½"

Adaptor RF9R fits most openings 8¾" to 9½"

All of which means—a small stock of Chromalox Adaptor Rings will service most ranges in your community.



ADJUSTABLE HOLD-DOWN CLIPS FOR PERFECT FIT ON ANY RANGE OPENING

Easily adjusted clips on Chromalox Adaptors permit perfect, rattle-free fit. Servicing is simplified—customers better satisfied.



ALL PARTS SEPARATELY REPLACEABLE

No need for a completely new unit if you use Chromalox. Just replace the worn part right on the spot... and you have a first class unit that's good as new! Customers appreciate Chromalox economy.

Get the Full Story Today—

Write for Bulletin CRU-50 which shows you how to make more money servicing ranges the Chromalox way.



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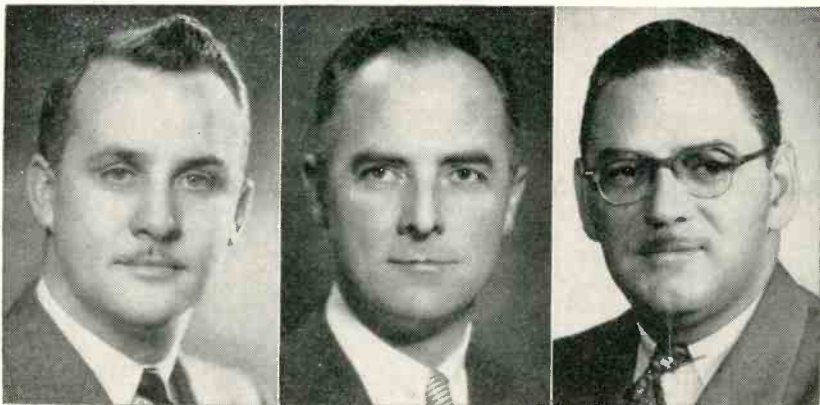
for everything a good cook expects

RC-48

The Canadian CHROMALOX Co. Ltd., 251 QUEEN St. E., Toronto, Ont.

News of the Industry . . .

Organization Changes At Automatic Electric



C. R. HUGHES

E. R. O'KELLY

S. C. BIRD

Recent organizational changes at Automatic Electric Sales (Canada) Limited were: Carman R. Hughes, vice-president and a director of the company; E. R. O'Kelly, secretary-treasurer and a director of the company; S. C. Bird, manager, Industrial Division.

Thor Display at Toronto Home Show

The Thor-Canadian exhibit at the recent National Home Show in Toronto drew many contractors, prospective home builders, and housewives to view a new "custom" built-in electric range.

This range is built in two sections, each completely insulated and ready for installation. The top burners may be set into the shelf line anywhere in the kitchen and the eye-level automatic oven may be installed exactly at the desired height, thus enabling every housewife to plan the work areas in her kitchen to suit her exact individual needs.

Also on exhibit were the Thor Glad-iron, Automatic dishwasher, standard ranges, and the Thor combination sink units.

Rindfleisch Made Vice-President—Consumer Products

At the annual meeting of The Canadian Fairbanks-Morse Co. Ltd., H. C. Rindfleisch was appointed vice-president—Consumer Products. Since 1941

he has been manager of the Appliance Division, head office in Montreal and previous to that was manager of company branches in Calgary and Edmonton. Mr. Rindfleisch joined the company in Winnipeg in 1917.

As vice-president—Consumer Products, Mr. Rindfleisch will have full control over the heating, electrical appliance and farm equipment divisions of the company in Canada.

Rider Offers Book Display Rack

To inaugurate its new programme of economically priced paper bound books to "meet every need of the radio and television service technician", John F. Rider, Publisher, Inc., 480 Canal St., New York 13, New York, is making available to their distributors a specially constructed wire book display rack.

This collapsible steel wire unit holds approximately 70 Rider books with display space for more than 15 different titles. The rack is 32 inches high, 20 inches wide and 14 inches deep and is

attractively painted in bronze blue. The bottom of the rack has a holder for 3" x 5" circulars. In addition, there is a slot for displaying posters on the newest Rider books.

The publisher's distributors are offered this book display rack on a special promotional deal. Details may be obtained from the publisher or their sales representatives. Rider's Canadian Representative is Chas. W. Pointon, 1926 Gerrard St. East, Toronto.

Let's Have Your Gripes!

Radio-Television and Appliance Sales will welcome any helpful criticisms and suggestions readers may care to send in. Your letters and comments will be of inestimable value in helping us to give you the kind of magazine you want.

Electrohome "Built-Ins" at National Home Show

One of the centres of attention at the recent National Home Show was the display of "Built-In" home equipment, by Electrohome of Kitchener, Ontario.

The Electrohome booth featured many interesting examples of "built-in" radios, television receivers and hi-fidelity phonograph equipment, all staged in strategic locations in kitchen, living room and recreation room settings. Of particular note was the living room set shown in the accompanying picture. On the wall of the set hung a picture behind which was installed a television receiver. On rotating the picture the TV screen came into view.

New Electro Sonic Salesman



BEN BENNETT

Electro Sonic Supply Company Limited, Toronto, have announced the appointment of Ben Bennett as salesman. He will cover Western Ontario for the company.

ASSISTANT FACTORY SUPERINTENDENT

Required By Leading Radio and TV Manufacturer

The man we are looking for must be fully experienced in electronics mass-production methods and be capable of assuming full responsibility for the complete operation of a modern factory using latest manufacturing techniques. He is probably employed now as a Factory Manager but feels his present position offers too limited a future and wants to change now to an aggressive, growing Canadian company. He may have an engineering degree but this is not a must if he has a broad background of experience plus the initiative and resourcefulness we require. Give full details in complete confidence to Box 750, 175 Jarvis St. Toronto, Ont.

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Westinghouse Appointments

R. L. Brown, vice-president and general manager of the Canadian Westinghouse Supply Company, has announced two appointments in the Montreal district. W. E. M. Walsh has been appointed District Apparatus and Supply manager, and R. Graves is now District Stores manager.

Mr. Walsh joined the Canadian Westinghouse Supply Company in 1952 after wide experience in the electrical industry. Mr. Graves was with Franke, Levasseur, and Company from 1940 until the company was taken over by Westinghouse in 1952.

CBC Extends Radio Coverage In Far North

Radio listeners in six isolated communities of the Canadian north will

soon be able to hear regularly the CBC National News and News Roundup programs of the Canadian Broadcasting Corporation. Acting general manager E. L. Bushnell said today that beginning July 19th, the National News Bulletin and National News Roundup will be relayed by the shortwave facilities of the CBC International Service into northern areas which are beyond the range of national network stations.

These relay broadcasts will service mainly Churchill, Man., Yellowknife and Hay River, N.W.T. and Aklavik and Dawson, Y.T. The International Service will record the news and News Roundup as they are broadcast over the national network. The recording will then be beamed to the northwest territories by the two 50,000 watt

shortwave transmitters in Sackville, N.B. from 11.40 p.m. EST, over stations CKLP (9.585 mcs., 31.30 m.) and CKRZ (6.060 mcs., 49.50 m.).

This service will be daily. In addition, the previous evening's program will be transmitted again at 7.20 a.m. EST, Monday through Friday over stations CKEX (11.90 mcs., 25.21 m.) and CKLO (9.63 mcs., 31.15 m.). The morning repeat transmission is intended to overcome occasional poor reception conditions interfering with the original broadcast.

Local radio stations in the north will in turn record the CBC transmissions and re-broadcast them over their own wavelength for the benefit of listeners who do not hear them directly by shortwave.

C.G.E. Use Dip Soldering Process

The dip soldering process has been applied with a marked degree of success to the production of television sets at the Royce Works of Canadian General Electric Company.

Company engineers have devised a special dip soldering machine that solders over 90 per cent of the chassis parts at one "dipping". This single operation, taking only seven seconds to complete, makes over 300 connections under controlled conditions.

In the new process, terminal boards are rivetted into place on a punched

metal plate. Into the terminals (hollow metal tubes much like prongs on a radio tube) are inserted the wire leads of all the small parts in the chassis. With prepared leads, each part fits into its allotted space. (Fig. 1)

After all parts have been assembled, the chassis is ready for the dip soldering process. A chain conveyor carries the inverted chassis over two pools—one of hot liquified flux, the other of molten solder. Over each pool, the chassis is pressed down to bathe the terminals, first in flux, then in solder.

Capillary action causes the solder to be drawn up into each terminal to produce a uniform and complete connection, with little or no chance for excess solder to cause shorts. (Fig. 2). Power supply and head end are then added to complete the assembly and it proceeds along the line for test and inspection.

The whole assembly is clean and secure with all components readily accessible. Fewer service problems result as the solder terminals atop the chassis provide convenient test points for service men. (Fig. 3).

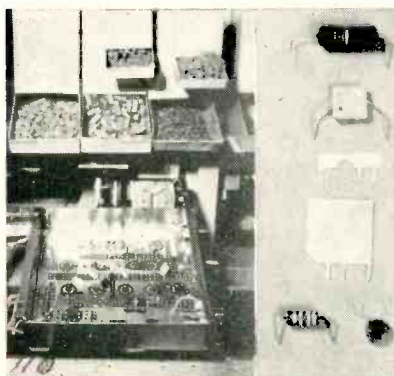


Fig. 1

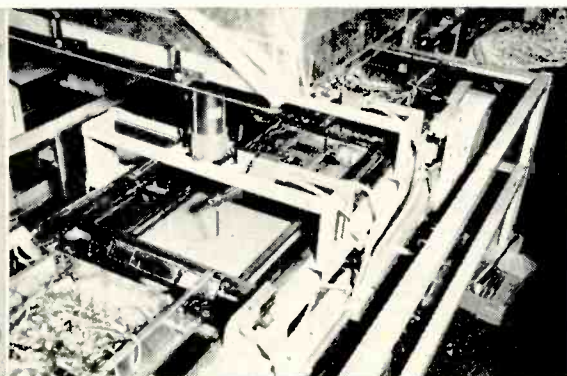


Fig. 2

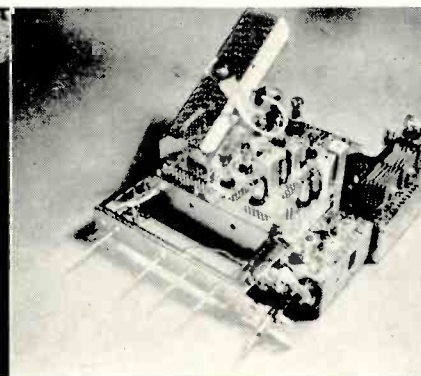


Fig. 3

Directory Of Associations

Canadian Adequate Wiring Bureau
Executive Offices—126 Davenport Road, Toronto.

Board Chairman—M. J. McHenry, H.E.P.C. of Ontario.

Bureau Manager—T. C. Thompson.

Canadian Association of Broadcasters

General Manager—T. V. Allard, 108 Sparks St., Ottawa.

Canadian Association of Radio & Appliance Dealers

Secretary-Manager—Wilf Hodgins., 30 Bloor St. West, Toronto.

Canadian Association of Radio & Appliance Dealers (B.C. Branch)

President—J. C. Wilcox.

Secretary—H. F. C. Sabiston, 1501 Douglas St., Victoria, B.C.

Canadian Electrical Association

President—C. I. Bacon, Cornwall Street Railway Light and Power Co.

Managing Director—B. C. Fairchild, 159 Craig St. West, Montreal.

Canadian Electrical Distributors Association

Executive Offices—73 Adelaide St. West, Toronto.

President—J. M. Sharp, Electric Equipment Co., Saskatoon.

Manager—Norman Franks.

Canadian Electrical Manufacturers Association

Executive Offices—126 Davenport Road, Toronto.

President—Brigadier F. C. Wallace, D.S.O., M.C., Smith & Stone Ltd., Toronto.

General Manager—B. Napier Simpson.

Commercial Assistant—R. C. McNeil.

Technical Assistant—Fred C. Eley, Farm Electrification Bureau

Manager—R. C. McNeil.

Canadian Electronic Wholesalers (Western)

President—J. S. Pearson, Taylor & Pearson, Edmonton.

Secretary-Treasurer—Jack Peters, Radio Supply Company (Calgary) Ltd.

Canadian Electronic Wholesalers Association (Eastern)

President—J. Trehub, Excel Distributing Inc.

Secretary—R. G. Scroggie, 2105 Aldred Bldg., Place d'Armes, Montreal.

Canadian Standards Association

General Manager—W. R. McCaffrey, National Research Building, Ottawa.

C.S.A. Approvals Division

Director—G. Moes, 71-77 Florence St., Toronto.

Corporation of Master Electricians of the Province of Quebec

President—Lucien Tremblay, Montreal.

Executive-secretary—Laurent Granger, 4073 St-Hubert St., Montreal, Quebec.

Electrical Contractors Association of Ontario

Executive Offices—45 Yarmouth Rd., Guelph, Ontario.

President—Angus C. Fox, Leamington, Ont.

Secretary-Manager—W. G. Booth.

Ontario Association of Radio and Appliance Dealers

Executive Offices—30 Bloor St. West, Toronto.

President—Joe Pardie, Belltower Distributors Ltd., Toronto.

Secretary-Manager—Wilf. Hodgins.

Province of Quebec Radio Trades Association, Inc.

President—T. F. McGovern, Northern Electric Co. Ltd.

Secretary—R. G. Scroggie, 2105 Aldred Bldg., Place d'Armes, Montreal.

Radio Electronic Technicians Association of Ontario, Inc.

President—Jack Forde, Brantford.

Secretary-Treasurer—Gerry Leeks, 29 Wavell Road, Hamilton, Ontario.

Radio Electronic Technicians Association (Manitoba)

President—V. Sexton, Winnipeg.

Secretary—H. Sloker, 744 Lorette, Winnipeg.

Radio Electronic Technicians Association (Saskatchewan)

President—E. Lensen, Saskatoon.

Secretary-Treasurer—M. L. Olsen, 123 Ave. G., North Saskatoon.

Radio Electronic Technicians Association (Alberta)

President—W. Partin, Calgary.

Secretary—D. Corner, 2218—27 St., S.W., Calgary.

Radio Electronic Technicians Association (British Columbia)

President—Sam Boyer, Vancouver.

Secretary-Treasurer—Bill Filtness, 2731 W. 32nd Ave., Vancouver 8.

Radio Parts Sales Managers Association

President—Pete Heenan, Kelly-Heenan Co.

Vice-President—Fred Harris, Atlas Radio Corp., Ltd.

Vice-President (Western Canada)—Charlie Thompson, Chas. L. Thompson Ltd.

Secretary-Treasurer—Jerry Pointon, Charles W. Pointon Co.

Radio-Television Manufacturers Association

Executive Offices—159 Bay St. Toronto.

President—A. B. Hunt, Northern Electric Co. Ltd., Belleville, Ontario.

Executive-Secretary—S. D. Brownlee.

The Institute of Radio Engineers (Canadian Council)

Secretary—J. C. R. Punchard, 250 Sidney St., Belleville, Ont.

I.R.E. (Montreal Section)

Secretary—R. W. Cooke, 17 De Castelleau St., Montreal.

I.R.E. (Toronto Section)

Secretary—Clive Eastwood, 658 Pharmacy Ave., Dawes R., P.O., Toronto.

I.R.E. (Ottawa Section)

Secretary—D. V. Carroll, Box 527 Ottawa.

I.R.E. (London Section)

Secretary—J. D. B. Moore, 27 McClarey Ave., London, Ont.

I.R.E. (Vancouver Section)

Secretary—Miles Green, 2226 W. 10th Ave., Vancouver, B.C.

I.R.E. (Winnipeg Sub-Section)

Secretary—H. R. Gissing, 65 Rorie St., Winnipeg.

I.R.E. (Hamilton Sub-Section)

Secretary—John Lucyk, 77 Park Row, South, Hamilton, Ont.

Amana Freezer Distributors For Two Canadian Provinces

Distributors to handle Amana freezers in two provinces of Canada and in the state of Louisiana have been appointed by Amana Refrigeration, Inc., of Amana, Iowa.

White Hardware, Ltd., of 10-32 Alcorn Avenue, Toronto, will distribute Amana freezers throughout Ontario except for the western section. Officers

of White Hardware are: G. Chater, president and general manager; R. Chater, assistant general manager; L. Ross, secretary; E. Cotton, treasurer; and H. Scott, manager of the appliance division.

Davies Electric Company, 347 Second Avenue, South, Saskatoon, will cover the province of Saskatchewan. Its officials are: G. C. Davies, managing director; S. J. Delayen, production manager; George Perry, sales manager;

and J. I. Seierstad, credit manager.

Amana freezers are made by the firm which was started as a division of the Amana Society, a religious group living in eastern Iowa. Amana Refrigeration today is the largest exclusive manufacturer of food freezers.

Amana Refrigeration is in the midst of a major expansion program that will double its plant, triple its output, and boost its capacity to 1,000 units daily, company officials state.

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Calendar of Meetings

1953 Canadian National Exhibition

The dates for the 1953 Canadian National Exhibition in Toronto have been set to run from August 28 to September 12.

CEDA Western Conference

CEDA Incorporated will hold its annual western conference at the Jasper Park Lodge in Alberta, August 30 to September 2.

Toronto Dealers Golf Tournament

The annual golf tournament and dinner of the Toronto Association of Radio, Television and Appliance Dealers will be held on September 16 at the Elms Golf and Country Club north of Weston.

R-TMA Annual Golf Tournament

The Radio-Television Manufacturers Association Annual Golf Tournament and Dinner will be held on October 2 at Cedar Brae Golf and Country Club near Toronto.

CEDA Eastern Conference

CEDA Incorporated will hold its annual eastern conference at the Chanticleer Hotel, St. Adele, Quebec, October 26 and 27.

Annual Dealers' Convention and Show

The Ontario Association of Radio, Television and Appliance Dealers have announced the dates for their annual convention and merchandise show to be February 8 to 13 inclusive. The place to be the Industrial Building of the Canadian National Exhibition in Toronto.

Joint R-TMA Conference for 1954

The American R-TMA has accepted an invitation from the Canadian Radio-Television Manufacturers Association to hold a joint conference of the executive committees of the two associations. The meeting will take place at the General Brock Hotel in Niagara Falls on April 29-30, 1954.



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Covers 47 different chassis (80 models) used in 1950, 1951 and 1952 auto radio receivers. Absolutely the most complete, accurate and easy-to-use data available—uniform and practically presented to

make you an expert on the repair of any auto radio. 288 pages. 8½ x 11".

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The Last Page . . .

● ● Success or failure — which shall it be? In an editorial in this issue, R. C. Poulter points out some of the main reasons for the number of failures that occur from time to time. This is nothing to be alarmed about. It does not mean that our industry is going downhill and that a business recession is coming our way. What these failures mean, is that the time of "weeding out" has come and the dealers who will not get down to serious selling and to proper business and accounting methods are starting to fall by the wayside. In articles and editorials from time to time, Radio-Television & Appliance Sales—and others—have pointed out that a good many "salesmen" were merely order takers. This type of salesman was born during the time when merchandise was scarce and all the salesman had to do was to say "I'll see if we can let you have one." Now, times have changed. There is plenty of all types of merchandise available and the dealers have to really sell. Those that cannot see the handwriting will—sooner or later—join the ranks of those referred to in Mr. Poulter's editorial.

● ● It is with pleasure that we carry an announcement of Harry Shoemaker as manager of Radio College Publications in this issue. Mr. Shoemaker has long been associated with Radio-Television & Appliance Sales and is also well-known throughout the radio and television industry for his technical articles. He is at present, technical editor for the magazine and as such, makes sure that all the technical information in the publication is authentic. Harry possesses an extensive knowledge of all phases of electronics. This, coupled with a good sense of humour, makes his articles not only factual, but easy to read.

● ● It is with real regret that we announce the death of R. S. Mc-Watters, another well known figure in the radio industry. Mr. Mc-Watters was with the Telecommunications Branch of the Department of Transport, Ottawa. He died suddenly following a heart attack on Sunday, July 12. Funeral services were held on Thursday, July 16 at St. Barnabas Church and interment in St. John's Cemetery, Norway, Toronto.

● ● The cover on this July issue of Radio-Television & Appliance Sales is somewhat of a departure from the usual procedure but we felt that with everyone either away on their holidays or else doing little else but think of what they will do when they are on them, this sort of illustration would have more appeal. The very appropriate model is the advertising manager of the publication, Herb Crosby, who suits the part very well. As a matter of fact, it was a hard job to convince him that he should go back to work, even though there was nothing but a small stone tied to the end of the line.

● ● In this issue, we are reprinting an article that was run a few years ago in the magazine. This may seem a little unusual, but there were several factors that influenced the decision. For one thing, there have been a few requests for copies of this speech and we felt that this was the simplest way of disposing of them and at the same time passing around a few timely hints to dealers who feel they are lagging a little. There is a definite place in the dealers selling plans for the door-to-door salesman. In fact in view of the number of failures that we have been hearing about lately (see Mr. Poulter's editorial on page 4) it

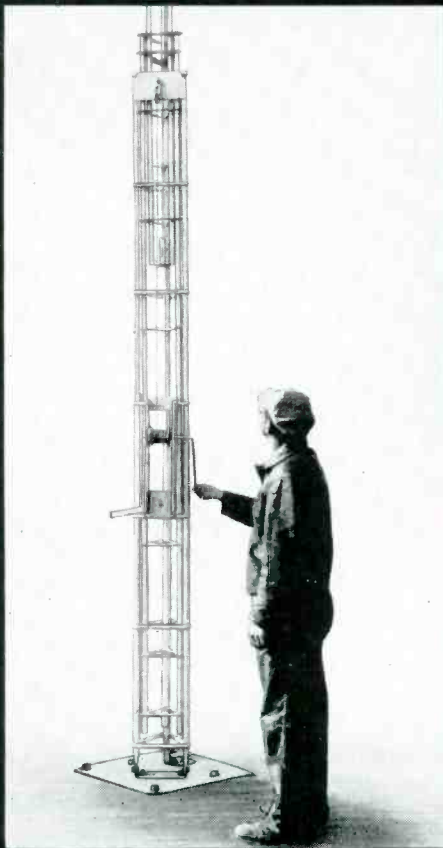
may be the solution to getting that edge on the fellow down the street who is cutting into your business.

● ● A new electric appliance, strictly for farmers has made its appearance recently. City dwellers drink or use their daily supply of milk with little or no thought to the pasteurization process that protects the milk from bacteria; farmers usually drink theirs straight from the cow without any pasteurization. Now, thanks to a new electric gadget, the farmer can pasteurize his own milk supply by means of a small home unit that will process from two quarts to two gallons right in his own home—just as thoroughly and completely as the large commercial dairies.

● ● The recent annual meeting of the Radio-Television Manufacturers Association held at Bigwin Inn in Muskoka, Ontario, besides doing a considerable amount of serious business, was a very pleasant meeting. Of course the meeting spot may have a lot to do with it. Ted Pfeiffer of Erie Resistor and Jim Warren, Canadian General Electric, both had their boats on hand to give some of the guests a ride. After paying for a few rides in the Bigwin launch, we wish we had brought up a boat too.

● ● The TV picture will change radically in the next few months with private stations trying to beat each other on the air. CKSO-TV, Sudbury, Ontario say they will have a test pattern on the air on September 20 along with Kinescope network programmes from the CBC. Cameras are to be in operation by October 15 with the official opening ceremony slated for December 15. Another station in Quebec City is expected to go on the air in November.

Just Turn the Crank . . . and Watch the Tower go up



- 1 MAN ERECTS TO 45-FT.
(USING 20-FT. POLE)
- TO REPAIR ANTENNA . . . SIMPLY
CRANK TOWER DOWN
- SPECIAL CLAMPS HOLD TELESCOPING
SECTIONS IN BULLDOG GRIP

PENN TELETOWERS & TELESCOPIC TOWERS CANADIAN DEALER PRICE LIST

<u>Part Name</u>		<u>Dealer Price</u>
TT-30	Telescopic Tower—three 10' telescoping sections	\$52.14
TTB	Telescopic tower base for above tower	6.52
TTH	Telescopic tower hoist	18.62
TXT	10-foot Top Section less pole	20.92
TXTS	Short Top Section	4.02
TXTS-M	Short Top Section with sleeve and set screws for TXMP	4.52
TXP-8	Pole for Top Section, 10 feet long, 1 1/4" OD by 20 ga.	2.42
TXP-10	Pole for Top Section, 10 feet long, 1 1/4" OD by 18 ga.	2.95
TXP-20	Pole for Top Section, 20 feet long, 1 1/4" OD by 16 ga.	7.87
TXM	Intermediate or Mast Section, 10 feet long	15.30
TXFB	Flat Base for mounting tower on flat roof or concrete slab	5.63
TXARM	Adjustable Roof Mount for mounting tower on sloped or flat roof	9.65
PFM	Portable Foot Mount	5.53

Why lug around cumbersome rigs in order to erect telescoping towers? Switch to Penn—the tower you just crank up. Special, built-in hoist permits easy, quick, one-man erection. Motor mount adjustable to all antenna rotors . . . mast can always be centered over tower. Base adjustable to flat position or sloping roof position. ATLAS can tell you . . . just mail the coupon.

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A television picture that's unapproached anywhere for brightness, definition and life-like realism.

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Cleaner, clearer, noise-free signal, giving new heights of fringe area reception.

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"Double Gated Automatic Picture Control" — the most perfect synchronized television picture of all time!

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It's in a class by itself for reception, for picture performance, for power!

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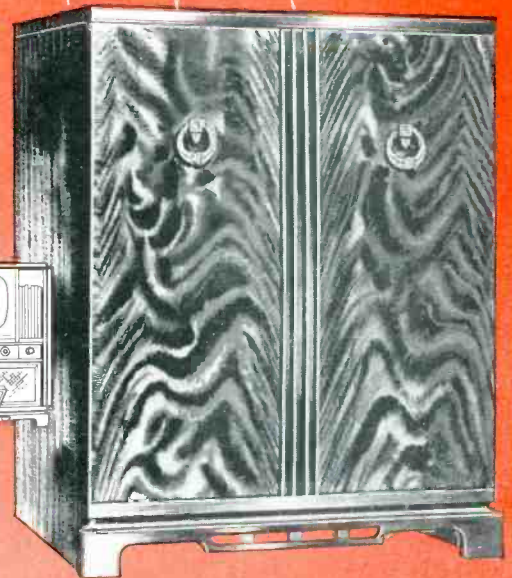
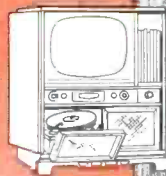
It achieves the greatest freedom from interference and reduction of "snow" in TV history!

Philco '6234' — Modern space-saving table model cabinet with exclusive Directional Electronic Built-In Aerial System and Golden Grid Tuner. Available in smart Mahogany finish, with matching base if desired.

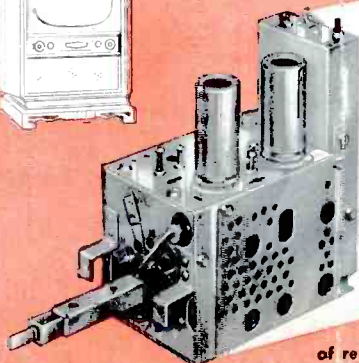


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