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UNITED STATES EDITION

VOLUME 10, NUMBER 3, OTTAWA 1972

Canada comes on strong at Kansas agricultural show

Photostory by David Magee
Assistant Editor, Canada Courier

"You Canadians are sure coming on strong." The onion farmer from Texas was talking about the Canadian exhibit at the 3-i Show in Liberal, Kansas. There's nothing new about Canadians participating in this annual agricultural show; they've been doing it for years, but there's never been a bigger Canadian contingent than this year's. Canada's Department of Industry, Trade and Commerce sponsored the exhibit which took up 10,000 square feet of space at the show site, Liberal's Municipal Airport.

The 18 Canadian exhibitors weren't hard to find. They were housed in a geodesic dome 35 feet high and 100 feet wide, marked by Canadian and United States flags flying side by side. The dome and the flags were visible from one end of the show to the other.

The 3-i (industry, implements, irrigation) Show has been a major event of the Kansas springtime since 1950. It is held in a different community each year. The 1972 show (April 27 to 30) featured the latest farm implements, irrigation and industrial equipment, seed, feed, fertilizer, cars, trucks, campers, mobile homes and recreational gear. Naturally enough, the emphasis was on farm equipment and the show drew farmers and agricultural dealers from all over the United States and Canada.

The Canadian exhibit faced its first test even before Kansas Governor Robert Docking cut the ribbon to officially open the show on the morning of the 27th. Rain driven by winds gusting to 100 miles per hour blasted the aluminum and nylon dome for hours — but it held, and the show went on.

Promotional literature encouraged visitors to see their "good neighbour" at the 3-i Show and the flow of people through the Canadian exhibit never stopped. People who came to the big white dome were not disappointed. For many it was their first glimpse of Canadian capabilities in the farm machinery field and most, like that Texas onion farmer, were favourably impressed. Others who were familiar with names like Versatile and Thomas enjoyed looking at the latest offerings.

What did Canadian exhibit visitors see? They were able to inspect huge tractors, a unique swather, soft grain pick-ups, grain monitors, front-end loaders, chisel plows, rock pickers, combine reels, one-



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the site was Liberal's Municipal Airport. The Canadian government was a participant in the show for the first time, although individual Canadian companies have exhibited on many occasions.

man haying systems, forage plot harvesters, dozer blades, grain augers, liquid feed blenders, cultivators, mix mills and high-clearance sprayers.

Anderson Construction Ltd., Southey, Saskatchewan, highlighted its dependable three-bar Triplex Chisel Plow, a heavy-duty machine which can be put in transport position in less than a minute with wings folded into vertical position by a double-action, high-pressure hydraulic cylinder which is standard equipment. Other special features are patented spring release assemblies and new castor guide wheel that assures uniform depth control. The Triplex Chisel Plow

also has a "multiflex" frame which follows the land contours. Plows are available in various sizes to suit individual requirements. Anderson also produces rod weeders and rotary action rock pickers.

Balthes Farm Equipment Manufacturing Limited, Tillsonburg, Ontario, went to Liberal with its high-clearance sprayer which retails complete with tank, pumps, boom and nozzles. The sprayer's heavy-duty tubular steel frame adjusts for different row crop widths with the hydraulically controlled spray boom spreading up to 40 feet. Spray nozzles are also adjustable for different row crop spacings. The aluminized steel spray tank with 350-gallon capacity has jet or mechanical agitation. John Blue or Hydro sprayer pumps are offered with spray pressures up to 450 psi for liquids or wettable powders. There's plenty of power from the 30hp engine and four forward speeds plus reverse. In addition the differential provides individual rear wheel braking.

Another attention-getter was the Rock-O-Matic rock picker manufactured by R. Bussiere & Sons Rock-O-Matic Ltd. of Vonda, Saskatchewan. Rocks and stones can be cleared from fields to improve land and prevent damage to cultivating machinery. There are two high-lift unloading models and one medium-lift unloading version.

Rock-O-Matic features power take-off drive, behind-bucket castor for stability, eccentric rake bars for flat ground trajectory, spring releases and clutches to prevent jamming and breakage. Rock-O-Matic can handle two-inch stones as easily as 14-inch rocks and has seen use in other ways. For instance, rock pickers are used on some beaches to clean up various types of debris.

Canadian Co-operative Implements Ltd., Winnipeg, Manitoba, has come up with what is believed to be the world's first flexible-table, self-propelled swathers. Flexible tables on the 30-foot, self-propelled machines allow cutting at uniform heights over uneven ground even in short crops. This unit pioneers the trend towards swathing wide strips of grain, putting it in one or two swaths side by side to be picked up by combines. The system takes full advantage of the combine's separation ability. Manpower and swathing time are reduced while grain and grades are saved. The package includes 60hp engine, 45-gallon gas tank, four headlights, covered knife drive, telescoping reel bats and parking brake.

Degleman Industries Ltd. of Regina, Saskatchewan, featured its Dozer King industrial blade suitable for year-round farm use. The Dozer King is easy to use and tackles the toughest farm jobs. It comes from the factory with high

pressure cylinders, hose and fittings as standard equipment.

A progressive new company, Friggstad Manufacturing Ltd., Frontier, Saskatchewan, brought its deep tillage cultivator and fork-type rock picker to Liberal. The Friggstad cultivator is a heavy-duty machine, ruggedly built to take advantage of the power available from today's tractors. It has a 72-inch frame and the long hitch assures stability with minimum weaving in the field. The cultivator is also equipped with positive depth controls for uniform penetration on all sections. In the field there is no weight on cables or hydraulic cylinder. The centre section has dual wheels with equalizers, giving excellent flotation even in the roughest fields.

Henn-Rich Manufacturing Ltd., Winnipeg, Manitoba, specializes in quality feeding, watering and ventilating equipment for farmers, poultrymen and ranchers. The liquid feed blender displayed at the 3-i Show is designed to mix feed and water into "slurry" for hog feeding. Blenders are available in capacities from 200 to 1,125 gallons. The heavy-gauge steel construction of the blending tank assures it will stand up to abrasive action of ground feeds and the corrosive effects of various kinds of

(continued on page 2)

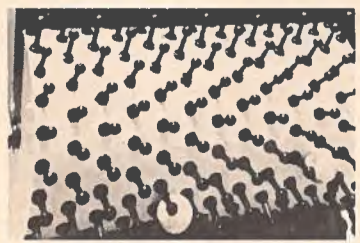


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It's a friend of amateur and pro!
See page 5

canada courier

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Published by the Department of Industry, Trade and Commerce, Ottawa. Copies available without charge from Canadian Government Trade Representatives at 78 posts in 54 countries. Contents may be freely reproduced.



Some Canadian companies came to the 3-i Show to test the market. Balthes Farm Equipment Manufacturing Limited was one of these — and the test was positive. Even though Balthes found no market in Kansas it did discover solid interest in Southern Texas and California as the result of exposure at the show.

Canada comes on strong

(continued from page 1)
water while eliminating bacteria build-up on tank surfaces.

A new breed of eight-inch grain augers has been engineered for the modern farmer by Kendon Manufacturing Ltd., Winnipeg, Manitoba. Kendon grain augers come in 37, 43, 49 and 60-foot sizes. There are no belts, no gear box and fewer moving parts — and that adds up to greater efficiency. The chain-drive housing contains specially designed chain sealed in ductile iron and packed in grease. All bearings are sealed for life and operation of the equipment is virtually dust-free. With capacity up to 3600bhp, Kendon augers have splined drive-shafts, slip clutches for safety, power take-off shafts which take tractor power from either side and winches with instant safety locks and one-quarter-inch cable.

There's probably a Leon dozer blade for every kind of tractor, two-wheel or four-wheel. Leon's Manufacturing Co. Ltd. catalogues industrially built dozer blades for more than 300 makes and models of farm tractors. Using a Leon blade, much pressure is directed against the tractor drawbar, not the tractor framework. All blades can be set up or dismantled in minutes. This Yorkton, Saskatchewan, company also builds front-end loaders and rock pickers.

The Stack-N-Mover from McKee Bros. Limited of Elmira, Ontario, means one-man haying operations. Used with McKee grassland harvester, Stack-N-Mover processes 100 tons of cut hay per day. Used with an 80hp tractor, the equipment stacks 100 tons per day. Pick-up fingers lift windrowed hay, then high-speed fans move it into a corrugated metal van with domed roof

carried on a stack mover. A chain conveyor draws the completed five to six-ton stack out of the van and the van bottom can be pushed under the stack for reloading.

Rem Manufacturing Ltd., Swift Current, Saskatchewan, builds a forage plot harvester which takes samples of crops. Rem designs its equipment to help the farmer save his total crop and thus enjoy larger profits. The harvester from Rem has been proved in wet or dry forage, cutting plants two to 30 inches high. The self-starting 8hp engine runs at 3200rpm and there are three forward speeds and reverse. The forage harvester container has a volume of 5.7 cubic feet. The combine also produces combine chaff blowers, tag-along dump wagons, vacuum-type feed blowers, self-unloading forage wagons and straw choppers.

The Ezee-On loader distributed by Renn Sales (Calgary) Ltd. does the job in less than a minute. There are many features: main frame and yoke of formed and boxed three-sixteenths-inch material with inside rib; cylinders of 2½ or 3-inch diameter proved to 6,000-pound pressure; breakaway capacity of 8,000 pounds; heavy-duty mounting frame around tractor; options of dozer blade, push-off hay stacker, grapple fork, two buckets in 60 or 84-inch widths.

A soft-action grain pickup is offered by Renn-Cupit Industries Ltd. of Calgary, Alberta, which sweeps up barley, wheat, oats, peas, beans, grass seed, buckwheat and

other grains with soft, double-hooked nylon tines which reduce "shelling" to a minimum. The tines give but don't break in contact with stones or trash. Only eight or nine sickle guards need be removed to mount the pick-up. Renn-Cubit also showed a trouble-free grain roller with 16-inch rollers.

A combine grain monitor produced by Smith-Roles Ltd., Saskatoon, Saskatchewan, lets the farmer keep constant tab on his combining, even at night, regardless of conditions. The electronic device indicates directly to the operator the amount of grain being lost over the straw walkers and cleaning shoe. When the combine overloads and begins throwing grain over, the kernels strike sensor plates inside the combine and the meter indicates the amount of the loss. One kernel falling from only six inches will register but straw or vibrations have no effect. Smith-Roles also has a bird scare cannon for crop protection and an air compressor which can be used in the shop or in the field.

Tons of feed are quickly supplied by the Farm King mix mill, a product of Standard Gas Engine Works, Morden, Manitoba. A hammer mill and tank on wheels work as a single unit. The mill features discharge auger and unloading clutch as well as a large mounted hopper for easy bale feeding. The 12-foot discharge auger is easily raised and lowered by a winch pivot base 44 inches from the ground, allowing the auger to feed



Lively discussion of the merits of a Kendon grain auger being demonstrated inside the Canadian dome at the 3-i Show. Canadian products drew favourable response and several large sales were recorded. Some companies set up U.S. dealerships or distributorships as a result of the show.

in high or low places. A spring-loaded base holds the auger in any position. Fourteen and 16-foot augers are optional. Standard Gas mix mills also have heavy duty jacks with quick-release speeds for hooking and unhooking the machine. A heavy-duty 100hp power take-off engine is also standard.

The multi-purpose hydrostatic SS Loader Model 1200 from Thomas Equipment Ltd., Centreville, New Brunswick, has many applications in agriculture — manure removal, grain handling, post hole digging, yard maintenance and snow clearing. Features include lifting capacity of 1200 pounds and speed control of zero to six miles per hour as well as lifting height of 110 inches and ground clearance of eight inches. With skid-steering the loader can turn 360 degrees in its own tracks. It is 83 inches long without bucket and 61 inches wide. Model 1200 has no clutches, no belts and is easy to operate. Hydrostatic four-wheel drive reduced down-time and maintenance costs.

Huge Versatile tractors are a familiar sight in the United States. The Model 700 four-wheel drive tractor from Versatile Manufacturing Ltd., Winnipeg, Manitoba, has a 220hp V8 diesel engine, heavy-duty axles and rugged transmission with 12 speeds forward from 2.6 to 15mph. The factory-installed custom cab is equipped with pressurizer and vents to keep out dirt and dust and bring in fresh air. Tinted safety glass all around gives

a 360-degree field of vision. Versatile also builds the Model 400 hydrostatic swather with optional cab and 10, 12, 15, 18 or 20-foot tables. Ground speed is up to 12 mph, depending on tire size. Power comes from a 60hp water-cooled engine.

Victory Equipment Limited of Lethbridge, Alberta, produces a flexible harvester combine reel with lightweight centre six-inch aluminum tube and individual clamp-on reel fingers of durable one-quarter-inch steel. Weighing less than five pounds per foot, the combine reel places less strain on drive parts. Maintenance costs are kept down because there are no large reel bats to break or bend. The design allows an unobstructed view of the cutter bar and there is no "windmilling" as straw slides off the fingers.

How were the Canadian products received? There's no applause at an agricultural show but when the order books come out there's no doubt about what people think. And several Canadian firms signed large orders for their equipment. Other companies arranged to set up distributorships or dealerships in several centres in the Midwest. How did the "good neighbours" feel about their reception in Kansas? Virtually all agreed they'd like to come back to the next 3-i Show.

Code 2-1



To the left a Versatile swather — on the right a Versatile Model 700 tractor. The aluminum structure in the right background is a McKee Stack-N-Mover which permits one-man haying operations.



Rem Manufacturing Ltd. forage harvester, Anderson Construction Ltd. Triplex chisel plow and Ezee-On Loader, distributed by Renn Sales (Calgary) Ltd. were some of the attractions of the Canadian exhibit at the 3-i Show. The harvester works well in dry or wet conditions and takes samples of forage crops. The chisel plow has a new castor guide-wheel that assures uniform depth control as well as a "multi-flex" frame that follows land contours. Ezee-On Loader loads or unloads in less than one minute. Canadian farm equipment received enthusiastic appraisal at the show and several companies wrote large orders.



A scene from the film version of a well-loved children's story, "Paddle to the Sea." It tells of a young boy launching a toy canoe on a long voyage through lakes and rivers to the sea. Code 3-1

Featuring films from Canada...

There are approximately 150 private companies or government agencies in Canada producing films, filmstrips or videotapes. Feature films, television commercials, educational films and filmstrips — all are produced by Canadians.

The National Film Board is Canada's official producer and distributor of films and is the Canadian film source best known in other countries. Around the world, the Board's films and other visual productions are distributed by its



The star of "Faceoff," Art Hindle, gets some advice from a real-life hockey star, George Armstrong, of the National Hockey League's Toronto Maple Leafs. The film was made with NHL co-operation. Code 3-2

own offices, by film companies, by embassies or posts of the Departments of Industry, Trade and Commerce and External Affairs. There is also distribution of Board films through theatres and television. Many NFB films are introduced through international film festivals, where the Board is a consistent award-winner. Its productions are varied. The NFB's most popular film abroad last year was "Phoebe," a half-hour black and white film portraying the problems faced by an unmarried 18-year-old girl who becomes pregnant. The second

most popular film was "Paddle to the Sea," about the travels of a toy canoe launched by a small boy and allowed to follow its own course.

Feature film production for cinema and television is on the increase in Canada and companies from other countries are taking advantage of the excellent production facilities available. Two long-established stars, Helen Hayes and James Stewart, have recently taped a re-make of the comedy "Har-

vey" at the CFTO studios in Toronto.

One of the new Canadian companies is Agincourt Productions Ltd. which recently premiered its first feature film, "Faceoff." This is the story of a rising young hockey star and his romantic involvement with a famous girl singer. Other Canadian production companies include Cinevideo, Intermedia, Allan King Associates, Spring Releases and Les Productions Carl Lemay Ltée. Code 3-3

Filmstrip cartridge gets around

Fully synchronized sight-and-sound 16mm filmstrip cartridge is the focal point in the communication system produced by La Belle Industries (Canada) Ltd. of Don Mills, Ontario. Its portable Courier 16 was selected by the Canadian Department of Industry, Trade and Commerce, for versatility and dependability, as a marketing aid for Canadian exporters.

Courier 16 export model — of which 74 have been distributed among U.S. and other Canadian Trade Commissioners posts — has a multi-volt transformer and is adjusted for 50- or 60-cycle supplies. This makes it easily adaptable for every location.

Marketing and training appli-

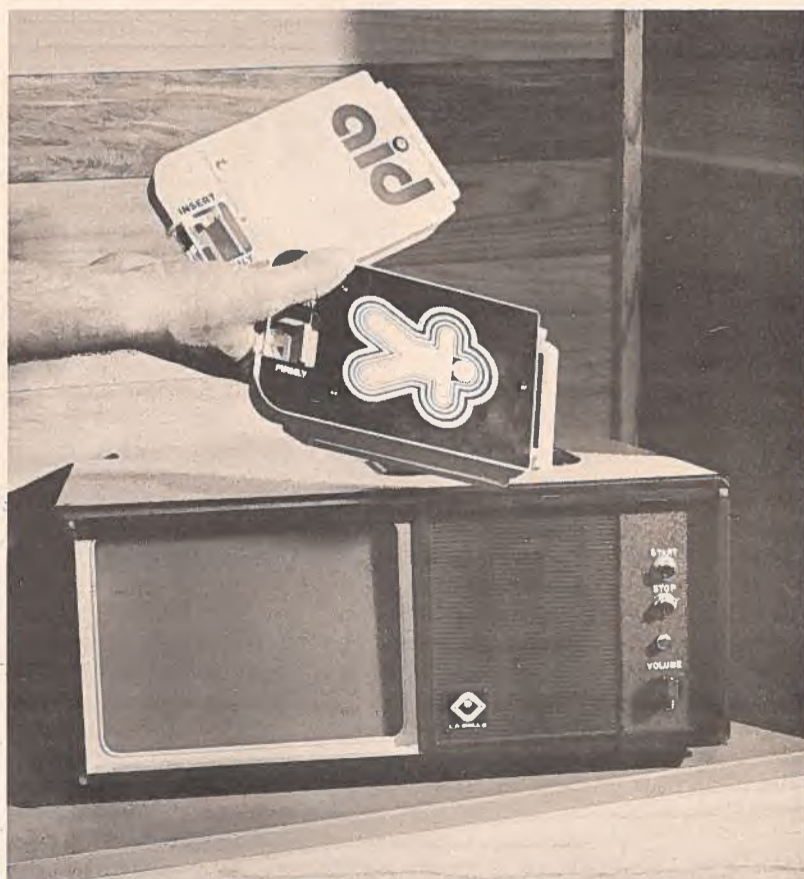
cations have met with success in North America and have expanded into Britain, where it is now being distributed. Many audio-visual producers are developing generic training titles (audio-visual programs) for worldwide distribution. This increases La Belle Courier system's versatility for both consumer- and manufacturer-oriented markets. Inquiries are recently in from Argentina, Kuwait, Uganda, Malaysia and New Zealand.

Le Belle's "projection team" also includes rugged rear-screen Sentinel 16 — designed for heavy-duty point-of-purchase applications — and forward-to-the-wall Tudor 16, which provides brilliant visuals for large-group viewing. Code 3-5



STOR/WAL does many jobs at once

An elegantly-styled cupboard and storage cabinet, file, binder case and wall — designed to add distinction to any office and efficiency to any filing system but at a cost that's less per square foot than many conventional systems on the market. STOR/WAL's 52 interchangeable units may be used singly or in groups — as a wall, as an office partition (serving both sides), as an area divider, a counter, in corridors and in other applications. A complete line of equipment complementary to STOR/WAL is being developed to meet growing demand for office landscaping. Steel Equipment, a division of Eddy Match Company Ltd., Pembroke, Ontario, has been manufacturing STOR/WAL since 1962 and exports to the United States and the Caribbean. Code 3-4



"Pick your program . . . press the start button" and La Belle's Courier 16 is rolling.

Faster than a speeding bullet...

That's what they used to say about the comic book hero Superman. It would be a supreme understatement about laser beams, which show increasing potential as the "Supertools" of the future. Canadian

scientists are finding exciting possibilities for lasers in many fields. Lasers have found use in communications and medicine and they may find applications in fields like construction, machining, even

textile cutting. The following articles tell of two Canadian success stories in laser technology and they provide an excellent illustration of the versatility of laser beams. Code 4-1



A Canadian National Research Council scientist testing a piece of laser equipment.

World's hottest laser . . .

What do you do with a laser that can instantly vaporise just about any known substance? A Canadian company, Lumonics Research Limited, has such a laser system and it is being used in the new field of plasma physics. When a target substance is vaporised by laser a plasma — an electrically-charged gas — is formed. Scientists hope their work in plasma physics will lead to production of electricity from nuclear fission. Lumonics' low-cost, simple in-

struments produce pulses of radiation 100 times greater than those of existing gas lasers (in excess of 10 joules). Temperatures created by Lumonics lasers are greater than those of the sun's surface.

Using a Canadian government patent, the company began production less than a year ago and has already received a number of important contracts. Lumonics laser systems or hardware have been supplied to a United States Atomic Energy Commission project, the

U.S. Armed Forces, Massachusetts Institute of Technology, the Battelle Memorial Institute at Columbus, Ohio, and others. The fields of plasma physics, spectroscopy and propagation studies were involved in these contracts.

Lumonics systems are unique. Nothing like them is available anywhere and the company is preparing to announce even more advanced equipment. They will produce systems involving extremely high pulse energies (in excess of 100 joules) and high average powers (in excess of 100 watts). Code 4-2

Colour photos from space

A Toronto scientist's invention will be used to produce colour photographs from data transmitted by satellite and aircraft in Canada's remote sensing program. Dr. J. W. Locke of the University of Toronto's Institute for Aerospace Studies calls the unique device a laser beam image recorder.

Briefly, the data from satellite or aircraft reaches the image recorder in the form of electrical signals which are decoded by laser

beam into colour pictures, or rather, negatives of colour pictures. Other systems are capable of producing black and white pictures from electronic data but involved secondary processing is required to obtain colour. The laser beam image recorder is uniquely able to correct pictures for any discrepancies which may occur in spacecraft orientation while pictures are being taken.

Dr. Locke states that the image

recorder produces extremely detailed pictures and distances and relationships between objects photographed are accurate to one ten-thousandth of an inch. The system is also capable of reconverting colour pictures to electronic data.

Canada now has a remote sensing program to gather data, by satellite and aircraft, about the earth's surface and atmosphere. The first image beam recorder will be used in this program in cooperation with the United States. Code 4-3

For Your Bookshelf ..

Canadian Auto Parts — this edition of the much-in-demand directory lists approximately 800 Canadian manufacturers and includes an easy-to-read product guide — available in English. Code 4-6

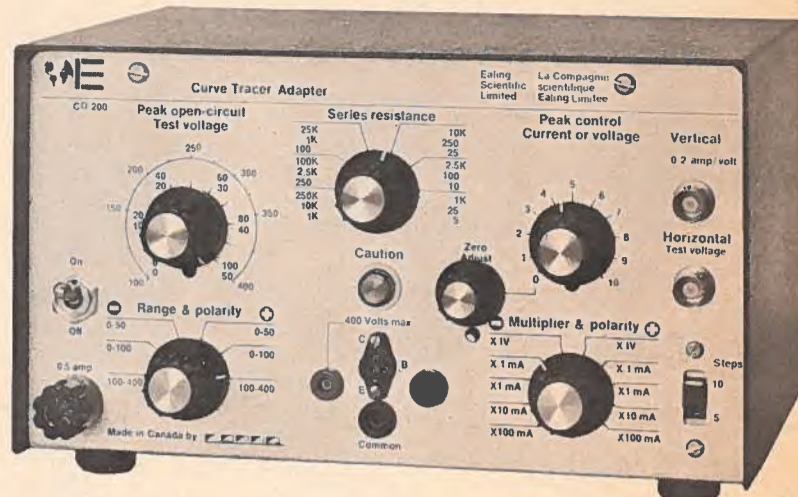
Canadian Short Line Farm Equipment — this directory lists companies serving the North American market and outlines the success Canadian manufacturers have had in the export field — available in English. Code 4-7

Readers interested in obtaining "bookshelf" publications should complete the trade inquiry form on page 7.

Pioneer develops new antenna

For more than 20 years, Valeriotte Electronics (Guelph) Ltd. of Guelph, Ontario, has pioneered in designing, making and installing antenna systems for a variety of applications. This company was among the first to produce filament-wound epoxy-glass structures, including whip antennas up to 80 feet (24.7m) for land and marine use. Newly developed is the D-32570 Discone Antenna, designed to meet severe Arctic conditions faced by oil-exploration teams. A filament-wound epoxy-glass mast

and polyester-glass tube elements make for easy transportation and simple assembly with ordinary tools. It has a design frequency range of 3-25MHz but can be used above and below this range. The 2-30MHz Valeriotte whip antennas can withstand winds of more than 100mph (160km/hr) and ice loading with minimum deflection. The epoxy glass construction is also exceptionally good for tubular guyed masts and antenna booms requiring lightweight strength. Code 4-5



Ealing Scientific Limited is marketing a new line of electronic instruments, including this Curve Trace Adapter.

Widening electronic instrument range . . .

A new line of electronic instruments is being produced by CO-PAQ of Montreal for Ealing Scientific Limited of Dorval, Quebec, a supply company. Production is supervised by Dr. Carl Weissfloch, formerly of Marconi, then professor at McGill and Laval Universities.

Ealing's Curve Trace Adapter is considered a breakthrough. Used with a standard oscilloscope, it becomes a professional curve tracer for both low and high-power devices — remarkable for performance, range, workmanship, stability and economy.

The electronic Four Decade Counter-Timer — a self-contained unit with integrated circuit and

read-out tubes — likewise combines high-quality with moderate cost. When the internal 1-kHz oscillator is calibrated against the internal time base, it will measure times and frequencies (counter-rates) with accuracy of plus or minus one millisecond and plus or minus 0.01 per cent of one Hz respectively.

Other Ealing instruments include signal and function generators, stroboscopic timers and various types of amplifiers. Coming up is a new line of chemical analytical instruments such as gas chromatographs; carbon, hydrogen and nitrogen analysers; optical spectrometers and equipment and Mossbauer spectrometers. Code 4-4

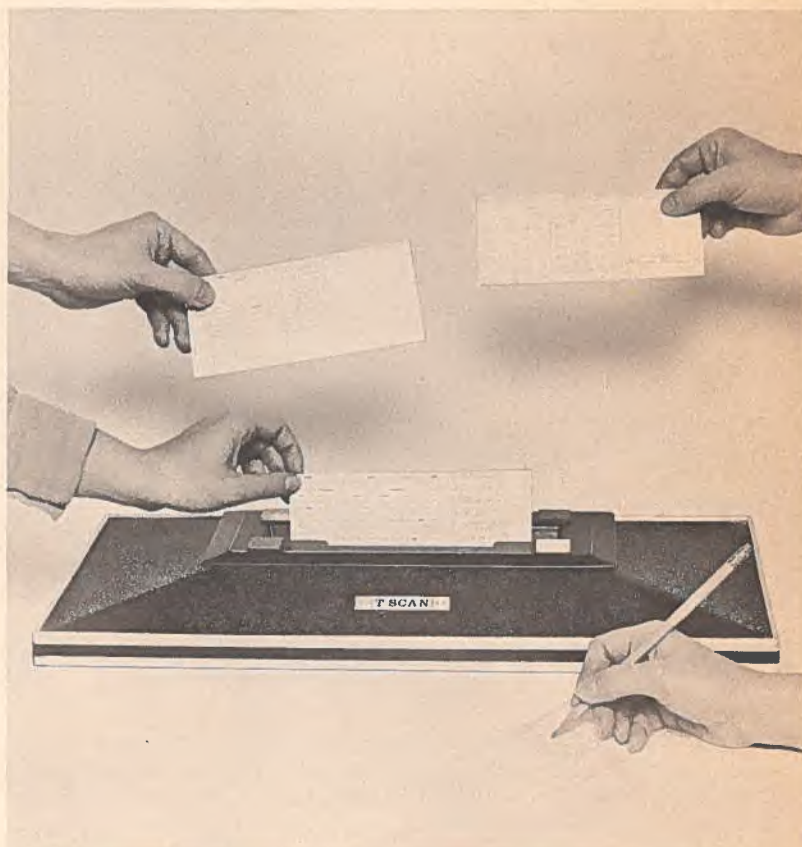
Like to talk to a computer?

A transaction card that lets an ordinary person "talk" with a computer is the key to T-Scan Limited of Toronto's technique. In its system, several terminals and a computer are attached to the same data communication line. The computer "asks" each terminal if it has information. When the operator marks a card and drops it into the terminal, the "info" on it goes to the computer, which processes it promptly and sends a reply to the terminal. Within seconds the operator has the card back with a printed reply.

Advantages over the "old" transaction computer system are stated by the company as: a customer can use a computer directly. In ticket reservations, he can fill out a card, place it in a T-Scan terminal slot and receive reservation information within two seconds. In a system for a 100-plane air-

line, the company says T-Scan would save up to several million dollars in capital costs, compared with a system using a cathode-ray-tube readout system — and that terminal maintenance costs would be 25 per cent lower because fewer are needed with T-Scan. It also — while storing a permanent record — eliminates one time-wasting step.

T-Scan is, however, by no means restricted to airline operations. It is also used in schools, universities, hotels, hospitals, banks, brokerage houses and other institutions. The company and Ferranti-Packard Limited of Toronto are at work on modernizing Sao Paulo Stock Exchange. T-Scan is providing 11 transactor terminals for use there and in brokerage houses, while Ferranti-Packard is supplying display boards and related equipment. Code 4-8



T-Scan transaction card and terminal system reduces computer communication to simplest form.

Fool-proof golf ball picker friend of amateur and pro



Designer Bill Gamblin (left) with Gord Hovey, president of Hovey & Associates, manufacturers of the Shagmaster. They're discussing the Shagmaster hand-operated golf ball picker. Various multiple units for power towing or pushing are also available.

In golf, duffers and pros have one thing in common — they tend to lose golf balls — a lot of golf balls. The problem bothered golfer and professional engineer Bill Gamblin so much that he put his engineer's mind to work on a solution. The result is now known as the Shagmaster Golf Ball Picker, marketed by Dunlop Enterprises of Ottawa. This unique piece of equipment is basically a rotating drum studded with nylon pegs. The pegs snag the errant balls and hold them until they are picked off the drum into an attached metal basket. Shagmaster operates in all types of terrain — wet, dry, level, rough, marshy, sandy — even in water.

Shagmaster is available as a hand operated model or in any number of multiple configurations for power pushing or towing. The hand model is 18 inches (45.72 cm) wide and the multiple units are produced in widths up to 14 feet 8 inches (4.27 m) and may be made even wider. Most of the multiple units can be pushed or towed by an ordinary golf cart at speeds up to 10 miles an hour. A year of testing proved Shagmaster to be virtually 100 per cent effective as well as rugged and reliable. Servicing problems are almost eliminated because there is a minimum of moving parts and no accessories to replace.

Code 5-2



Light as a breeze is this Spanish print negligee of 15 denier nylon. Skirt and cuffs boast butterfly pleats, while deep ruffles circle the collar. A matching gown of 40 denier nylon completes the ensemble from Moly-claire Limited of Montreal.

Code 5-1



Coldstream's refrigerator for new Lockheed TriStar jet. Unit makes possible greater meal variety and more economical use of food.

Coldstream refrigerators heart of galleys on new jetliner

Many Canadian products are being used in Lockheed's new L10-11 TriStar jetliner. The TriStar is designed to become the workhorse of the sky and Canadian companies are providing electronic and mechanical equipment essential to its success. The big jet's refrigeration and cold storage units are designed and built by Coldstream Products of Canada Ltd., Winnipeg.

Coldstream units are the heart of what Lockheed calls its "hide-away galley system," in which

quick-frozen meals are cooked in the belly of the aircraft and brought up to passengers by elevators. Airlines are able to offer passengers wider meal choices by freezing and refrigerating food and this reduces the chance of popular meals running out before the last passengers are served. It also means that left over meals don't have to be thrown away. Because they're frozen they can be kept for the next flight.

Coldstream's Aircraft Refrigerators operate electrically and each

is a self-contained unit. The refrigerator mounts at eye level and the front door lifts up. It may be used at 36 degrees F (2.2 degrees C) for normal refrigeration or at 0 degrees F (17.7 degrees C) for frozen foods and ice cream. The cabinet has an aluminum outer skin with polyurethane insulation and interior lining of stainless steel. The interior is completely clear of all cooling apparatus. A variety of finishes for the door panel matches aircraft decor.

Code 5-3

New square tube system simpler to use

Around the world, square tube is used to frame the widest range of structures in exhibitions, store fixtures, laboratories, institutions, industry and a host of other areas. In steel or aluminum, square tube is strong, clean and attractive.

Systems of joining tube range from bolted clips, to welding, to dry joints of various designs. Most dry joint systems depend on multiple components such as plastic sleeves or cam-slot inserts which are complex and cumbersome during assembly.

A Canadian company has designed a dry joint which avoids multiple components, is complete in itself and instantly ready for use. The company is Beautiline Show-

case Systems of Downsview, Ontario. Its Tubex Locking System uses commercial tolerance tube, easily purchased from any tube mill, in addition to the simple joint. Most other systems depend on tubes of extreme tolerance.

Heart of the Tubex System is the principle of joining two or more square tubes with a corner joint. Each of six differently-shaped corner joints is die-cast in a zinc alloy. These joints feature a unique design which affords the user a simple two-part system. No tools are needed for assembly.

Patents are being secured in 25 countries. Although the system has just reached the market, Beautiline reports demand from all over

North America, from England, Belgium and Denmark. The company is now prepared to issue international licences for manufacture of the Tubex System and to provide, at nominal cost, its special dry joint. Potential for the product seems almost limitless. Schools, airports, hospitals, libraries, institutions, museums, exhibitions, department stores and industry have all used structures of square tube. Preliminary costing and pricing indicates Tubex is competitive with other systems and offers a number of advantages.

Beautiline has added Tubex to its already highly successful range of standard interior display systems which were introduced about five years ago. These interior displays are based on aluminum extrusions which combine with wood and/or glass panels for fast, easy assembly of showcases and other display fixtures. Beautiline as a patented system of showcase construction has been licensed to companies in several countries.



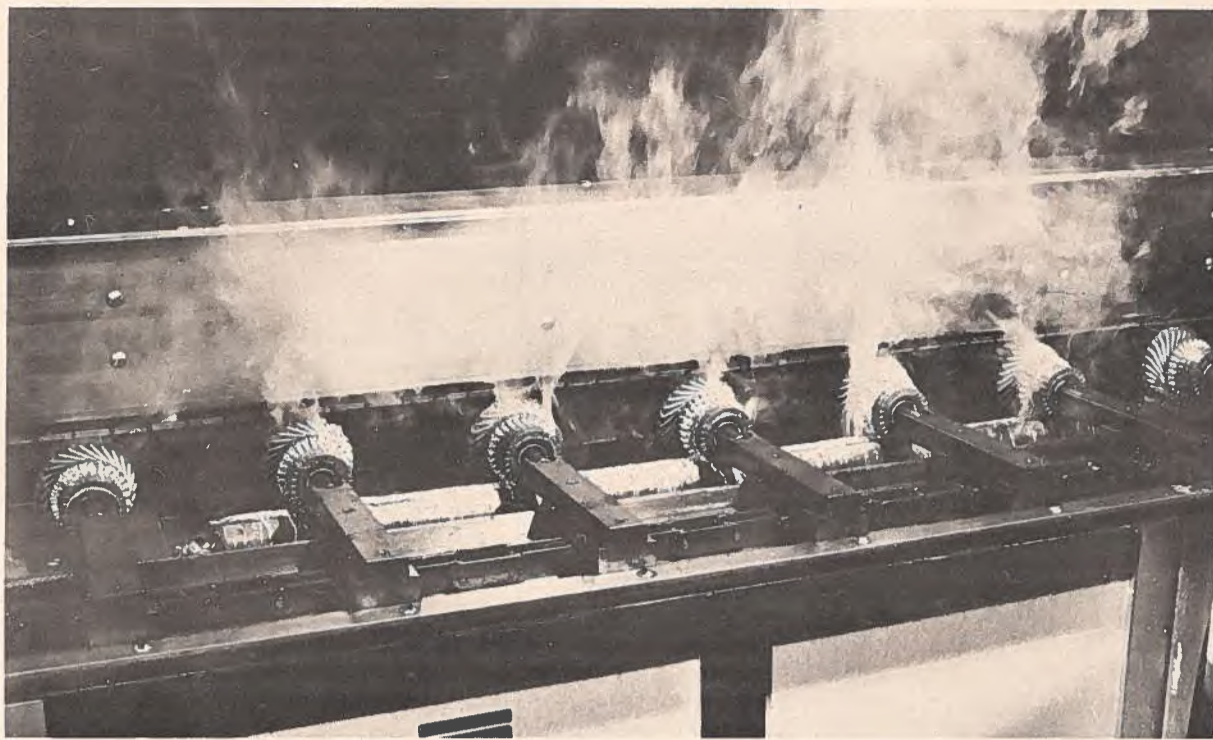
Tubex System has good looks as well as top efficiency.

Code 5-4

For Your Bookshelf ..

The tremendous growth of Canada's iron and steel industry is a reflection of enterprising management and advanced technology which have given many Canadian companies global reputations for excellence. "Iron and Steel from Canada" is a new booklet produced by the Canadian Department of Industry, Trade and Commerce. Available free of charge, it describes 14 Canadian iron and steel makers in detail and includes a reference chart listing all products from these companies. Interested readers should complete the trade inquiry form on page 7. Code 5-6

Wavesoldering technique suits hurry-up world



Electrovert armature-soldering machine in use in automotive plant.

Unique urinary malfunction treatment



Physico-Medical Systems' Uroflometer has unique ability to measure rate, pattern, time and amount of urine flow.

Exceptionally accurate results with minimum equipment can be obtained — when diagnosing, surveilling and treating urinary malfunction — by a unique system designed and produced by Physico-Medical Systems Corp. of Montreal.

Main units are: uroflometer, uritector and electrical sphincter muscle and vesical stimulators which permit completely incapacitated patients to operate the equipment without assistance. The stimulators have implantable electrical receivers and rechargeable battery-operated transmitters. These can be operated manually or, through an antenna extension and switch cable, by movements of the patient's chin, cheeks, teeth or tongue.

The uroflometer can measure rate, pattern, time and amount of urine flow. Most similar devices, on the other hand, can record only average rate and cumulative total.

The Uritector — which provides early detection of urinary catheter occlusion — has a sensor which converts urine flow into drops, a controller to count these and an alarm to warn of below-minimum flow.

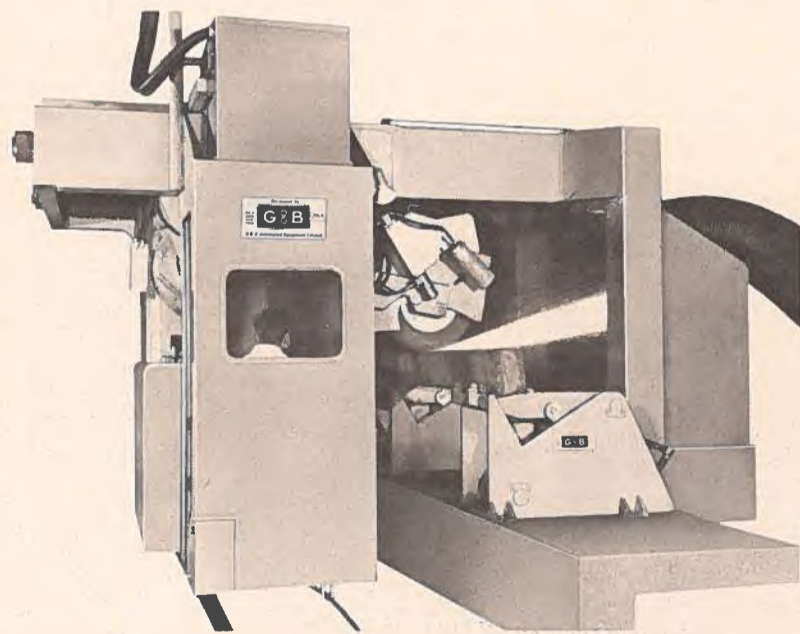
Code 6-2

Machinery builder sells worldwide

G & B Automated Equipment Ltd., of Toronto — a highly specialized designer and producer of machinery for the bonded-abrasives industry — has won an impressive number of overseas contracts; it sells to Australia, Japan, Eastern and Western Europe, South America and the United States. Some sales are made on a "turn-key" basis whereby the company undertakes the entire engineering and installing of equipment in a new grinding-wheel plant. Hungary is a major customer.

In view of new interest in the use of grinding in carbon steel production, the company recently developed a highly automated machine for grinding billets and slabs. It moves along rails and is powered by a hydraulic motor with capstan drive along a floor-mounted steel cable. An arm raises and lowers the wheel onto the surface of the billet or slab, which is turned over by means of a special clamp and turn-over device. Wheels used are hot-press type, driven 16,000 sfm by a 150 hp motor. The machine, all of whose functions can be controlled by one operator, has a computerized memory system designed and built by G & B.

The company's wheel produc-



Slab and conditioning grinder by G & B.

tion machines make a full range of grinding wheels, including vitrified bond, resin bond, rubber-bonded wheels and snagging wheels made by hot pressing. Other products are machines for mixing abrasives for grinding wheels, curing wheels and speed testing, made in both inch and metric units. Some machinery is more highly mechanized: a \$100,000 four-station machine,

recently introduced and currently being built for customers in various countries completes wheels on a 10-15-second cycle. Grinding-wheel presses, built in a 100 to 3,000-ton range, are able to produce wheels and cut-off wheels of up to 48 inches (1.2m) in diameter. Additional equipment includes hydraulically operated abrasive-mixing machines of capacity up to 1,000 pounds. Code 6-4

ing Japan as one of its best customers.

The printed electrical circuit — virtually essential to modern living — can require hundreds of soldered component connections and traditional hand soldering methods aren't fast enough in today's hurry-up world. A Canadian company, which pioneered in the field, produces equipment that does the job in seconds.

Electrovert manufacturing co. Ltd. of Montreal, Quebec, produces wavesoldering equipment for the world. Wavesoldering combines in a one-line operation the fluxing, pre-heating, soldering and cleaning functions necessary for reliable soldered connections. Wavesoldering simplifies soldering, increases reliability, raises production and lowers overall costs. Once specifications are set, they are automatically and accurately repeated for every circuit board. The advantages of wavesoldering are so widely recognized that many contracts specify this system. Electrovert now has customers in all industrialized countries of the world. The company rates electronics-export-

ing Japan as one of its best customers. Servicing of Electrovert equipment, says company president Nicholas Fodor, is a "keystone" of its export market. An excellent training program is provided for technicians from all over the world as part of Electrovert's international sales program. Only technicians attaining complete working knowledge of the company's wavesoldering technology are licensed to service its equipment.

Electrovert also makes tinning systems for a variety of applications, including tinning of circuit boards. The company's electrical division produces "Cantrough," a system of metal trays and fittings used for power, control and communications cables. This cable-carrying system is used in many industries in conjunction with Electrovert's framing and supporting system, "Cantruss," which has other possibilities including raceways, ceiling supports, lighting fixture supports and storage racks.

Electrovert has sales representatives in Canada, the United States, Europe, Africa, Asia and Australia. Code 6-1

Closed circuit systems—high performance, low cost



This studio is equipped with Viscount audio programmer "1018" and video programmer "8V4FE-R."

Viscount Video Systems Ltd. of Vancouver, British Columbia, designs, produces and sells sophisticated electronic equipment in the closed-circuit markets of Canada, the U.S.A., Britain, Sweden, the Netherlands, Belgium, Switzerland, West Germany and Israel. Educational (ETV), cable (CATV), medical and surveillance are the sectors served.

In 1969 Viscount won a contract for a U.S. Air Force closed-circuit TV project meeting extremely advanced performance specifications. These were in fact exceeded by Viscount — thanks to Vice-President Robert Hinze's Iso-switch crosspoint development. Improved versions of that crosspoint give the present product line its superior, fully solid state performance at attractive costs.

When the U.S. Air Force project was cancelled, Viscount redirected its efforts to start its current line of video switchers. It offers them along with the routing

systems. Viscount switchers meet exceptionally high technical standards — colour-compatible — without recourse to expensive custom-building.

Markets served by Viscount switchers also need systems that can route TV signals from a number of inputs to a number of outputs. Sources (inputs) will probably include a number of broadcast channels plus a number of videotape recorders plus, perhaps, one or two live studio inputs.

The company's Series 1030 router's design uses the high performance Isoswitch crosspoint — offering remote address and audio-follow-video capability where required. Systems match customer requirements with minimal custom content. Series 1035 is a less costly version, not remotely addressed. Series '050 — all-mechanical switching — leads effectively to high-quality switched distribution of baseband TV signals at rock-bottom cost. Code 6-3

For your bookshelf . . .

A directory, "Canadian Chemicals for Export," is available from the Department of Industry, Trade and Commerce. It contains lists of export chemicals, chemical consuming industries, Canadian Trade Offices and a directory of manufacturers. It is published in English.

Another publication, "Chemical Products," is of special interest to the construction industry. Again, there are lists of companies and

products which have been placed in two categories: one of interest to those involved in tourist, commercial institutional and housing projects; the other for those involved in industrial plants or service projects. "Chemical Products" is available in English, French or Spanish.

For a free copy of either of these publications, fill in the trade inquiry form on page 15, specifying the title and language required where applicable. Code 6-5

Canadian crane output on upswing

A plant in British Columbia soon may be one of the biggest tower crane builders in North America. Heede International Ltd. at Port Moody, British Columbia, is filling several large orders from the United States for giant tower cranes. Heede has new plant facilities at Port Moody and exports next year are expected to run \$3,000,000 above normal sales volume. Marketing plans indicate

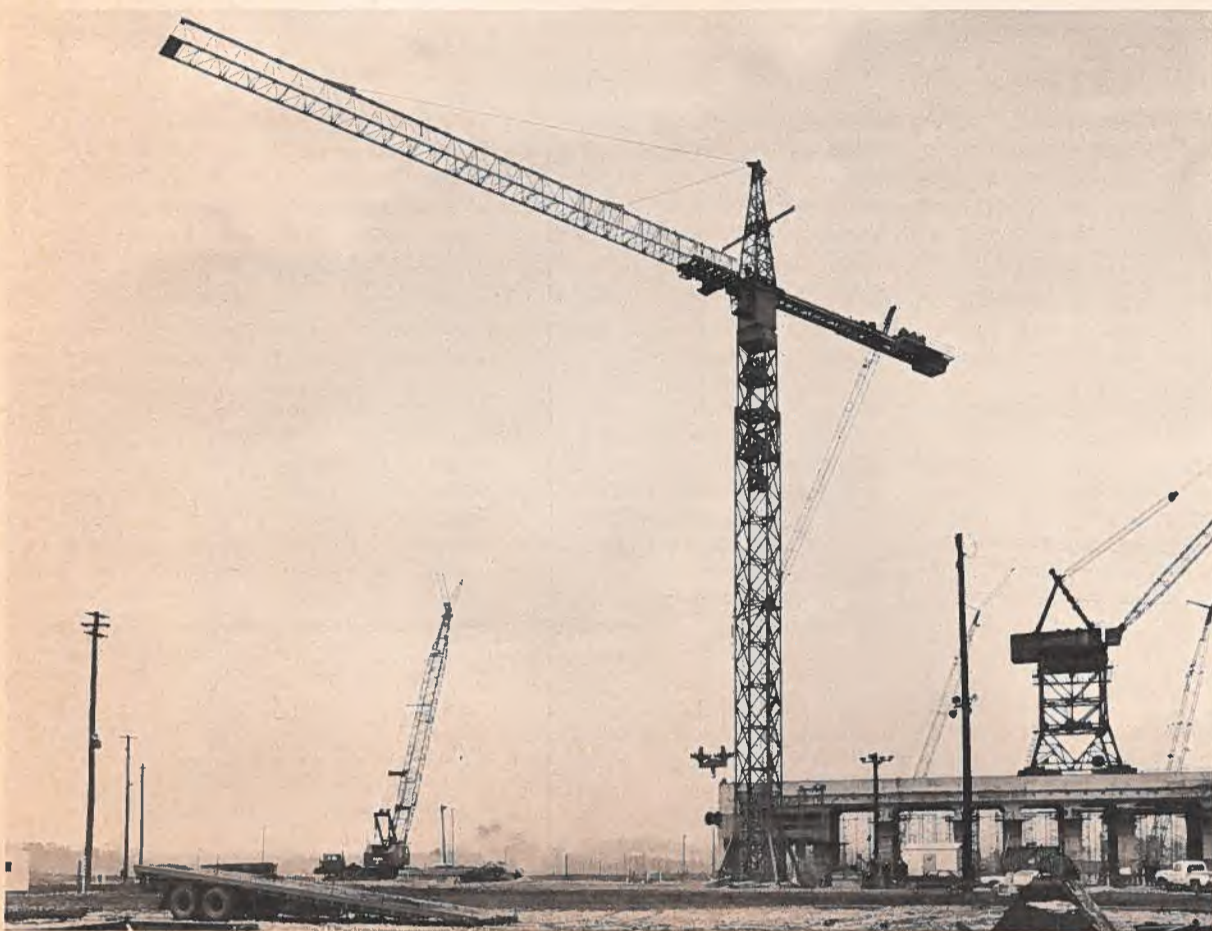
these exports will double in the second year. Heede tower cranes are made to free-stand (without support of building itself) more than 250 feet. They can lift loads up to 44 tons, equivalent to 22 automobiles, and are usually mounted on tracks. Until now, only one crane of this type has ever been built in North America. It was assembled last year on a sub-contract basis for

Heede and sold for \$300,000. Fifty per cent additional space at Port Moody is already planned and more skilled employees will be recruited. Heede established its original Canadian plant at Vancouver in 1961 and since then has exported a variety of crane and hoisting equipment to the U.S., South America, Europe and the Far East. Code 7-1



Rol-loader empties trailers fast

A hydraulic truck crane, mounted on a powerful frame that rides the length of a trailer and thus speeds unloading, is designed and built in Canada by Atlas Polar Company Limited of Toronto. HIAB Rol-loader is available in "Wide Track" and "Inside Rail" models. The former operates on same 92-inch (2.41-m) centres as the commonly used overhead unloaders for brick and block. The latter — primarily intended for inside-rail trailers — allows operating on trailer with stakes in place. Both are powered by a gasoline-engine-driven hydraulic pump that operates the crane and powers the undercarriage. Code 7-2



Heede crane at Tennessee Valley Authority's Sequoyah Nuclear Project.

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There may be no need to use costly factory-built insulated tankers with Fell-Fab insulated tanker liners available. These liners are easily fitted to various types of tankers. Outer cover is made of nylon material with vinyl which has welded seams. The polyether insulation is two inches (50.8mm) thick. By using Fell-Fab liners, one trucking company estimates it is saving 40 per cent compared to the cost of a factory-built insulated tanker. The 24-foot (7.3m) tanker illustrated is hauling bunker oil and can maintain a set temperature from 12 to 14 hours. Repair of the tanker itself in the event of leakage is simplified because the insulated liner is easily removed. Code 7-3

trade inquiry form

More information is available without charge on Canadian products and services mentioned in Canada Courier. List the items below which interest you, complete the form, cut out and mail it to the following address:

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I am interested in further information on the Canadian products and services mentioned in Canada Courier which I have listed below:

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Singer Valve Model 350 Mobile Pneumatic Unit is in use by CP Air and other major airlines.

Stand-by starting power for jets

Major airlines are using Singer Valve Co. Ltd.'s Model 350 Mobile Pneumatic Unit as stand-by starting equipment for their big jets and turbo-props. Model 350 accurately regulates air pressure for engine starting and because of its simplicity, reliability and low price, is well suited to small airfields. Power take-offs for airtools, tire-inflation, spray-painting and so on are optional.

The compressor is rugged, high-pressure and air-cooled, complete with all controls mounted directly on the air receiver. The receiver is

built and registered to A.S.M.E. standards and the whole assembly is trailer-mounted with automobile-type steering. A safety relief system is incorporated and a wide range of pressure and capacity options is available.

Singer Valve is best known for its automatic control valves and regulators for industry, municipalities, waterworks, contractors and shipbuilders. This broad coverage of the field means that advantage can be taken of one supply source for all types of valves. Service personnel have only one family of

valves with which to deal instead of a collection of unrelated products and less time is spent searching for supply sources. These facts, coupled with Singer Valve's competitive prices, mean substantial savings.

In addition to its production capabilities, Singer has a comprehensive test laboratory which undergoes periodic updating. The laboratory is being used in Singer's research and development work, plus operational testing of the company's products. This facility is available for contract work.

Code 8-1

High-rise concrete forming cheaper, easier with new system

A new Canadian company is marketing unique concrete forming systems for high-rise buildings which require 24 per cent less man-hours than conventional systems. Aluma Buildings Systems Inc. was formed recently by Alcan Products, internationally-known for its aluminum products and DelZotto Enterprises Limited, one of Canada's most progressive land developers.

Spokesmen for the new company say the light weight and high strength of aluminum enables Aluma to produce a single reusable concrete forming panel

measuring 80 feet (24.38 m) by 20 feet (6.09 m), five times larger than conventional panels. The system also simplified the supporting structure so it can be flown from floor to floor by tower cranes and the aid of only two men.

The president of Aluma, Elvio DelZotto, says that in a typical high-rise building measuring 180 feet (54.8 m) by 80 feet (24.38 m), just 12 of the new forms are required for construction as compared to the 36 conventional forms required to do the same job. He says the system shows great po-

tential for substantial savings in construction costs.

The company has also developed a stationary forming system using light weight but high strength aluminum beams for those areas where a flying form is impractical. These would include areas below ground, projects lacking sufficient repetition or supported by very irregular columns. Other products are now in the development stage. The products already available and the ones under development will be marketed initially through sales or leasing arrangements.

Code 8-3



Aluma Building Systems on the job at a high-rise building site.

Mobile land-air transceiver

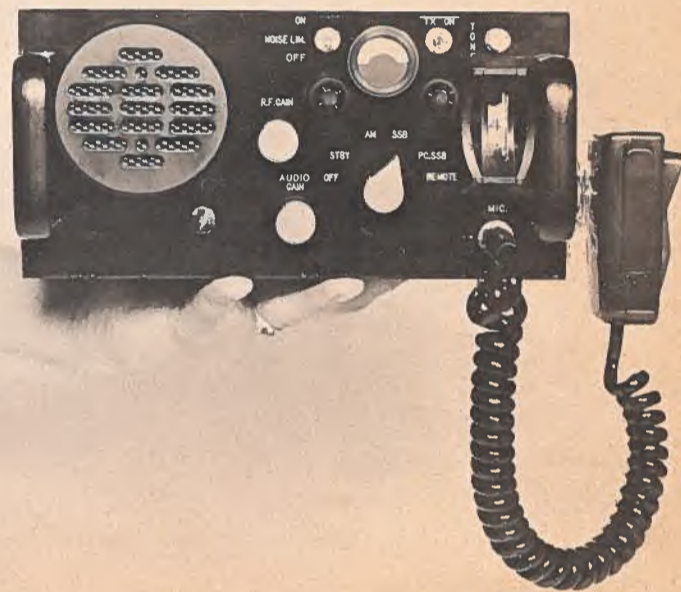
SM-150 HF/SSB — newest product of Triton Industries Ltd., Vancouver, British Columbia — is a 12-channel solid-state transceiver, designed for mobile operation, for use in trucks, air-cushioned vehicles and marine installations. This AC/DC equipment, which operates over 1.6-15 MHz frequency range, can work cross-channel on all 12 and is fully solid-state except for transmitter high-power stages and receiver R.F. amplifier. Power output is 100 with PEP.

Triton's MR-106 HF/SSB six-channel transmit-receive system for land-station use has high-stability receiver and high-power-output transmitter. Remote-control accessories are available which allow operation of both receiver and

transmitter from remote sites over telephone pairs. When operated as a complete station, the six-channel equipment is designed for both voice and FSK operation. Power output and frequency range are the same as for SM-150.

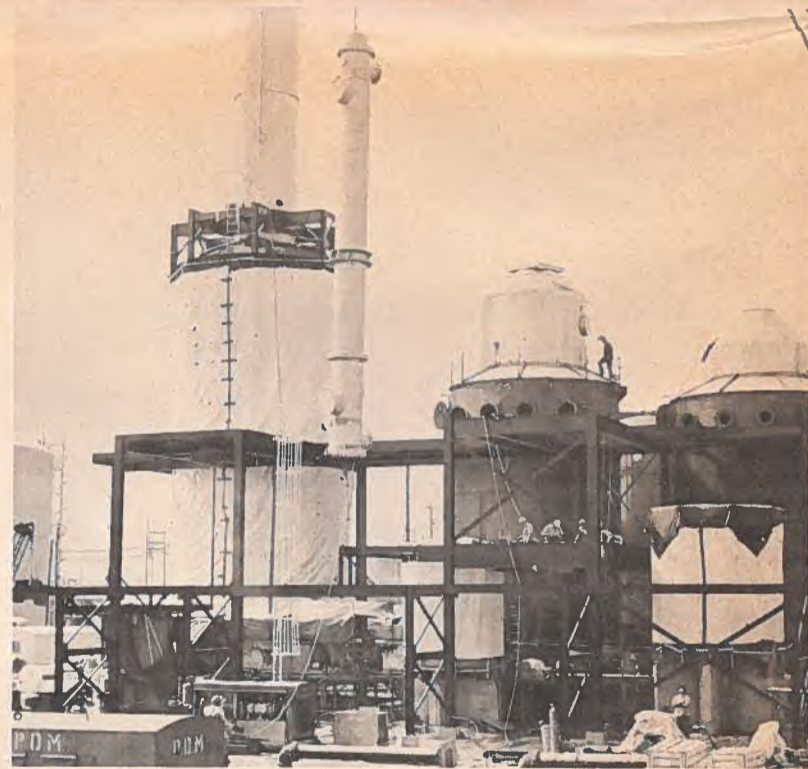
All Triton equipment is highly reliable — military grade — and requires minimum service. Systems are broken down into replacement sections which, in turn, are broken down into plug-in circuit modules. Once installed, each unit can be unplugged and replaced by field personnel; no technical adjustments or tuning are needed. Any assembly can be removed and replaced in minutes by unskilled personnel.

Code 8-2



Triton's SM-150 12-channel transceiver.

Low-maintenance acid cooler



Installation of sulphuric acid coolers at Pascagoula, Mississippi.

A Canadian breakthrough in sulphuric acid production offers low-cost, trouble-free operation with significant space-saving. A subsidiary of Canadian Industries Limited, Chemetics Limited, is marketing anodically passivated shell-and-tube type stainless steel acid coolers which have undergone considerable testing at CIL's Copper Cliff, Ontario, plant. The equipment is fabricated by Fromson Heat Transfer Limited.

More than 40 tons of this type of cooler were recently installed in the Coastal Chemical Corporation plant in Pascagoula, Mississippi, ahead of schedule. Every acid manufacturer has different requirements and in the case of Coastal Chemical extensive custom designing was involved. For instance,

Coastal Chemical uses a sulphur-burning process rather than the gas by-product system in use at CIL's Copper Cliff operation.

The massive acid heat exchangers, each 36 feet (10.97m) long, are built and installed in a vertical position but must be shipped horizontal. They require careful handling, so Chemetics had to develop a steel "lifting bell" to protect the protruding cathodes at the top of the cooler while the unit is being lifted. The bell was used at Fromson's plant to load the shipment and then taken with the coolers to Pascagoula to ensure there were no installation problems. Using the Canadian acid coolers, Coastal Chemical is producing 1,500 tons of sulphuric acid per day.

Code 8-4