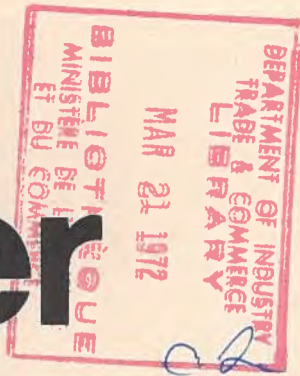


canada courier



More detailed information on any product or service mentioned in this issue is available through the nearest Canadian Government Trade Representative, or by completing the Trade Inquiry Form on page 7 and mailing it to Canada Courier, Department of Industry, Trade and Commerce, Ottawa, Canada. Postal code: K1A 0H5.

UNITED STATES EDITION

VOLUME 9, NUMBER 10, OTTAWA 1972

Come on in -- the water's fine

... And so's everything else! Canada offers the American traveller a unique vacation experience. There are the exciting differences of a foreign land with the comforting familiarity of language, money system and traffic laws generally.

Canada is a big land, the second largest in the world and, as the Canadian Government Travel Bu-

reau points out, it is impossible to see even half the country in one trip. Travellers are advised to pick one region and save the others for future vacations.

Canada is 10 provinces and four territories which can be divided into five regions: West, North, Ontario, Quebec, and the Atlantic. There are many ways to express the

vastness of Canada; perhaps it's enough to say the country spans seven time zones.

The West comprises the provinces of British Columbia (on the Pacific Ocean), Alberta (sharing the Canadian Rockies with B.C.), Saskatchewan and Manitoba.

The North is the Yukon Territory and the Northwest Territories;

Mackenzie, Franklin, Keewatin.

Quebec, followed by Ontario, is Canada's largest province. British Columbia is third in land area.

The Atlantic Provinces are: New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland (which is also an island with jurisdiction over a huge piece of land adjoining Quebec called Labrador).

Keystone of the West is, like the states to the south, hospitality. This is a land of friendly people, sunshine and glorious scenery. Visitors have enjoyed attractions like the world-famous Calgary Stampede for many years.

The North is exciting, one of the world's last frontiers. The territories cover one-third of Canada's land area but population is sparse. There, the vacationer can recapture a sense of adventure.

Ontario is a satisfying blend of urban sophistication and country character. The richest and most heavily-industrialized province, Ontario offers mod cities and historical countryside.

Quebec province is unique. It is the home of French culture in North America and its largest city — Montreal — with a population of more than 2,000,000, is the second largest French-speaking city in the world.

A knowledge of French is helpful, but not necessary, in Quebec. Canada is officially a country of two languages: French and English. English predominates across the country although most provinces have large French-speaking groups.

Atlantic Canada is steeped in maritime tradition. Seamen were the first settlers and some of the fishing villages date back to the 1500's. On the other hand, some of the world's most advanced ocean research is being carried out in

cities like Halifax, Nova Scotia. The result is an exciting blend of old and new.

Coast to coast in Canada the traveller finds good shops, restaurants, theatres and night clubs. Accommodations are excellent with hotels and motels, colourful pensions (tourist homes) in Quebec and clean, convenient campgrounds for those who like to rough it. In addition, many ranches and farms have guest facilities for a vacation with a difference.

The traveller could drive from one end of Canada to the other on the 5,000-mile Trans Canada Highway which has picnic areas or rest stops nearly every 50 miles, campgrounds every 100 to 150 miles and ample service stations, restaurants, accommodation and information centres. All of Canada's major highways are similarly equipped. Canadians drive on the right too, and the smaller population usually means less congestion. Driving laws vary a little from province to province. Some provinces have their own provincial police forces but most highways in Canada (and all of the Trans Canada) are patrolled by the federal force . . . the Royal Canadian Mounted Police.

Almost all Canadian highways are toll-free. The three exceptions are in the province of Quebec, leading to and from Montreal. There are also occasional toll bridges, such as the Burlington Skyway across Hamilton Harbour at the head of Lake Ontario. Most ferries, large and small, charge a fee for crossing, for both vehicles and passengers.

Some national parks in Canada charge no entry fee; others charge \$1 or \$2 for each vehicle plus an additional \$1 if the vehicle is tow-

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Summer in the Lover's Leap area, along Conception Bay, Newfoundland.

Canadian toy makers are riding high in a merry-go-round world

Canadian toys tinkle, whisper, coo. They go bang. They flash. They're plush, pliable, plastic and durable. The outstanding style and quality which moves them quickly from the retail shelves attracts many buyers, not only in Canada but around the world.

Canada's relatively new but rapidly growing toy and game industry has shown an impressive record of accomplishment in recent years. Exports from this sector rose by a remarkable 109 per cent between 1967 and 1970.

Today's consumer not only makes demands for a better pro-

duct, he also has the money to back up his demands. The emphasis of most Canadian manufacturers has shifted noticeably towards the higher quality toy that is first and foremost safe, but also great fun to play with.

Canadian toys are sturdy, stylish and educational. They're made from the finest materials, strictly controlled by provincial departments of health.

Excellence of design and construction, combined with effective packaging and merchandizing, have brought spectacular sales success to the industry.

Exports include beautiful dolls, fascinating games and hobby kits, pool tables, toys that whirl, chatter, move and amuse — space vehicles, robots, cars, tractors and aeroplanes, to mention a few.

Sales of mechanical and electrical toys with high play value are booming. These toys constitute a sizeable part of today's toy market and Canadian companies have been quick to meet consumer demands for more imaginative, multi-functional items.

The industry has benefitted from the more specialized and rapidly developing technologies of the seventies, especially miniaturization and computer technology. Canadian manufacturers, quick to respond to the intense competition of new ideas in this industry and to adapt to changes in production, have exhibited at major international toy fairs.

A highly entertaining selection of adult games is now available from Canadian companies. Increased leisure time is partly responsible for their popularity. Psychologists claim they satisfy a growing need for safe sublimation of aggressive or hostile impulses. Most important of all, the games have high entertainment value. They're not only fascinating but challenging, sophisticated, and cater to the most diversified of individual needs.

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Here is one appealing member of a large family of delightful dolls and other plush and plastic beauties made by Regal Toy Ltd., Toronto. Story on page 3.

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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.

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ing a trailer. Point Pelee Park, in Ontario, charges \$5 entrance fee — the highest in Canada — but the cost covers the exceptional nature study facilities of the peninsula-park. The entrance fees entitle vehicles to a sticker which permits free entrance to all national parks charging the same or a lower fee, April 1 to March 31 of the year issued.

Crossing the U.S.-Canada border is relatively easy and uncomplicated. Americans require no passport or visa to cross into Canada but identification papers such as a birth, baptismal or voter's certificate will help speed up routine formalities. Naturalized Americans should carry their naturalization certificates, while alien permanent residents in the U.S.A. will find their crossing made easier if they



Canada's Parliament Buildings in Ottawa at sunset, with the Ottawa River in the foreground.

take along their Alien Registration Receipt Card (U.S. Form I-151).

Further border-crossing information can be obtained from Canadian or American immigration authorities, Canadian Government Travel Bureau (14 offices in the U.S.) or CGTB headquarters in Ottawa, Canada.

The provinces of British Columbia, Ontario, Manitoba and Alberta do not require visiting motorists from the U.S. to produce evidence of financial responsibility. Other provinces require a non-resident Interprovince Motor Vehicle

Liability Insurance card, available at any U.S. automobile insurance office.

Canadian money is also based on the decimal system, although the bills of each Canadian denomination (1, 2, 5, 10, 20 and so on) are a different colour. Canadian hotels, motels and restaurants charge about the same rates and prices as those in average-size U.S. cities, for equivalent quality. Canadian cigarettes cost a little more and come in different brands, although American cigarettes are often available. Canadian liquor is much the same



A kayak courses the waters of the Porcupine River in Canada's Yukon.

in price, sometimes cheaper, but the alcohol content is usually considerably higher than U.S. brands.

Gas and oil cost a little more in Canada (from 45 to 55 cents a gallon in most places) but Canada uses the Imperial measure, which is larger. Four quarts Imperial equal about five quarts U.S. The Imperial measure is also used for other fluids in Canada, such as milk and milk products.

For mail to the U.S., its territories and possessions, the letter rate is eight cents for the first ounce with varying rates for additional

weight. The air mail rate is ten cents for the first ounce and 10 cents for each additional ounce or fraction thereof. Parcels posted to the U.S. from Canada must have a customs declaration attached. These forms and parcel post rates are available at all Canadian post offices.

That's the basic story on vacationing in Canada — easy to reach, easier than most to get around, in spite of its enormous size. So relax, enjoy. And for more information, just fill in the trade inquiry form on page 7. Code 2-1

fashion canada

Leather, furs and knits — important words in today's fashion industry — and Canadian designers are in the stylish vanguard. These designs are only a sample of the clothes and accessories available from Canada. They represent the work of young designers encouraged by Fashion/Canada, a project of the Department of Industry, Trade and Commerce in Ottawa. The outfits are 6 of 199 selected by Fashion/Canada for promotion in Canada and abroad. "Flighty" models are Judi McDonald and Linda Dagenais, both of Montreal and both winners of professional model awards in New York.



Leather . . . The hooded cape and hotpants outfit of suede in stained-glass shades designed by Marion Coak for Percy Lindzon. The suede rawhide cavalier coat and matching pants by Susie Kosovic for Victor-James. Code 2-2



Furs . . . These are beautiful examples of the use of luxurious Canadian furs. The fitch cape trimmed with red fox is by Amsell & Amsell. Donald Richer designed the blue-fox-on-suede coat for Richer, Brooks, Burnett. Code 2-3



Knits . . . Knit outfits are ideal for travellers; they're virtually travel-proof. The two-piece tomato-coloured suit is by Goldon Crown Knitting Co. The smoky Jaspé suit is a two-piece hooded outfit in Antron and Orlon by Continental Calypso. Crochet hat and scarf-cum-belt from Hersey of Canada. Code 2-4

Credit: Photography by Karen Coshof, courtesy of Canada Wide Feature Services Limited.

Continued from page 1

Plastics continue to be the most widely used single type of raw material; technical improvements and lower prices have favoured their use. Synthetic fibres are favoured materials for such things as doll parts and accessories and stuffed animals. Other materials used in significant amounts include rubber, metals, wood, paper and cardboard.

Packaging is geared to the growing trend to self-service merchandizing. More and more toys are being bought on impulse from rack displays, usually without the aid of a sales clerk. Canadian producers have developed attractive, informative and durable packaging, necessary to encourage this type of buying. Code 3-1

Regal makes merry medley for growing world markets

They're fun to play with; they're safe, life-like and almost indestructible — that's why Regal toys are so popular around the world.

This prominent Toronto company may not be the oldest in Canada, but its president, S. Frank Samuels, has been in the toy-making business for no less than 52 years.

Regal Toy Ltd. makes a wide assortment of toys and dolls as well as delightful stuffed animals such as a washable monkey, a cuddly panda and a washable donkey. Regal's animal puppets are other favourites with children.

Other equally well known products include character dolls and walking dolls; wind-up and musical toys; sturdy plastic ride-em toys, tricycles and beach toys.

Plush toys are stuffed with new, sanitary materials, and surface decorations are attached with non-toxic adhesives.

Life-like flesh-coloured pigment or other colours are always built

Reliable toys — and more

It has been 51 years since Reliable Toy Co. Ltd. was born in humble lodgings in Toronto. The company has grown with each succeeding generation to become Canada's largest and oldest toy maker, a pioneer in many ways.

Reliable toys are found in more than 30 countries around the world and customers have some 1,300 toys to choose from.

Several of the company's products were chosen for display at the Canadian pavillion at Expo 70, in Osaka, Japan. One toy, a cement-mixer truck of sturdy polyethylene was chosen for its "excellence of design" by the Royal Canadian Academy of Arts at its 90th annual exhibition in 1970.

Reliable's best known and most popular products are its dolls and plastic Ride-Em toys. The Reely Ride-Em Tractor, introduced in 1961, was the world's first plastic pedal toy. It is still popular, in advanced design.

Reliable's pioneer work in plas-



These dolls are being introduced by Reliable Toy in the company's learn-while-you-play series. There are five new dolls teaching numbers, time, colours, ABC's and traffic signals in this new line. Code 3-4

Heritage of fine art —

For centuries the talented fingers of Canadian artisans have created handicrafts that, for quality and imagination, are unsurpassed. Weaving, carving, pottery and many other arts have formed an integral part of Canadian life from the earliest times.

Successive Eskimo cultures have provided numerous examples of admirable artistry. The Eskimos of today have lost none of the talents of their ancestors but have become more sophisticated in their presentation of the harsh yet colourful life they lead. In recent years there has been an upsurge of public interest in the stylistic carvings that have come out of Canada's northland. The new art of the Eskimo, while showing outside influence, is evolving along traditional lines. Soapstone is now the material most often used and the photograph — "experiment in light and colour" — shows an example.

Indians of Canada are renowned for their pottery, tapestry and dolls. They also make an impressive array of beaded necklaces, bolo ties, moc-casins, leather mitts and bags, masks, rattles and toys.

Skilled tradesmen and artisans were among the first European settlers in Canada and they found an immediate call for their finest work. The advent of the Industrial Revolution spelled for a time the end of the cottage arts but the 20th century brought new interest; government help supplemented private efforts to revive handicrafts and they are now big business.

Much is being done in the areas of education, assistance and quality control to ensure that the age-old arts do not die out and that buyers of Canadian handicrafts get the best possible product. Code 3-2



into the plastic before it is moulded, eliminating the need for paint.

The nylon hair used on Regal's dolls is non-combustible, can be washed, combed, styled and doesn't lose its curl. Special sockets are created in the doll's head in which to firmly lock the eyes, made of unbreakable plastic. Make-up applied for the brows, cheeks and lips is non-toxic and lead-free. No elastics, screws or nails are used in attaching heads, arms and legs to torsoes.

Regal dome-fastens each item of clothing on the doll instead of using pins. Fabrics are the same as those used in children's apparel and two skilled fashion designers provide doll wardrobes that are as up-to-date as the average youngster's.

The play value of the dolls is enhanced by such accessories as rockers, cribs, hair brushes, combs and other toiletries.

Regal offers its many overseas customers its entire selection of products. Code 3-3

tics after World War II brought new safety features to the industry. Sharp edges, splinters and rust were eliminated.

The Ride-Em series has included a motor bike, a moon mobile and a dune buggy. Top sellers at the 1971 Canadian Toy Fair were a new Amphi-Buggy, a 747 Jumbo Jet, a Tugboat, and a Ski-Mobile.

Reliable's dolls have won international acclaim for their beauty and quality. Equally popular are the many varied accessories such as toters, cribs, high chairs and cradles — best sellers the world over.

An increasing number of the company's toys are educational playthings. They offer enriching experiences and play an important part in socialization.

Important safety standards in manufacturing were urged by Reliable's president Mannie Grossman in 1969. The Canadian government and the toy industry have worked together to bring these about.

Canada steps out in style with shoes for all seasons

"Creative styling is what sells shoes," says Ross Hahn, President of the Shoe Manufacturers' Association of Canada. And style is what Canadian shoe designers have in spades — along with fine craftsmanship and materials. Members of this Association have been responsible for such design achievements as the needlepoint style in

women's shoes, which swept the western world, and the high style in women's boots.

Other Canadian innovations: wooden clogs as the soles of boots; leather flowers appliquéd to canvas boots; "granny" buckled, buttoned or lace shoes, high to ankle; graceful, oval, dressy shoes.

Speaking categorically, Canadian

shoes comprise: men's dress, men's work; women's; women's boots — dress and winter; men's and women's sport and other novelty; infants' and children's.

A few of the many Canadian shoe manufacturers ready, willing and able to serve world markets, put a good foot forward here. . .

Code 3-5

These boots were made - to win an "Oscar"



An international award — the Oscar — has been won for three boot designs by Cristina Shoe Co. of Montreal. Company owner Tony Iammatteo accepted it in Torino, Italy, from Academia Internazionale della Calzatura (international Academy of Footwear). Mr. Iammatteo says the award proves that "Canadian shoes can compete on a world basis." Judging at Torino was on three points: creation, workmanship, fitting. This is one of Cristina's Oscar-Winning boots. Code 3-7



These three-eyelet wing-tipped laced walking oxfords are by Hanna Shoe Corporation Ltd. of Grand'mère Quebec. Code 3-8



Sandal by Wallace Footwear (1962) Ltd. of Montreal. Code 3-9



Two-tone skate boot at right, designed by Bauer of Greb Shoes Ltd., Kitchener, Ontario, for St. Louis Blues, was first coloured skate used in the National Hockey League. Beside it, Montreal Canadiens' colour combination. Boots are of kangaroo leather. Code 3-6

A LITTLE turkey goes a long way

Canada has a higher per capita consumption of turkey meat than almost every other country, so it's not surprising that one of the most successful breeds of turkey was developed in Canada. It's Diamond White, a bird which accounts for more than a quarter of all turkeys bred in Canada and is now well established in many European countries.

Diamond White, a product of Hybrid Turkeys Limited of Kitchener, Ontario, is very different from the traditional Christmas turkey; it's a small-bodied turkey — known in some countries as a junior, in others as a broiler or fryer, and in others as a medium turkey. Diamond White was bred to mature early, to be ready for market in 13 to 14 weeks at a live weight of 10-10½ pounds (4.5-4.75 kg.) resulting in better use of labour and capital for the producer, and a smaller, more economic carcass for the consumer.

Diamond White and similar compact turkeys have been available year-round in Canada for many years. Similar patterns are emerging in the European countries where Diamond White is distributed; in France, for example, 2,500,000 of the 10,000,000 turkeys grown each year are Diamond White.

An ongoing program of research

and development is behind the Diamond White turkey. Besides pedigree breeding and selecting for high reproductive capacity and rapid early growth, Hybrid Turkeys is testing new management



Proud parents. Typical Diamond White hen and tom produce commercial turkey-hatching eggs.

Code 4-1

practices and disease eradication programs.

Breeding stock — inspected frequently by Canada Department of Agriculture veterinarians — is shipped by air from the Hybrid hatchery in Ontario to distributors in France, Italy, Cyprus, Hungary and Belgium while commercial eggs and poults are shipped to Spain, Greece, Peru, Venezuela, Philippines and the U.S.A. The company's guarantee of 100 per cent "liveability" on arrival assures customer confidence.

The company believes that technical service is as important to the overseas customer as the product itself, so technical personnel from Canada regularly visit overseas clients to exchange experiences, troubleshoot and advise on breeding, hatching and growing the commercial birds. Distributors are encouraged to visit Hybrid's farms for seminars and workshops.

A five-a-year-shipment Hybrid contract to supply 40,000 day-old turkey poults to members of a co-operative in Hungary has opened up another export market. The Canadian birds will provide 1,500,000 turkey broilers each year and will be used to stock other co-ops. As a result, a Hungarian government delegation of farm experts recently visited Canada to tour Hybrid's facilities and others in the district.

Aluminum bridges, trusses, towers

Aluminum ranks second among metals widely used today; performance and properties are in many instances superior to those of other metals; modern fabricating techniques allow the finished product to be produced at competitive cost. Aluminum's corrosion resistance is achieved by a very thin film of aluminum oxide, formed when the metal is exposed to the atmosphere. Aluminum can corrode only if this film is ruptured and prevented from re-forming.

Dominion Aluminum Fabricating Limited of Toronto has for some years been a major producer of welded tubular aluminum structures for supporting overhead highway signs. Neat and clean, they need little or no structural maintenance. This led to studying aluminum trusses for supporting process pipe and initiated development of various types of structures to meet varying load and span parameters.

Next, D.A.F. turned to the pulp and paper industry, with the aim of reducing expense involved in servicing pipelines. Practically maintenance-free, aluminum has high strength-to-weight ratio and lends itself readily to this type of structure. It has also gained admit-

tance to a fairly restricted range of corrosion-resistant materials.

Extensive tests have been run on aluminum, stainless steel and galvanized steel. High humidity, sulphur and chlorine compounds, plus other acidic and alkaline materials, are prevalent in the typical papermill atmosphere. Studies show that fumes and vapour from acidic sulphite or alkaline kraft and soda liquors, in concentrations usually found in such atmosphere, have relatively little corrosive action on aluminum alloys. Stainless steel and aluminum both perform well, but the latter also withstands attack. Both are clearly superior to galvanized steel; the choice rests on economic considerations.

Four men in 10 days, under field supervision, erected the aluminum-pipe bridges at the new Port Hawkesbury mill of Nova Scotia Pulp and Paper Limited. Designed to support a series of pipelines and cable trays from groundwood mill and recovery plant to machine room and to the machine room from the pulping building, they run about 2,000 feet (610m); truss spans vary from 65 to 108 feet (19.8 to 33m); tower height averages 30 feet (9.1m) and the structure supports loads of up

to 900 pounds (409kg) per lineal foot. Extrusion's versatility and economy enable special aluminum tubes to be used for chord members, making feasible a triangular truss configuration. This reduces truss weight, wind and ice loads — lowering transport cost while improving pipeline accessibility for maintenance.

To improve navigation aids in the Straits of Canso off Canada's east coast by establishing seven sets of ranges, D.A.F. designed, fabricated and created 14 range towers of different heights. These were made up of aluminum tubular sections bolted together onsite, then lifted into position with erection towers because they were so light. Helicopters were used in near-inaccessible spots to lift materials and tools. Each tower, complete with surrounding fence panels, was up within 12 hours. Frequent fierce storms and proximity to salt water made aluminum the obvious strong, anti-corrosive choice.

Aluminum towers are also used in communications, forestry, construction and area lighting. D.A.F. is branching out into the U.S.A. and South America, where there is an extensive market for industrial aluminum support structures and towers.



Strong, lightweight aluminum-pipe bridge erected by Dominion Aluminum for a Nova Scotia pulpmill.

Code 4-3

A neat design



Croydon's Pacer series in American walnut and white oak reflects the simple, functional lines of contemporary architecture. Easily interchangeable modular components permit fast on-the-spot conversion. Excellence of material and workmanship are evidenced in structural framing of quarter-sawn hardwoods; mortise-and-tenon joinery; grain-matched veneer surfaces; hand-rubbed natural oil finish. Most pieces are available with plastic laminate work surfaces in matching woodgrain finish. Croydon is a well known division of InterRoyal Corporation Ltd., Galt, Ontario.

Code 4-2

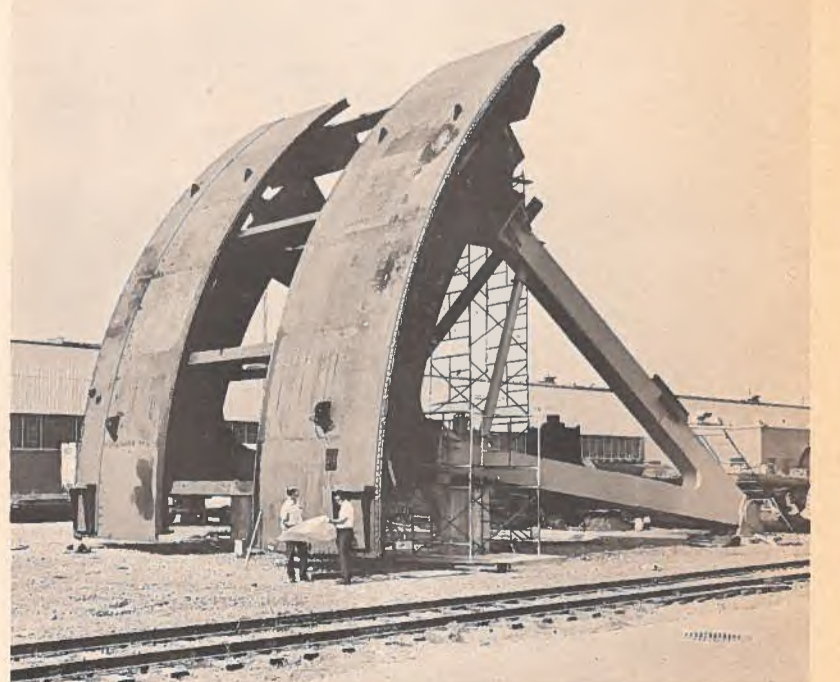
Steel fabricator makes it BIG

A recent export sale, by Foresteel Industries Limited of Montreal, was a giant 65-ton exhaust hood for a steam turbine, shipped on a special eight-axle rail car to its U.S.A. destination for General Electric Corp. It was fabricated from special alloy-steel plates: forgings and castings are no longer used. This facilitates the stringent inspection and quality control mandatory for precision welding and forming of this type. Other recent exports include pressure vessels to Israel, turbine castings to India and "cyclones" to Puerto Rico, to combat air pollution.

Foresteel, one of Canada's largest custom steel fabricators and erectors, prides itself on adhering precisely to specifications and on punctual delivery. A spectacular job in Canada is the unique ice-control structure on the St. Lawrence River designed by Lalonde, Valois, Lamarre, Valois & Asso-

ciates, Montreal. It holds back "the world's largest ice barricade" — 35,000 tons of ice — from damaging the site of Expo 67, the great World's Fair, whose successor Man and His World continues each summer. Foresteel fabricated and erected the 72 welded steel gates.

Tallest process column in Montreal — that of Union Carbide Canada Limited — was fabricated in the Foresteel shop, shipped and erected in two pieces. Rail and water facilities permit transporting very large sections to minimize field work, but some large structures are assembled for inspection and dismantled for shipment. Foresteel can undertake — using Canadian supervision and local tradesmen — large field projects such as refineries, hydro projects, pulp-and-paper complexes, almost anywhere in the world.



Canada's largest radial gates, weighing 400,000 pounds (181,600kgs) each, were produced for Quebec Hydro by Foresteel Industries.

Code 4-4



Who would have thought a few owls could attract so much attention! The big-eyed birds cover this cotton canvas raincoat as well as decorating the cotton knit dress. The maxi-length coat has flap pockets and a rope belt held by the model. Designed by Elvia for Luv Originals Inc. of Montreal, this outfit was shown at a recent Canadian Solo Apparel exhibit in New York City. Code 5-1

Precision moulds move far afield

Wentworth Mould & Die Company Limited of Hamilton, Ontario, which sells its high-quality precision moulds to the U.S.A., Latin America, Europe, Africa and Asia, has a richly experienced five-man top team.

President Fred Chalkley, who founded the company in 1947, has been concerned with moulding for 50 years. In 1958 he designed and made a minnow bucket that won a Canadian Council of Industrial Design award, as well as second prize at the 1959 Chicago Plastics Exposition.

Thirty years in the industry, Ray Aquin is a vice-president; so is Max Suit, who learned the tool-and-die trade in Sweden, joining Wentworth in 1953. Design engi-

neering is headed by Karl Schwarze, adept at foreseeing and licking potential problems posed by product design and/or mould requirements. Shop superintendent Horst Mueller learned his trade through Germany's painstaking apprentice system.

All the company's moulds are machine-cut from high-grade stress-free hand-forged aluminum bars. Alloy used provides exceptionally high compressive strength and constantly high thermal heat conductivity. Numeral-control equipment and special duplicators assure repeatability in producing multiple mould sets. Wentworth makes blow, injection, compression and vacuum-forming moulds to suit any equipment.



Wentworth's design engineering chief Karl Schwarze (rear) and design engineer Henry Morino at the drawing board. Code 5-3

High-speed train for existing tracks

A lightweight "next generation" passenger train that runs smoothly on existing tracks, uses standard fuels, doesn't jolt passengers on curves and will do 120mph (193-kmph) is in advanced development and testing at Montreal.

LRC (Lightweight, Rapid, Comfortable) is jointly produced by Alcan Canada Products, Dominion Foundries and Steel Limited and MLW Industries with project offices in Toronto. Designed for strong appeal to operators, financiers and the travelling public, it aims to compete with interurban air travel — considering such factors as comfort, convenience, time from downtown to downtown and frequency of runs.

Because it needs minimum maintenance and service, LRC's capital and operating costs should be less than those of conventional equipment and markedly lower than those of competing high-speed systems. One striking factor is LRC's ability to tilt its coaches as much as 10 degrees, through a hydraulic banking system. When the LRC locomotive is ready, the tilting ability will permit a train to negotiate curves at speeds 40 per cent higher than now possible with conventional equipment — dramatically reducing journey time and removing the need for vast expenditure on track strengthening and replacement.

Aboard a two-hour test run, passengers were never even conscious of going around curves and found comfort generally excellent. The otherwise luxurious chairs, how-

ever, are being re-designed to eliminate a slight jiggle evident on that trial run — before the special locomotive for LRC had yet been built.

Profile is low: about two feet (610 mm) below roof level of the standard baggage car coupled to it during testing. This permits rapid acceleration; the streamlined effect is emphasized by exceptionally large windows. Use of "state of the art" equipment in everything from engine to air-cushioned suspension system and air-conditioning eliminates the need for special maintenance facilities. LRC is also designed with a sharp eye to safety. Contributing factors include low centre of gravity and tilting on curves to permit 35 to 50 per cent

extra speed safely, while maintaining stability margins against wheel lift.

Conventional sills are replaced in LRC by built-in aluminum side sills, creating a stressed-skin, shock-resistant car body. Before initial road trials, the prototype coach withstood a squeeze test of 800,000 pounds (363,200kg) end-to-end pressure and severe vertical-strain tests — all under critical observation by Association of American Railroads' structures committee. Structural strength meets all A.A.R. specifications for trains weighing more than 600,000 pounds (272,400kg), although locomotive and coach weigh only 185,000 (84,000kg) and 80,000 pounds (36,300kg) respectively.



This train is tipsy? No, just tilted — so it won't lurch going around a curve. Light, swift LRC is a product of Alcan-Dofasco-MLW consortium. Code 5-2

Sturdy marine power unit stands up to severe test

Maritime Industries Limited of Vancouver, British Columbia, is fulfilling a contract for the United States Navy, producing 32 propulsion units of 300hp drive. The big inboard/outboard unit, Model L-295, has a 360-degree steering leg, additionally capable of being cocked up 180 degrees for maintenance without docking.

The U.S. Navy order stipulated that a prototype drive be built and exhaustively tested, using a 90-ton navy barge as test platform. Tests included 60 full-power beach landings and back-offs, 60 crash stops by reverse gear and 60 by 180-degree steering swing. Full power was 2,100rpm, developing 9,000 pounds (4,086kg) of static thrust

on a 60-x-38-inch (1,524-x-965-mm) propeller at 6:1 reduction.

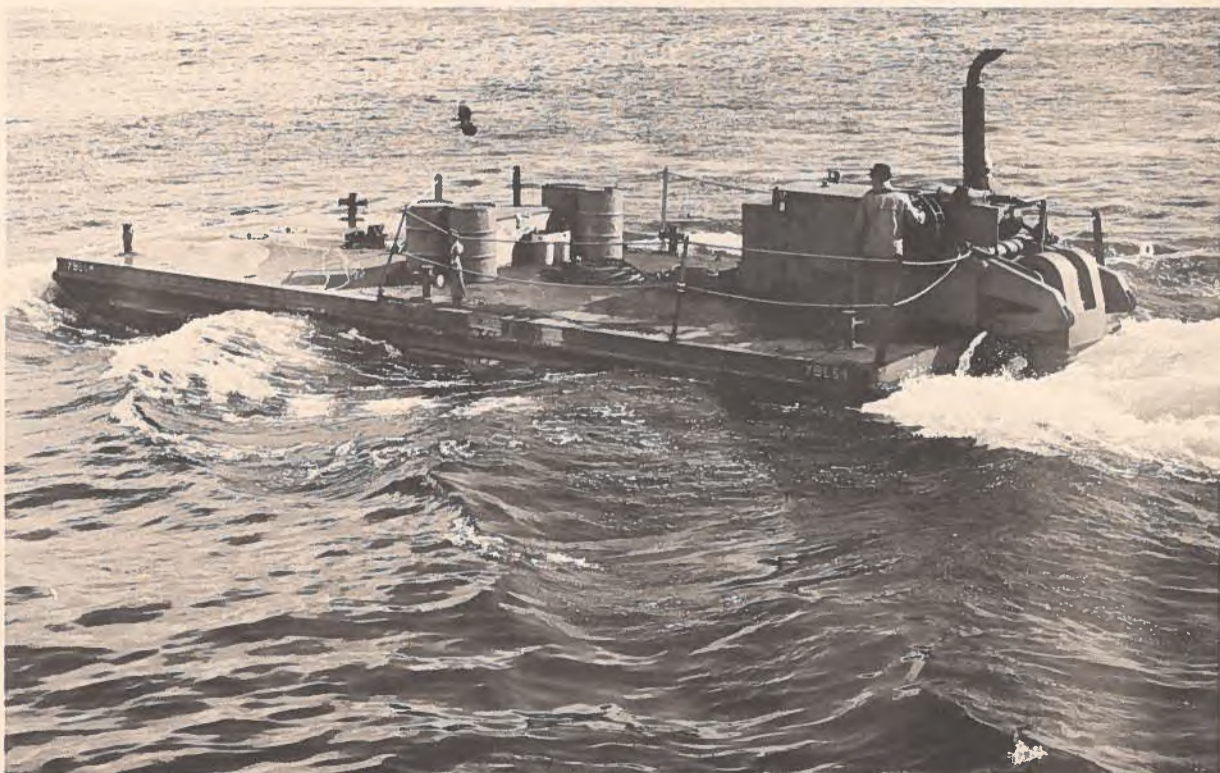
L-295 was then driven over a reef with the leg down — incurring further severe shock and propeller damage — then removed from the test vessel and opened up for inspection. Gear train and all critical parts were in first-class condition and U.S. Navy approval for production was gained.

Maritime Industries had studied performance characteristics of drives available from U.S., German and Japanese manufacturers with a particular eye to reliability and easy maintenance. The Canadian company fitted a 1:1 steering ratio previously unavailable in large over-stern units. A hydraulic leg-elevat-

ing system permits the drive to both steer and propel at full power while elevated above the plane of the vessel's bottom.

Maritime Industries is now working on main propulsion or auxiliary positioning units for ferries, dredges, pusher tugs, barges, fire floats and beach-landing craft — especially for use in remote or developing areas, where a full maintainable propulsion system is needed in absence of docking-facility support.

The company has just completed twin 300-hp outboard drives for a Canadian Department of Transport ice-breaking ferry — its total propulsion; won contracts for bow-thrusters for five oil industry offshore vessels; won contracts to supply four L-295 drives for propelling a British Columbia Highway Department ferry.



One of U.S. Navy's self-contained propulsion units — made by Maritime Industries — mounted on a 90-ton test barge. Good commercial sales are reported for the L-295 drives and their by-products such as L drives and bow thrusters. Code 5-4

Steam plant turns garbage into profit

One of the world's few steam-generator plants running on shredded garbage is unique in reducing it to a very staple fuel by pul-

verizing it. Result: very fine ash, free of clinkers and other obstructions to burning efficiency — and pollution is curbed.

This plant is the first Solid Waste Reduction Unit (SWARU), which commenced operation last November in Hamilton, Ontario. Designed by Gordon L. Sutin and Associates Ltd. of that city, it was built by Pigott Construction Co. Limited, Hamilton, and Babcock & Wilcox Canada Ltd. in nearby Galt.

Sutin and Associates is negotiating with several countries to adapt this all-Canadian design to their special requirements. SWARU reduces residue volume to five per cent of the original, as compared with 10 per cent — the lowest claimed by any other such plant known to company president Gordon Sutin.

Metal, including tin cans, is rejected automatically from refuse before burning. Ash produced is clean and sterile and, when compacted at final fill site, can provide usable land within five years. Also, since the plant can run 24 hours a day and produce large quantities of high-pressure steam, a great deal of that steam is saleable. Mr. Sutin believes a municipally owned SWARU such as Hamilton's could operate at no cost whatever to taxpayers, perhaps even make a profit.

The Hamilton plant has a concrete receiving pit that allows 12 trucks at a time to empty into it. Pit-bottom conveyors take the refuse to pulverizers, whence it goes to a storage or "fuel" tank to await further conveyors to boilers.

Code 6-1



This isn't really a Grecian column but a dual-flue, hermetically sealed smokestack for the boilers of Sutin's new steam-producing garbage disposal system.

Fun with furniture

Rosedale Furniture of Fenelon Ltd. has 42 pieces of outdoor and recreational furniture, ranging from chairs, benches and settees, to bars, lounges and stools. All are made from Western Red Cedar which is durable and attractive, with a prominent grain and beautiful warm colouring. The entire line is virtually nail-less; construction method is to peg pieces together. Thus the furniture is easily dis-assembled for shipping or storage. Rosedale's products, made in Fenelon Falls, Ontario, have been displayed at the Chicago Furniture Mart and the Spring Furniture Market Show at High Point, North Carolina.

Code 6-4



Ocean expertise on show

Canada has the longest coastline in the world — understandably she's become a nation of ocean experts. Proof lies in the wide variety of products and services 19 Canadian companies will exhibit under sponsorship of the Department of Industry, Trade and Commerce at Oceanology International '72 in Brighton, England, March 20-24.

Of special interest will be Canadian equipment and techniques developed to meet Arctic marine conditions. Kenting Exploration Services Ltd., of Calgary, Alberta is involved in the Polarquest petroleum exploration project in Canada's Arctic and it is Kenting's seismic crew and instruments that have proved feasibility of full-scale marine seismic surveys under severest ice conditions.

The Narwal is another Canadian answer to the rigouts of Arctic seismic exploration. Designed by Access Company Limited, Toronto, Ontario, this manned submersible fits into STOL aircraft, making support ships and surface power sources unnecessary. Compact and self-contained, it operates from hole-

to hole under ice to a depth of 1,000 feet (304.8 m).

Guideline Instruments Ltd. of Smiths Falls, Ontario, will show its rugged new high-speed temperature, salinity and depth measuring system which measures temperature to 0.02C, salinity to 0.04 ppt and depth to 0.2 per cent of full scale.

There's a new 26-pound (11.8-kg) foam vinyl-lined reinforced fibreglass diving helmet from Canadian Diving Services Ltd. of North Vancouver, British Columbia, that is making the standard 60-pound (27.2-kg) copper model obsolete. It allows comfortable dives to 600 feet (182.8m).

Halifax Shipyards, Halifax, Nova Scotia, will be displaying its line of custom-designed equipment for offshore petroleum exploration and production which includes Sedco floating oil rigs, largest of their kind in the world.

Fourteen other Canadian companies will be in the exhibition, showing everything from underwater deep-towing equipment to marine life support equipment.

Code 6-5

Sensor takes high speedup, error-free

The new Shaft Position Sensor made by George Kelk Limited of Don Mills (Toronto), Ontario, is designed for installation on rolling-mill housings, eliminating the need for a synchro link. It can also be used in any machine application where angular shaft position must be indicated by a digital electronic output.

Model 625-1 provides 128 output pulses per revolution — from 0 to 8,000 rpm — and accepts high acceleration without introducing an error. Optional electronic processing equipment can provide a shaft-position display or produce any one of the common codes.

The Sensor consists of a magnetic incremental encoder and a dual line-driver amplifier in a sealed, rugged cast-steel enclosure. Shaft position is sensed through a magnetically coded disc. Circuit cards are available for various functions, for example to energize the sensors, to de-modulate signals derived from the sensors, to do bi-directional counting for position-indicating systems and to provide inter-

New ideas in racing shells



With these shoes comes one of the world's finest racing shells — made by Kaschper Racing Shells Limited in the southwestern Ontario village of Lucan. The Kaschper building method, working three wood veneers onto a special vacuum mold, assures a much stronger than normal shell with skin free of nails, screws and vulnerable joints. All competition sizes are available.

Code 6-2

Like to know more about Canada?

All aspects of Canadian life — from business to the arts — are vividly presented on daily multilingual shortwave broadcasts by Radio Canada International, the Canadian Broadcasting Corporation's external service. They brought in 82,000 letters last year from the world over.

RCI broadcasts to the U.S.A., the Caribbean and Latin America, Europe, Africa and the South Pacific in English, French, Spanish, Portuguese, German, Hungarian, Czech, Slovak, Polish, Ukrainian

and Russian. In addition to direct shortwave broadcasts, RCI produces music and spoken-word transcriptions featuring Canadian writers, composers, musicians and actors. These are shipped worldwide for airing on local radio stations.

RCI has three 50kw transmitters in Sackville, New Brunswick, two new 250kw transmitters, and three more under construction. Lists of times and frequencies of its various broadcasts are available, in the desired language, on request. Code 6-3

face circuits to drive readouts or computers. Output is available in binary, BCD or Gray Code for angular position, or as a pulse train for sensing shaft speed.

Kelk has added to its standard line Stedivolt (R) A.C. line-voltage regulators, a new SH series for use with 600-volt three-phase systems. This makes 66 of these regulators available for single- and three-phase applications, in load capacities from 12 to 206KVA.

Believed to be the highest-capacity load cells ever produced for

measuring rolling-mill separation force are two 17,500,000-pound-capacity (7,945,000-kg-capacity) cells recently delivered to the Aluminum Company of America's works in Davenport, Iowa. These were later installed in United Engineering & Foundry's 220-inch (5,588-mm) plate mill in the same city. The pair will accurately measure the mill's maximum separating force of 35,000,000 pounds (15,910,000kgs) and withstand a 70,000,000-pound (31,780,000-kg) separating force.



George Kelk staff skilfully assembles the fine electronics and electrical circuits inside these load cells.

Code 6-6

Giant fire trucks for Los Angeles

Fire trucks were horse-drawn "buckboards" — a kind of wagon — back in 1908 when the late Pierre Thibault and his father founded the company which is now Pierre Thibault (Canada) Ltée. of Montreal. It makes an array of blaze-battling equipment and exports it, thus far, to the U.S.A., Jamaica, Trinidad, Colombia, Peru and Chile.

Most spectacular recent sale was three 100-foot aerial-ladder trucks — one tractor-drawn, with a tillerman on rear — to the vast Los Angeles City Fire Department. One that, earlier, helped put the company on the map was a series of large orders from the Canadian Government for the armed forces

during World War II.

All Pierre Thibault equipment is designed and made in Canada, but its custom-built pumper — open or closed cab — can be fitted to the commercial chassis of the customer's choice, though still supplied complete by the company. Other pieces include: a pump control panel; an outstandingly controllable hose reel; booster tanks of many capacities; a range of "tilt" cab trucks — with body types designed to specification; rear compartments; constant-beam full-depth frames; strong, stable aerial ladders; fast-access ground ladders; a ladder leveller for use on uneven ground; a centrifugal pump; a new relief-valve control. Code 7-1



Canopy-type forward cab for firefighting, by Pierre Thibault, has ultra-modern 80-foot elevated platform. It's in use by Regina, Saskatchewan, fire department.

Sailboat success story

American boatbuilders are trying to discover the combination that is turning a pretty little Canadian sailboat into an international success story. So successful is the 13-foot 10-inch Laser, built by Performance Sailcraft of Pointe Claire, Quebec, that U.S. manufacturers are turning to their designers for near-duplicates.

The 125-pound fibreglass beauty was designed by Bruce Kirby, a three-time Canadian Olympic sailor who has been designing racing dinghies as a semi-professional hobby for years. An experienced newspaperman, he is now editor of a U.S. yachting magazine. President of Performance Sailcraft is

Ian Bruce, another former Canadian Olympic yachting competitor and partner in the Montreal industrial-design firm Girard Bruce & Associates Ltd. He had been running a small boatbuilding plant as a sideline for three years before the Laser came along.

In January, 1971, there were three Lasers in existence. One had been built the previous October to introduce the boat at a Wisconsin contest for sailboats costing less than \$1,000; it won its division and triggered a nightmare of success for its builder. A second prototype was assembled so that designer and builder, along with sailmaker Hans Fogh, could settle final details of

rig and sailplan by pitting one boat against the other with various rig combinations. Fogh, a Dane now operating a sail loft in Toronto, is also a three-time Olympic competitor and former world champion — Flying Dutchman class. By mid-December the first production boat was being shown to dealers and sailing groups on the U.S. eastern seaboard.

In January, 1971, Laser made a strong impression on professionals at the National Boat Show in New York and set a show record with 184 orders. The Company had to find larger production facilities in Pointe Claire and is now putting out 12 Lasers a day.

Meanwhile boat shows in Chicago and Toronto, along with a modest advertising campaign, pushed orders up again. Performance Sailcraft acquired the production facilities of a nearby fibreglass manufacturer and by mid-July each plant was producing 50 to 60 a week. Over 1000 Lasers are now sailing from yacht clubs and beaches throughout North America. The company has considered requests for building rights from Britain, Denmark, France, Germany, Australia and New Zealand, as well as several from the U.S.A. A plant is now operating in California and another is set to go in England.

Attempting to explain the Laser landslide, one journalist quoted world sailing champion George Moffet — who had been an archrival of Laser designer Kirby and builder Bruce. Moffet said, "This boat has everything a sailboat should have and nothing it should not have."



Performance Sailcraft's Laser in U.S. waters.

Code 7-2

Smooth sailing

This handsome racer/cruiser — spacious, fast and easy to sail — is the P-29 from the yards of Paceship Yachts Ltd., Mahone Bay, Nova Scotia. Standard equipment includes Dorade ventilators, spray shield for hatch, Barlow winches and V-Drive engine. Interior features berths for six, teak trim throughout and cushioned seats. A teak handrail stretches the full length of the cabin top and drains in the cockpit seats are recessed for convenience. Headroom under the headliner in the main cabin is a comfortable 6'2" and in the head it is 5'10". The P-29 has a keel-centreboard arrangement below the waterline but will soon be available in a keel model as a half-ton boat. Paceship produces 13 of the finest models ranging from 12 to 32 feet in length and is well known in North American sailing circles. (Axe on sail of the craft shown here is not a company emblem or P-29 design feature — it's the owner's idea.) Code 7-3



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Caterers look to Canada

The hospitality industry is being challenged by the ever more knowledgeable consumer. That which was accepted 10 years ago is rejected now. Today's traveller demands the finest of everything. Caterers and hotel-keepers are faced with the problem of operating economically while providing better accommodation and dining. They could look to Canada for the answer.

Canada has everything the hospitality industry needs: from food to freezers to furnishings. Canadian products have gained acceptance in many countries and the trend continues. The Canadian refrigeration industry's exports alone exceed \$10,000,000 in value annually to Britain, Continental Eu-

rope, the United States and the Caribbean. For years people in many countries have known about Canadian bacon, Canadian cheese and Canadian whisky. Now they're enjoying many other good things — like Canadian Chinese food. If that seems paradoxical, look at the picture on this page. Food for thought?

The veteran hotelkeeper or the caterer taking a first tentative taste of the rapidly expanding fast food industry would do well to look to Canada — chances are he'll find just what he needs.

For further information, fill in the trade inquiry form on page 7, stating specific interests if possible.

Code 8-1

Don't just say cheese . . .



. . . say Canadian Cheddar. It isn't easy to make a good natural cheese, but Canadians have been doing it for 300 years. The wonderful tangy flavour of the aged cheese owes much to the patient steps involved in its production. But basically it is the quality of the milk that counts — milk from cows fed on pasture produced by Canada's special climatic conditions. Only the finest Canadian cheese is exported. Its consistent quality is ensured by Government inspection and grading programs. Canadians eat it every day — and often don't realize how lucky they are. In the some 30 countries to which it is exported, aged Canadian cheese is treated with more reverence.

Code 8-3

Canadian whisky suits world taste

In the decade between 1955 and 1965 Canada's whisky exports doubled. History appears to be repeating itself and there is every indication that by 1975 these exports will have doubled again. In 1970 23.6 million proof gallons of Canadian whisky flowed into 89 countries.

The United States swallowed up 22.8 million proof gallons of Canadian whisky in 1970. Next in line were West Germany (101,000 proof gallons) and Britain (72,000 proof gallons). The Bahamas took another 48,000 proof gallons. All clear proof of the popularity of Canadian whisky in every corner of the world.

What are the reasons for this acceptance? Quality is an important factor. Canada's distilleries are able to use the finest raw materials: prize grains from the Prairies; clear, cold water from the country's lakes and streams — and the ingredients are treated with loving care to produce smooth whiskies. They're smooth alone, or smooth with company. For instance . . .

Whisky sour

1¼ oz. Canadian rye whisky
1½ oz. prepared lemon juice*
Shake with ice and strain into a chilled sour glass. Serve with a cherry.

Ward "8"

1¼ oz. Canadian rye whisky
½ oz. prepared lemon juice*
½ oz. orange juice
¼ oz. Grenadine
Shake with ice and strain into a chilled sour glass. Serve with a cherry.

*Prepared lemon juice (25 oz.) — Squeeze 12 lemons for approximately 15 oz. of juice. Sweeten to taste with simple syrup (7-8 oz.). Add one beaten egg to mixture. Keep refrigerated.

Code 8-6

Easy-to-serve Chinese food



Old-fashioned good cooking combined with modern food handling and storage bring Chinese food to the diner at the peak of flavour and texture. Chan Food Products Ltd., Saint John, New Brunswick, offers a wide variety. Sweet and sour spareribs are dipped in rich egg batter, deep-fried and blended with Chan's secret sweet and sour sauce recipe. Chicken chop suey is a succulent blend of tender chicken, mushrooms, water chestnuts, bamboo shoots, select vegetables and bean sprouts, all blended with a rich chicken gravy. Almond chicken or the pineapple chicken shown here offer superb taste. A very special delicacy is a Chan egg roll. All foods are pre-cooked, frozen and packed individually to allow a varied Chinese menu. Just heat and serve.

Code 8-2

Sweet-tooth diners get their desserts

Canada Farms offers fresh frozen pies and cakes fashioned from early Canadian recipes in the respected tradition of Morrison-Lamothe Foods Limited, Toronto, one of Canada's largest independent bakeries. Each Canada Farms pie and cake is made in the finest home-style way with high quality, delicately-flavoured ingredients. They are frozen to preserve freshness and goodness, carefully packaged to provide maximum protection and presented for sale as convenient, easy-to-serve desserts.

Code 8-4



Luxury foods, frozen or canned



"Luxury" brand Snow Crab meat is brought from the deep, cold waters of the Gulf of St. Lawrence to be canned by A. Roy Clouston & Sons Ltd., Lachine, Quebec, for salads, sandwiches, thermidors, newburgs, casseroles or cream soups. Other "Luxury" brand foods include: cravisse — individually quick-frozen crab claws, partially shelled and cooked — and canned lobster meat, cod livers and prawns. An ingenious process by this company brings uncooked lobsters direct to the world's kitchens. They are steam-blanching for just a few seconds, sufficient to kill and shrink the meat from the shell; then into ice-cold water to stop the cooking process. Next, each lobster is encased in a patented shock-proof container of molded polystyrene foam, blast-frozen, vacuum-sealed in transparent plastic and packed one dozen to the carton. Each lobster can be stored for at least a year in proper refrigeration and can be defrosted and served in 30 minutes.

Code 8-5