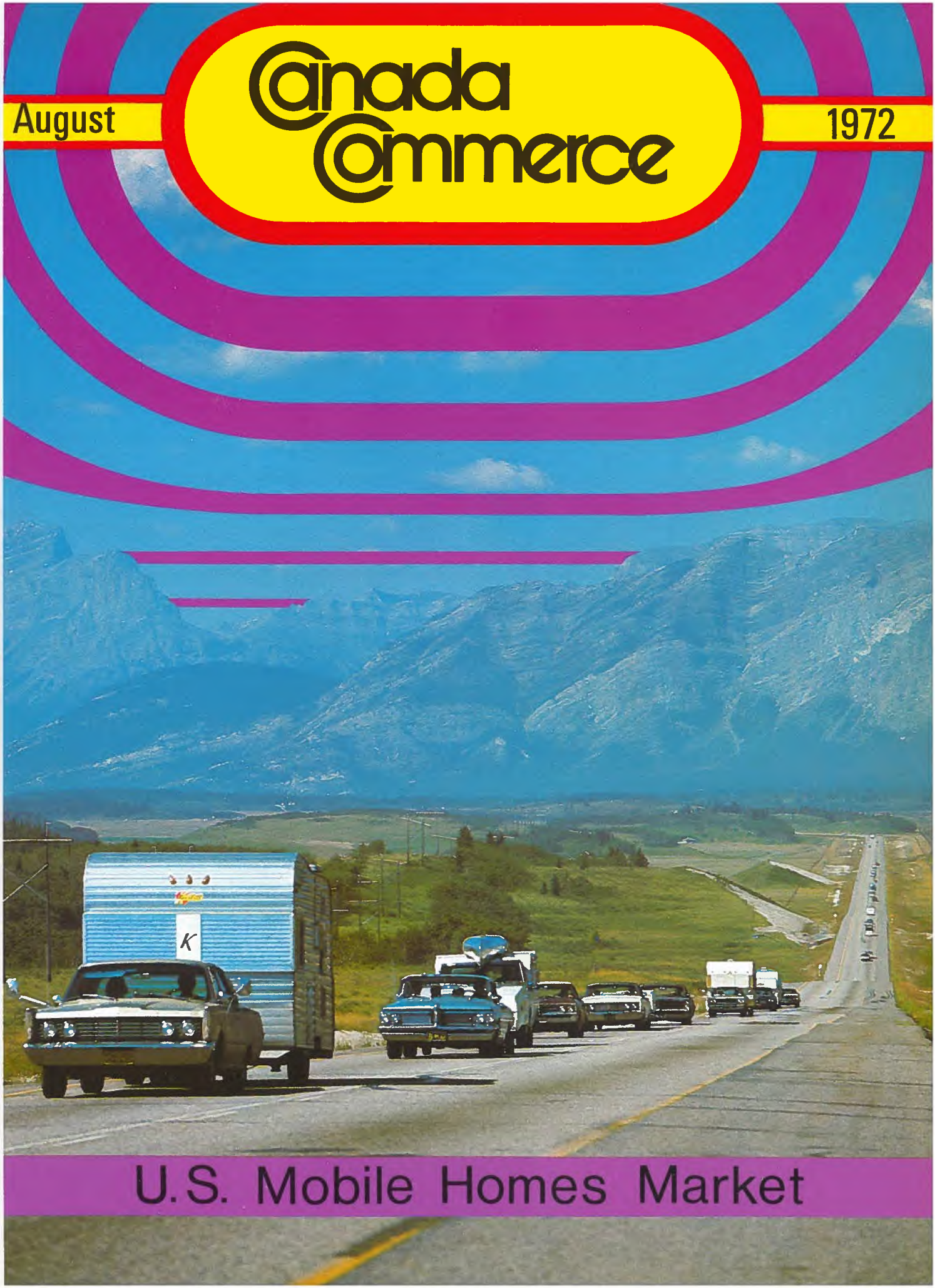
Canada Commerce

August 1972



U.S. Mobile Homes Market

Market Facts for Decision Makers

Analyses of Canadian imports of a variety of products are available, free, from the Import Analysis Division, Department of Industry, Trade and Commerce, Ottawa K1A 0H5. The latest reports prepared are listed below; a list of reports produced earlier was published in the April 1972 issue of *Canada Commerce* (inside front cover).

If you would like the Branch to prepare an analysis for you, write to its Chief or to the Industry Sector Division that handles the product you are interested in.

Report No.	Subject and Period covered
1-72	Steel bars, stainless and alloy, April to June 1971
2-72	Inorganic esters and salts, April to July 1971
3-72	Gasoline engines, January to July 1971
4-72	Prosthetic devices, October to December 1970
5-72	Polystyrene resins, June and July 1971
6-72	Tapered roller bearings, April to June 1971
7-72	Window shades and blinds, July to September 1971
8-72	Phenol-formaldehyde resins, July to September 1971
9-72	Water testing products — chlorine level, April to September 1971
10-72	Rubber-coated fabrics, July to September 1971
11-72	Carbon steel bars, August to October 1971
12-72	Monoacids and derivatives, July to September 1971
13-72	Household refrigerators, July to September 1971
14-72	Isocyanates, February, June, September & November 1971
15-72	Hardware, July to September 1971
16-72	Tank heads, September to November 1971
17-72	Photographic enlargers, July to September 1971
18-72	Oxygen function acids and derivatives, July to October 1971
19-72	Glass forming machinery parts, June to November 1971
20-72	Electrical insulators, May to October 1971
21-72	Chronometers, July to September 1971
22-72	Printing, writing and reproduction paper, January to June 1971
23-72	Tufted carpets, June & November 1971
24-72	Outerwear, two months 1971
25-72	Air and gas compressors, September to December 1971

Canada Commerce

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In This Issue

During this period of mid-summer (at time of writing, most of us are wondering when summer is really going to start) roads and camping places in North America are full of mobile holiday homes of one sort or another. Manufacturers of these conveniences no doubt are looking ahead to next year and planning their production schedules accordingly. Our lead article this month should help them in this respect by leading their thoughts to the export potential in the United States. The mobile home industry, and this includes everything from the travel trailer to the not-so-mobile apartment-on-wheels, appears to be centred in Elkhart, Indiana. And the manufacturers there need a wide variety of materials to assemble their products.

There is also something this month for the automotive parts manufacturer. Because of the nature of their business — production line techniques, volume of vehicles produced each day, for instance — U.S. buyers are naturally fussy over whom they deal with and what sort of service is provided. The supplier can't just arrive in Detroit and expect to sell a good product without including the trimmings demanded by the industry. The article on page 5 explains just what these trimmings are.

Continuing our series on multilateral financing, the article on the United Nations Development Program outlines a new system for technical assistance to developing countries. In the past, developing countries presented projects based on the amount of voluntary contributions provided by donor countries. As of January this year projects will be based on a guideline amount of contribution each government may reasonably expect to receive over a stated time. The article also includes a timetable for presentation of the development programs by the various countries. This should give valuable information to Canadian suppliers and, particularly, consultants.

Next month we carry the first of a two-part article on the World Bank. It tells what the Bank is, how it operates and where it works.

Articles

Departments

Established in 1904.
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The Hon. Jean-Luc Pepin, Minister
J.F. Grandy, Deputy Minister

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W.H. Lambton, Editor
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In Indiana, They're Mobile

Elkhart's booming mobile home industry means export opportunities for Canada, and here's why...

R.T. MERCER, Commercial Officer, Detroit

Wakarusa, Mishawaka and Oskeola? They're communities on the outskirts of Elkhart, Indiana, and with Elkhart, long known as the bank instrument capital of the world, have become famous as the centre of the U.S. mobile home and recreational vehicle manufacturing industry. This area lies in the heart of the concentrated demographic region between Detroit and Chicago, within easy access of most Canadian suppliers.

While a large number of Canadian businessmen have, in the past, focused their attention and sales activities on the automotive industry in Michigan, the U.S. mobile home and recreational vehicle industry unfortunately has been virtually ignored. This new industry has developed and mushroomed to gigantic proportions in the neighboring State of Indiana and Elkhart, situated in the heavily populated region between Detroit and Chicago and within easy reach of most Canadian suppliers, is its focal point. Forty-four mobile home manufacturers, 67 recreational vehicle manufacturers and numerous related suppliers of parts and services are located in the Elkhart region, where one out of every four workers is employed in the mobile home industry.

Statistics on the mobile home and recreational vehicle industries are impressive and should spark the interest of any Canadian businessman. The industry includes manufacturers of mobile homes, factory built or modular housing, campers (folding type), motor buses, van conversions, travel trailers, truck mount campers and "caps" for pick-ups, and in 1970 produced goods with a wholesale U.S. dollar value of $3.5 billion (see table for unit-cost breakdown).

The dramatic growth of mobile home shipments in recent years is expected to continue, with 1972 production estimates exceeding 570,000 units compared with 485,000 in 1971 and 405,000 in 1970. Recreational vehicle sales should continue to increase and should peak this year at 590,000 units, including 250,000 travel trailers, 152,000 pick-up campers and approximately 100,000 tent trailers. By 1980, recreational vehicle sales in the U.S. are expected to climb to $2 billion. Companies around Elkhart have now undertaken dramatic expansion programs to meet these projected demands and have established standards and codes which apply to the electrical, plumbing, heating and gas systems.

For information on mobile home equipment specifications write to:

Trailer Coach Association (TCA)
1340 West 3rd Street
Los Angeles, California

American National Standards Institute (ANSI)
1430 Broadway
New York, New York 10018

National Fire Protection Association (NFPA)
60 Batterymarch Street
Boston, Massachusetts

Recreational Vehicle Institute (RVI)
2720 Des Plains Avenue
Des Plains, Illinois 60018

Mobile Homes Manufacturing Association (MHMA)
6650 North Northwest Highway
Chicago, Illinois 60631

Modular Home Requirements

Electrical

100 amp circuit breaker panel (no fuses)

Exterior lights, one at front door and two on front of home

Windows and Doors

36 × 80″ house-type main entrance door, combination storm and screen

Two 78″ aluminum secondary doors with single-hung windows

Single-hung aluminum house-type windows with removable storms and screens

Quality exterior shutters

Furniture and Appliances

30″ gas range and oven

Power vented and lighted range hood

14 c.f. two-door deluxe refrigerator

Quality vinyl lined kitchen and bathroom cabinets

Single lever faucets

Lighted sink area

Separate laundry area

Decorator-styled wooden dinette set

Wall-to-wall carpeting (with padding) in living room and master bedroom

Vinyl floor covering in uncarpeted area

Quality furniture in living room

Free-standing bedroom furniture

8′ cedar trimmed closets in all bedrooms with bi-fold doors.

Size and Floor Plans

Basic mobile home 60′ to 70′ (two bedrooms)

Models: front kitchen, front living room, front bedroom, front dinette

Wings: 12-wides up to 36′, separate family rooms, game rooms, extra bedrooms, additional baths

Frame and Axles

10″ I-Beam heavy duty double strength, electric welded structural steel chassis, reinforced over axle areas

Heavy duty axles

Full outriggers and crossmembers

Floor

¾″ tongue and groove decking, glued and fastened to cross members

Full 2″ × 6″ floor stringers

2″ blanket fiberglass insulation

One piece asphalt impregnated bottom board

One piece polyethylene vapor barrier

Sidewalls

House-styled embossed (rough sawn) semigloss aluminum siding

2″ house-type batt fiberglass insulation between studs

2″ × 3″ studs on 16″ centres

Five belt rails

¼″ interior hardwood paneling, glued and nailed throughout

Floor to sidewall plywood gussets around perimeter of home

Ceiling and Roof

8′ ceilings

⅝″ plank-type, high-quality acoustical ceilings

Gabled truss-type rafters on 16″ centres

Vapor barrier

2″ house-type batt fiberglass insulation between rafters

Heavy galvanized steel roofing, roofcoated the entire length

Plumbing and Heating

House-type basement heating system; large 5 × 16″ trunk line with individual heat ducts running to each room; perimeter placement of heating registers; Cold air returns in floor

Large gun-type furnace; thermostatically controlled heat; furnace enclosed for sound reduction

30-gallon 220 volt double element water heater

⅝″ copper main hot and cold water lines

Plumbing for washer

Pop-up drains and overflows on lavatories

Fiberglass high-styled corner tub

The market for factory built or modular homes, a $25 million industry during 1970, is also growing steadily. Although regional in nature, Indiana is a major producer and Elkhart has a number of firms including a manufacturer of mobile modulars. The wide range of products and construction materials required by this industry is described in the accompanying box.

Camper trailer manufacturers require a wide range of equipment including axles, shock absorbers, tires, brakes, steel frames, windows and doors, lighting and electrical systems, hardware, major appliances, plumbing fixtures, kitchen cabinets, furniture and heating and cooling systems.

Substantial quantities of Canadian softwoods are used in the mobile home industry, mainly for framing and for the manufacture of roof trusses. Over 10,000 carloads were purchased in 1971 by Elkhart wholesalers and secondary wood manufacturers ("pre-cutters"). The pre-cutters normally buy their requirements from local lumber wholesalers although there is now a trend to purchase directly from Canadian mills, particularly in Eastern Canada. The pre-cutters manufacture from 35 to 40 different wood components to exact specification for each of several mobile home builders. A five-to-10 day stock of manufactured wood components is carried for each customer and deliveries are made from once a day to three or four times a week. Most pre-cutters carry a 45-day lumber inventory of kiln-dried softwoods.

THE U.S. MOBILE HOME INDUSTRY — 1970*

Type	No. Units Produced	Wholesale U.S.$ Value
Mobile homes	405,525	2,184,638,900
Factory made or modular	28,309	227,075,723
Special units	16,432	91,948,015
Campers, folding type	82,337	89,736,611
Motor homes	21,933	228,583,694
Van conversions	11,953	52,320,764
Travel trailers	116,675	412,667,389
Truck mount campers	109,747	164,556,469
"Caps" for pick-ups	103,992	24,175,411

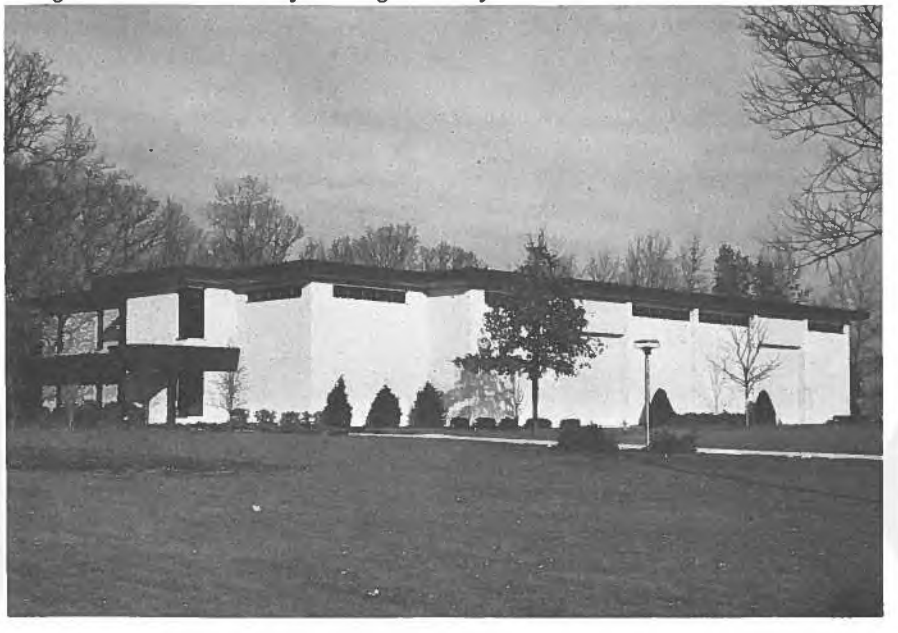
*Figures compiled by the Mobile Home and Recreational Vehicle Dealer Magazine, 6629 Northwest Highway, Chicago, Illinois 60631.

Another major Elkhart user of secondary wood products is Kinder Manufacturing Company Inc., one of the largest producers of furniture designed and manufactured for the mobile home industry. Kinder operates 15 branch plants manufacturing a full range of furniture in very large quantities, including a daily production of 1,200 to 1,500 five-piece living room suites and 1,200 to 1,500 dinette sets. Between 350,000 and 400,000 beds and built-in bedroom furniture units are also produced each year. Kinder is interested in locating and developing new sources of wood furniture components, mouldings, knock-down furniture, wood squares and dimension lumber to meet its rapidly increasing demands.

Although there are a few giants in the industry, the majority of manufacturers in Elkhart are comparatively small and easily approached. Purchasing officials usually order and receive production requirements from local suppliers once, twice or three times a day, eliminating the need for warehousing space and inventory. Mammoth supply houses have consequently sprung up to meet the industry's stocking requirements and several manufacturers of major items, such as appliances, have established factory warehouses in Elkhart. Ideally, prospective suppliers should contact purchasing and engineering officials in the mobile home or recreational vehicle industry and introduce their product before contacting buyers in these supply houses — the direct approach is definitely the most advantageous, inexpensive and rewarding way to do business.

The Canadian Government Trade Commissioner in Detroit has intensified market coverage in Indiana, particularly in the mobile home and recreational vehicle industry, and has developed a number of valuable contacts in this field. Canadian businessmen interested in extending their U.S. marketing program to include coverage of this industry should contact the Canadian Consulate in Detroit before visiting Elkhart and its neighboring communities of Wakarusa, Mishawaka and Oskeola.

Elkhart's soaring mobile home industry is reflected in Skyline Corporation's new 12,000 square foot research and development centre in Elkhart. Skyline, which has 40 plants throughout the U.S., is one of the largest manufacturers in the business.



What the Automotive Buyer Expects

Can you interpret blueprints? Offer engineering knowhow? Then you may be the supplier the industry is looking for.

YVES TREPANIER, Consul and Assistant Trade Commissioner, Detroit

Sure, price may be the final consideration! But would a buyer want his supplier to regularly ship poor quality and defective parts, miss deliveries, or go bankrupt? Not when his company operates in an industry manufacturing about 35,000 vehicles a day, each comprising more than 30,000 parts. If a manufacturer is short of one part for one day, think of the scheduling problems he would have.

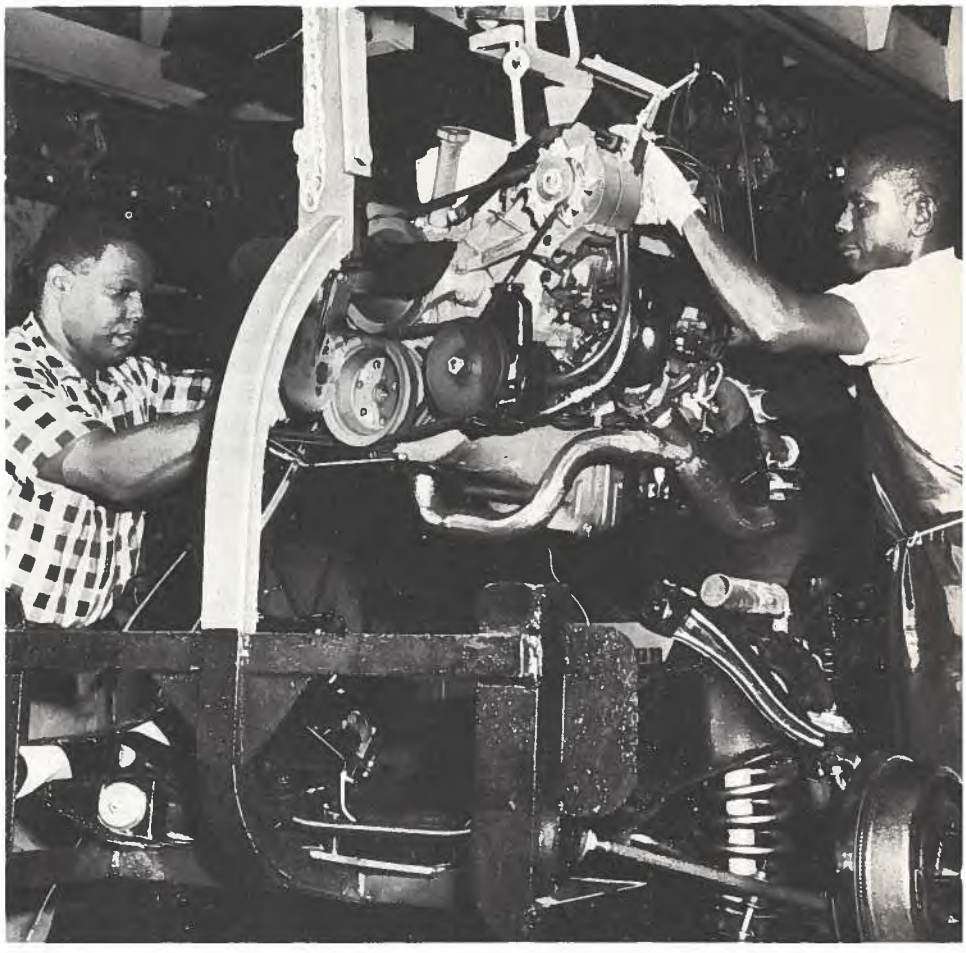
So price, after all, is not the only consideration automotive purchasing agents have in mind. Quality, production capability and capacity to supply and deliver required materials on schedule are also important factors. The supplier must also prove that he is responsible. This involves all aspects of his business operations: finance, production knowhow, management integrity, and marketing. Obviously, marketing to the automotive industry means more than obtaining and signing a supplier's contract. Requirements include a sound knowledge of the products manufactured and an understanding of the customer's requirements. In a technically oriented industry, mention is often made of industrial marketing or, more specifically, engineering marketing.

Engineering marketing means to a purchaser the ability of a supplier to provide technical assistance as a supplement to the standard requirement of producing economical and quality products. The amount of technical assistance a manufacturer, as a supplier to the automotive industry, is capable of providing will vary according to his size and the type of products he is supplying. However, no matter how small he is, he will always be required to read a blueprint and interpret it.

The first step in fulfilling the engineering marketing responsibility might be the use of technically trained sales personnel or the use of a salesman-engineer team to market and service the supplier's products. This is not long distance engineering assistance available on special request, but the immediate availability of a technically oriented individual to help to resolve problems.

How and what can a sales engineer contribute to the company's marketing efforts? His responsibility normally ends with the last shipment under a given contract. He will have supervised and monitored every shipment to ensure proper deliveries and sustained quality. But it is more difficult to establish the precise time his task begins. Normally, he would have regular business relations with the automotive engineer. Once potentially interesting parts suitable for manufacture by his company have been identified, the sales engineer could make certain that released designs are feasible as well as practical, and outline the manufacturing limitations on processes and products required. Effecting improvements before the tooling stage can save untold dollars in tooling costs and valuable time. How many times has a manufacturer questioned the necessity of dimensions or restrictive specifications required by his customer's blueprints? In many cases, the supplier spends considerable time either having the print revised or struggling to maintain production. Having the company's own representative present at the design stage might eliminate these problems.

The sales engineer can also suggest alternate production methods or materials. As a result of this rapport, he builds confidence for his company through his principals' attitude and ability to attack



Workmen in the GM Detroit plant lower an engine into position with the aid of an electrically controlled hoist.

→

and resolve problems. It gives the supplier an advantage over his competition. By his suggestions of ideas for better products and better methods, it shows his company's interest to be more than that of just a "distant" parts manufacturer; it becomes a partnership. The supplier may not benefit directly on all these suggestions, but he will have proved his ability to respond faster to problems and inquiries. This is an extremely important asset in the fast-moving automotive industry.

Purchasing is also concerned about the quality and reliability of the product manufactured by outside suppliers. It is up to the supplier to properly engineer tooling and to develop production systems that will yield consistent quality. The product must be consistent and also reliable. This may involve the engineering of testing equipment and procedures to insure reliability. A production source is expected to have the engineering know-how to resolve its own production problems to insure delivery.

As can be seen, engineering marketing has many facets relating to current production problems and securing new contracts. The supplier may also play another role concerning future business. Here, the responsible supplier may find the task more difficult; the rewards, however, may be even greater. In the automotive industry, existing or current business is very often a temporary state; change is the name of the game. Preparing for change and preparing to win future business is a long-term process and can be considered an investment in the future.

The changes range from small and evolutionary to sweeping and far-reaching. The opportunities have a similar spectrum. Large and small suppliers can participate by selecting and investing in the areas most suited to their abilities. There are no guarantees that the results will be adopted as other competitors may also be working on the same problem. Every supplier must be aggressive enough to turn his particular investment into an adopted part of the automotive industry. Small Canadian companies have already succeeded; why not you?

In summary, the supplier should make it known to purchasing departments in the industry that he is ready to actively participate in the development of better designs and in feasibility and other problems. He can differentiate himself from the multitude of other current or potential suppliers who do not offer this service. He should make sure, however, that he will be considered as a supplier for the product or products he is offering.

Finally, remember that the purchasing department should be the initial contact in soliciting business with the automotive industry.

These pointers to a successful business as a supplier to the automotive industry should be taken very seriously. They are in fact, the gist of what the industry representatives said at a recent seminar held at the Consulate here. They incorporate what the buyer wants — and expects — from his supplier.

Are you currently supplying this industry, or have you ever considered doing so? Do you want to locate a competent and knowledgeable representative? Why not call on the Canadian Consulate, 1920 First Federal Building, Detroit, Michigan 48226; we may be able to help you.

International Loans

The International Development Association (IDA) of the World Bank Group has extended a $75 million loan to India called the World Bank "Seventh Industrial Import Credit." This credit, of special interest to Canadian firms selling to India, will be used to provide the foreign exchange cost of imports of raw materials, components and spare parts to enable selected priority industries to maintain production of capital goods and agricultural chemicals. Basically, the credit will be channelled into eight sectors, all of which receive a high priority in India's development program. As seen in the table, the credit will meet less than 30 per cent of import requirements of the sectors covered by the credit.

One of the major changes introduced in India's import policy since the last World Bank loan is the canalization through one of the three state trading corporations of a growing number of bulk import items, such as non-ferrous metals, raw materials for fertilizer production, and finished and semi-finished items such as steel products and fertilizers. The main reason for this change is the Indian Government's belief that the state trading corporations will have improved bargaining power when negotiating large orders and entering into long-term contracts.

The Indian companies entitled to assistance under this credit will be those large and medium sized firms registered with the Directorate General of Technical Development. For non-canalized imports, firms would not be subject to any special procurement procedures. At this time it would appear that each firm is free to purchase according to its normal operating procedures.

Products covered by credit

	Total Need ($ millions)	IDA Allocation ($ millions)
Tractors and power tillers	13	3
Electric motors, transformers, switchgear and magnetic and steel stampings	30	7
Aluminum smelting	10	3
Commercial vehicles	42	11
Automobile ancillaries	54	20
Machine, cutting and small tools, and bearings	36	13
Fertilizers	63	14
Pesticides	10	4
Total	**258**	**75**

For canalized imports, users will place their orders through the appropriate state trading corporations, and it is proposed that these imports will be reimbursable under the credit on the same basis as imports ordered directly. Canalized imports are usually purchased in bulk, and where such orders exceed U.S.$100,000, international bidding procedures will be used. This procedure will also be applied to orders submitted voluntarily by industrialists for handling by state trading corporations. It is expected that U.S.$40 to $50 million of the proposed credit will be used in this way. All purchases by canalizing agencies have been and will continue to be evaluated on a c.i.f. basis.

The Government of India will make the foreign exchange proceeds of the credit available through the Reserve Bank of India to the specified beneficiaries who, in turn, will purchase the foreign exchange with rupee funds through authorized banks.

For further information, please write or call — (613) 996–5357 — the International Financing Branch, Department of Industry, Trade and Commerce, Ottawa, K1A 0H5, or get in touch with the Commercial Counsellor for Canada, P.O. Box 11, 13 Golf Links Road, New Delhi 1, India.

New York Plans Subway Expansion

MARTIN STONE, Consul and Assistant Trade Commissioner, New York

Adding to the noise and confusion of New York City are the sounds of jackhammers and excavators as they begin constructing the first major additions to the New York Subway System in almost 40 years. Like everything else in New York, the proposed construction program is enormous but it will help significantly to improve a situation that has been deteriorating rapidly for the past 25 years.

The first subway line in the city was built in 1904 and the last in 1932. During this time, 237 miles of subway were tunnelled out and 720 miles of track were laid, more track mileage than any other rapid transit system in the world and almost enough to stretch from Windsor to Quebec City. The system used to be one of the most efficient, but in recent years the huge increase in population, the expansion of the suburbs and the massive development of new office buildings in the heart of Manhattan have been too much for it.

For a long time it has been painfully apparent that New York has outgrown its subway and, more than any other city in North America, its economic life is being slowly strangled because of inadequate rapid transport systems. The point has been reached where it is impossible to schedule additional trains to handle the hordes of rush-hour passengers. As it is, the New York City Transit Authority schedules a staggering 8,000 daily train trips, but this is barely enough to move some 4,500,000 passengers in and out of Manhattan each day.

In 1970 the city finally authorized construction, over a 10-year period, of an additional 50 miles of new subway lines which, when completed, will cost almost $2 billion. Included in the estimates will be the new subway cars, the costs of which have risen since World War II from $70,000 each to more than $200,000. This increase is not just a result of inflation but reflects the higher standards of safety and riding comfort demanded both by passengers and transit officials. Models have changed from single to two-car units and various improvements such as air-conditioning, wide windows and fluorescent lights have been included. The latest model is 75 feet long, in four-car units, made of low alloy high tensile steel and fibreglass with stainless steel exteriors and aluminum roofs.

Obviously in a project of this magnitude, there will be a significant number of areas in which Canadian companies can participate. These will include steel for tracks and tunnels, as well as other construction materials, design and engineering expertise, and components for subway cars.

The New York Transit Authority awards its contracts to the most competitive bidder and notification of all contracts for bidding will be sent in advance to the Commercial Section of the Canadian Consulate General in New York. Moreover, after a large contract has been awarded, the successful contractors normally negotiate subcontracts with smaller companies. There are no Buy America provisions to restrict bidding and, as the construction is being phased over the next eight years, new opportunities for Canadian participation will occur regularly.

This tunnel being built under the East River is part of the New York City subway extension program. Steel being used in the tunnel is provided by a Canadian firm.

Canadian firms are in a particularly advantageous position for bidding on these contracts in that the subway systems in Montreal and Toronto are considered world leaders by transit officials in New York. In fact, Montreal's Place Ville-Marie is being used as an example of the type of underground pedestrian shopping system envisioned for the subway stations of downtown Brooklyn.

Apart from the $2 billion allocated for construction of the new subway lines, millions of dollars are being spent each year for new and better types of equipment required to remove garbage, clean walls, replace components in public address, air-conditioning and other electrical systems, and to improve and renovate deteriorating stations. The "Canada Room" of the Consulate General here in New York is ideally suited for small presentations of new types of equipment, and the New York City Transit Authority officials have indicated their interest in attending any such presentations.

The staff of the Commercial Section here will be pleased to assist Canadian manufacturers in taking advantage of the many opportunities which exist in New York City. Inquiries should be addressed to the Deputy Consul General (Commercial), Canadian Consulate General, 680 Fifth Avenue, New York, N.Y. 10019.

South Africa — A $4 Billion Market

Price, delivery, quality and design are the requirements for a wide range of products that Canada can sell here to meet a continuing demand created by development of economy.

W.D. WALLACE, Trade Commissioner, Cape Town

The Republic of South Africa encompasses 472,000 square miles, has a population of more than 21 million and a gross national product per capita second only to oil-rich Libya. It is the most highly industrialized country on the African Continent, and from an international trading point of view, the most important.

South Africa's economic and industrial development during recent years has been rapid and, with the manufacturing industry developed to the stage where it now accounts for more than 30 per cent of the GNP, the Republic can no longer be considered to have a predominantly agricultural and mining economy. Industrial expansion and the resultant increase in living standards have brought about an increased demand for imports, and enterprising Canadian businessmen should be able to cash in on the upsurge of the South African economy.

In 1971, South Africa had a deficit of $1.8 billion in its balance of trade, resulting from imports of $3.9 billion and exports of $2.1 billion. For purposes of comparison, the 1970 trade deficit was $1.3 billion (imports: $3.4 billion; exports: $2.1 billion). Britain, the United States, West Germany, Japan and Italy (the Republic's chief suppliers) all recorded increases in their exports to South Africa in 1971. Particularly striking were the substantial increases in imports of machinery, electrical equipment, industrial raw materials, vehicles, aircraft and ships. In recent years, South Africa's leading imports have fallen within the following commodity classifications (value of 1969 imports in brackets): boilers, machinery and mechanical appliances and parts ($552 million); vehicles and parts excluding rail and tramway rolling stock ($452 million); electrical machinery and equipment and parts ($193 million); mineral fuels, oils and waxes and byproducts, bituminous substances, etc. ($169 million).

Trade with Canada — Unfortunately, Canadian exports to the Republic in 1971 did not match the general expansionary trend in South African imports. Canadian sales to South Africa in 1970 reached an all-time high of $104 million, but in 1971 declined in value by 40 per cent to $63 million. On the other hand, South Africa's exports to Canada last year amounted to $55 million compared with $46 million in 1970, a gain of 19 per cent. This reflected increased shipments of agricultural products (mainly sugar), and minerals (ferrochrome and ferromanganese).

In 1971 a wide range of Canadian products (almost all of which were semi- or fully manufactured goods) recorded gains, but the following products showed a sharp decline and were the chief contributors to the over-all drop in Canadian sales last year: aluminum ingot (down $15.4 million), wheat ($4.9 million), newsprint ($3.4 million), trucks and chassis ($2.8 million), lumber ($2.8 million) and sulphur (down $1.5 million). These declines can be attributed to a number of factors, including new or increased local production of commodities such as aluminum ingot and newsprint; a good wheat crop; intensified import controls, and success by Middle East countries in capturing the greater share of the South African sulphur market.

Nevertheless, not only does South Africa rank 18th among Canada's trading partners, it is also, and perhaps more importantly, a major market for Canadian manufactured goods. Fully 91.7 per cent of our 1971 exports to South Africa consisted of semi or fully manufactured goods and 38.5 per cent of total exports were end products. This latter figure compares very favorably with the corresponding 1971 figures for Britain (9.3 per cent), the Common Market (9.0 per cent) and Japan (3.4 per cent).

Balance of Payments Difficulties and Import Control — Although attracting a considerable net inflow of capital, South Africa has experienced a balance of payments deficit for more than two years. The basic cause of this is the excessive total demand for consumer and capital goods and for services, leading to ever-increasing imports. The world currency crisis of last fall further intensified an already serious situation with the result that, by the end of September, South Africa's total gold and foreign exchange reserves had

Gold bars are cleaned by workers in the smelthouse of the Free State Gold mine at Welkom in the Orange Free State.

declined to a level of $808 million compared with $1,214 million in September 1970, and the peak of $1,655 million in April 1969.

The South African Government decided to move quickly to further restrict imports because of this serious decline in foreign reserves. Accordingly, on November 24, 1971, the existing quantitative import restrictions were intensified. There was an immediate 50 per cent reduction in the unused balances of all 1971 import permits, and the validity of these permits was extended to March 31, 1972. Further, the list of goods exempt from permit requirements was reduced, and it was decided that 1972 import permits would be valid only from March, 1972. Goods for which import permits are required were divided into two categories: those for which global import quotas are allocated to importers and those which may be imported only under the authority of a specific permit. In establishing the global quotas, the Government advised importers of various categories of commodities that they would initially be granted licences varying from 20 per cent to 30 per cent of the value of their actual 1969 imports.

In addition to imposing rigid import controls, the Republic also undertook a major devaluation of the Rand (12.28 per cent) in December 1971. The devaluation was greater than anticipated and can only be seen as a further indication of the Government's determination to halt the drain of foreign exchange by reducing imports. It is hoped that this devaluation, coupled with the upward revaluation of gold, will hasten recovery in the balance of payments position and enable the South African Government to introduce some liberalization in the present stringent import control system. In fact, the erosion of foreign reserves appears to have been arrested, and improvements in the balance of payments picture will increase international pressure on the Republic to permit freer entry of imports. The South African Government is keeping the situation under close review and has undertaken to effect a liberalization as soon as the balance of payments position permits.

On June 5 the South African Government announced some relaxation of import controls on general merchandise items and textile piece goods. In addition a number of items were put back on the "Free List" for which import licences are not required. With the continuing improvement in the South African reserve position, it is to be hoped that further relaxation measures will be announced.

How to do business in South Africa — There are a number of ways to approach the market, depending on the product to be marketed and the export experience, or lack of it, of the Canadian company concerned. Normally, the prospective exporter will contact the Canadian Trade Commissioner in Cape Town or Johannesburg for help in undertaking a market survey. The exporter should supply several sets of literature and price lists, preferably c.i.f. Cape Town or Durban, and as much information on his products and marketing methods as is practical. In some cases, where an in-depth market survey is required, the Trade Commissioner may suggest that the Canadian company use the services of an appropriate marketing consultant. But if the exporter wishes to investigate the market at first hand — and this is highly recommended — appointments can be arranged.

If market conditions appear favorable the next step for the prospective exporter will be to locate suitable representation for his company. The majority of Canadian firms market their products through local agents, although some have direct buying connections with their South African customers, be they manufacturers, retailers or wholesale distributors.

For consumer goods, the normal procedure is for the manufacturer to supply the importer against indents obtained by his local representative. Most manufacturers' representatives, or indent agents as they are usually called here, act only on a commission basis, but for some products the agent may hold stocks for distribution. Sometimes a product is marketed by a combination of both methods, →

Dumpings from gold mine operations can be seen in the background of this view of Johannesburg. The Pretoria-Witwatersrand-Vereeniging complex, of which Johannesburg is the focal point, is the industrial heartland of South Africa.

indent orders being supplied to the largest importers (who may also draw on the local representative's stock for filling in), and other customers being supplied from local stocks.

Wholesale distributors also import directly and act as agents for particular product lines. Large retail stores, as well as purchasing through agents and distributors, occasionally send buyers overseas to buy direct from the manufacturer, thereby eliminating the middleman. In 1970, several buyers from one of South Africa's largest department stores visited Canada and placed substantial orders for men's and children's clothing.

Capital goods are usually sold through a technically qualified indent agent if the manufacturer does not have an associated or subsidiary organization in South Africa. When demand is high for specific equipment the agent may also act as a distributor, but normally he will place orders against indents only. In either case he is responsible for ensuring that adequate stocks of spare parts and after-sales servicing facilities are available.

Raw materials are handled by indent agents obtaining orders from end users, or, in certain cases, by agents importing on their own account for distribution. A combination of both methods is frequently used, the holding of emergency stocks being very usual.

Agency Coverage and Agreements — In addition to appointing a suitable representative, the Canadian exporter must decide on the territory to be covered by the agent and if the agency should be exclusive or non-exclusive. The large agencies usually maintain branches in the principal commercial and industrial centres (Johannesburg, Cape Town, Durban and, to a lesser extent, Port Elizabeth) covering the rest of the country by travellers. Smaller agencies seldom have branch offices and normally work from one office and cover their territory by travelling or by subagents.

It is extremely important to know whether an agent can give adequate coverage for a product line. Too often agencies spread themselves thin by covering too wide a territory or by handling too many lines. Subagents who do not have the incentive of full commissions are unlikely to promote a product as effectively as full agents. Separate agents for each province or at least for the Cape Town, Johannesburg and perhaps Durban areas, is often the best solution.

Nearly all South African agents, however, prefer, and many insist on, representing an overseas principal on an exclusive basis only. They do so in order to avoid price wars, duplication of effort, and the danger of carrying a product line that is being inadequately serviced by a competing firm. For certain commodities, however, some agents will work on a non-exclusive basis or on a provincial rather than Republic-wide exclusive basis.

Once an agency has been established, thought must be given on how to promote the product in question. A good agent will be capable of handling normal marketing requirements, but the Canadian exporter should be willing to undertake an advertising campaign by using either his own advertising agency or by providing an advertising allowance to his agent.

South African industries are large buyers of plant, machines, equipment, and materials. Consequently, exporters of capital goods and manufacturing materials may find it advantageous to advertise in one of the local trade and technical magazines.

Normally, advertising of consumer goods is concentrated in newspapers, periodicals, and the radio. Television will be introduced into South Africa by approximately 1974 and is expected to have a major impact on the advertising industry and on consumer demand. Consumer goods advertising should generally be carried in Afrikaans as well as English as the Afrikaans-speaking section of the population considerably exceeds the English-speaking section. For items such as sales catalogues and technical brochures, however, literature in English only is acceptable.

Trade exhibitions for certain products are useful. South Africa's largest annual exhibition, the Rand Easter Show, attracts about 600,000 people and is

The sinking of the oil tanker Wafra, which ran aground off Cape Agulhus in March, highlights the need of the Republic for oil pollution equipment to protect against further oil spillage on the busy Cape sea route.

geared to the promotion of both consumer and capital goods. There are also a number of specialized trade fairs that could be a good launching pad for Canadian companies wishing to introduce new products into the South African market. For example, in 1970 the Ontario Government, in co-operation with the Canadian Trade Commission in Johannesburg, participated in the International South African Building Exhibition. Twenty Ontario companies were represented at this exhibition and substantial business contacts were established.

The following factors should also be noted by prospective Canadian exporters to South Africa:

Exchange Control — There are no problems regarding exchange control as long as the importer acts in accordance with the existing import control regulations. Exchange to cover the cost of imports into South Africa is made available by the importer's bank against the production of documentary evidence of shipment of the goods to South Africa or of the relative customs bill of entry/import.

Customs Tariff — Import duties are levied on either the f.o.b. cost of the goods to the importer, including any agent's commission, or the current domestic value, whichever yields the greater duty. Preferential import duties are granted for some Canadian goods in accordance with the Canada-South Africa Trade Agreement of 1932.

Documentation — In addition to the bill of lading the only other document normally required is Form DA60, "Invoice for Export of Goods to the Republic of South Africa." This form is obtainable from several commercial stationers in Canada. South African importers frequently complain about delays in receiving shipping documents, and the importance of dispatching documents by airmail as soon as possible after shipment cannot be too strongly emphasized.

Weights and Measures — The South African Government has given notice of the prohibition from January 1, 1973, of the use in trade of avoirdupois weight, or non-metric measure of length or of capacity, unless specifically authorized.

Patents and Trade Marks — Exporters to South Africa are advised to patent their inventions and register their trademarks in that country. Applications should be made through a patent or trademark agent in Canada or South Africa.

Buying by Tender — The Central Government, provincial administrations, mining companies, and several other large concerns in South Africa purchase the greater part of their requirements by tender. It is essential, therefore, that Canadian suppliers wishing to tender for this lucrative business be represented locally. Most buyers prefer to deal with local agents and for the Central Government's and provincial administrations' tenders it is obligatory to have local representation. Furthermore, a good agent will often be aware of sales opportunities before tenders are published and may be able to influence the drawing of specifications of the tender to match the particular product he is promoting.

With South Africa's ambitious plans for the development of hospitals, railways, harbors, iron ore mines, steel mills, oil refineries, and a national television network, there will be a continuing demand for construction equipment, machinery, materials handling equipment, electrical and electronic control equipment, chemicals, hospital amd medical equipment, educational equipment, forestry equipment, airport and railway equipment, etc.

Specific information on tariff, import licensing, documentation and on general economic conditions is available from the Africa Division, Pacific, Asia, Africa Affairs Branch, Office of Area Relations, in the Department in Ottawa. Canadian firms should also use the resources of the Canadian Trade Commissioners in Johannesburg and Cape Town who will be pleased to assist them in developing this market.

Canadians Search for Agricultural Markets in the U.S.S.R.

This article reports on opportunities for exchange of agribusiness information and technology and the possibilities of manufacturing licensing arrangements and export sales as seen by a member of a recent mission to the U.S.S.R. Another article, on the prospects for machinery sales, appeared in May.

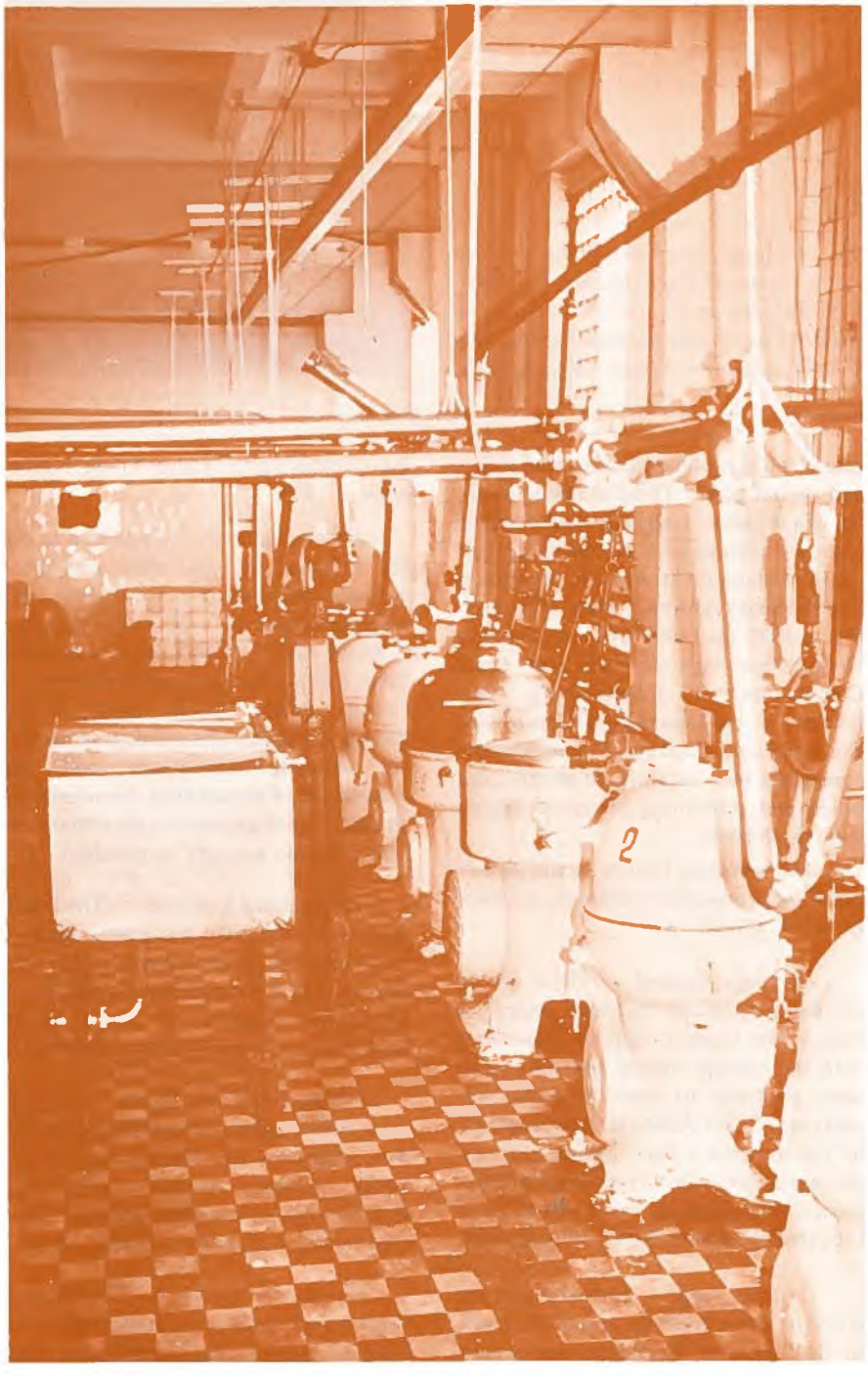
ALEX. A. HUNT, Agriculture, Fisheries and Food Products Branch

Canada and the U.S.S.R. have many common problems in agricultural-based industries because of similar climatic and geographic conditions. However, when the Canadian mission arrived in Krasnodar, one of the best agricultural areas in the Ukraine, it was interesting to learn that this was the first Canadian group of agriculturists to visit the area. The city of Krasnodar has received visits from all other major agricultural countries but, prior to this, not from Canada.

The people of the U.S.S.R. have a genuine interest in Canada and a particularly friendly welcome awaits Canadians. Good public relations between the U.S.S.R. and Canada has been greatly assisted by a mutual interest in hockey, and there is never any problem enlivening a meeting if the talk gets around to the status of Canada in international hockey. But the Krasnodar experience appeared to be typical for most of the areas and plants the mission visited. The guest books of the various agricultural industries contained names of visitors from around the world and indicated the interest of other countries in seeking new markets for their products. It pointed up the need for more Canadian businessmen to visit the U.S.S.R. if Canada is to expand and diversify its agricultural trade with this country.

Soviet agriculture is organized in a manner which facilitates government agency control over production and distribution. One of the basic differences between Canada and Soviet agriculture is the organization of the farm units. There are two types of farms, collective and state, the main difference being the status of the farm worker. Members of a collective farm own the buildings, livestock and equipment. They may own their homes and cultivate produce for their individual use on small plots of ground allocated to them. They also generally own one or two cows or other species of livestock. Wages are paid both in cash and farm products.

On state farms, all the buildings, livestock and equipment belong to the state and the workers and managers are em-



A battery of automatic milk separators in the Krasnodar Milk Combinat's pasteurizing room. The U.S.S.R, with 6,000 dairy plants, is the world's largest producer of milk but domestic demand still exceeds supply.

Laboratory technician at the Krasnodar Milk Combinat (left) helps mission members sample some of the more than 30 dairy products produced here. This milk will be delivered directly to stores or depots in Krasnodar.

ployees of the state. The workers and managers are paid a regular wage like employees of any industrial factory.

There are approximately 40,000 collective farms and about 8,000 state farms. The average size of either is about 35,000 acres. Most farms have a mixed production of grain, livestock, milk and vegetables but some specialize in the production of one or two products.

The mission visited a collective farm near Krasnodar that employs 2,500 workers, cultivates 30,000 acres and has 600 agricultural machines including 130 tractors and 49 combines. The main field crops on this farm are winter wheat, barley, peas, corn for silage, alfalfa, sunflower seed, sugar beets and vegetables. The farm has 2,200 dairy cows, 5,000 head of calves and beef cattle, and raises 11,000 hogs a year.

The mission also visited a state farm near Moscow that specializes in raising hogs and growing vegetables in greenhouses. This farm produces 30,000 hogs and over 7,000 tons of vegetables annually to supply the Moscow market. In the greenhouse operation, there are over 120,000 square meters under glass and approximately 20 per cent of the vegetables are grown by the hydroponic system. While in Moscow, the mission also paid a visit to the Moscow Meat Packing Plant, one of the largest slaughtering plants in the world with a daily kill of 2,000 cattle and 4,500 hogs.

Another feature of the Soviet economy is the five-year economic development plans. Each farm and industry has fixed targets, and agricultural production receives a high priority. The target of the current five-year plan for the food industry is to increase food output by 35 per cent by the end of 1975. In the case of the meat and dairy industries, the objective is to increase production by 42 per cent within this time.

As there is little opportunity in the U.S.S.R. to increase the acreage under cultivation, the emphasis is on more intensive methods of production through the application of increased mechanization and improved technology. An interesting feature of these methods is the use of financial incentives. The U.S.S.R., for example, is the world's largest milk-producer — 178 billion pounds a year — but it is unable to satisfy the demand for dairy products. To encourage production, state and collective farms are paid a 50 per cent bonus on all milk delivered over their quota.

The Kubeshev vegetable oil manufacturing plant in Krasnodar, which can process 500 tons of sunflower seed a day, was also on the itinerary. Oilseed production is an important segment of the Soviet agricultural industry. Sunflower seed production accounts for over 70 per cent of this, with the remainder consisting of cottonseed, soybean, castor, flax and mustard.

The Pustovoit Institute in Krasnodar began research to increase the oil content of sunflower seed about 60 years ago. At that time, it was thought impossible to combine high oil content with high seed yield. The early varieties only contained about 28 per cent oil. Now, however, this has been increased to an average of 44 per cent, with some of the new varieties yielding as high as 57 per cent oil. Ninety-five per cent of the commercial production of sunflower seed in the U.S.S.R. and other East European countries comes from high-yielding disease-resistant varieties selected and developed at the Pustovoit Institute.

While in Krasnodar, the mission visited the Krasnodar Milk Combinat which processes fluid milk products for distribution in the city. This plant processes over 30 different dairy products and approximately one-third of its production is cultured milks such as sour cream and fermented lactic acid — alcohol milks. It also produces a large amount of quark, a type of soft, fresh cheese. The production of infant milk formula is also a big item. These infant formulas, packed in returnable glass bottles, are sterilized after packing and are ready to use directly from the bottle.

The distribution of fluid milk products is handled by the city council, which purchases the milk products from the dairy and distributes them to special milk stores or depots as there is no home delivery of milk. The infant formula milks are sold through special shops and a doctor's prescription is required to purchase these products.

In the Tula area, the mission visited a feed mill and the Shchekinsky Chemical Combinat. The feed mill manufactures 450 tons of feed a day and is highly automated. Both bulk and pelleted feeds are produced for feeding dairy and beef cattle, hogs, poultry and fish. The formulas used for rations are provided by the state nutritionists and are automatically mixed in

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Garbage gets processed for hog feed on the White Dacha state farm near Moscow. This farm produces 30,000 hogs a year to supply the Moscow market.

the mill by using a punch card system and electronic controls.

The chemical plant manufactures a range of agricultural chemical products, such as ammonia, methonal and urea. The fertilizers manufactured at this plant are shipped directly to state and collective farms within a radius of about 200 miles. During the past few years, annual production of fertilizers has increased substantially, rising to 55 million tons in 1971. It is estimated this will increase to 90 million tons within the next five years.

The agriculture and food research institutes which the mission visited have up-to-date information on scientific advancements and modern technology. The Polesye Animal Institute in Kharkov is doing advanced work in animal nutrition and breeding. At present, it is developing a new beef cattle breed using Charolais and Grey Ukraine as the main foundation stock. The U.S.S.R. has over 100 artificial insemination centres and within the next few years plans to introduce artificial insemination into its entire livestock breeding program by using frozen semen. The country is aware of the developments in Canadian livestock and is particularly interested in Canadian Holsteins and Herefords.

The meat research institute in Moscow has developed new products, processes and equipment which are now used by the Soviet meat packing industry.

The work of these institutes in terms of agricultural production and food processing is highly regarded by the food manufacturing plants as well as the state and collective farms. These institutes, together with the government ministries dealing with agricultural research and food processing, are the logical places to exchange research technology data with Soviet agribusiness industries.

The U.S.S.R. food industry, in addition to the opportunities it offers to increase Canadian exports of agriculture and food products, represents a large market for machinery. The potential of ths market can be seen when one considers that, in the case of the dairy and meat industries, there are about 6,000 dairy plants and 700 meat plants. The Ministry of Milk and Meat plans to construct 700 new plants by 1975, of which 98 will be slaughtering plants, 46 sausage and processed meat plants and 500 dairy product processing or manufacturing plants. The equipment requirements of these new plants represent an immense market for processing, packaging and material handling equipment. There is also a tremendous replacement market for equipment in the existing plants.

Potentially, this situation could be mutually beneficial to Canadian and Soviet industry. The U.S.S.R. is short of hard currency to make large purchases of equipment from Western countries. On the other hand, the design of some Soviet equipment requires refinements to be competitive on the North American market. There should be opportunities for Canadian companies and U.S.S.R. State Ministries to cross-license each other to manufacture and distribute food processing, packaging and material handling equipment in their respective trading areas.

The procurement, processing and manufacturing of food products and the equipment and supplies required by these industries are under the jurisdiction of either the Ministry of Food, Ministry of Milk and Meat or the Ministry of Fisheries. These Ministries, together with the Ministry of Foreign Trade and the State Committee for Science and Technology, are the main authorities which decide and negotiate purchases of food and food equipment from Western countries.

To increase the sales of either food products or food machinery to the U.S.S.R. is difficult. However, there is a definite interest in Moscow in increasing trade and exchanging technology with Western countries. The U.S.S.R. is encouraging tourists and businessmen to visit their country, and those who do are finding a responsive audience. Other Western countries are actively soliciting trade with the U.S.S.R. and the time is opportune for Canadian businessmen to visit Moscow. First, one must get to know the facts about the U.S.S.R. economic and political situation and then enter into hard bargaining to supply their requirements. The Soviet market is large and pays handsome rewards to those companies that persevere and are successful in obtaining orders for their products.

Canadian suppliers of agriculture and food products or food processing, packaging and materials handling equipment who are interested in sales to the U.S.S.R. should contact the Commercial Counsellor, Canadian Embassy, 23 Starokonyushenny Pereulok, Moscow, U.S.S.R., and either the Agriculture, Fisheries & Food Products Branch or the Machinery Branch, Department of Industry, Trade & Commerce, Ottawa, Ontario K1A 0H5 for further information.

How to Increase Productivity

One of the reasons that international and the bigger national companies became big — and remain big — is because they make extensive use of feasibility studies of the various factors that affect their production. These studies are not initiated at moments of crises when it is a question of expanding production or gradually going under. They are carried out before any major commitment is undertaken. Some of the bigger companies, in fact, may have a fulltime team on this sort of work.

Studies of this sort, however, cost money and are sometimes beyond the means of the smaller company. This is where the Department of Industry, Trade and Commerce comes in with its Program for the Enhancement of Productivity. (PEP).

PEP was launched at the end of March last year to "induce improved productivity in the manufacturing and processing industries in Canada by means of contributions to encourage companies to undertake intensive studies of significant and imaginative efficiency-improvement projects." So far more than 60 companies, mostly small or medium-sized ones, have taken advantage of the program.

Because the program calls for studies that may take up to a year to complete and even longer to put into effect, it is early to assess the part it is playing in increasing productivitiy within the industrial life of the country. But it is a fact that at least one company would be out of business by now if it had not accepted PEP aid.

PEP offers up to 50 per cent to a maximum of $50,000 of the approved costs of feasibility studies. Approved costs include consultant fees. Capital costs are not included. No repayment of PEP grants is required.

The program is intended to foster studies that could lead to higher productivity in the manufacturing and processing industries in Canada. These studies are normally for efficiency improvement projects associated with the production function. These are projects which have been developed to the stage where it appears that a new approach is possible. The information on which to base a sound decision, however, is inadequate and the cost of obtaining it is too high for the company to bear on its own. The program is not intended to help with the costs of a study that would likely be carried out in any event.

The program has provision for in-depth market analyses and reassessments. The costs of these however, would normally not be expected to exceed 25 per cent of the total cost of the study.

Should a company need the services of a consultant, it would be expected that Canadians be hired unless valid reasons can be shown that Canadians could not adequately, or at reasonable cost, perform the work.

The Program for Advancement of Industrial Technology (PAIT) is concerned with the development of technology, and the Industrial Design Assistance Program (IDAP) is concerned with design innovation. Neither of these aspects are covered by PEP. PEP, however, does cover studies on the feasibility of transferring technology, where it is readily available, from another industry within Canada or from a better developed industry from another country. It can also cover studies on the feasibility of vertical link-ups within a company or of combining plants within a company, provided those plants are within the same geographic area.

PEP is not intended to help investors into new businesses nor to foster import substitutes.

Eligibility — To be eligible, a company must demonstrate that its project involves a significant departure from its traditional methods of improving its productivity, and also that the project will involve only technology that is now available. It must show that there is a marked but unproven potential for significant gains in production and that a feasibility study is required to prove that the project will be profitable.

The company must also show that successful completion of the project under study is likely to result in at least one of the following: greater industrial strength and improved international competitiveness, expansion of sales and production in high productivity operations, or a satisfactory return on production and sales associated with the use of what would otherwise be idle resources.

An applicant company must be incorporated in Canada and be actively engaged in manufacturing or processing, have the financial resources to undertake its portion of the study, and demonstrate that it has or can acquire the financial, administrative and manpower resources and the physical facilities needed to implement the project which is the subject of the feasibility study.

Some of the companies that have taken advantage of PEP have said that it is not necessarily the money but the assistance that has been the most valuable asset of the program. Direct assistance from the Department, and from other open sources, has allowed company managements to analyze, identify and diagnose the underlying problems and to formulate better alternatives for action.

If you want more information on the Program to Enhance Productivity, get in touch with PEP Program Office, Department of Industry, Trade and Commerce, 112 Kent Street, Ottawa K1A 0H5, Ontario.

UNDP Starts New Project Programing

Subcontract opportunities in multilaterally financed pre-investment projects are growing. Consulting firms should become familiar with the new system for initiating projects in the developing world.

Putting up trellises to help the growth of vines in Afghanistan is just one of the aspects covered by a loan from the International Development Bank. Under the Country Program system each participating country can determine its own priorities and prepare a tentative timetable for carrying out the program.

BRIAN E. BAKER, Third Secretary, Permanent Mission of Canada to the United Nations, New York

The United Nations Development Program (UNDP) will this year disperse approximately $300 million of multilateral funds to the developing world for technical assistance and pre-investment feasibility studies. Traditionally, 10 to 12 per cent of UNDP's expenditures finance subcontracts awarded to consulting firms. The predicted growth in the over-all program, together with the trend towards increased utilization of consultants, should result in a $70 million UNDP-financed subcontract "market" by 1975. Additionally, equipment requirements for these projects in developing countries are ex-

Extending highway systems to meet the demands of modern society is another prime requirement of many developing countries. This scene shows a roadway just outside the town of Mieso in Ethiopia.

pected to grow 10 per cent annually from a level this year of some $45 million.

In the past, the Administrator of the UNDP submitted individual projects for approval by the Governing Council at its sessions in January and June. The number and type of projects were based upon requests received from developing countries and on the amount of voluntary contributions provided each year by donor countries.

New procedures were initiated last January when the Governing Council approved the first group of Country Programs prepared by 19 nations. The innovation of Country Programing is a major step towards restructuring the UNDP to effectively deliver increasing levels of development assistance.

Under this new system, each participating developing country is advised of the level of financial resources it can reasonably expect to receive from the UNDP over a three-to-five year planning period. This guideline amount is known as the Indicative Planning Figure (IPF). The governments involved determine their priorities for non-capital investment and pre-investment projects. In co-operation with the UNDP resident representative, the Country Program is drafted and includes a brief summary of each project on which assistance is requested and a tentative timetable for carrying it out.

When these programs are approved by the Governing Council, projects summarized in them will be developed and reviewed by the UNDP and may then be approved on an ad hoc basis by the Administrator. At its session last January, the Governing Council also gave the Administrator authority to approve, on this same basis, projects from countries which have not yet prepared a program. (All countries are expected to present programs by January 1974. See accompanying list.) There will no longer be any announcement of "batches" of UNDP projects during the Governing Council Sessions in January and June.

The new system is expected to provide several improvements over the old. It should reduce the time required to start execution of a project, a problem which often plagues multilateral and bilateral assistance programs. Greater co-ordination of a country's pre-investment assistance from various sources will be possible. An advantage cited to economic and social development planning, and co-ordination of government ministries. Through periodic reviews, the programing process allows for necessary adjustments to priorities and progress.

Timetable for Presentation of Country Programs

Africa	Asia, Far East	Europe, Mediterranean, Middle East	Latin America
		June 1972	
Cameroon	Sri Lanka	Poland	Argentina
Central African Republic	India		Chile
Gabon	Indonesia		Costa Rica
Malagasy	Khmer Republic		Honduras
Uganda			Jamaica
			Peru
		January 1973	
Botswana	British Solomon Islands	Arab Republic of Egypt	Bolivia
Dahomey	Burma	Israel	Brazil
Ivory Coast	Iran	Jordan	Cuba
Malawi	Nepal	Libya	Ecuador
Niger	Singapore	Malta	Guatemala
Sierra Leone	Thailand	People's Democratic Republic of Yemen	Haiti
Upper Volta	Tonga	Syria	Trinidad & Tobago
Zambia	Western Samoa	Yugoslavia	
		June 1973	
Burundi	Afghanistan	Iraq	Barbados
Mali	Bhutan	Lebanon	British Honduras
Mauritania	Korea	Morocco	Dominican Republic
Rwanda	Mongolia	Romania	El Salvador
Swaziland	Pakistan	Saudi Arabia	Mexico
	Papua & New Guinea	Sudan	Uruguay
	Republic of Vietnam	Tunisia	
		Turkey	
		Yemen Arab Republic	
		January 1974	
Zaire		Greece	Caribbean
		Spain	Guyana
			Nicaragua
			Paraguay
			Surinam

Because of the revised procedures, the booklet summarizing approved UNDP projects which was prepared semi-annually by the Department of Industry, Trade and Commerce in Ottawa, and distributed to interested Canadian firms, will no longer be applicable. Starting in mid-summer this year, the UNDP will publish notices of forthcoming subcontracts in its monthly report *Pre-Investment News.* These notices will indicate the nature, country and approximate size of the subcontract; the executing agency; and the closing date for expressions of interest. Firms may be included on the mailing list for *Pre-Investment News* free of charge by writing the Chief, Contracting and Procurement Policy, Bureau for Program Co-ordination, United Nations Development Program, 866 United Nations Plaza, New York, N.Y. 10017.

The Country Programs provide an outline of over-all development objectives as well as project summaries. These documents should provide a valuable source of information for consultants wishing to survey forthcoming subcontract opportunities in the developing world. As they become available, the Country Programs will be retained in the Regional Offices of the Department of Industry, Trade and Commerce in Halifax, Fredericton, Montreal, Toronto, Winnipeg, Regina, Edmonton and Vancouver where they may be reviewed by Canadian companies. A set will also be available at the offices of the International Financing Branch, Department of Industry, Trade and Commerce, Ottawa. Because the costs would be prohibitive, the UNDP will not fill individual requests.

As in the past, further information and assistance can be obtained by contacting R.J.L. Berlet, First Secretary, Permanent Mission of Canada to the United Nations, 866 United Nations Plaza, Suite 250, New York, N.Y. 10017.

Tunisia Liberalizes Investment Policy

Canadians would do well to re-examine this market where current development projects open up a variety of opportunities to sell.

A.C. PERRON, Commercial Secretary, Algiers

For the past 10 years, the State has directly controlled almost all means of production in Tunisia. Recently, however, the Government adopted measures to liberalize trade, to promote the creation of export companies and to encourage private investment, both domestic and foreign. The steps have been taken in the hope of accelerating the economy and achieving the Government's development goals.

Over the past decade, industrial expansion in Tunisia had been left to the state corporations. The Government invested in the economy through these corporations and extended its control by nationalizing and redeeming companies from foreign hands. The state corporations were created to implement infrastructural projects and to produce imported goods such as steel, refined petroleum, vehicles, tools and household appliances. A few companies were also established to process Tunisia's few raw materials, such as phosphate rock.

The outcome of this policy was that state participation in the economy reached such a high level that from 1960 to 1970 private investment accounted for only 25 per cent of total investment in the country. Today, most of the Tunisian companies are state-controlled and the only established private concerns are small or medium-sized.

Last year, Tunisia's GNP reached some $1.3 billion; nearly 8 per cent more than the previous year when, in the wake of the disastrous floods of 1969, the GNP rose by only 3.6 per cent. Bumper crops and an excellent tourist season are the main reasons for the rise. The farmer contributes most to the Tunisian GNP and tourism brings in the most foreign exchange.

The inflow of foreign exchange remained steady in 1971 and permitted national reserves to increase for the third straight year. Increased petroleum prices, substantial returns from tourism and foreign exchange sent home by Tunisians working abroad are credited with preventing a deterioration of the current balance of payments that was threatened by a continued rise in imports.

Tunisian authorities are well aware, however, that despite the successes of 1971, their restricted market (five million people) and their limited buying power (GNP per capita of U.S.$210) prevent companies from expanding and make it impossible for the country to reach its desired level of development. This problem has induced the Government to adopt trade liberalization measures and to provide incentives for private investment, both domestic and foreign.

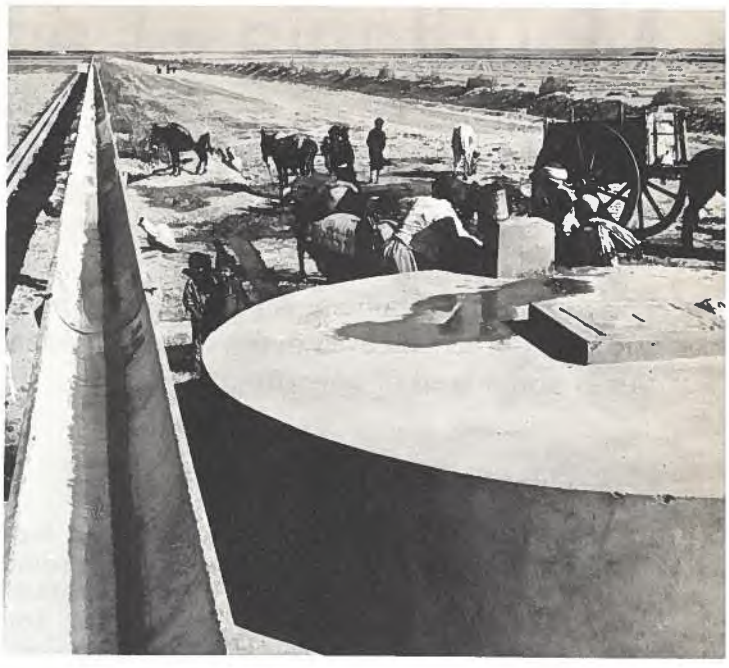
These measures include the introduction of greater flexibility in procedures for import and export licences and the creation of credit organizations for the benefit of entrepreneurs. Protection for industries is now provided on a more selective basis and business is freer to compete. New legislation on investment is expected to be adopted shortly to permit the setting up of private industries which can sell on the local market. These, however, will be essentially export-oriented to ensure profitability. The Government also plans to create free zones throughout the country in which foreign companies will be able to manufacture or assemble finished products from raw materials or parts imported in bond. Only sales to Tunisia will be subject to the customs and tax system.

Tourists often pause in their sightseeing to watch Tunisian artisans, such as this one, meticulously chiselling part of what will eventually be an archway.

Tunisian authorities believe the country's strategic location, the abundance of cheap labor, and guaranteed access to the European Economic Community for 90 per cent of its industrial products will attract foreign investment. Numerous advantages will be granted to companies that decide to build a plant. The first enterprises to take advantage of these new measures will no doubt be those which can award subcontracts or which have a labor-intensive product.

Many Canadian companies could eventually find this approach interesting, especially those that want to increase their exports to Africa, the Middle East and the EEC.

A modern desert irrigation system stretches for miles past this public watering point in rural Tunisia. The farmer contributes most to the country's GNP and bumper crops last year helped it to reach $1.3 billion.



Prospects in the tourist sector are good. The International Bank for Reconstruction and Development (IBRD) has just completed an exhaustive survey of the requirements and prospects for the next 15 years (1971-1985). Based on this, a modest objective of 1.5 million visitors was set for 1985 (410,000 in 1970) which will require the provision of 6,000 beds a year to reach a total of 125,000 by that year. Investment of $30 million is needed and will have to be provided by foreign entrepreneurs. Also of interest to investors is a $58 million infrastructure program designed by the IBRD. This program includes plans for urban renewal, telecommunications, roads and water supplies. Experts believe that in 1985 the number of visitors will far exceed 1.5 million and will bring occupancy to more than 40 per cent. To meet this demand, the Government intends to offer substantial incentives to foreign operators.

The prospects for Canadian exports under commercial terms are limited in Tunisia because of the small market, the lack of foreign exchange, the policy of import control which requires import licences, exchange controls and the recourse, for the financing of most projects, to multinational organizations or bilateral agreements. When imported consumer goods are needed, tenders are often called.

However, several projects that will soon be launched could mean export opportunities for Canadian goods and services. The following are the main ones.

Refinery — The cost of this project will be between $12 million and $13 million. A preliminary survey has already been completed, and the complex will probably be built at Gabes.

Remote control centre — Tunisian authorities are seeking foreign financing with soft terms. The equipment used at this centre will probably be the same as that for the whole Tunisian system within the scope of the signalling program.

Radio network (Sousse/Kesserine) — This will be built within the scope of the Canadian aid program and will cost about $2 million.

Tourism — Projects in this area will be helped by a loan of $58 million from the IBRD. The Government has already received survey reports and is expected to call for tenders in September or October this year. Work will include urban renewal, roads, electric power, and water supplies.

Pumping station (turbines) — This involves pumping sea water or dam water high enough so that the fall will produce electric power.

Opportunities exist also for sales of hotel and air-conditioning equipment and household supplies. Literature and prices should be forwarded to the Commercial Secretary at the Canadian Embassy in Algiers. Our address is Boite Postale 225, Grande Poste, Algiers, Algeria. We would be happy to help you.

Apprentices mix the clay for Tunisian potters with their feet until it reaches the right consistency. In the background are kilns for firing the decorated vases, jars, plates and bowls ready for market.

Mauritania – Land of Camels and Iron Ore

Looking like some creature from outer space, this Mauritania worker covers his face and wears goggles as protection against the sand.

For equipment suppliers, ATV manufacturers, consulting firms and many others — even makers of portable swimming pools — this is also a land of opportunity.

J.C. POOLE, Commercial Secretary, Abidjan.

The old DC-3 blindly circled over Nouakchott, the capital, as the sandstorm increased in intensity. I was returning from Zouerate in the Western Sahara where the large iron ore mines of MIFERMA are located. We were unable to land and the control tower ordered us to fly north to the port of Nouadhibou (Port Etienne), the country's second largest city, on the border of the Rio de Oro, the Spanish Sahara, where the Spanish Foreign Legion patrols the many miles of desert. From here, the camel caravans begin the long hot trip to deliver whisky, cigarettes and other products to points further south.

The major route which these nomads follow is the "Imperial Highway", the sandy track extending from the north of Mauritania to the south. It is on this route that the town of Zouerate and the MIFERMA mines are located, isolated amidst miles and miles of sand desert.

MIFERMA began operating in 1961, financed by private mining interests from several countries and a loan from the World Bank. Today, MIFERMA generates 35 per cent of the gross domestic product in Mauritania, and over the last few years has accounted annually for as much as 80 per cent of capital investment.

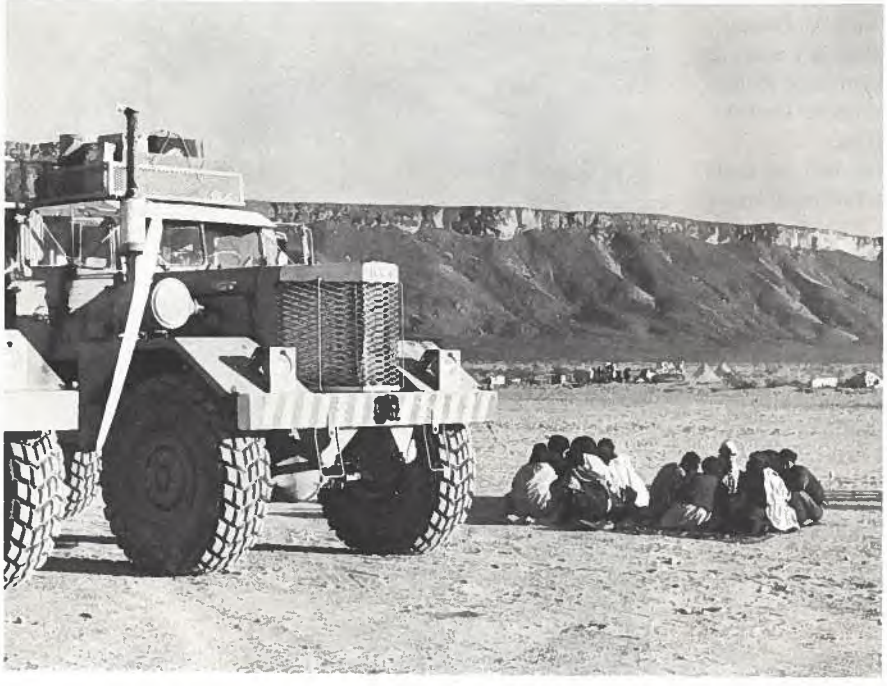
In 1971, production of iron ore from the three mines amounted to 9.4 million tons. In the shadow of the large mountain of iron ore is the small town of Zouerate which MIFERMA has built on the desert sands to house its 2,800 employees and families. A 410-mile railroad has been built to transport the ore from the mines to the port of Nouadhibou where the ore is loaded on ore carriers of up to 150,000 tons.

Several Canadian firms have not overlooked Zouerate in an effort to expand exports. At the end of 1970, an Ontario firm supplied bulk loading equipment for installation at MIFERMA's new port. Another Canadian firm is supplying thousands of tons of explosives annually for the mines. Yet another is carrying out ore analyses.

Opportunities exist for other Canadian firms at Zouerate. MIFERMA operates a large truck fleet of ore carriers of 35, 75 and 110 tons, as well as shovels, bulldozers and loaders, the number of which is expanding yearly. Manufacturers of pumps, compressors, valves, steel castings, crushers, and conveyors should also consider possibilities here. Apart from mining equipment, all-terrain vehicles would find a natural market in this desert region. Portable swimming pools would be a welcome addition in Zouerate which has only one community swimming pool at present.

There are regular Air Afrique flights from Paris to Mauritania, and this country can be included in a tour of countries to the south. Canadian firms wishing to assess their sales potential at MIFERMA should write to this office which can coordinate your initial efforts with MIFERMA in Mauritania, and with the Canadian Trade Commissioner in Paris where MIFERMA's head office is located.

Canadian firms in the mining and mechanical equipment field should also consider Mauritania's second mining company, SOMIMA, operating a copper mine at Akjoujt. A Canadian engineering firm has been responsible for putting the mine into operation. Canadian firms have



Even in the desert workers insist on their coffee breaks. In Mauritania, though, mint tea takes the place of coffee. Here, workers on their way to Port Etienne take time out to wash the dust from their throats.

Handling modern machinery is a far cry from handling a camel, but this Mauritanian seems more than competent with his winch at the MIFERMA mine.

already supplied cast iron and stainless steel valves, and explosives. Most purchasing decisions are made by SOMIMA's largest shareholder, Charter Consolidated Services in England. We can supply you with names of contacts at SOMIMA's Mauritania office and at Consolidated Services in England.

The many aid projects planned in Mauritania offer other possibilities which Canadian firms should actively pursue. At present, Canadian suppliers are limited to participation in World Bank, United Nations, or African Development Bank projects. Those of the French FAC and the European Development Fund of the EEC are reserved for French or European firms.

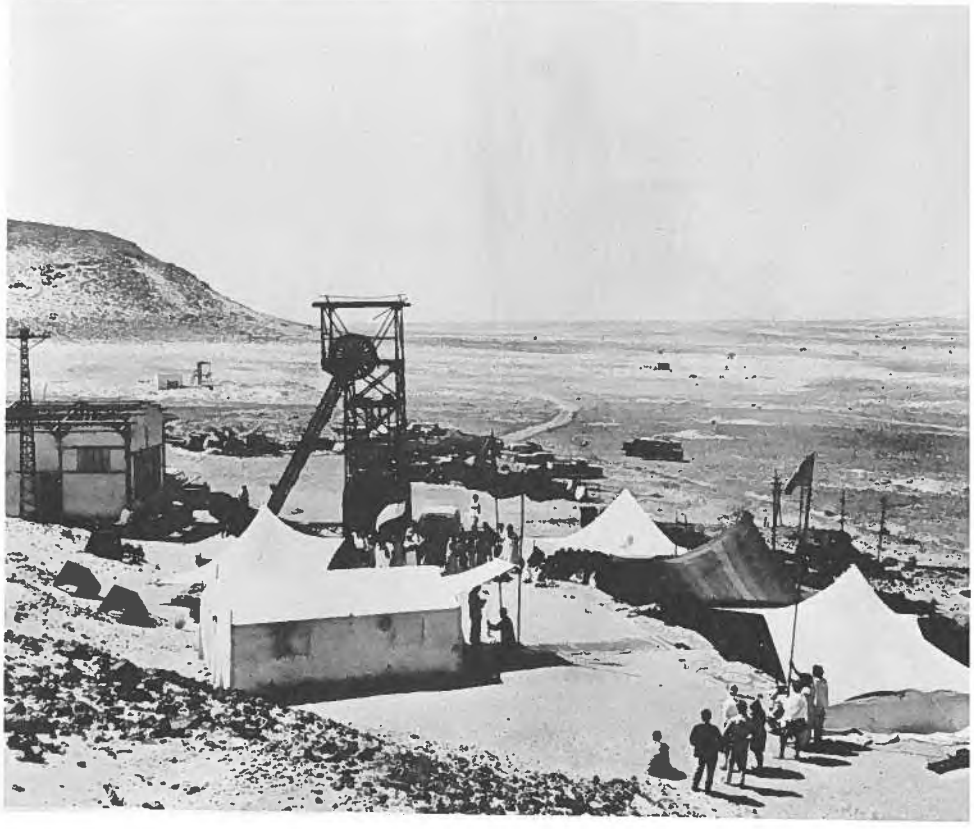
A Canadian consulting engineering firm is currently working in Mauritania on a telecommunications study in West Africa, covering eight countries. Officials of the Government of Mauritania expressed to me their desire to purchase Canadian telecommunications equipment. Other projects, including the port development at Nouadhibou with the help of a World Bank loan, airport construction, road construction, and agricultural development, offer opportunities to both Canadian consulting firms and equipment suppliers.

One project of interest to Canadian manufacturers is the creation of four centres for topographical and survey work which will include equipment valued at $204,400 and all-terrain vehicles worth $40,000. All-terrain vehicles would also be of interest to foreign oil companies such as AGIP and Texaco which have just begun exploration programs in Mauritania. AGIP has a resident engineer in Nouakchott.

There are also excellent possibilities for Canadian STOL aircraft. Air transport is important because of the lack of roads and STOL aircraft are the most suitable for landing on the many sandy airstrips.

This office would welcome your inquiries and will help you by following up your interests in Mauritania. Also included in our territory are eight other countries in West Africa in which opportunities exist. In Abidjan, our office is in an excellent position to help you with information on aid projects. The headquarters of the African Development Bank and the World Bank Mission for West and Central Africa are both located here. Please remember that correspondence and, if possible, documentation sent to firms in any of the six Francophone countries of our territory should be in French.

Competition in this market is keen but, with the appropriate effort, Canadian firms can participate in the economic growth of the area. Some already have, even in Zouerate.



An early picture of the site of the SOMIMA copper project at Akjoujt, which was helped into production by a World Bank loan. Outcroppings in the foreground of the picture are copper oxide ore, overlaying copper sulphide deposits.

Our Forest Products Trade with Britain: a Perspective

T.A. CHARLES, Commercial Counsellor (Timber), London

Canada exported $17,800 million worth of goods in 1971, and of that, forest products accounted for a healthy $3,100 million, or 17 per cent.* Forest products accounted for approximately 16 per cent of total Canadian exports of $1,361 million to Britain in 1971. They were worth $221 million, making Britain Canada's second largest market after the U.S. for forest products.

Export values of $45 million in lumber, $21 million in plywood, $48 million in woodpulp, $59 million in newsprint, $21 million in kraft liner and corrugated container board, and $27 million in other wood products point to the size, scope and importance of this traditional market for Canadian forest products.

The total value of Canadian wood products exported to Britain in 1971, however, was down some $30 million from 1970 — the result of a number of internal and external factors that adversely affected not only the requirement for various forest products in Britain but also the desirability of the market itself to Canadian shippers. These included a sluggish economy in Britain throughout 1971, high unemployment, reduced industrial and commercial construction activity, severe competition from other producing countries and from substitute products, and an increased demand and higher available prices for Canadian wood products in Canada and other Canadian export markets.

* All values quoted in this article are f.o.b. Canadian port of loading.

British docks handled $21 million worth of Canadian kraft liner board last year. At berth 42 in the Tilbury docks near London, this specially designed machine helps streamline loading and unloading procedures.

Construction activity is of major importance to the requirement for lumber and plywood, however, and a review of residential building in Britain for 1971 showed that the number of housing starts was up by 25,000 over 1970. This increase represented 42,000 more starts in the private housing sector and 18,000 fewer in the public. Total completions were 350,000, of which 192,000 were private and 159,000 public, compared to 170,000 private and 180,000 public in 1970. This reversal of activity in the two home building sectors reflects the successful outcome of the Government's efforts to reduce public spending and at the same time to stimulate activity in the private sector. While this trend is expected to continue at least through 1972, it is possible that increased pressure may be brought to bear on the Government to funnel more funds into public housing, leading to an even greater requirement for timber and plywood.

Softwood Lumber — The value of Canadian softwood lumber shipments to Britain last year ($45 million) represented a drop of $19 million from 1970. This drop, in terms of major Canadian species, was comprised of $4 million in hemlock, $3 million in western red cedar, $2 million in Douglas fir and about $5 million in spruce other than western white spruce. Shipments of the latter species were almost identical in 1970 and 1971, holding at 100 million feet board measure valued at $9.4 million.

This over-all reduction in Canadian softwood exports to Britain did not reflect a reduced demand in Britain but rather a switch on the part of Canadian shippers to the more lucrative markets in the U.S., Japan and other countries. The lower prices that prevailed in Britain in 1971 were due in part to the surplus of softwood timber available from Scandinavia brought about by a depressed market for pulp and paper products and the large surplus of logs that was diverted to the sawmills.

Britain's apparent consumption of sawn softwood in 1971 was 8,190,000 cubic metres, up some 45,000 from the previous year, and imports were up by 100,000 to 8,114,000 cubic metres. Canada's share of the import market, however — 1,101,000 cubic metres — was down 25 per cent from 1970.

The outlook for sawn softwood demand in Britain for 1972 is promising. Continued activity in the housebuilding industry and the likelihood of a modest improvement in commercial and industrial construction are expected to increase the requirement for softwood lumber and improved prices might be expected to follow. A strong demand at firm prices for clear grades of Canadian lumber exists in the British market and this is expected to hold into 1973. With regard to construction grades, however, price competition from Scandinavian, Russian and Polish shippers is severe.

In addition, it is expected that there could be a problem in winning acceptance for the new 44 mm. visually stress-graded hemlock-fir lumber from the West Coast. This new size is expected to ultimately replace the 1 7/8-inch (47 mm.) for carcassing lumber in Britain but, at present, considerable opposition exists within the trade to adoption of this size. There is little doubt that a good bit of effective promotion will be required to overcome this, although the probability that the British Government will soon be making the use of stress-graded lumber mandatory for structural purposes may provide a solution to the problem. This point has not been overlooked and every effort is now being made to further the case of Canadian 44 mm. stress-graded lumber.

For the longer term, the outlook for Canadian trade in sawn softwoods with Britain is bright. Britain's accession to the EEC is expected to result in improved economic conditions and a greater requirement for forest products. With the possible exception of surfaced lumber, where a five per cent Common External Tariff is expected to be gradually adopted between 1974-1977, no adverse effects are expected on Canada's lumber trade with Britain as a result of EEC entry.

Hardwood Lumber — Britain's consumption and imports of hardwood lumber showed a significant decline in 1971 from 1970. Total hardwood imports last year amounted to just under one million cubic metres, of which sawn lumber accounted for 745,000 and logs for 254,000. Roughly 70 per cent come from West Africa and the Far East, while shipments from Canada last year amounted to 26,-

BRITAIN'S IMPORTS OF LUMBER AND PANEL PRODUCTS

thousands of cubic metres

	1961	1965	1969	1970	1971
Sawn Softwood					
Sweden	1,423	1,241	2,065	1,874	2,300
U.S.S.R.	1,720	2,280	2,029	1,727	1,571
Finland	2,304	1,748	1,708	1,666	1,895
Canada	1,397	2,341	816	1,466	1,101
Poland	265	549	429	489	391
Brazil	155	209	167	150	188
Czechoslovakia	114	203	165	129	127
Others	77	293	429	517	541
Total	7,454	8,864	7,808	8,018	8,114
Sawn Hardwood					
Africa	208.6	278.2	229.2	220.4	188.1
Far East	190.7	273.7	226.5	268.6	239.1
Europe	188.1	274.1	233.4	220.2	221.9
North America	58.2	81.1	40.9	47.6	49.0
South America	—	6.4	3.9	4.5	3.7
Others	58.2	32.4	31.3	40.7	43.0
Total	703.8	945.0	765.2	802.0	744.8
Plywood					
Canada	131	221	234	276	206
U.S.S.R.	106	126	119	109	97
Finland	205	128	151	160	141
Malaysia & Singapore	—	3	61	105	99
Others	195	197	275	226	194
Total	637	675	840	876	737
Blockboard					
Canada	—	—	—	—	—
U.S.S.R.	—	—	—	—	—
Finland	75	130	144	163	148
Malaysia & Singapore	—	—	1	3	5
Others	44	48	44	48	48
Total	119	178	189	214	201

BRITAIN'S IMPORTS OF PULP AND PAPER PRODUCTS

metric tons

	Canada	Denmark	Finland	Norway	Sweden	United States	U.S.S.R.	Others	Total
Newsprint in reels									
1961	403,627		129,658	23,436	67,701			5,555	629,977
1965	347,586		154,536	37,898	58,079			599,168	1,197,267
1969	456,724		212,347	28,332	71,490			493	769,386
1970	410,921		244,666	48,438	83,208			4,992	792,225
1971	351,837		309,983	61,262	78,512			7,378	808,972
Woodpulp for papermaking									
Mechanical pulp									
1961	48		87	354	244				733
1965	79		86	392	274			9	840
1969	7		40	416	181			8	652
1970	14		26	428	138			10	616
1971	6		16	294	115			12	443
Chemical pulp-sulphite									
1961	82		228	73	244	23	55	49	754
1965	120		252	90	252	22	37	50	823
1969	19		245	75	203	17	15	43	617
1970	37		211	91	208	28	6	46	627
1971	32		145	81	167	17	1	33	476
Chemical pulp-soda & sulphate									
1961	110		160	7	336	172	17	57	859
1965	102		255	3	380	79	10	93	922
1969	232		288	5	499	158	3	126	1,311
1970	295		258	6	537	222	2	156	1,476
1971	254		182	8	397	145	2	106	1,094
Semi-chemical pulp									
1965		15		16				4	35
1969		2		15				—	17
1970		4		14				1	19
1971		2		15				2	19
Paper and board									
1961	518		214	82	261	172		214	1,461
1965	523		361	128	325	248		138	1,723
1969	687		582	176	538	301		132	2,416
1970	684		656	188	564	270		144	2,506
1971	646		773	194	603	269		163	2,648
Kraft linerboard in reels									
1968	132,569		31,385		79,823	269,329		3,072	516,178
1969	125,643		37,833		83,737	274,414		6,863	528,490
1970	124,988		53,041		99,536	245,129		23,874	546,568
1971	110,213		46,290		105,715	242,110		11,021	515,349
Semi-chemical fluting									
1968	25,793		31,482	21,654	34,545	254		8,826	122,554
1969	22,603		44,460	20,492	39,753	248		2,494	130,050
1970	32,384		49,421	14,977	37,557	300		1,633	136,272
1971	48,663		47,777	12,505	36,218	557		1,398	147,118

000 cubic metres and were worth some $2.1 million, of which maple flooring represented over half. With the rapidly expanding demand and increased prices for Canadian maple in Japan and other markets, however, it remains to be seen whether similar returns will be obtainable in Britain. If not, it is probable that 1972 will see a significant drop in Canadian exports of hardwood lumber to this market.

Nor is the longer term outlook for hardwood consumption in Britain too promising. The trend towards veneer and wood grain prints on particleboard and plywood for furniture, panels and other uses is expected to continue. Hardwood flooring is losing out to cheaper materials and to wall-to-wall carpeting. These and other factors are making heavy inroads into former uses of hardwood lumber.

Plywood — For the fifth consecutive year, the apparent consumption of plywood and blockboard in Britain in 1971 exceeded one million cubic metres. For plywood alone, however, total imports fell from 876,000 cubic metres in 1970 to 737,000 last year, with Canada's share amounting to 206,000 cubic metres with a value of approximately $21 million. This compares with the 276,000 cubic metres worth $30 million shipped in 1970. There was severe competition for the British plywood market throughout the year from Finland, the U.S.S.R. and the Far East.

The drop in the British requirement for plywood last year was basically a result of two factors. For one thing, Britain's somewhat depressed economy resulted in extremely low capital investment in new plants, projects or buildings and, in view of the fact that some 35 per cent of Canadian plywood sales in Britain are for concrete formwork, the slack activity in these construction sectors had a marked negative effect. Moreover, imports of particleboard were up by no less than 74 per cent, although total imports of plywood into Britain last year dropped by approximately 13 per cent over 1970. Much of this particleboard is replacing traditional end uses of Douglas fir plywood because of its significantly lower cost and its suitability for certain construction purposes where strength is not a factor.

With the anticipated upturn in the British economy in 1972, however, it is expected that Canadian plywood sales to Britain should return to around the 1970 level. Beyond 1972, the outlook for coniferous plywood trade with Britain and the enlarged Community is reasonably bright, although certain imponderables exist and problems are emerging that will require clarification. The provision for a duty-free quota on certain sizes and grades of softwood plywood, agreed between Britain and the EEC in the enlargement negotiation, should not only protect the major part of Canada's trade with Britain but also provide a new opportunity to expand exports to the other members of the Common Market. On the negative side, the loss of Commonwealth Preference will adversely affect Canada's competitive position in Britain with respect to other suppliers of coniferous plywood.

In addition, the significant inroads being made by particleboard on the British plywood market will bear close watching and will necessitate the development of effective promotional programs and of new uses or improved products if Canada is to maintain or expand its trade.

In face of the 13 per cent Common External Tariff that is to be phased in between 1974 and 1977, the outlook for Canada's future trade in thinner sizes of softwood and all hardwood plywood, which had an estimated value of $3.5 million in 1971, is poor.

Pulp and Paper Products — Of the $221 million worth of forest products shipped from Canada to Britain in 1971, pulp and paper products comprised $149 million. Newsprint exports at $57 million, accounted for over one-third of this amount, followed by woodpulp at $48 million ($1.25 million less than in 1970), linerboard at $15 million, wrapping papers at $11 million, and corrugating container board $5.5 million.

Reduced British newspaper circulation and advertising volume in 1971 decreased the apparent consumption of newsprint by some 150,000 metric tons over 1970, and the value of Canadian newsprint exports to Britain was down $2.75 million from the previous year. Intensive rationalization, however, took place in the British newsprint industry during the year due to the weak domestic market and rapidly rising production costs and it is estimated that the drop in British newsprint production capacity as a result of this will amount to some 200,000 to 300,000 tons per year. Given an improvement in the British economy, this should lead to greater potential for Canadian shippers.

In view of the agreements reached in the negotiations last year between Britain and the EEC on woodpulp, where a suspension of duty is proposed, and on newsprint, where expansion of the existing Community duty-free quota to meet British import requirements was agreed, the outlook would appear favorable for continued growth in Canadian exports of these commodities. In the case of the former, there is also a high degree of rationalization in the Nordic pulp and paper industry towards products of higher profitability and this, together with a growing wood fibre shortage in Western Europe, would indicate an expanding requirement for Canadian woodpulp in the enlarged Community, including Britain.

For paper and board products other than newsprint, however, the outlook for future trade with Britain is not promising. The substantial volume of these products produced within the EEC, the loss of Commonwealth Preference, and the phasing-in of the Common External Tariff of approximately 12 per cent between 1974 and 1977 will put Canadian products in a less competitive position vis a vis the members of the Common Market, non-candidate EFTA producers and the U.S.

A Look Ahead — The budget announced by the Chancellor of the Exchequer on March 21, with its significant reduction in taxes and increased incentives for industrial expansion, is designed to stimulate economic growth and to reduce the present high level of unemployment. There is some thought, however, that it will also result in higher inflation.

The British timber trade is favorably disposed to the budget and feels that it will undoubtedly lead to a greater requirement for lumber, plywood and other forest products. Canadian shippers should benefit if this proves to be the case.

For the longer term, the most important factor facing Canada's future forest products trade with Britain is that of that country's entry into the EEC and consequent application of the EEC's import regulations on imports from Canada. Prospects for woodpulp, newsprint and coniferous plywood trade are good but difficult problems could lie ahead for Canada's traditional and sizeable trade in other paper and board products such as hardwood plywood, veneer, and manufactured or semi-manufactured wood products. Canada's future participation in the British market for the latter commodities will depend in large measure upon the outcome of negotiations now underway between the EEC, Britain and the non-candidate EFTA countries, and to possible tariff concessions in this sector by the enlarged Community in the context of multilateral negotiations in the GATT during 1973-74.

Hong Kong to Build Subway

Plans call for a total of 32.7 miles of line with 48 stations to be constructed in nine stages. Tenders are expected to be called for each phase.

DOUGLAS P. McLENNAN, Assistant Trade Commissioner, Hong Kong

Hong Kong has an estimated population of 4,045,000 and a total land area of 398 ¾ square miles. Most people are jammed into some 35 miles of territory comprising the Kowloon Peninsula and the island of Hong Kong itself. This high population density creates obvious problems of transportation, particularly for the commuter at rush hour.

There are 606 miles of road in Kowloon, the New Territories and on Hong Kong Island. But Hong Kong has 164,000 registered vehicles of all kinds. The number of private cars has soared from 36,000 ten years ago to 107,000 last year, with commercial vehicles increasing three-fold. This works out to 271 vehicles per mile of roadway.

Traffic congestion is increasingly serious and parking in downtown areas very difficult indeed. With registrations of new vehicles increasing by 15 per cent a year, there is an obvious need for action of some sort to ease congestion in the Colony's densely packed and fume-filled streets.

The Government of Hong Kong is working on an over-all traffic and transport policy aimed at ensuring that space is used as efficiently as possible. Nevertheless, it is generally conceded that concentrating solely on road space will not provide all the answers, given the size and complexity of the Colony's transport problem.

A two-year Mass Transit Study was tabled in the Legislative Council early in 1968 which stated that Hong Kong must build a rapid transit system by the 1980s as part of an integrated and rationalized master transport plan. This study was revised and updated in September 1970 and was subsequently submitted to the Transport Advisory Committee, a government-appointed group acting in an advisory capacity to the Department of Transport.

The once familiar rickshaw is disappearing from the streets of Hong Kong and no new licences are being issued. These men wait for passengers at ferry terminals between the Island and Kowloon peninsular.

The report was then forwarded to the Governor-in-Council for a final decision, which has only just been reached.

The plan the Government is working on was drawn up by the British firm of consultants, Freeman, Fox and Partners. Freeman, Fox included visits to both the Toronto Transit Commission and the Montreal Transportation Commission in their preliminary studies. The plan found an immediate ally in the former Transport Commissioner who described it as the only answer to Hong Kong's increasing traffic congestion.

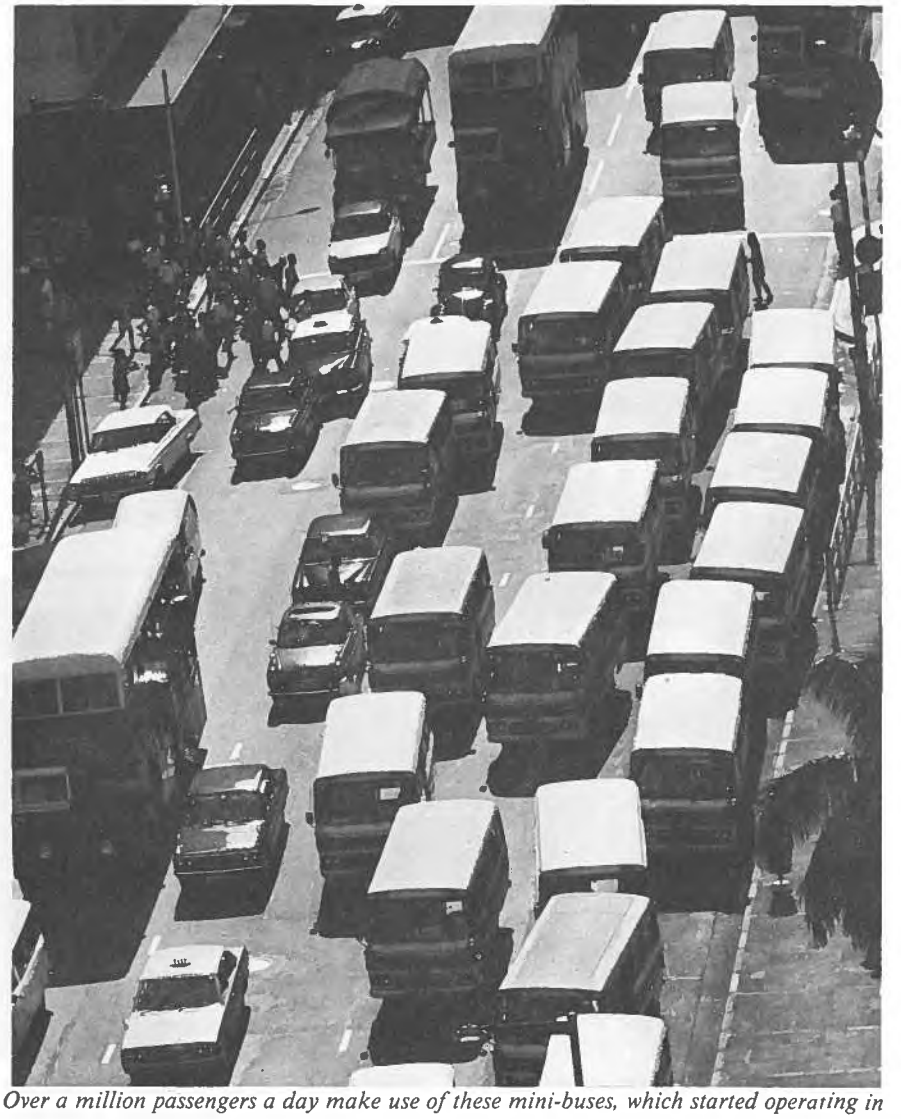
The plan calls for a subway system to be built in nine separate stages. Construction could be halted at the completion of any stage after the second and still leave a system that would be operationally viable and provide the optimum service on its reduced length to the maximum number of people. These first two stages purportedly represent the minimum system that could be sensibly undertaken in Hong Kong.

The total scheme envisaged comprises underground railways on both sides of the harbor to be linked by two tunnels and giving a total route length of 52.8 km. (32.7 miles) linking 48 stations. The cost has been estimated to be in excess of Cdn.$750 million based on 1970 prices, but Government officials fear that the final cost will probably be substantially higher.

The initial system would be obtained by completing the first four stages. Twenty stations would be built over a route length of 12.6 miles at a minimum cost of Cdn.$350-400 million. This first phase of the work would be designed to serve the immediate needs of the community and would achieve this purpose by providing a service from the Island to Kowloon through the main business centres and out to the densely populated suburbs of Kowloon. It would take approximately seven and a half years to design and build it.

Stages five through nine would see the extension of the subway to meet increased travel demand up to 1986 when the entire 32.7 miles would be in operation.

Construction of the scheme would involve engineering difficulties of great complexity and tunnelling through the Colony's hard rock without toppling its growing crop of high-rise buildings will be no mean problem. The Government, however, appears optimistic that no buildings existing or planned would create effective barriers. Every effort would be made to locate lines where no large-scale demolition of property would be required.



Over a million passengers a day make use of these mini-buses, which started operating in 1969. There are now 3,800 of these vehicles in Hong Kong, each capable of carrying 14 people. The annual profit from all the vehicles is estimated at the equivalent of about U.S.$15.2 million.

Methods of construction already examined include the following alternatives: cut-and-cover; tunnelling; elevated railway, and surface railway. Borings have been made in connection with soil ivestigations in order that the suitability of the various construction methods might be assessed and cost estimates made. Indications are that the majority of the subway stations will be of cut-and-cover type and much of the underground line between stations will be in bored tunnels.

The harbor lines will probably use the immersed-tube method of construction, similar to the vehicular cross-harbor tunnel scheduled for completion this fall. A section of the sea bed will be dug out so that the individual tunnel units can be submerged and linked under water on the harbor bottom.

The recommended designs for rolling-stock and station reflect the intensive use predicted for the system. Each train would have a total over-all length of some 600 feet and consist of eight wide (over 10 feet) and long (almost 80 feet) interconnected cars. Seats would be provided for only 450 passengers whereas the total capacity per train will be 2,000 people under normal conditions and 3000 people during crowded rush-hour periods. The design envisages steel-wheeled cars running on steel rails, as in Toronto. Projecting into the 1980s, statistics indicate a daily load of from 700,000 to 1.2 million passengers, based on an estimated Hong Kong population of between 5.6 million and 6.8 million by 1986.

To achieve an average capacity of 45,000 passengers an hour for each line, a system has been devised with trains opera-

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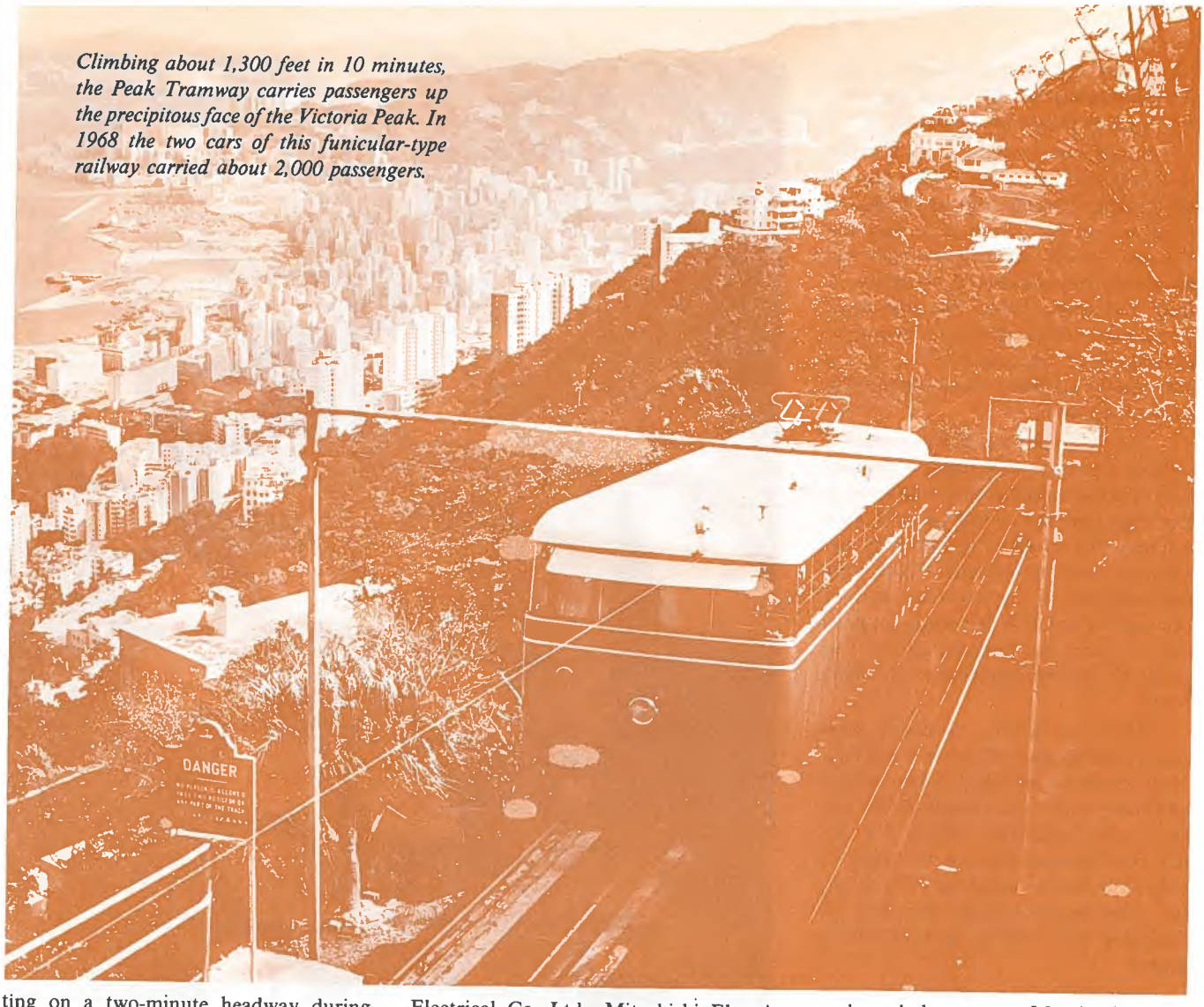

Climbing about 1,300 feet in 10 minutes, the Peak Tramway carries passengers up the precipitous face of the Victoria Peak. In 1968 the two cars of this funicular-type railway carried about 2,000 passengers.

ting on a two-minute headway during peak hours. This is generally accepted as the maximum frequency attainable under most circumstances. But semi-automatic control of train movements and signalling would theoretically be capable of processing headways as low as 90 seconds, requiring a very high degree of control over train movements, passenger handling, access to trains and loading/unloading.

Trains would be electrically driven by 1,500 volts direct current carried along a third rail. The whole system would employ only one class of travel, thereby eliminating innumerable design complications. Stations have been designed wherever possible with "centre-island" platforms and automatic equipment for the collection of fares.

A consortium of more than 20 Japanese firms is ready to tender for the multi-million dollar construction project upon its approval. Representing them locally is Hong Kong's top trading group, Jardine, Matheson & Co. Ltd. The Japanese participants include Mitsubishi Corporation, Mitsui & Co. Ltd., Hitachi Ltd., Marubeni Corporation, Tokyo Shibaura Electrical Co. Ltd., Mitsubishi Electric Corporation and Nishimatsu Construction Co. Ltd. Members of this group have built 120 km. of underground systems, including five rapid transit lines in Tokyo.

Last October, a group of British companies consisting of General Electric Co Ltd., Balfour Beatty & Co. Ltd., Richard Costain Ltd. (active in Hong Kong's vehicular cross harbor tunnel project), the Cementation Co. Ltd., and John Mowlen & Co. Ltd., all represented by Hutchison International Ltd., was reportedly making a similar effort for the underground scheme.

Indications are that when tenders are called they will be called section by section rather than have the entire project go to a single bidder. Invitations to bid of course would be sent only to a restricted list of firms.

During recent months, some financiers here have expressed serious doubts that the proposal can get off the ground because of the difficulty of finding money for the project. No private financial institution or group would tie up such huge amounts of capital when returns are of such a nebulous nature. Mention has been made of the World Bank or the Asian Development Bank. In March of this year, the ADB established an encouraging precedent by investing for the first time in the Colony through the financing of a U.S.$20 million desalination plant. But judging from the more urgent requirements of developing countries for finance to develop basic public utilities, there is little likelihood that the subway will receive an early response. The general feeling on the part of the Government is that the massive outlays necessary for the subway system should not be made at the expense of social services nor operational costs be subsidized by public funds.

Canadian firms seeking further information should contact the Canadian Government Trade Commissioner, Commission for Canada, P.O. Box 126, Hong Kong. We would be pleased to lend our support to all marketing initiatives aimed at securing export contracts in the British Crown Colony of Hong Kong.

Brazil Bids for Petrochemical Position

With 135 projects worth approximately $670 million approved during the last three years the country hopes to become the world's seventh largest producer in this field.

PAUL A. THEBERGE, Consul and Trade Commissioner, Sao Paulo

Brazil's petrochemicals industry began to take shape in 1957 with the installation of an ammonia and fertilizer unit by PETROBRAS in Cubatao, near Sao Paulo. This initial stage lasted until 1964 with the building of units by Cia. Brasileira de Estireno (styrene), Alba (methanol), Union Carbide (polyethelene BD), Copebras (carbon black), Electrocloro and Eletroteno (PVC and polyethelene AD), Rhodia (acetone and nylon) and Fabor (SBR). This, however, is only the foundation of a giant industry which plans to increase its output fivefold in the next five years, thus placing the country seventh among world producers.

The basis for the creation of a large industry on an international scale was made possible by the establishment of GEIQUIM (Executive Group for the Chemicals Industry) in 1964. Its basic function is to study new investments that might be eligible for government incentives. These include exemption from import duties on equipment not made locally, tax exemptions, financing by official banks, and even occasionally direct government capital investment. The industry was further consolidated at the end of 1967 by the creation of PETROQUISA, a subsidiary of PETROBAS, the state petroleum monopoly.

Petrochemical ventures in Brazil are numerous and are centered mainly in the Sao Paulo and Rio areas. The State of Bahia is another, though less important sector. Listed below are the companies with brief descriptions of their present and planned productions. The last six are in the State of Bahia, the others in the Sao Paulo and Rio areas.

Petroquimica Uniao S.A. This is part of the PETROBAS group and was the first concern established jointly by official and private interests. Through an investment of $126 million by PETROQUISA and UNIPAR it will produce annually 300,000 metric tons of ethylene, 168,000 of propylene, 50,000 of butadiene, 110,000 of benzene, 15,000 of toluene, 30,000 of orthoxylene and 30,000 metric tons of paraxylene. This firm is expected to produce at international price levels; because of government protection afforded the industry most firms operate at higher levels. It will supply the basic materials to most of the companies within the petrochemical industry in the Sao Paulo and Rio area.

Carbocloro S.A. (Industrias Quimicas). This firm is now supplying 95,000 metric tons a year of chlorine, an essential basic material.

Poliolefinas S.A. This is an association of PETROQUISA and the private concerns of UNIPAR and National Distillers do Brasil S.A. Located near the Petroquimica Uniao factory, it produces 80,000 metric tons of low-density polyethylene annually.

This is the new Petroquimica Uniao complex at Capuava in the state of Sao Paulo where production will begin this year of basic petrochemicals from naphtha.

Copamo (Consorcio Paulista de Monomero Ltda.). This is a subsidiary of Petroquimica Uniao, and is associated with Brasivil (a German Huels-Bayer interest) and Eletroteno (a Belgian Solvay interest). It will turn out 100,000 metric tons a year of vinyl chloride a year from ethyelene and chlorine.

Brasivil (Resinas Vinilicas Ltda.). This firm was established through a partnership of UNIPAR and Huels-Bayer and will use Copamo's vinyl chloride to produce 40,000 metric tons a year of polyvinyl chloride.

Empresa Brasileira de Tetramero Ltda., controlled by UNIPAR, is to produce annually 30,000 metric tons of propylene tetramer and 120,000 of cumene, beginning next year.

Eletroteno Industrias Plasticas S.A. is expected to produce 40,000 metric tons a year of high-density polyethylene, starting this year.

Industrias Quimicas Eletrocloro S.A., a polyvinyl chloride producer, will have increased its annual capacity next year to 65,000 metric tons.

Rhodia (Industrias Quimicas e Texteis S.A.). This firm has produced nylon 66 since 1960 and is greatly increasing its production. It will use the cumene produced by Empresa Brasileira

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Local production for the industry is increasing, and cutting down on the need for imports, but there is still a market in Brazil for pumps and some types of valves such as these butterfly valves manufactured by Dominion Engineering of Montreal.

de Tetramero. It should also start in 1975 producing TPA, a prime material for making polyester thread from para-xylene, which will be supplied by Petroquimica Uniao.

Union Carbide do Brasil S.A. does not form part of the Petroquimica Uniao combine and has its own petrochemical complex at Cubatao, between Santos and Sao Paulo. Its planned output, to be produced in a Wulff unit, is 128,000 metric tons a year of ethyelene and acetylene and 80,000 metric tons of polyethylene BD.

Companhia Brasileira de Estireno. As of this year, this firm will have sufficient installed capacity to produce 76,000 metric tons of styrene, a prime material for making plastics and rubber.

S.A. Industrias Reunidas F. Matarazzo is expected to produce up to 30,000 metric tons of polyvinyl chloride in 1972.

Ultrafertil S.A. began fertilizer production in 1970 and, among other products, manufactures 500 metric tons a day of ammonia.

Polibrasil should produce 30,000 metric tons of polypropylene a year, beginning in 1974.

Ciquine (Companhia de Industrias Quimicas do Nordeste). This company is now producing 4,500 metric tons a year of phthalic anhydride and plans to double production of this and to produce 20,000 metric tons of octanol, which is used in the manufacture of phthalic plastics.

Fisiba (Fibras Sinteticas da Bahia S.A.) is planning an annual production of 8,000 metric tons of acrylic fibre and 16,000 of acrylonitrile, starting in 1974.

Paskin S.A. (Industrias Petroquimicas) should start production of 5,000 metric tons of methyl methacrylate this year.

Copetram expects to produce ammonia in Bahia from local natural gas at the rate of 1,000 metric tons a year. Production should begin in 1975.

Metanor will produce 50,000 metric tons a year of methanol starting in 1974.

DuPont do Brasil S.A. has a project to produce 23,000 metric tons of di-iso-cyanate toluene (TDI) as of 1975.

Brazil's chemical industry accounts for approximately 18 per cent of the country's industrial output and 6 per cent of the gross national product. It is also the sector with the largest growth rate and heads the list for industrial investment, with 135 projects approved during the last three years estimated at U.S.$670 million. Some of the most important petrochemical projects are already in operation or will be operating this year, but the 1972 start of production by Petroquimica Uniao will really mark Brazil's coming of age in this field. Over 1.1 million metric tons of petrochemicals worth about $230 million were imported in 1969. In the near future, imports will be fully replaced by local production, which may also be sufficient to allow the country to start exporting some of these commodities.

But there is still a place for some Canadian products, particularly for pumps and certain types of valves. Electronic process control equipment could also be placed on this market. There may still be a few opportunities for consultancy firms, and joint ventures and investment should find a place in this growing industry. If you need information, write to us at the Canadian Consulate, Caixa Postal 6034, Edificio Scarpa, Avenida Paulista, 1765, 9 andar, Sao Paulo. But send us letters only, parcels may not arrive.

Canada Helps Brazilian Agriculture Go Nuclear

JOSEPH E. BRANT, Commercial Officer, Sao Paulo

The most important — and expensive — single piece of equipment installed at Piracicaba's Centre for Nuclear Energy in Agriculture (Centro de Energia Nuclear na Agricultura — CENA), is a Canadian-made Gammabeam 150 irradiator, manufactured by Atomic Energy of Canada Ltd.

Like everything connected with nuclear research programs in Brazilian agriculture, CENA is a recent development. It is being operated by the Luiz de Queiroz Higher School of Agriculture, a branch of the University of Sao Paulo, and is considered to be Brazil's largest and most advanced agricultural school.

Created in 1966 by a government decree, CENA started the construction of its building facilities in 1968 and initiated its courses and research work the following year. Functioning under contract with the Brazilian National Commission for Nuclear Energy, its activities include studies on soils, food preservation, ecology, biochemistry, plant nutrition, radio-genetics and training courses for the application of modern nuclear technology in the rural areas of Brazil. The United Nations Development Plan (UNDP) is helping to provide bilateral and multilateral financial and technical assistance to upgrade training and applied research programs and to expand facilities. Of particular importance will be the application of nuclear technology in agriculture.

CENA's present Gammabeam 150 irradiator will soon be replaced by a more advanced unit, the Gammabeam 650, for which about U.S.$50,000 has been set aside under the UNDP project.

How does CENA buy equipment under UNDP auspices? Dr. Admar Cervellini, CENA's director, explains it this way. A list of needed equipment is drawn up by CENA and forwarded to the International Atomic Energy Agency headquarters in Vienna, Austria. CENA may — as in the case of the Gammabeam 650 which was ordered from Atomic Energy of Canada, Ltd. — specify its preference for a certain manufacturer. The Agency will respect this preference and order the equipment directly from the indicated manufacturer. Most of the items in the list, however, carry only a brief yet concise description of denomination and main characteristics. The purchase will then be made by the Agency in Vienna, through an international tender call.

Dr. Admar Cervellini, Director of CENA, works with the Gammabeam 150 irradiator made by Atomic Energy of Canada. Note the locally made turntable. The machine is used in research and to combat disease and pests in crops.

CENA's present Gammabeam 150 irradiator was donated to CENA by the Agency a few years ago and still looks brand new despite daily use. In fact, it has been improved with the installation of a turntable made and adapted by CENA's technical staff which permits simultaneous irradiation of several items.

The Department of Agriculture of the State of Para recently requested CENA's assistance to combat two widespread fungus and virus diseases which threaten to destroy its black pepper plantations — Para's most important crop. Treatment with known fungicides proved to be useless and sample shipments of seeds have been forwarded to CENA where they are undergoing irradiation by the Gammabeam 150 unit. Irradiation is a relatively simple technique which, if properly used, may help in the understanding of the biochemistry and genetics involved in these problems.

One of CENA's most important activities is research on ways to combat pests attacking beans, corn, coffee, rice and other plants. According to statistics, a staggering 30 per cent of Brazil's bean crop (the country's staple food) is destroyed every year by worms and other pests. It is estimated that in 1968 this loss amounted to $40 million.

CENA has been a pioneer in the use of atomic energy in agriculture in Brazil, and it is expected that other centres will be created. Hopefully, these also will look for Canadian expertise and equipment.

Export Opportunities

The inquiries listed below come from several sources, including various Branches of the Department in Ottawa and the Trade Commissioner Service posts abroad. Exporters should correspond directly with the companies or agencies mentioned, using the addresses given, and should send copies of the correspondence to the Trade Commissioner for follow-up. The Department of Industry, Trade and Commerce cannot assume any responsibility for trade negotiations that exporters may enter into with these firms, nor can it vouch for their commercial standing.

UNITED STATES — Representation of hand soap, tissue, vegetable oil, shoe polish: K & S Export Co., Inc., P.O. Box 101, Brooklyn, New York 11222 (specializing in sales to Middle Eastern countries).

Chemicals

HONG KONG — Rubber chemicals: J. Chung, Manager, Degussa Department, Jebsen & Co., Prince's Building, 23/F.

WEST GERMANY — Sodium perborate, 80,000 kg.; nicotinic acid, aethoxiquin 66.6 034:3, 5, methionine and choline chloride 50 per cent, up to 10,000 kg.: Kurt Schaber, An der Koppel 6, 1 Berlin 52, Germany.

Educational

UNITED STATES — Distribution of electronic training equipment, educational television equipment, audio-visual equipment and library equipment: (1) George Emerson Sales, 1563 West El Caminito Drive, Phoenix, Arizona 85021; (2) B/G Sales Company, 311 East Indian School Road, Phoenix, Arizona 85011.

Electrical

UNITED STATES — Representation of electrical products, such as plugs and lighting equipment for construction industry: Stevens and Associates, 3317 North 16 Street, Phoenix, Arizona.

Representation of small motors, power transformers and small electrical products: B. Fred Larsen, 6108 North 11th Avenue, Phoenix 13, Arizona.

Equipment

BARBADOS — Representation of air conditioners for windows and cars, refrigerators, electric and gas ranges, lighting equipment and fixtures, kitchen gadgets, electrical equipment, switchgear and fittings, residential, commercial and auto burglar alarms, electrically-controlled hobby items: Transonic Ltd., Pinfold St., Bridgetown.

BRAZIL — Equipment for laboratories studying physics, chemistry, biology, dentistry, phonology, psychology, engineering, technology, electronics, materials testing and communications techniques; general literature to select equipment for future purchase and installation in new campus laboratories: Dr. D. Aytai, Director, Faculdade de Engenharia, Universidade Catolica de Campinas, Caixa Postal 317, (13100) Campinas, S.P.

HONG KONG — Sewage treatment equipment: Director, Public Works Department, Hong Kong Government, Murray Building, Garden Road, Hong Kong.

KHMER REPUBLIC (formerly Cambodia) — Air-conditioners (residential and commercial, 220 volts/50 cycle); diesel generators; industrial motors, batteries (car, tractor, truck, 12 volts); tires for heavy equipment: Nhek Khloth, Directeur General, Société Khémarak de Commerce et d'Industrie, S.A., B.P. 238, 133-134 Vithei Okhna Phlong, Phnom-Penh.

Bottles and glassware for pharmaceutical products: Tan Peng Muele, South East Trading Co., 159B, Vithei Kralahom-kong, Phnom-Penh.

SWEDEN — Measuring tapes, plummets, measuring tape stretchers, swing barrels, leveling rods, gradient gauges, lasers and other accessories for geodetical measuring equipment; colimators, mirrors, prisms, gas lasers and other accessories for optical tooling: G. Grundhammar, Marketing Director, Ingut AB, Box 69, S-571 00 Nassjo.

UNITED STATES — Distribution of office equipment and hospital equipment and supplies: (1) Bob Rummage Associates Inc., 400 East Roosevelt Street, Phoenix, Arizona 85004; (2) Professional Representatives, 1049 East Missouri Avenue, Phoenix, Arizona 85014.

Direct sales of office equipment and photocopying equipment and supplies: California Copy Products, 1043 West Manchester Boulevard, Inglewood, California 90301.

Foodstuffs

HONG KONG — Jams; canned peas, carrots and mixed vegetables: Director, Victoria Provision & Trading Ltd., 717 Shaws Building, Nathan Road, P.O. Box 6814, Kowloon.

Squid and mackerel, yellowfin tuna fish, duck's feet: General Manager, Sun Fung Company, 403 Takshing House, 20 Des Voeux Road C.

Frozen green peas: David Chan, Managing Director, Chung Hing Frozen Meat Co. Ltd., No. 1 Jubilee Street, Hong Kong.

KHMER REPUBLIC (formerly Cambodia) — Flour: Guy Michel, Etablissement Dumarest, 273 Terak Vithei Pheatarak Pheap, Phnom-Penh.

Hoop cheese, refined sugar, chocolate (bars, baking), sardines in oil and tomato sauce, malt: Tan Pen Meule, South East Trading Co., 159B, Vithei Kralahom-kong, Phnom-Penh.

SOUTH VIETNAM — Canned meats: Phung Pham Chao, Directeur General, Hang Lien Xuong, 27 Nguyen Van Sam, Saigon.

Canned fruit, dried mushroom, canned asparagus: Ly Le Hoa, Yeck Tai Hong, P.O. Box 474, 66 Dai-lo Ham Nghi, Saigon.

Furniture

UNITED STATES — Distribution of contract furniture and office furniture: (1) Bob Rummage Associates Inc., 400 East Roosevelt Street, Phoenix, Arizona 85004; (2) Professional Representatives, 1049 East Missouri Avenue, Phoenix, Arizona 85014.

Hardware and houseware

JAMAICA — Representation of door and cabinet locks, padlocks, sash fasteners, hinges, tower bolts, shelf brackets: L.K. Smith, Hardware Dept., Geddes Grant (Distributors) Ltd., 109 Marcus Garvey Drive, Kingston 11.

UNITED STATES — Representation of power tools, hand tools, household accessory lines: Norm Nowak & Associates, 6210 W. Minnezona, Phoenix, Arizona 85033.

Distribution of housewares (hard goods), consumer products and kitchen equipment: Southwest Marketing Co., 4701 North Seventh Street, Phoenix, Arizona 85014.

Liquor

SOUTH VIETNAM — Whisky: Ly Le Hoa, Yeck Tai Hong, P.O. Box 474, 66 Dai-lo Ham Nghi, Saigon.

Machinery

BRAZIL — Machine to undulate asbestos cement sheets for the manufacture of roof tiles;

direct import for own account via Santos: Jose David Martins, Director, Ceramica Reunidas Martins Ltda., Caixa Postal 1182, (13100) Campinas, S.P.

Machine tools used in the manufacture of electric motors, electrical household appliances and electrical automotive components; general literature to select machine tools for future purchase for own account and industrial use: Dr. Antonio Fernando G. Bessa, Divisao de Selecao de Equipamento, Arno S/A — Industria e Commercio, Caixa Postal 8217, (01000) Sao Paulo, S.P.

SINGAPORE — Copying lathe and automatic side forming machines for wood working; provide brochures, technical data and representative c.i.f. prices: On Seong Co (Pte.) Ltd., 69 Beach Road, Singapore 7 (attention L.C. Wan, Manager).

SOUTH VIETNAM — Agricultural machinery, diesel marine engines (less than 40 hp): Nguyen Van Thanh, General Manager, Van-Phat-Hang, P.O. Box 557, 200 Nguyen-Cong Tru Street, Saigon.

Agricultural machinery, electric generators (less than 1,000 watts): Joseph Lejeal, Directeur General, Brownell Lane Engineering Co., P.O. Box 0-12, 232 Trinh Minh Thé, Saigon.

Materials

HONG KONG — Roofing supplies and equipment: Director, Vai Cheong Building Works Co. Ltd., 702 Hing Wai Building, Queen's Road C.

Alkyd resin for paints and printing inks, red lead, phosphoric acid, cuprous oxide, glycerin, acetylene black (for dry batteries): J. Chung, Manager, Degussa Department, Jebsen & Co., Prince's Building, 23/F.

KHMER REPUBLIC (formerly Cambodia) — Flour sacks: Huot Vanthan, Nguy Can & Fils S.A., 65-69 Vithei Oknha In, Phnom-Penh.

SWEDEN — Scrubbing nylon in sheets, approximately 5 mm thick, and scrubbing sponges (i.e., scrubbing nylon laminated with a piece of sponge for household cleaning): S.O. Hall, President, Sven Olof Hall AB, Hornsgatan 74A, S-117 21 Stockholm.

SWITZERLAND — Synthetic and artificial silk yarns: Rehau Plastiks GmBh, 5 Grindelstrasse, 8304 Wallisellen-Zurich.

TRINIDAD — Licence to manufacture Canadian products which are of fibreglass or have a fibreglass component: Jimmy Lee Lum, Spra Glas Reinforced Plastic Products Limited, Port-of-Spain. Contact the Commercial Secretary, Canadian High Commission, P.O. Box 1246, Colonial Building, 72 South Quay, Port-of-Spain.

UNITED STATES — Commission agent for construction specialties and products for mobile home industry: Gardner Salès Company, P.O. Box 1506, Phoenix, Arizona.

WEST GERMANY — Anti-skid salt, exclusive agency with warehouse and distribution system, or a joint venture: Ferdinand Ickenroth-Salzkontor, 5430 Montabaur, Postfach 11, Bonn.

Metals

HONG KONG — Steel wires 10 SWG to 20 SWG, metal fasteners: Manager, Industrial Supplies & Hardware Dept., Reiss, Bradley & Co. Ltd., 701-704 Realty Building.

KHMER REPUBLIC (formerly Cambodia) — Tinplate waste, active carbon: Tan Peng Meule, South East Trading Co., 159B, Vithei Kralahom-kong, Phnom-Penh.

SWEDEN — Ball bearings, roller bearings, miniature ball bearings, spherical bearings and rod ends: Bertil Persson, Henry Wallenberg & Co. AB, Box 7026, S-103 81 Stockholm 7.

UNITED STATES — Representation of aluminum casting and investment casting: Toward Engineering Associates Inc., P.O. Box 15268, Arcadia Station, Phoenix, Arizona.

Minerals

SOUTH VIETNAM — Asbestos: Truong Canh Khuong, Managing Director, Overseas Trading Co., 27 Nguyen Cong Tru St., Saigon.

Sulphur: To Thanh Son, Managing Director, Dai Viet Trading & Engineering Co., Ltd., P.O. Box S-11, 93-95 Ham Nghi Ave., Saigon.

Pharmaceuticals

WEST GERMANY — Vitamins A, B, B1, B2, B6, B12, D3 and K3 in quantities up to 500-1,000 kg.: Kurt Schaber, An der Kippel 6, 1 Berlin 52, Germany.

Tools

JAMAICA — Hand saws, hammers and other hand tools: L.K. Smith, Hardware Dept., Geddes Grant (Distributors) Ltd., 109 Marcus Garvey Drive, Kingston 11.

Sports and recreational

SWITZERLAND — Cross-country (not alpine) skis for the general public: John Jacobsen, Via Livie 7, 6830 Chiasso.

Indian fibreglass canoes: Mueller AG, Bootswerft, 3700 Spiez.

UNITED STATES — Representation of hockey equipment and accessories: Toward Engineering Associates Inc., P.O. Box 15268, Arcadia Station, Phoenix, Arizona.

Tobacco

UNITED STATES — Representation of cigarettes: K & S Export Co., Inc., P.O. Box 101, Brooklyn, New York 11222 (specializing in sales to Middle Eastern countries).

Wood products

BRAZIL — Alpha-cellulose: direct import for own account via Santos: S. Arnold, Managing Director, S. Arnold & Cia Ltda., Caixa Postal 2574, (01000) Sao Paulo, S.P.

KHMER REPUBLIC (formerly Cambodia) — Toilet paper, finished product or in jumbo rolls: Huot Vanthan, Nguy Can & Fils S.A., 65-69 Vithei Oknha In, Phnom-Penh.

SINGAPORE — White-lined grey back chipboard, substance from 350 grm/M2 to 700 grm/M2, size 31″ × 43″ or above; M.F. kraftpaper, substance 58 grm/M2 or above, size immaterial but must be specified. Quote in long tons and specify number of sheets per long ton: South China Import & Export Corporation (Pte.) Limited., 43 North Canal Road, P.O. Box 1638, Singapore.

UNITED STATES — Flawless white Sitka spruce for manufacturing guitars; specifications: vertical grain, sawn veneer at least 8½ inches dry width by 3/16ths thick finished one side, length multiples of 22 inches. Spruce board should have minimum of 16 growth rings to the inch and be of a music or aircraft grade: N.E. Duby, C.F. Martin Organization, Nazareth, Pennsylvania.

Beef Market Changing in Western Europe

One of the most significant aspects of the convenience-food trend in Western Europe is that it is splitting the beef market into two distinct segments. While the traditional market for fresh beef sold for direct consumption is levelling off, the market for industrial-grade beef — used to make convenience foods — is growing and is relying more and more on imports.

This kind of beef is just what developing countries have the best chance of exporting. Many of them raise the lean, range-fed cattle preferred by manufacturers because it stands up better in processing even though it is less tender than beef in butcher shops. The following are examples of the changing trend in European imports. Italy gets a large portion of its frozen beef from Romania, and much of its fresh and chilled meat from Eastern Europe, primarily Yugoslavia. Botswana, Cuba and South Africa sell frozen beef to Britain. The largest African exporter to Western Europe is Malagasy Republic which ranks second only to Argentina in sales of frozen beef to France.

Wanted: Manufacturers

This information is intended to promote additional manufacturing in Canada. Further material on items listed is for prospective Canadian manufacturers only. No responsibility is assumed for claims or statements made. Address inquiries, quoting item numbers, to: Industrial and Trade Enquiries Division, Department of Industry, Trade and Commerce, Ottawa K1A 0H5, Canada.

Fibreglass light poles
American agency acting on behalf of an Israeli client offers under licence or joint venture the Canadian production rights to fibreglass reinforced polyester poles for street and signal lights, highway lights, parking lot lighting, etc. These poles are made of fibreglass, glass mat and polyester resins and are constructed according to the British standard of steel octagonal poles. They are mold casted in all colors and octagonal, round or custom shapes can be produced. Features include no corrosion, no painting because color is permanently impregnated, light weight for easy handling and installation but greater strength than equivalent steel poles. Literature available. **Item 2624**

Desktop and portable digital calculators
Hong Kong firm offers under licence the Canadian manufacturing rights to its desktop and portable digital calculators and its digital clocks. These solid state electronic products come with different specifications. One calculator has a capacity of eight digits for entry and result and is battery operated; another has a capacity of ten digits entry and result, is AC powered and has a power consumption of five watts. The largest has a capacity for figure entry and display of 16 digits. It handles four basic arithmetical operations, chain multiplication and division, and mixed operations. During arithmetical operations an overflow will cause the output display to go blank. Powered by 110/220/240 volts AC, this calculator has a power consumption of 25 watts. Literature available. **Item 2625**

Insulated window and door frames
American agency seeks a Canadian licensee on behalf of a West German client for production of a plastic insulating system for lightweight metal window and door frames. The frames consist of two-capsuled metal profiles, insulated against heat and cold by an interrupted temperature bridge. Ledges made of hard plastic form the connection with a centre filling of polyurethane hard foam. Some of the advantages claimed include a 50 per cent reduction in costs compared with conventional systems, a simpler production method, and higher mechanical strength. Literature available. **Item 2626**

Instant brick panel
South African firm offers under licence the Canadian production rights to its process for the prefabrication of brick panels. This patented technique permits the immediate demolding of completed panels after the compaction of the mortar by high frequency vibration and vacuum suction. The specially designed steel mold incorporates inflatable rubber strips which position the bricks automatically and prevent mortar from reaching the face of the panel. Six manhours are required to produce a 330-brick panel using a single machine. Production per man increases as more machines are used. After demolding, panels are cured under normal conditions for a minimum period of one week before they are ready for transport and use. Literature available. **Item 2627**

Efficient storage racks
Swiss company is offering a Canadian firm the rights to manufacture under licence its efficient storage racks of adjustable height and width. These units, in which no bolts are required to attach the rails, can extend to a depth of 18 feet while resting on only two supporting legs at each end. The shelves, set at a slight incline, make it possible for any merchandise removed to be replaced automatically. These racks are recommended primarily for the preparation of orders in service industries. Literature available. **Item 2628**

High-strength steel process
Swedish company offers under licence the Canadian rights to its process for manufacturing a high-tensile structural steel, very receptive to welding, forming and machining and with high strength. The process consists of a new metallurgical technique for manufacturing steel with very low carbon content but without the usual large iron losses. It also involves a method of alloying the low-carbon steel with suitable elements such as manganese, which increases the strength, and niobium which gives the steel a fine-grained structure. This steel is used as material for pipelines, cranes, earth-moving equipment, mechanical tubing and axles. Literature available. **Item 2629**

Waste pump
American company is offering a licensing arrangement for the Canadian manufacturing rights to its unique waste pump. This pump is equipped with a chopper designed to handle heavy consistencies of solid waste materials at high velocity without faltering or plugging. The step design runner, in conjunction with the cutter bar, creates the loading action of the bowl and provides a continuous agitation at the bowl's elongated intake opening. This eliminates the dewatering of the waste material in the pump and ensures effective pumping. The disintegrator tool located at the intake opening eliminates plugging by large globs of waste material. Literature available. **Item 2630**

Electro-painting of metal articles
Indian research institute offers under licence the Canadian production rights to its process for electro-painting metals. The process involves the preparation of water soluble resins for depositing on the anode by the passage of current. The claimed advantages of this process are the economic use of organic resins, uniform coating on metal articles of complicated shapes and non-uniform sizes, and the elimination of fire and toxic hazards. Organic resin coatings are employed for decorative purposes, corrosion protection and electrical insulation. Literature available. **Item 2631**

Disposable two-compartment syringe
American company is offering under licence the Canadian manufacturing rights to its simple, economical, disposable, two-compartment syringe. Containing only one moving part, this syringe can store separately and dispense wet/dry and wet/wet products. The two compartments are contained in the same syringe barrel and are separated by a sealing plug. The syringe can be produced in any size from standard components in glass or plastic and can be filled automatically at low cost. Literature available. **Item 2632**

Carrot harvester
Dutch firm offers under licence the Canadian manufacturing rights to its high-capacity mechanical carrot harvester which operates in conjunction with a farm tractor. This machine is suitable for virtually all types of soil, except very heavy clay. A vibrating lifting blade which digs up the carrots is located in front of the tractor. A vibrating grid and a conveyor belt system transport the carrots to the rear where other belts equipped with rubber slats and fingers remove sand and lumps of earth before the carrots pass into a container. Hydraulically controlled, this harvester can be operated by a single person. It is also suitable for harvesting potatoes, onions, etc. Literature available. **Item 2633**

Polyethylene molding process
American firm offers under licence the Canadian manufacturing rights to its injection molding process for ultra high molecular

weight polyethylenes (UHMWPE). These polyethylenes are generally known to have good wear and load-bearing qualities. However, difficulties with extruding and molding have limited their use. The licence offered covers technology in the areas of molding machine design, gating, mold design, temperature control and cycle control. While complex shapes can be molded, the greater the complexity the more costly is the tooling and the greater the chance of poor results because of poor flow characteristics inherent to UHMWPE resins and the consequent weakness at weld lines. Literature available. **Item 2634**

Coning oil
British firm offers under licence the Canadian production rights to its specially formulated mineral oil based coning oil for the textile industry. For use on polyamide and polyester yarns, this oil is non-splashing, causes less friction than conventional coning oils, and results in improved knitting performance and cleaner working conditions. The oil is applied by standard roller and trough methods. Literature available. **Item 2635**

Boat loader
American firm offers under licence the Canadian production rights for its boat loader. When this device is fastened to a fixed frame on a car's rooftop one person can load and unload a 14-foot boat. It consists of movable arms which slide and pivot on the fixed frame. The boat is loaded and unloaded at the side of the car so that it doesn't interfere with a camping trailer that is being towed. Literature available. **Item 2636**

Baby's high chair
Canadian inventor offers under licence or outright sale the patent rights for his new style baby's high chair. The design of the chair offers greater than normal stability, and adjustment to a number of heights. It is easy to clean and the seat portion may be removed for use as a car seat or for use in holding a baby while picnicking or camping. The chair could be made in any metal-working plant with access to a plastic molder for the seat portion or vice versa. This chair has not yet been produced commercially. Literature available. **Item 2637**

Machine for heat sealing plastic sheets
Canadian inventor offers the Canadian manufacturing rights to his machine for heat sealing the edges of sheets of PVC, polyethylene and polypropylene. The machine is said to be able to weld cylindrical articles from 16 inches in diameter and up in much less time than it would take to weld them by hand. The edges of the plastic sheets are pressed together under controlled pressure which provides a uniform weld. This machine has not yet been produced commercially. Literature available. **Item 2638**

Heater for pig breeding
New Zealand firm offers under licence the Canadian production rights to its unique heater system designed to maintain the vital body temperature of young piglets. This system, based on the principles of the electric blanket and storage heater, consists of heaters encased in metal. The heat output of the unit is 90 watts at 230 volts AC. The low temperature output ensures that no pyramiding or scorching of little pigs occurs. The heater is 3' 8" × 1' 10" × 1P. Literature available. **Item 2639**

Battery-operated automatic aerosol dispenser
American company is seeking a licensing arrangement with a Canadian firm to manufacture a battery-operated, automatic aerosol dispenser. This unit is designed to dispense aerosol products automatically at intervals that can be adjusted from 30 minutes to 1, 2, 4, 6, 12 or 24 hours. Equipped with adjustable length of spray time of one to 12 seconds, the dispenser accommodates all standard valves and all standard size cans. It may be used to dispense air fresheners and sanitizers, perfumes, insecticides and even lubricants. Overall dimensions are 6 ½" × 11 ¾" × 4 ½" deep. Literature available. **Item 2640**

Combination basket tray.
Canadian inventor is seeking a licensing arrangement with a Canadian firm to manufacture his combination basket and tray device to hold food in freezers, refrigerators, etc. The basket is of open-work construction and is convertible to a combination basket and tray or to a unit of trays. The device is claimed to allow storage of rugged and fragile articles in the same container. This item has not yet been produced commercially. Literature available. **Item 2641**

Pneumatically activated electric switch
Canadian inventor is seeking a licensing arrangement with a Canadian firm to produce his manually operated, pneumatically activated electric switching device. It is said to offer significant cost reductions in manufacturing and installation as compared with conventional switching devices. This new concept in switches employs no wires or metal components and transmits the signal through a pneumatic tube to the electrical apparatus. The switch has particular application in hazardous environments. Literature available. **Item 2642**

Book indexing
American inventor of a book indexing system offers it for production under licence in Canada. This system divides the alphabetical sequence of a dictionary, directory, guide or catalogue into practically unlimited parts, enabling the reader to open it at the wanted word, or only one leaf off, without fanning. The index is printed with the book and is worked out for a specific title only. Literature available. **Item 2643**

CIDA Loans to African Countries

Canadian Funds Help Algerian Fisheries

A long-term Canadian International Development Agency loan of $500,000 will help the Government of Algeria to construct and operate a fish-processing plant in the northwestern El Kala region.

The Algerian Government awarded the contract to a Vancouver firm of consulting engineers, Phillips, Barratt, Hiller, Jones & Partners, which will supervise the purchase, shipment and installation of equipment, including refrigeration facilities. The actual cost of construction and local wages will be financed by Algeria. A fleet of 10 trawlers with an average catch of 15 tons a day will supply the plant with shrimp and fish for domestic and export markets.

The project is part of an over-all program to assist Algeria to build up its fisheries industry.

More Electric Power For Nigeria

The Canadian International Development Agency is providing Nigeria with a $1 million loan for the expansion of its important Kainji Dam hydroelectric generating station, located about 300 miles north of Lagos, the capital. The funds will provide consulting services for the engineering design and supervision of installation of two new generators and turbines. Installation is expected to be completed by the end of 1974.

The project is part of a priority Nigerian program to provide the country with low-cost electric power for industrial and economic development.

Tunisia Gets CIDA Aid

The Canadian International Development Agency will provide Tunisia with more than $14 million in three long-term development loans. One loan of $9.3 million will enable the country to purchase 22 diesel electric locomotives, assembled by the Montreal firm of MLW-Worthington, together with spare parts, tools and related equipment.

A second loan of $2 million will help Tunisia to modernize its radio communications network in the Kairouan, Sbeitla, Kasserine and Sousse regions. This project is an extension of Canadian activities in the central area where a broad study is under way to develop agriculture and hydro-electric potential, and ties in with similar ones being developed in the north and south of the country with the aid of France and Britain.

The third loan, for $3 million, will enable Tunisia to purchase raw materials from Canada.

International Loans

$10 Million For Telecommunications in Papua New Guinea

The World Bank is providing $10 million to extend and improve local and long-distance telecommunication service in Papua New Guinea. Total cost of the project, scheduled for completion by mid-1975, is $17.2 million.

This project constitutes the major portion of the Posts and Telegraphs Department's $20.7 million second development plan (fiscal 1973-1975) to expand the facilities of the first development project which the Bank assisted with a $7 million loan in 1968.

Technical Data — The loan of $10 million is for 20 years, including four years' grace, at 7¼ per cent interest per annum, guaranteed by the Commonwealth of Australia. Other financing will come from Posts and Telegraphs Department (P&T) internally generated funds, and Papua New Guinea Treasury and advance.

The implementing organization is P&T, Port Moresby, Papua New Guinea; Cable address: POSTAL, Port Moresby, Papua New Guinea.

The project involves installation of 13,500 lines of local automatic exchange equipment; local exchange network and equipment to connect an additional 6,100 direct exchange lines; installation of multiplex equipment on long-distance routes to provide about 650 additional circuits; installation of UHF/VHF radio systems and outstanding radio equipment to connect 11 base stations; installation of telex exchanges with a total of 600 lines and provision of 500 teleprinters; construction of technical and operational buildings, and engineering consultant services.

Bank-financed procurement subject to international competitive bidding except for about $800,000 in certain additions requiring compatibility.

Consultants are Preece, Cardew & Rider, Paston House, 165-167 Preston Road, Brighton BNI 6AF, Sussex, England.

$60 Million For Brazilian Power Project

A World Bank loan the equivalent of $60 million to Centrais Eletricas de Minas Gerais, S.A. (CEMIG), in Brazil, will finance 50 per cent of the civil works ($59 million) and part of the engineering services ($1 million) involved in the construction of the Sao Simao hydroelectric plant on Brazil's Paranaiba River. Total cost of the project, scheduled for completion in 1979, is $396 million.

Brazil's electric power sector is one of the largest in the developing world — installed capacity in 1970 was 11,200 megawatts, exceeded only by that of India. CEMIG supplies most of the electric energy used in Minas Gerais where demand is expected to grow at about 10.5 per cent annually. To meet this demand, CEMIG must increase its installed capacity from 1,030 megawatts in 1970 to 2,850 megawatts by 1980, and has prepared an investment program estimated at $900 million. The Sao Simao hydroelectric plant forms part of this program. The plant will be the first major hydroelectric facility on the river, which has an average 2,920 cubic yards per second flow. The project will incorporate a storage reservoir with a usable capacity of 7.2 billion cubic yards and a catchment area of 66,000 square miles.

Technical Data — The Bank loan of $60 million is for 30 years including seven years of grace at 7¼ per cent interest per annum; guaranteed by the Government of Brazil. Other financing includes internal cash generation, loans from ELETROBAS, Brazil, and bilateral credits from supplying countries.

Implementing organization is Centrais Eletricas de Minas Gerais, S.A. (CEMIG); Belo Horizonte, Minas Gerais, Brazil. Cable address: CEMIG, Belo Horizonte, Brazil.

Project involves construction and installation of a hydroelectric station and transmission lines on the Paranaiba River which separates the States of Minas Gerais and Goias, including: a main dam with concrete spillway and intake sections involving 2.6 million cubic yards of concrete work; rockfill embankments changing to earth fill sections on both banks, involving 26 million cubic yards of fill; conventional indoor-type power station with eight generating units rated at 250 megawatts each, of which four are to be installed initially; two 500-kilovolt single circuit lines, each 453 miles long, with a 1,200-megavolt ampere substation at Belo Horizonte, and two switching stations en route. The project will incorporate a storage reservoir with a usable capacity of 7.2 billion cubic yards and a catchment area of 66,000 square miles.

Civil works financed by the Bank will be on the basis of international competitive bidding in accordance with the Bank's guidelines; equipment financed bilaterally will be subject to competitive bidding between suppliers in nine participating countries in Brazil. Brazilian suppliers will have a 15 per cent margin of preference.

Consultants are Companhia International de Engenharia, Brazil.

Thailand University Gets World Bank Loan

The World Bank is making a loan of $15.4 million to help to finance the expansion and partial relocation of Kasetsart University in Bangkok, Thailand's leading agricultural university. The estimated total cost of the project, to be completed in 1978, is $28.3 million.

The project, prepared under the World Bank/Food and Agriculture Organization Cooperative Program, will increase enrollment capacity by 1,520 and will help to produce the qualified manpower needed in the agricultural sector. Thailand's Third Five-Year Development Plan (1972-76) emphasizes the development of agriculture, aiming at growth, diversification and productivity improvement.

Kasetsart University produces 70 per cent of the country's agricultural graduates. It has faculties in agriculture, forestry, fisheries, veterinary science, engineering, science and arts, education, economics and business administration. The new campus at Kamphaengsaen, about 50 miles from Bangkok, will provide a site for the production-oriented research and teaching programs of the University where students can acquire on-farm experience. There will be facilities for the Faculty of Agriculture and the Faculties of Veterinary Science, Engineering, Economics and Business Administration. Also to be built and equipped are administrative and student facilities, a central library, a demonstration farm and experimental station, health and university centres, staff housing and a primary school for the new community.

On the University's existing campus, the project will include construction and furnishing of extensions to several faculties and supporting administrative premises, provision of equipment and construction and equipping a new central library and a health centre.

Comprehensive plans for the development of both campuses will be prepared as part of the project. Technical assistance for curriculum development and university management, and for studies in veterinary education and agricultural education, research and extension is also included. Overseas fellowships for teaching staff are to be provided.

The loan is the second to be made by the Bank to Thailand for education. In 1966, the Bank made a $6.0 million loan to help to expand and improve technical and agricultural education at the secondary level.

Technical Data — The Bank loan is being made to the Kingdom of Thailand for a term of 30 years, including a 10-year grace period, at 7¼ per cent per annum. The remainder of the cost will be met by the Government of Thailand.

A project unit is to be established by Kasetsart University and the Ministry of Agriculture, Bangkok.

All contracts (civil works contracts, construction contracts and contracts for the supply of furniture and equipment) other than for consultant and expert services will be awarded after international competitive bidding, for the supply of furniture and equipment; local suppliers will be allowed a 15 per cent preference margin or the applicable customs duties, whichever is lower.

Specialists will be appointed for curriculum development, university management support, project unit support, and the preparation of studies for agricultural education, research and extension services and veterinary education.

Foreign Development Finance Companies

The following is a list of development finance companies being assisted by the World Bank Group. Consultants and equipment suppliers seeking business in connection with multilateral aid through World Bank Group loans should make a point of contacting the appropriate institution.

Brazil
Banco do Nordeste do Brasil
Fortaleza

Colombia
Corporacion Financiera de Caldas
Apartado Aereo 460
Manizales

Corporacion Financiera Colombiana
Apartado Aereo 11843
Bogota

Corporacion Financiera Nacional
Apartado Aereo 1039
Medellin

Corporacion Financiera del Norte
Apartado Aereo 2747
Barranquilla

Corporacion Financiera del Valle
Apartado Aereo 4902
Cali

Ecuador
Comision de Valores
Corporacion Financiera Nacional
Apartado Aereo 2653
Quito

Ecuatoriana de Desarrollo S.A.
Compania Financiera
P.O. Box 411
Quito

Ethiopia
Agricultural and Industrial
Development Bank S.C.
P.O. Box 1900
Ras Desta Damtew Avenue
Addis Ababa

Finland
Teollistamisrahasto Oy
Industrialization Fund of Finland Ltd.
Lonnrotinkatu 13, V krs.
Helsinki

Greece
National Investment Bank for
Industrial Development S.A.
P.O. Box 643
6 Sophocleous Street
Athens

India
The Industrial Credit and Investment
Corporation of India Limited
163 Backbay Reclamation
Bombay 1

Iran
Industrial and Mining Development
Bank of Iran
133 Shiraz Street
Tehran

Ireland
The Industrial Credit Company Ltd.
26 Merrion Square
Dublin 2

Israel
Industrial Development Bank of
Israel Limited
9 Ahad Haam Street
Shalom Mayer Tower
Tel Aviv

Ivory Coast
Banque Ivoirienne de Développement
Industriel
Boîte Postale 4470
Abidjan

Korea
Korea Development Finance Corporation
12th Floor, Cho Heung Bank Building
14 Namdaemoon-Ro, 1-Ka
Seoul

Liberia
The Liberian Bank for Industrial
Development and Investment
100 Broad Street
P.O. Box 547
Monrovia

Malaysia
Malaysian Industrial Development
Finance Berhad
P.O. Box 2110
Kuala Lumpur

Morocco
Crédit Immobilier et Hôtelier
159, Avenue Hassan II
Casablanca

Banque Nationale pour le Développement
Economique
Boîte Postale 407
Rabat

Nigeria
Nigerian Industrial Development Bank
Limited
M & K House
96/102 Yakubu Gowon Street
P.O. Box 2357
Lagos

Pakistan
Pakistan Industrial Credit and
Investment Corporation Ltd.
P.O. Box 5080
Karachi 2

Philippines
Private Development Corporation of
the Philippines
Commercial Center
P.O. Box 757
Makati, Rizal, D-708
Philippines

Singapore
Development Bank of Singapore Ltd.
P.O. Box 1235
Singapore 1

Spain
Banco del Desarrollo Economico Espanol
Apartado de Correos 50460
Calle Fernando EC Santo 20
Madrid

Sri Lanka (Ceylon)
Development Finance Corporation of Sri
Lanka
42/1 Horton Place
P.O. Box 1397
Colombo

Taiwan
China Development Corporation
131 Nanking East Road, Section 5
Taipei 105, Taiwan

Thailand
The Industrial Finance Corporation of Thailand
101 Naret Road
Bangkok 5

Tunisia
Société Nationale d'Investissement
68, Ave Habib Bourguiba
Tunis

Turkey
Turkiye Sinai Kalkinma Bankasi A.S.
P.O. Box 17
Karakoy
Istanbul

Venezuela
C.A. Venezolana de Desarrollo
Apartado 62191
Caracas

Peru
ADELA Investment Company S.A.
P.O. Box 207
Lima

Republic of Zaire
Société Congolaise de Financement du
Développement
Boîte Postale 1148
Kinshasa 1

Foreign Tariffs and Trade Regulations

Brazil

The following customs tariff amendments have been passed by the Brazilian Customs Policy Council

Resolution No. 1266 extends until April 18, 1973, the duty free import of petroleum naphtha (tariff item 27.-10.99.03) when imported for use as fuel in the fertilizer industry.

Resolution No. 1268 establishes a minimum value for the calculation of import duty on ferro vanadium (tariff item 73.02.14.00) of U.S.$8.25 per kilogram of vanadium content.

Resolution No. 1270 establishes a minimum value for the calculation of import duty on anti-oxidant preparations for use in the rubber industry (tariff item 38.19.-13.00) of U.S.$1,020.00 per ton c.i.f. value.

Resolution No. 1277 extends until March 27, 1973, the duty free entry on amorphous carbon cathode block and carbon paste for assembling (tariff item 85.24.99.00).

Resolution No. 1284 extends until April 29, 1973, the import duty exemption on ethylene diamine and its salts (tariff item 29.22.28.00) when for use exclusively as raw material in the manufacture of fungicides and similar products.

Resolution No. 1285 reduces the import duty from 45 per cent to 15 per cent on regenerated cellulose tubing (tariff item 39.03.01.03EX) for use in the manufacture of artificial casing.

Resolution No. 1286 reduces the import duty from 70 per cent to 10 per cent on synthetic resin monofilament, polyamide type, in the form of cord, in rolls, Truline No. 3 (tariff item 39.01.03.01). To qualify for the lower rate of duty, the goods must be accompanied by a certificate guaranteeing the type and specifications. The duty reduction will remain in force for a period of 180 days from April 14, 1972.

Resolution No. 1287, in force for one year from April 17, 1972, reduces the import duty from 70 per cent to 15 per cent on cellulose regenerated sheets (cellophane and any other) (tariff item 39.03.01.01 and .02).

Resolution No. 1288, of April 14, 1972, reduces the import duty from 55 per cent to 17 per cent on polymers of cyclopentadiene and/or dicyclopentadiene and/or vinyl toluenes (tariff item 39.02.02.99EX).

Resolution No. 1289 of April 14, 1972, reduces the import duty from 85 per cent to 25 per cent on biaxially oriented polystyrene sheet or film with a nominal thickness of up to 0.05 mm. for electrical condensers (tariff item 39.02.04.99EX).

Resolution No. 1295 in force for six months from April 4, 1972 exempts from duty refined lard and other rendered pig fat (tariff item 15.01.01.02).

South Africa

The Government of South Africa has announced some relaxation of the intensified import controls that were imposed in November 1971.

1. A further allocation of import licences to supplement the first round issue, in the amount of 10 per cent of 1969 imports, has been given for general merchandise and clothing; textile piecegoods for retail sale have been given a 15 per cent supplement.

2. The number of items on the free list (no import licence required) has been increased with the addition of the following:

Mineral oils and petrol, not prepared for retail sale
Printed pattern paper for the clothing industry, and tracing cloth
Cheque-writing machines
Data encoders
Calculating machines
Cash registers
Tabulators
Change-giving machines
Addressing machines
Electronic stencil cutters
Collating, folding, inserting and clothing machines
Automatic typewriting equipment
Document reproducers
Drawing and mathematical sets
Time registers and recorders, excluding pigeon timing clocks
Dictating machines
Computer discpack
Clocks, watches and parts, excluding watch straps
Accounting machines
Postage franking machines
Ticket issuing machines
Adding machines
Bookkeeping machines
Coin counting and sorting machines

Further information may be obtained from the Africa Division, Office of Area Relations, Department of Industry, Trade and Commerce, Ottawa, K1A 0H5.

Trade Commissioners on Tour

In Canada

If you wish to meet the officers whose itineraries are listed below, get in touch with—

In Ottawa—Department of Industry, Trade and Commerce

In Halifax, Fredericton, Montreal Toronto, Winnipeg, Regina, Edmonton, Vancouver—Regional Office, Department of Industry, Trade and Commerce

In all other centers—the local Board of Trade, Chamber of Commerce, or Industrial Commission

Singapore
C.R. Gallow, Commercial Counsellor, Singapore:

Toronto: August 10-11
Montreal: August 17-18
Winnipeg: Sept. 18-19
Vancouver: Sept. 22

Temporary Duty in Ottawa

Trade Commissioners on temporary duty in Ottawa may be contacted through the Trade Commissioner Service, phone 996-7231 (area code 613).

C.A. Carruthers
Commercial Secretary
Belgrade, Yugoslavia
August 14-18

H. Cummer
Assistant Commercial Secretary
Kuala Lumpur, Malaysia
August 14-18

D.H. Branion
Commercial Counsellor
Tehran, Iran
August 20-31

C.R. Mann
Vice Consul and Assistant Trade Commissioner
Manila, Philippines
September 5-10

R.J. McGavin
Assistant Commercial Secretary
Melbourne, Australia
August 27-30

C.H. Musgrove
Commercial Secretary
Port-of-Spain, Trinidad
September 13-16

D.J.S. Winfield
Commercial Secretary
Ankara, Turkey
September 5-15

D.S. Wright
Assistant Commercial Secretary
Rome, Italy
September 5-10

In Territory

Businessmen who would like Trade Commissioners to undertake assignments for them should write to the post as soon as possible.

Abu Dhabi, Bahrain, Dubai, Oman, Qatar
J.S. Morrow, Commercial Officer in Beirut, Lebanon, will visit these states September 22-October 9.

Bolivia

Trade Commissioners from the Lima, Peru, office visit Bolivia approximately every two months.

Bulgaria, Hungary, Romania

Trade Commissioners in the Vienna, Austria, office make frequent visits to these countries.

Caribbean

Trade Commissioners from the Port-of-Spain, Trinidad, office will make the following visits:

Antigua—P.S. Dingledine, Assistant Commercial Secretary, September 18-22.

Barbados — P.S. Dingledine, Assistant Commercial Secretary, August 21-25, September 18-22.

Dominica — P.S. Dingledine, Assistant Commercial Secretary, August 21-25.

Grenada — P.S. Dingledine, Assistant Commercial Secretary, August 21-25.

Guyana — J.A. Ahow, Commercial Officer, September 4-7.

St. Kitts — D.S. Dingledine, Assistant Commercial Secretary, September 18-22.

St. Vincent — D.S. Dingledine, Assistant Commercial Secretary, August 21-25.

Surinam — J.A. Ahow, Commercial Officer, September 4-7

Cyprus

An officer from the Tel Aviv, Israel, office visits Cyprus approximately every two months.

Dominican Republic, Haiti, Virgin Islands

Trade Commissioners from San Juan regularly visit the Dominican Republic, Haiti and the Virgin Islands.

Ecuador

Officers of the Bogota, Colombia, office visit Ecuador approximately every two months.

Finland

A Trade Commissioner from the Stockholm, Sweden, office visits Helsinki once a month for about a week, except during July and August.

Iraq
F. Ian Wood, Commercial Counsellor in Beirut, Lebanon, will visit Iraq September 30-October 9.

Libya, Sudan

The Trade Commissioner in Cairo, the Arab Republic of Egypt, visits Libya approximately every two months, and the Sudan every six months.

Morocco

Trade Commissioners from the Madrid, Spain, office visit Morocco approximately every two months.

Saudi Arabia, Yar, Pdry
J.P. Lefebvre, Assistant Commercial Secretary in Beirut, Lebanon, will visit these states September 15-October 5.

South Korea

Trade Commissioners from the Tokyo, Japan, office visit the Republic of Korea (South Korea) approximately every two months for a week.

Spain

J. Mecalf, Commercial Officer in Madrid, will visit Barcelona September 26.

Syria

P.A. Gagnon, Foreign Service Officer in Beirut, Lebanon, will visit Syria once a month.

Turkey

Trade Commissioners in Ankara visit Istanbul frequently.

United States

A Trade Commissioner from the Seattle, Washington, office visits the office territory—Oregon, Alaska, Idaho, Western Montana —on a regular basis.

West Africa

Trade Commissioners from the Abidijan, Ivory Coast, office will visit Gambia, Mauretania and Senegal in September, and Mali, Niger and Upper Volta in October.

Trade Lines

First shipment of phosphate ore leaves Spanish Sahara

A quarter of a century after its discovery, ore is finally being shipped from the large phosphate deposits in the Spanish Sahara. The deposits, discovered in Bu-Craa in 1947, have a high mineral content, are capable of being mined in an open-cast system and have reserves calculated at one billion tons.

The mines are being exploited by Empresa Fosfatos del Bu-Craa, a company that was formed by the government-controlled National Institute of Industry after several attempts to interest big international mining companies in working the mines failed. The company's initial shipment, made recently, was 6,000 tons and was loaded aboard a Japanese ship at the port of El Aaiun.

The ore reached El Aaiun via a mineral feed belt 100 kilometers long. Mineral production in Bu-Craa is expected to reach three million tons a year by 1974. Spain currently consumes 1.5 million tons of phosphates annually which it imports from Morocco — Madrid

Another synthetic fibre plant for Mexico

Polygal Mexicana, S.A., has inaugurated its new $1.6 million plant to produce polyester fibre threads for the textile and shoe industries under licence from a West German firm. The first year's production is expected to have a value of $2.77 million. Company officials hope that about 20 per cent of the production will find markets in Central and South America — Mexico City

U.S. investment in Singapore triples

United States' investment in Singapore has increased almost three-fold to $470 million since 1967 and another $333 million is in the pipeline for new projects. In 1967, U.S. investment amounted to only 9 per cent of all foreign investment in Singapore, but during 1971 it reached 35 per cent. In addition, trade with the U.S. increased by more than three times in the last four years — Singapore

24 million Thais to receive better electricity service

The Provincial Electricity Authority (PEA) in Thailand will implement six programs from 1973-76 to improve service for 24 million people living in 40,000 villages. Under the scheme, electricity will also be supplied for the first time to several hundred villages upcountry when 120 new diesel electric plants are built. Among the projects to be implemented is a distribution system to modify electric current in preparation for receiving current from the Electricity Generating Authority of Thailand. Other projects will modify electric current production and distribution systems at the diesel electric plant of PEA and will accelerate the development of a Rural Electric Authority — Bangkok

Crash school-building program in Spain

The Spanish Ministry of Education plans to construct facilities for more than 700,000 new students this year and has already spent more than $154.5 million on educational projects during the first three months of 1972. This is 53.5 per cent of the total planned investments for the year. Projects include 900 new elementary schools and 160 nursery schools to accommodate 29,000 children. The Ministry also expects to turn out, on a monthly basis, one secondary school, one library, one vocational training centre, one centre for special education and a centre for university education.

The autonomous universities of Bilbao and Barcelona are expected to open as soon as work continues on new buildings for the faculties of medicine at the universities in Granada, La Laguna (Canary Islands) and Zaragoza; the teachers' training colleges in Tarragona and Teruel and the new Faculty of Medicine in Oviedo and Murcia. Other universities are also undergoing expansion — Madrid

Spain launches 325,000 ton tanker

A 325,000 ton (deadweight) oil tanker, believed to be the largest ever built outside Japanese yards, has been launched at the Astano shipyards in northwest Spain. The ship measures 374 by 53 metres and is the eighth vessel of over 100,000 tons to be built in Spain. The others include four super-tankers, of which one was for the Spanish merchant navy and three were for U.S. buyers. At the end of 1971, the Spanish merchant fleet totalled 1,016 ships of over 100 tons (3.1 million grt), and 1,841 fishing boats of less than 100 tons (469,924 grt). Under Spain's third Development Plan (1972-75), the expansion target is set at six million tons by 1975.

On Jan. 1, 1972, Spanish shipbuilding orders stood at 391 ships (243 for domestic use and 148 for export), totalling 8.56 million dwt. Spain now ranks sixth among shipbuilding nations and, if the present expansion rate continues, could soon rank fourth — Madrid

Mexico to produce polypropylene fibre

Polifil, S.A., is now constructing a $16 million plant for the large-scale production of polypropylene synthetic fibres. Initial production is expected to be about 2,450 metric tons annually, to satisfy the growing demand for this fibre in the textile industry — Mexico City

Singapore plans second causeway

A second causeway across the Johore Straits, west of the existing one, is envisaged by Singapore's State and City Planning Department. The widening of the present causeway on the northern side of the straits and the construction of a second one linking up with southwest Johore are provided for in the long-range urban development plan prepared by a United Nations team in conjunction with the Ministry of National Development. The final report has been sent to UN headquarters in New York and will be submitted officially to the Malaysian and Singapore Governments. Although traffic volume is still below the capacity of the present three-lane road, it is estimated that within the next 20 years the present capacity will need to be doubled — Singapore

Spain launches uranium firm

The firm, Empresa Nacional del Uranio (ENUSA), was constituted on April 17, 1972, with 60 per cent of the capital being contributed by INI (Instituto Nacional de Industria) and the remainder by six Spanish electrical utilities which either have in operation or plan to build nuclear power plants. One of the objectives of ENUSA will be the installation of a uranium concentrates plant in Ciudad Rodrigo, Province of Salamanca. Spanish uranium deposits yield 9,000 tons of ore annually, enough to supply Spain's uranium requirements until the end of the decade — Madrid

New ship repair yards for Canary Islands

A new ship repair company, located in Puerto de la Luz, Gran Canaria, Canary Islands, has just been announced by Spain. The company, to be known as "Astilleros Canarios S.A.", will have an initial capital of $7.6 million, though total investment is expected to be more than $15 million. Of this, 50 per cent will be contributed by INI (Instituto Nacional de Industria), 30 per cent by COMDESA (Compania para el Desarrollo de Canarias) and the remainder by savings banks on the island. The yards will be equipped to repair annually more than 2,000 ships measuring up to 175 metres long, 650 of them in drydock and the rest afloat — Madrid

Containership service arrives in Singapore

Sea-Land Service Inc. has inaugurated a regularly scheduled bi-weekly containership service between Singapore and the United States, Canada and the Caribbean. The new service also links Singapore with Hong Kong, Taiwan, Japan and Korea. Service to and from Singapore will be provided via Hong Kong by the Ottowasan Maru which has a capacity of 256 containers (35-foot), including 42 refrigerated vans. This ship will connect at Hong Kong with Sea-Land line-haul containerships operating between Hong Kong and the United States/Canada cities of Seattle, Oakland and Vancouver — Singapore

Hungary plans to improve trade balance

The Hungarian Economic Plan for 1972 calls for an improvement in the foreign trade balance. Exports to other Socialist countries are to rise by up to 15 per cent and imports from them by only 6 per cent or 7 per cent. In trade with the non-Socialist countries, exports will rise by 13 per cent and imports by only 5 or 6 per cent. The greatest increase in exports to non-Socialist countries can be expected in the fields of metallurgy, engineering, agricultural and food products. The only imports to be increased will be of materials and finished goods — Vienna

Mexico to produce its own instruments

Within a few months, Mexico is expected to have the installations necessary to manufacture telecommunication instruments, imports of which are now valued at more than $8 million annually. An exchange of technology with France has been going on for several years, and that country will provide technical assistance to Mexico — Mexico City

Most of Singapore's electronic output goes abroad

In 1970, the output of Singapore's electronic industry was worth more than $85 million, of which goods worth more than $75 million were exported. For the first half of 1971, the output was more than $45 million. Of the 45 factories in this industry, 19 produce electronic spare parts almost solely for export to their parent companies — Singapore

Foreign Exchange Rates

These nominal quotations may help exporters in checking prices, but they should consult their banks before making any firm commitments. When more than one rate is shown, the one to be used depends on the commodity traded. Information on the rate for any specific commodity may be obtained from the Office of Area Relations, Department of Industry, Trade and Commerce, Ottawa.

The mid market rates only are quoted, except when buying and selling rates are specified. The buying rate is that at which banks purchase exchange from exporters; the selling rate is that at which banks sell exchange to importers.

Rates used exclusively in non-merchandise trading are *not* included in this table.

Country and Currency	Value of foreign currency unit in Canadian dollars at July 6	Canadian dollar in foreign currency units
Algeria Dinar	.2093	4.78
Arab Republic of Egypt Pound (official)	2.2633	.44
Argentina Peso (free)	.1970	5.08
Australia Dollar	1.1735	.85
Austria Schilling	.0430	23.26
Bahamas Dollar	1.0145	.96
Belgium and Luxembourg Franc	.0225	44.44
Bermuda Dollar	1.0397	.96
Bolivia Peso	.0829	12.06
Brazil Cruzeiro (official free)	.1669	5.99
Britain Pound	2.3967	.42
British Honduras Dollar	.6078	1.64
Burma Kyat	.1840	5.43
Ceylon (see Sri Lanka)		
Chile Escudo (bank rate)	.0623	16.05
(free)	.0351	28.49
China, People's Republic of Renminbi	.4188	2.39
Colombia Peso (fixed)	.0450	22.22
Costa Rica Colon	.1485	6.73
Cuba Peso	.9986	1.00
Czechoslovakia Koruna (fixed basic rate)	.1502	6.66
Denmark Krone	.1413	7.08
Dominican Republic Peso	.9841	1.02
Ecuador Sucre (official)	.0394	25.38
El Salvador Colon	.3936	2.54
Fiji Dollar	1.2269	.82
Finland Markka	.2400	4.17
France, Monaco, etc.[1] Franc	.1968	5.08
French Pacific[2] Franc	.0108	92.59
Franco-African Republics[3] Franc	.0039	256.41
Germany D Mark	.3121	3.20
Ghana New Cedi	.7676	1.30
Greece Drachma	.0328	30.49
Guatemala Quetzal	.9841	1.02
Guyana Dollar	.5136	1.95
Haiti Gourde	.1968	5.08
Honduras Lempira	.4920	2.03
Hong Kong Dollar	.1742	5.74
Hungary Forint (official)	.0869	11.51
Iceland Krona (official)	.0111	90.09
India Rupee	.1340	7.46
Indonesia[4] Rupiah	.0024	410.00
Iran Rial	.0134	74.63
Iraq Dinar	2.9916	.33
Ireland Pound	2.3967	.42

Country and Currency	Value of foreign currency unit in Canadian dollars at July 6	Canadian dollar in foreign currency units
Israel Pound	.2343	4.27
Italy Lira	.0017	588.24
Jamaica Dollar	1.1984	.83
Japan Yen	.0032	312.50
Kenya[5] Shilling	.1441	6.94
Korea, Republic of Won	.0027	370.37
Lebanon Pound (free)	.3135	3.19
Libya Dinar	2.9467	.34
Malawi Kwatcha	1.2494	.80
Malaysia Dollar	.3490	2.87
Mexico Peso	.0787	12.71
Morocco Dirham	.2111	4.74
Netherlands Florin	.3100	3.23
Netherlands Antilles Florin	.5498	1.82
New Zealand Dollar	1.1784	.85
Nicaragua Cordoba	.1406	7.11
Nigeria Pound	2.8835	.35
Norway Krone	.1515	6.60
Pakistan Rupee	.0895	11.17
Panama Balboa	.9841	1.02
Paraguay Guarani (free)	.0078	128.20
Peru Sol (free)	.0253	39.52
Philippines[6] Peso (free)	.1451	6.89
Poland Zloty (fixed basic rate)	.2577	3.88
Portugal & Colonies[7] Escudo	.0361	27.70
Saudi Arabia Riyal	.2273	4.40
Sierra Leone Leone	1.2371	.81
Singapore Dollar	.3358	2.98
South Africa Rand	1.2264	.82
Spain & Dependencies Peseta	.0155	64.52
Sri Lanka[8] Rupee	.1653	6.05
Sweden Krona	.2077	4.81
Switzerland Franc	.2619	3.82
Syria Pound (free)	.2711	3.69
Thailand Baht (free)	.0473	21.14
Trinidad & Tobago[9] Dollar	.4993	2.00
Tunisia Dinar	2.0351	.49
Turkey Lira	.0703	14.22
United States Dollar	.9841	1.02
Uruguay Peso (free)	.0017	588.24
Venezuela Bolivar (official free)	.2241	4.46
Yugoslavia Dinar (official)	.0578	17.30
Zaire, Republic of[10] Zaire	2.054	.49
Zambia Kwacha	1.4576	.69

1. Franc is also used in French Guiana, Guadeloupe and Martinique.

2. New Caledonia, New Hebrides, French Polynesia.

3. Chad, Central African Republic, Congo (Brazzaville), Dahomey, Gabon, Ivory Coast, Islamic Republic of Mauretania, Niger, Senegal, Upper Volta, Cameroon, Togoland, and Malagasy. Also Reunion, Comoro Islands, St. Pierre and Miquelon.

4. Exchange rate at August 1971.

5. Rate also applies to Tanzania and Uganda.

6. Exchange rate in Philippines on floating basis with daily quotations by banks.

7. Approximately same for Portuguese territories in Africa.

8. Formerly Ceylon.

9. Also used in Barbados, Leeward and Windward Islands.

10. Formerly Congo (Kinshasa).

Show of the Month

More than 500,000 visitors came to see what Canada and 32 other countries had to offer in the way of new electrical and electronic engineering and machine construction equipment at the German Industries Fair in Hanover, West Germany, last April.

The 14 Canadian companies who participated under the sponsorship of the Department of Industry, Trade and Commerce included 10 electrical and electronics components manufacturers, whose industry has more than doubled its exports to $601 million in the past six years, and four vending machine manufacturers. Canadians, who annually buy $200 million in goods from vending machines, exported $1.3 million worth of machines in 1970. Total on-site and estimated Canadian sales at this show were worth more than $13 million.

Canada was also represented at the Fair by the Department of Regional Economic Expansion, Air Canada, and the provinces of British Columbia, Alberta, Ontario, Quebec and New Brunswick.

Exhibiting Canadian companies and their products were: Moyer Diebel Limited, Jordan Station, Ontario (hot drink dispensers); Shuffleboard International, Limited, Renfrew, Ontario (coin-operated games); Nielbeck Research and Manufacturing Ltd., Mississauga, Ontario (changers for vending machines); Ideal Venders, Deseronto, Ontario (beverage venders and coolers); Trench Electric Limited, Scarborough, Ontario (reactors and line traps); Westinghouse Canada Limited, Hamilton, Ontario (video display terminal); Electrovert Manufacturing Co. Ltd., Montreal, Quebec (infrared soldering and fusing systems); Integrated Lighting Canada Limited, Montreal, Quebec (luminous ceiling systems); Canadian Research Institute, Don Mills, Ontario (TV color comparator); Viscount Video-Systems Ltd., Vancouver, B.C. (audio-follow and video programers); Leigh Instruments, Ottawa, Ontario (non-impact computer printer); El-Met-Parts Limited, Dundas, Ontario (laminations), and FPE-Pioneer Electric Limited, Toronto, Ontario (ground fault hazard indicators), and Bowmar Canada Ltd., Ottawa, Ontario (electric hand calculator).

Canada makes a mark on some of the many visitors from more than 100 countries to Hanover's German Industries Fair, largest of its kind in the world.

German students demonstrate the shots as Shuffleboard International Limited's Peter Moore (second from left), explains the rules of the game.

Electrovert Manufacturing Co. Ltd. displayed focused infrared soldering and fusing at the Hanover Fair. Here Roy Carr, manager of international operations, describes the company's cleaning system for circuit boards.

News on the Export Front

News has reached us from Korea that rodent fur has become a hot-selling item on the world market. A Korean firm recently supplied 1,000 yards, worth $60,-000, to the United States. Rodents of one sort or another, of course, have supplied mankind with fur for many, many generations — beaver, muskrat, rabbit — and their furs have always been popular. This news item, however, reached us about the time when garbage was still piled up across the country and there were fears that rats would soon become a menace in the towns and cities. But no corresponding stories appeared about enterprising exporters, young or old, snapping up the vermin to start a flourishing fur-skin business. Maybe next time around.

A $10 million housing development in Zaire, formerly the Republic of Congo, is now in the planning stage. De Leuw, Cather and Company of Canada Ltd. has been awarded the contract for the master planning and design of municipal services roads, etc., in a project in Lemba-Sud, a suburb of Kinshasa. Preliminary studies and field work will be done in Zaire but most of the design, the firm says, will be done in Canada. This is no new departure for the firm, which has its head office in Don Mills, Ontario. Similar projects have already been undertaken in Paraguay, Jamaica and Ethiopia.

This company, by the way, has just completed a relatively rare process of take-over. Formerly a wholly-owned subsidiary of a U.S. company, the Canadian employees have been acquiring equity in the Canadian operation for the past 18 years. Early in June this year, the final outstanding shares were purchased and the company became 100 per cent owned and operated by Canadians.

Another former U.S. firm was bought out earlier this year when Aviation Planning Services Ltd. purchased R. Dixon Speas Associates of Canada, which was a subsidiary of R. Dixon Speas Associates Inc., of Manhasset. The new firm is wholly Canadian owned and includes Acres Consulting Services and the architectural and engineering firm of Searle, Wilbee, Rowland. Work being done by members of this new group includes the preparation of a national airport plan for Malaysia and studies of the possible use of Canadian STOL aircraft in world markets.

One market this new firm probably won't have to worry about is Indonesia, which has recently bought another two de Havilland Twin Otter aircraft for its West Irian operation. These two STOL planes will join three other Twin Otters that have been in service there since 1968. The sale was made through a $1.3 million development assistance loan from the Canadian International Development Agency. West Irian is the most easterly province of Indonesia and many of the inhabitants are isolated in the central highlands with no roads linking them to the coastal towns. The airline provides them with the only sure contact with the outside world and with medical services. The choice of these aircraft says much for their reliability, as flying conditions there are said to be some of the most demanding in the world.

Dominion Textile Limited of Montreal has just finished delivering an order of dipped nylon tire cord worth about $500,-000 to Sri Lanka, formerly Ceylon. The order represented about 30,000 man hours for the company's plant in Drummondville and came at a time when demand for this product was low. Dominion Textile last year exported about 9 per cent of its total production, with overseas sales worth $17 million.

West Germany this spring became the second country to buy the HS-1000 series sonar system manufactured by Westinghouse Canada Limited. The system is designed to provide ships as small as 200 tons with a search and attack sonar capability formerly available only to much larger ships. It is the first of its type to be housed in a single electronics cabinet and it also employs a new concept in variable depth towing gear that allows bolt-on installation with minimum mounting space. Westinghouse has also sold an anti-submarine sonar system to Belgium. This system was originally developed for use by Canadian destroyer escorts. The value of these two orders was worth more than $3.5 million.

A report compiled by the Japanese Ministry of International Trade and Industry identifies Canada as first choice for Japanese investment in pulp and paper, steel and petrochemicals. Sixty indicators, including energy supply, labor conditions, political stability, relations with Japan and existing foreign investment policies were considered. This little item may not be considered strictly as export news, but it is nice to know that our trading partners think so highly of us. Canada, the report states, was found to be the best location for Japanese plant operations "economically, politically, socially and culturally."

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